

Eastern Shore

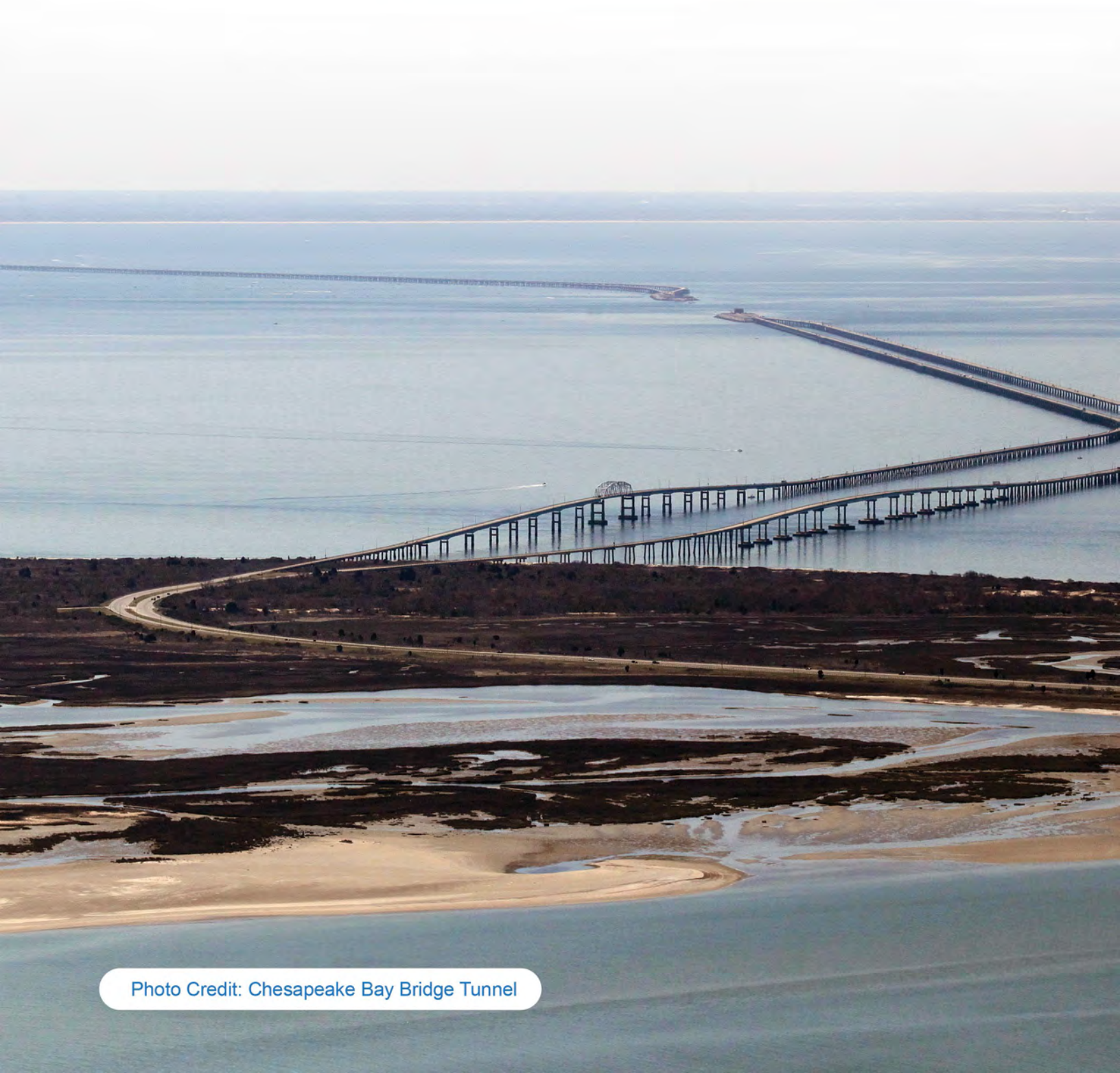
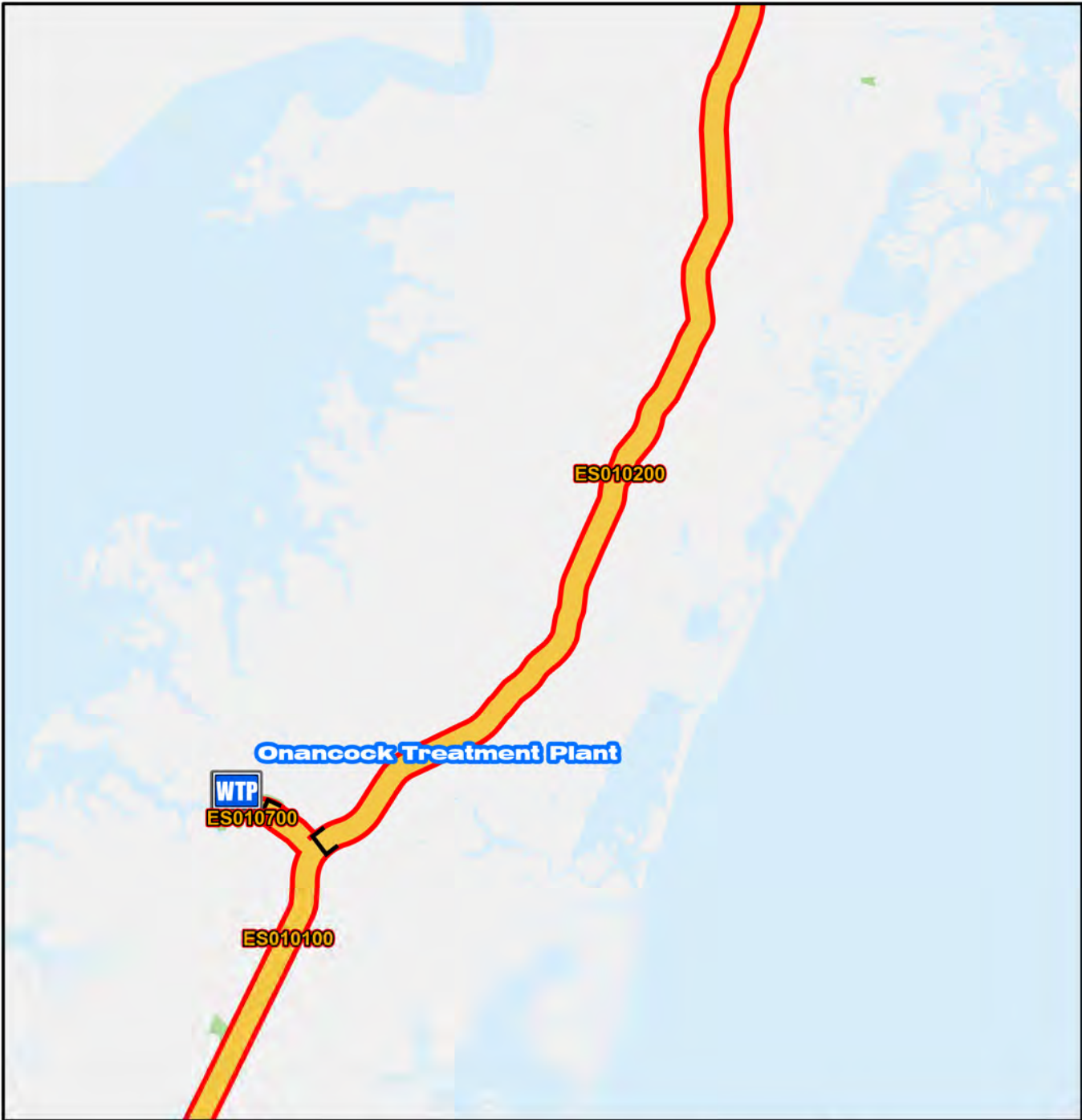


Photo Credit: Chesapeake Bay Bridge Tunnel



Legend

Eastern Shore

- 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 4,500 9,000 18,000 27,000 36,000 Feet

Eastern Shore Service Area CIP Projects

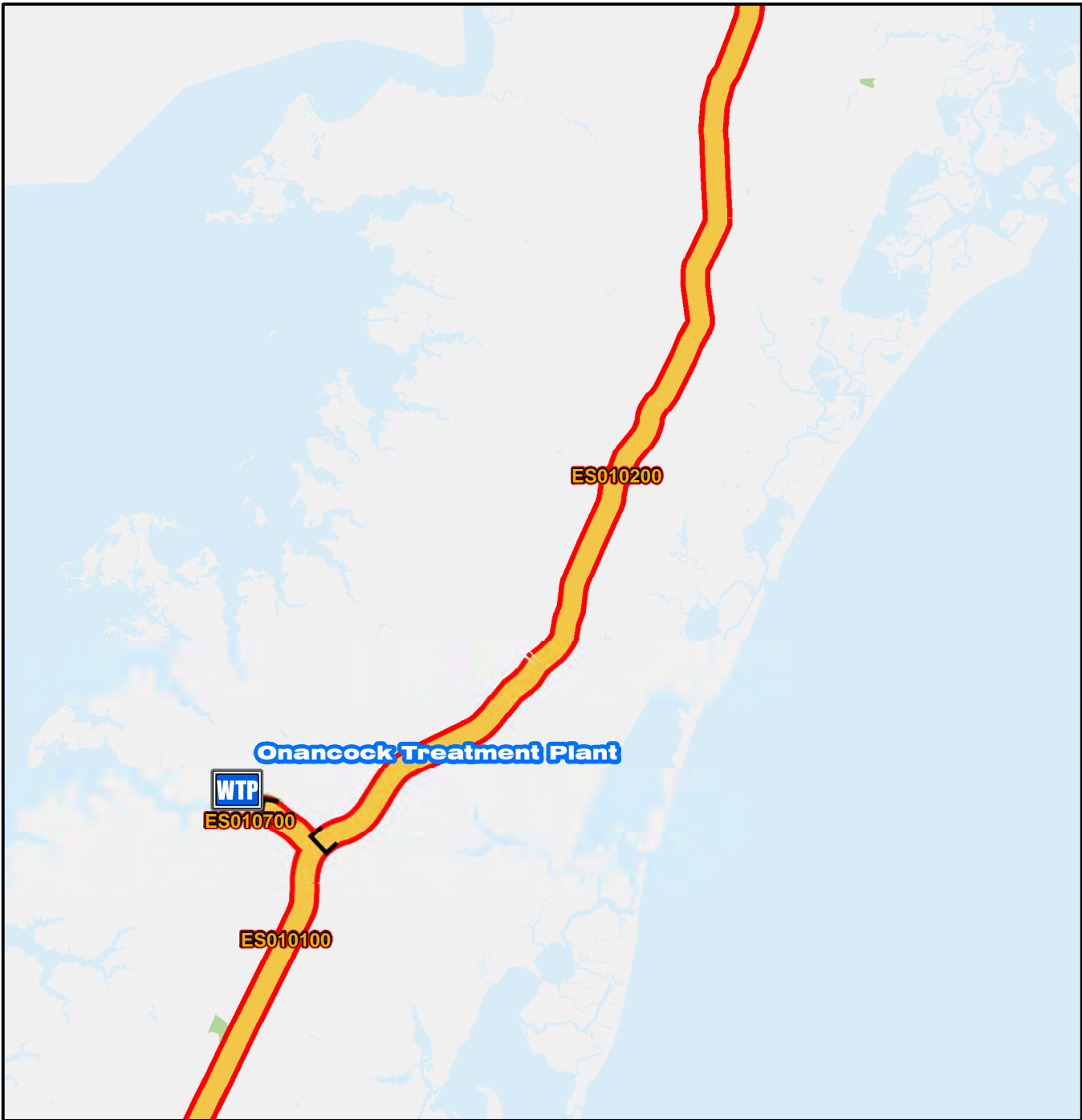
Treatment Plant Projects

ES010000
 ES010300
 ES010500
 ES010600

N

CIP Location

Service Area



Legend

Eastern Shore

- 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

Eastern Shore Service Area CIP Projects

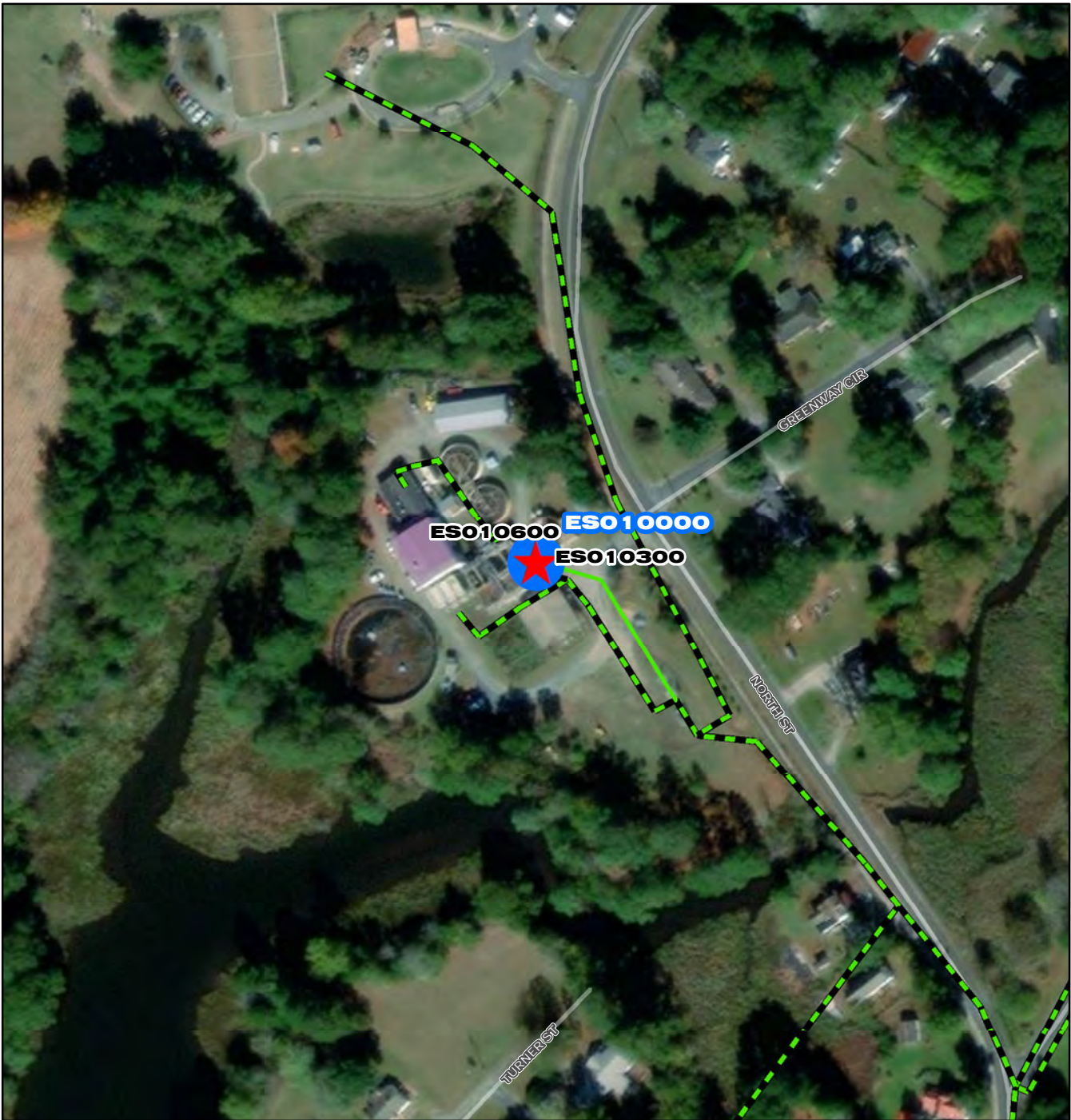
Treatment Plant Projects

ES010000
 ES010300
 ES010500
 ES010600

N

CIP Location

Service Area



ESO 10000

- 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
- HRSD Treatment Plant
- HRSD Pressure Reducing Station
- HRSD Pump Station

0 55 110 220 330 440 Feet

ESO 10000

Eastern Shore Infrastructure Improvements - Interim Plant Improvements

N
W — E
S

CIP Location



System: Eastern Shore
Type: Wastewater Treatment

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

PROGRAM CASH FLOW PROJECTION (\$,000)

Prog Cost	Exp to Previous Year	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32
\$1,200	\$0	\$1,200	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

PROJECT DESCRIPTION

This project will provide for treatment plant improvements to existing facilities on the Eastern Shore. Currently, there is need for improvements to the Onancock Treatment Plant Solid Handlings and the packaged plants located in the Town of Chincoteague.

PROJECT JUSTIFICATION

A number of existing treatment plants are unable to meet aspects of Virginia Pollutant Discharge Elimination System (VPDES) permits. These interim treatment plant improvements will address these issues.

FUNDING TYPE

Funding Type: Cash

CONTACTS

Contacts-Requesting Dept: Operations
Contacts-Dept Contacts: Sami Ghosn
Contacts-Managing Dept: Operations

PROPOSED SCHEDULE START DATE

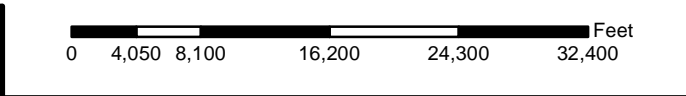
PrePlanning 07/01/2021
PER 01/01/2022
Design Delay 04/01/2022
Design 04/01/2022
Bid Delay 07/01/2022
PreConstruction 07/01/2022
Construction 07/01/2022
Closeout 07/01/2023

COST ESTIMATE

Cost Estimate Class: Class 5
PrePlanning \$0
PER \$0
Design \$0
PreConstruction \$0
Construction \$1,200,000
Closeout \$0
Est. Program Cost \$1,200,000
Contingency Budget \$0
Est. Project Costs \$1,200,000

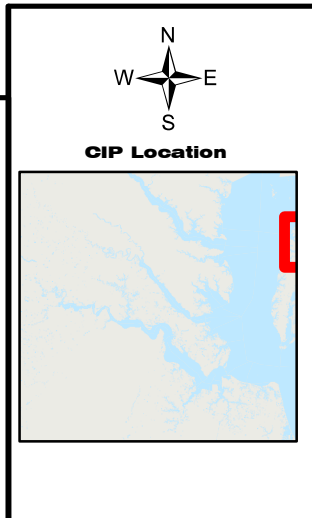


- ESO 10100**
- Project Interceptor Line
 - Project Interceptor Point
 - Project Pump Station Point
 - Project Area
- Legend**
- CIP Interceptor Point
 - CIP Pump Station Point
 - CIP Interceptor Line
 - CIP Abandonment
 - CIP Project Area
 - HRSD Interceptor Force Main
 - HRSD Interceptor Gravity Main
 - HRSD Treatment Plant
 - HRSD Pressure Reducing Station
 - HRSD Pump Station



ESO 10100

**Eastern Shore Infrastructure
Improvements - Transmission Force
Main Phase I**





**Eastern Shore Infrastructure Improvements -
Transmission Force Main Phase I**

PR_ES010100

System: Eastern Shore
Type: Pipelines

Driver Category: Aging Infrastructure/Rehabilitation
Project Phase: Pre Planning
Regulatory: None

PROGRAM CASH FLOW PROJECTION (\$,000)

Prog Cost	Exp to Previous Year	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32
\$24,887	\$4,407	\$16,376	\$4,102	\$3	\$0	\$0	\$0	\$0	\$0	\$0	\$0

PROJECT DESCRIPTION

This project will install three pumping stations in Nassawadox, Exmore and Onancock Hartman Avenue replacement. This project will install approximately 110,000 linear feet (LF) of 4, 6, 8, 10 and 12-inch force main (FM). The Industrial Park in Melfa will be connected to the FM, as well. Accomack County sewer systems will be incorporated into the HRSD service area. The force main will be installed in the Railway right-of-way from Nassawadox to Exmore and then to Onley, then it will be installed in the VDOT right-of-way and discharge to existing Accomack County gravity sewer, which flows to Hartman Avenue Pump Station.

PROJECT JUSTIFICATION

This project will provide all flow to the Onancock Treatment Plant which has excess capacity to handle the additional approximately 450 gallons per minute (GPM).

FUNDING TYPE

Funding Type: VCWRLF

CONTACTS

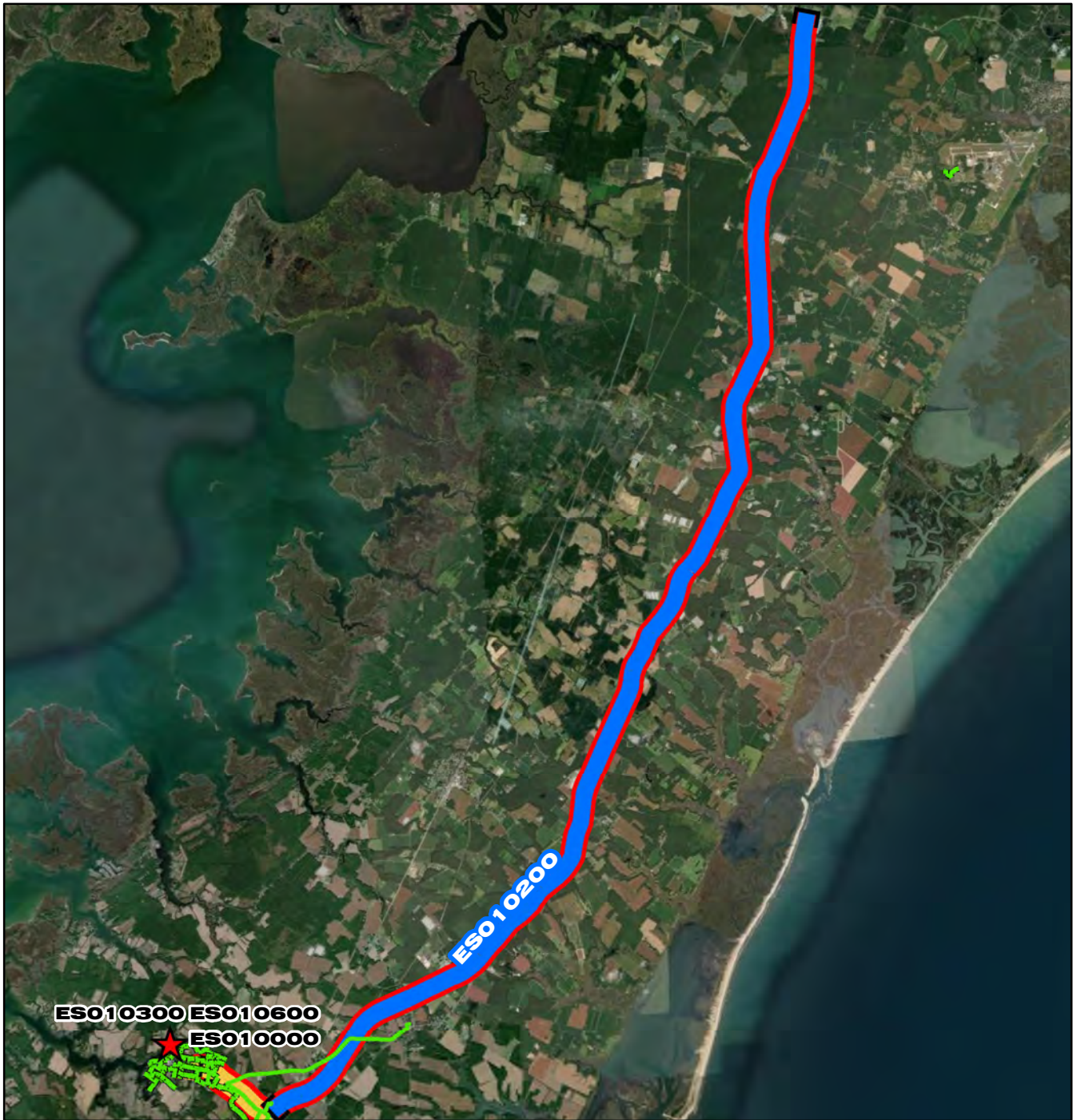
Contacts-Requesting Dept: Engineering
Contacts-Dept Contacts: Phil Hubbard
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning 12/01/2020
PER 10/07/2021
Design Delay 02/02/2021
Design 02/02/2021
Bid Delay 02/03/2021
PreConstruction 07/02/2021
Construction 06/01/2022
Closeout 10/02/2023

COST ESTIMATE

Cost Estimate Class: Class 1
PrePlanning \$0
PER \$0
Design \$2,000,000
PreConstruction \$1,319,000
Construction \$21,988,651
Closeout \$10,000
Est. Program Cost \$25,317,651
Contingency Budget \$1,200,000
Est. Project Costs \$26,517,651

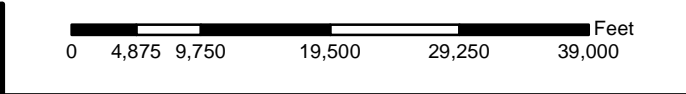


ESO 10200

- 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
- HRSD Treatment Plant
- HRSD Pressure Reducing Station
- HRSD Pump Station



ESO 10200

**Eastern Shore Infrastructure
Improvements - Transmission Force
Main Phase II**

N
W E
S

CIP Location



**Eastern Shore Infrastructure Improvements -
Transmission Force Main Phase II**

PR_ES010200

System: Eastern Shore
Type: Pipelines

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

PROGRAM CASH FLOW PROJECTION (\$,000)

Prog Cost	Exp to Previous Year	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32
\$11,988	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,480	\$2,190	\$3,240	\$3,078

PROJECT DESCRIPTION

This project will construct a 6-inch thru 12-inch Transmission Force Main and pump stations to convey flows in Northampton and Accomack Counties to the Onancock Wastewater Treatment Plant.

PROJECT JUSTIFICATION

This project will provide for improved wastewater treatment for these Eastern Shore communities by taking advantage of unused capacity at the Onancock Wastewater Treatment Plant.

FUNDING TYPE

Funding Type: Cash

CONTACTS

Contacts-Requesting Dept: Engineering
Contacts-Dept Contacts: Phil Hubbard
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

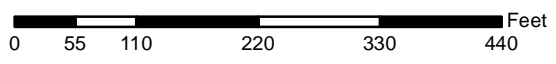
PrePlanning 07/01/2028
PER 08/01/2028
Design Delay 10/01/2028
Design 06/01/2029
Bid Delay 03/01/2030
PreConstruction 03/01/2030
Construction 06/01/2030
Closeout 06/01/2032

COST ESTIMATE

Cost Estimate Class:
PrePlanning \$3,240,000
PER \$0
Design \$2,160,000
PreConstruction \$0
Construction \$6,480,000
Closeout \$324,000
Est. Program Cost \$12,204,000
Contingency Budget \$1,620,000
Est. Project Costs \$13,824,000



- ESO 10300**
- 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
 - HRSD Treatment Plant
 - HRSD Pressure Reducing Station
 - HRSD Pump Station



ESO 10300

Onancock Treatment Plant Administration Building Upgrade





System: Eastern Shore
 Type: Facilities, Buildings and Capital Equipment

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

PROGRAM CASH FLOW PROJECTION (\$,000)

Prog Cost	Exp to Previous Year	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32
\$508	\$18	\$36	\$454	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

PROJECT DESCRIPTION

Rehabilitation of the Eastern Shore Onancock Treatment Plant administration office area.

PROJECT JUSTIFICATION

The existing administration area, which includes offices, lunch room, and laboratory are in poor condition. The office and lunch areas are on bare concrete floor, with old cinderblock walls and deteriorated windows and doors. The proposed administration area will provide an acceptable work environment for four employees and one spare work area. The cost was based on dollar per square foot of existing similar administration rehabilitation projects.

FUNDING TYPE

Funding Type: Revenue Bond

CONTACTS

Contacts-Requesting Dept: Operations-Treatment
 Contacts-Dept Contacts: Sami Ghosn
 Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning
 PER 09/01/2021
 Design Delay 10/21/2021
 Design 06/30/2022
 Bid Delay 10/03/2022
 PreConstruction 06/12/2023
 Construction 07/21/2023
 Closeout 05/17/2024

COST ESTIMATE

Cost Estimate Class:
 PrePlanning \$0
 PER \$0
 Design \$54,000
 PreConstruction \$0
 Construction \$453,600
 Closeout \$0

Est. Program Cost \$507,600
 Contingency Budget \$86,400

Est. Project Costs \$594,000



**Northern Accomack Wastewater Conveyance,
Treatment, and Disposal Study**

PR_ES010400

System: Eastern Shore
Type: Wastewater Treatment

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

PROGRAM CASH FLOW PROJECTION (\$,000)

Prog Cost	Exp to Previous Year	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32
\$430	\$193	\$237	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

PROJECT DESCRIPTION

Studies to evaluate strategies to address both short-term and long-term wastewater conveyance, treatment, and disposal needs for northern Accomack County. The studies will consider wastewater treatment demand, conveyance constraints, capacity constraints at existing facilities, disposal alternatives for treated effluent, environmental impacts, and permitting.

PROJECT JUSTIFICATION

Accomack and Northampton Counties were added to the HRSD service territory in October 2020. A regional initiative to provide centralized wastewater treatment to southern Accomack County and Northern Northampton County is underway. Accomack County and the Town of Chincoteague have requested HRSD provide investigate wastewater solutions for Northern Accomack County.

FUNDING TYPE

Funding Type: Cash

CONTACTS

Contacts-Requesting Dept: Engineering
Contacts-Dept Contacts: Korey Kendall
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning 11/01/2021
PER 06/30/2023
Design Delay 06/30/2023
Design 06/30/2023
Bid Delay 06/30/2023
PreConstruction 06/30/2023
Construction 06/30/2023
Closeout 06/30/2023

COST ESTIMATE

Cost Estimate Class: Class 5
PrePlanning \$430,000
PER \$0
Design \$0
PreConstruction \$0
Construction \$0
Closeout \$0
Est. Program Cost \$430,000
Contingency Budget \$20,000
Est. Project Costs \$450,000

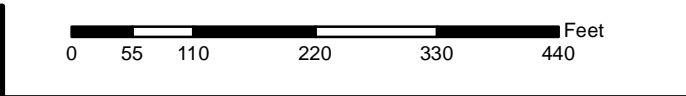


ESO 10500

- 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
- HRSD Treatment Plant
- HRSD Pressure Reducing Station
- HRSD Pump Station



ESO 10500

Chincoteague Treatment Plant

CIP Location



System: Eastern Shore
Type: Wastewater Treatment

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

PROGRAM CASH FLOW PROJECTION (\$,000)

Prog Cost	Exp to Previous Year	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32
\$15,010	\$143	\$2,767	\$6,000	\$5,600	\$500	\$0	\$0	\$0	\$0	\$0	\$0

PROJECT DESCRIPTION

New treatment plant, outfall and appurtenances along with demolition of existing packaged treatment plants and site restoration. Facility will be enclosed and include architectural treatment to conform with the character of Main Street. Consolidation of permitted outfalls, capacity and packaged plants.

PROJECT JUSTIFICATION

The existing HRSD packaged treatment plants are at the end of their useful life. Permitted outfalls are located in multiple locations and under private buildings and property. The permitted capacity should be consolidated to a single accessible outfall. Consolidation of the adjacent United States Coast Guard treatment facility should be evaluated.

FUNDING TYPE

Funding Type: Revenue Bond

CONTACTS

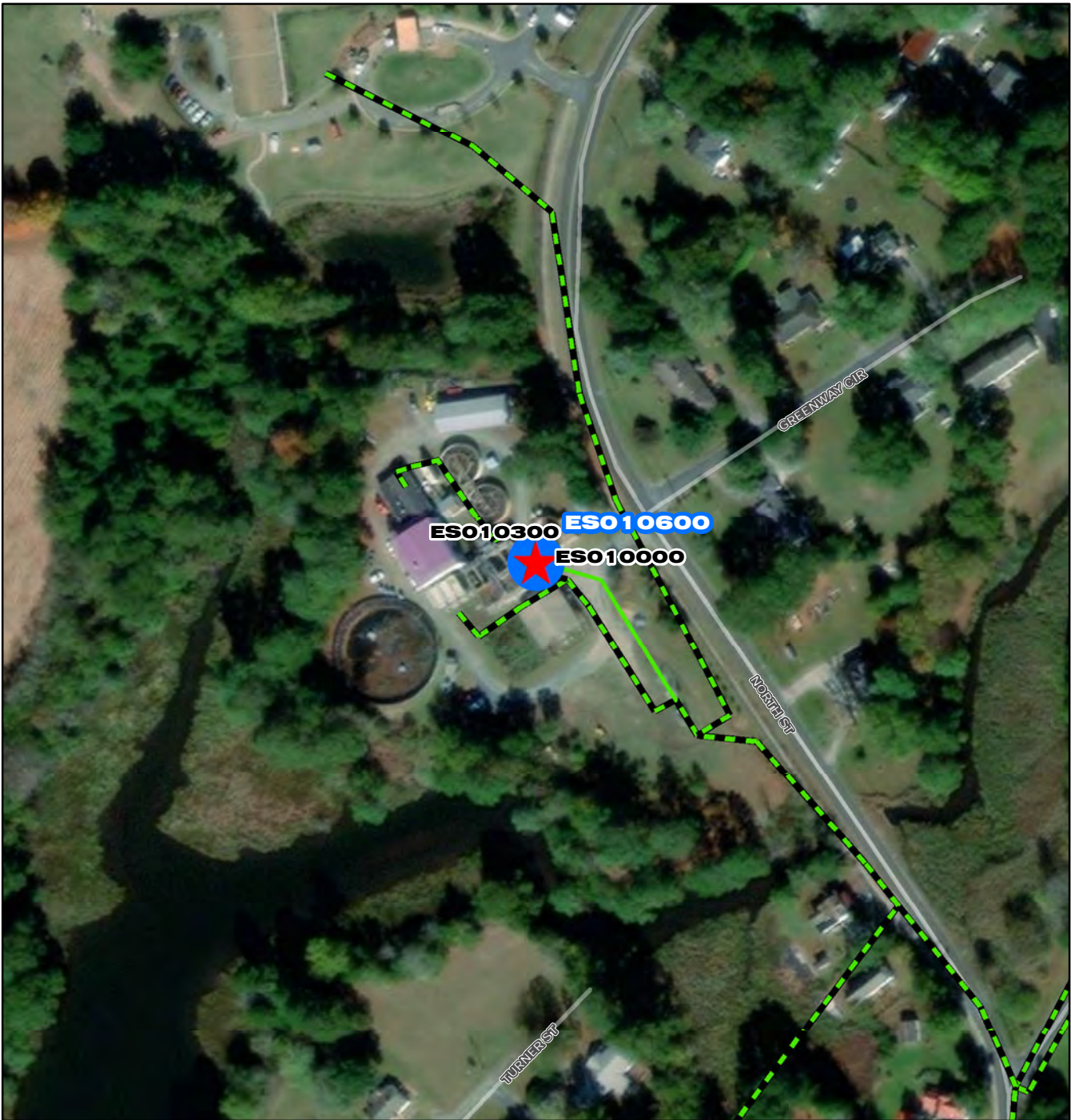
Contacts-Requesting Dept: Operations
Contacts-Dept Contacts: Charles Bott
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

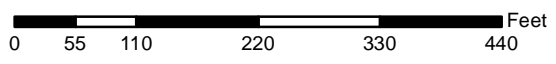
PrePlanning 02/01/2022
PER 05/01/2022
Design Delay
Design 11/01/2022
Bid Delay
PreConstruction 04/01/2023
Construction 06/01/2023
Closeout 06/01/2025

COST ESTIMATE

Cost Estimate Class:	Class 5
PrePlanning	\$10,000
PER	\$400,000
Design	\$2,000,000
PreConstruction	\$0
Construction	\$12,000,000
Closeout	\$600,000
Est. Program Cost	\$15,010,000
Contingency Budget	\$0
Est. Project Costs	\$15,010,000



- ESO 10600**
- 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
 - HRSD Treatment Plant
 - HRSD Pressure Reducing Station
 - HRSD Pump Station



ESO 10600

Onancock Meter Replacement





System: Eastern Shore
Type: Locality and Private Property

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

PROGRAM CASH FLOW PROJECTION (\$,000)

Prog Cost	Exp to Previous Year	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32
\$2,176	\$0	\$32	\$272	\$1,872	\$0	\$0	\$0	\$0	\$0	\$0	\$0

PROJECT DESCRIPTION

This project includes locating, inspecting, and potentially replacing approximately 800 water meters in the Town of Onancock.

PROJECT JUSTIFICATION

The existing water meters are assumed to be outdated and in questionable condition. Upon confirming during inspection, HRSD has agreed to replace the water meters with new meters with new automated reading features to ensure accurate billing moving forward.

FUNDING TYPE

Funding Type: Cash

CONTACTS

Contacts-Requesting Dept: Engineering
Contacts-Dept Contacts: Korey Kendall
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	05/01/2023
PER	07/01/2023
Design Delay	01/01/2024
Design	01/01/2024
Bid Delay	07/01/2024
PreConstruction	07/01/2024
Construction	08/01/2024
Closeout	06/01/2025

COST ESTIMATE

Cost Estimate Class:	Class 5
PrePlanning	\$32,000
PER	\$80,000
Design	\$192,000
PreConstruction	\$32,000
Construction	\$1,600,000
Closeout	\$240,000
Est. Program Cost	\$2,176,000
Contingency Budget	\$435,000
Est. Project Costs	\$2,611,000

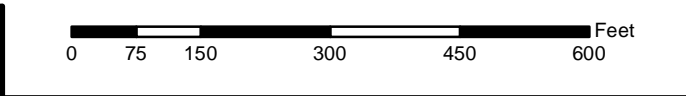


ESO 10700

- 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
- HRSD Treatment Plant
- HRSD Pressure Reducing Station
- HRSD Pump Station



ESO 10700

**Onancock Carnival Grounds Gravity
Sewer Extension**

N
W E
S

CIP Location



System: Eastern Shore
Type: Pipelines

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

PROGRAM CASH FLOW PROJECTION (\$,000)

Prog Cost	Exp to Previous Year	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32
\$898	\$0	\$134	\$582	\$183	\$0	\$0	\$0	\$0	\$0	\$0	\$0

PROJECT DESCRIPTION

This project will extend the sewer collection system to serve the Carnival Grounds development located near the intersection of Johnson Street and Carnival Drive in the Town of Onancock. The work will include road restoring any paving disturbed for installation of sewer facilities to meet VDOT standards. The project will also include five connections to the existing collection system; four on Johnson Street and one on Justis Street.

PROJECT JUSTIFICATION

As part of the Town of Onancock Collection Systems Ownership Transfer and Service Agreement, HRSD agreed to fund the extension of the sewer collection system to serve the Carnival Grounds development. HRSD agreed to start the design work and award a construction contract within three months and twelve months, respectively, of the effective date of the agreement.

FUNDING TYPE

Funding Type: Cash

CONTACTS

Contacts-Requesting Dept: Operations-Interceptors
Contacts-Dept Contacts: Shawn Heselton
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	07/01/2022
PER	09/01/2022
Design Delay	01/01/2023
Design	01/01/2023
Bid Delay	09/01/2023
PreConstruction	09/01/2023
Construction	10/01/2023
Closeout	10/01/2024

COST ESTIMATE

Cost Estimate Class:	
PrePlanning	\$15,000
PER	\$36,500
Design	\$109,500
PreConstruction	\$7,300
Construction	\$730,000
Closeout	\$0
Est. Program Cost	\$898,300
Contingency Budget	\$216,000
Est. Project Costs	\$1,114,300