



Chesapeake-Elizabeth Treatment Plant

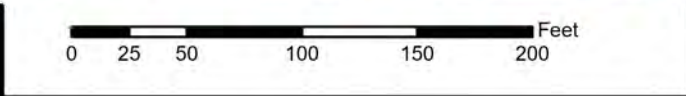


CEO11810

- 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



CEO11810

Chesapeake-Elizabeth Treatment Plant Decommissioning

CIP Location

System: Chesapeake-Elizabeth
Type: Strategic Planning

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

PROGRAM CASH FLOW PROJECTION (\$,000)

Prog Cost	Exp to Previous Year	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36
\$10,333	\$2,163	\$5,006	\$2,788	\$375	\$0	\$0	\$0	\$0	\$0	\$0	\$0

PROJECT DESCRIPTION

This project will study and demolish or abandon facilities at the Chesapeake-Elizabeth Treatment Plant (CETP) Site. This project will also include site design such as stormwater system modifications and provisions to handle sewage from the site. Priority structures for demolition include the main control/administration building, the incinerator building, the electrical shop warehouse, the scum concentrator building, as well as the smaller clarifiers.

PROJECT JUSTIFICATION

The Chesapeake-Elizabeth Treatment Plant Feasibility Study completed by HRSD in October 2013 evaluated taking the treatment plant offline and diverting flow to other treatment plants. The study determined that the HRSD interceptor system and remaining treatment plants have the ability to serve the current and projected needs of the South Shore jurisdictions when the Chesapeake-Elizabeth Treatment Plant would be taken offline in 2021. Significant capital and operation and maintenance (O&M) savings from this decision results in a high net present value compared to the former strategy.

FUNDING TYPE

Funding Type: Revenue Bond

CONTACTS

Contacts-Requesting Dept: Operations-Treatment
Contacts-Dept Contacts: Virginia Opp
Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	07/02/2017
PER	12/31/2021
Design Delay	09/01/2022
Design	09/01/2022
Bid Delay	07/01/2026
PreConstruction	07/01/2026
Construction	10/01/2026
Closeout	10/01/2027

COST ESTIMATE

Cost Estimate Class:	Class 3 (-10% to +30%)
PrePlanning	\$672,395
PER	\$222,418
Design	\$900,000
PreConstruction	\$20,000
Construction	\$7,017,813
Closeout	\$1,500,000
Est. Program Cost	\$10,332,626
Contingency Budget	\$971,200
Est. Project Costs	\$11,303,826

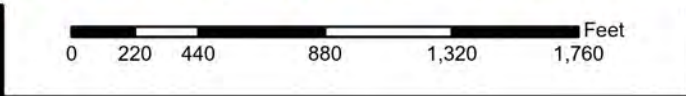


CEO12100

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CEO 12100

**Witchduck Road Interceptor Force
Main Improvements**

N
W E
S

CIP Location

System: Chesapeake-Elizabeth
 Type: Pipelines

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

PROGRAM CASH FLOW PROJECTION (\$,000)

Prog Cost	Exp to Previous Year	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36
\$8,302	\$0	\$0	\$195	\$441	\$2,288	\$3,796	\$1,582	\$0	\$0	\$0	\$0

PROJECT DESCRIPTION

This project will rehabilitate or replace 4,300 linear feet (LF) of 24-inch cast iron interceptor force main (IFM) (SF-121) along Witchduck Road between the Witchduck Road-Southern Boulevard and Bonnie Road intersections.

PROJECT JUSTIFICATION

After the closure of the Chesapeake-Elizabeth Treatment Plant (CETP), the 1968-vintage cast iron force main along Witchduck Road will see additional service area and will need to stay in service for the foreseeable future to send flow to the Providence Tank and Pressure Reducing Station (PRS). In addition, the Witchduck corridor is seeing significant re-development by the City of Virginia Beach, therefore reliability of this line is essential. Based on a risk assessment performed by the Condition Assessment Department, this pipeline had the second highest criticality score of all force mains within the CETP closure area. Historically, cast iron pipelines have the highest likelihood of failing; at over 50 years old this pipeline is nearing the end of its useful life.

FUNDING TYPE

Funding Type: Revenue Bond

CONTACTS

Contacts-Requesting Dept: Operations-Interceptors
 Contacts-Dept Contacts: Laura Kirkwood
 Contacts-Managing Dept: Engineering

PROPOSED SCHEDULE START DATE

PrePlanning	07/01/2026
PER	08/02/2027
Design Delay	08/02/2028
Design	08/02/2028
Bid Delay	08/02/2029
PreConstruction	08/02/2029
Construction	12/03/2029
Closeout	12/02/2031

COST ESTIMATE

Cost Estimate Class:	Class 10
PrePlanning	\$0
PER	\$212,973
Design	\$461,442
PreConstruction	\$35,496
Construction	\$7,592,491
Closeout	\$0
Est. Program Cost	\$8,302,401
Contingency Budget	\$1,656,457
Est. Project Costs	\$9,958,859