Welcome to

The Bay Park Conveyance Project

Public Information Session

November 12, 2020

The Bay Park Conveyance Project

A Western Bays Resiliency Initiative

NEW YORK STATE | Department of Environmental Conservation

Logistics

Virtual Meeting Format

1

Members of the public join via URL, Zoom Meeting ID, or Phone

2

Project Presentation

3

Live Question & Answer Session

When Getting Ready to Ask a Question:

- Use the raise hand feature to indicate you have a question OR enter your question using the Q&A feature at the bottom of the screen.
- When called upon during the live Q&A, a member of the Project Team will unmute your audio. You will then have to unmute yourself.
- State your name and affiliation prior to asking your question.

Agenda

1. Purpose and Need
2. The Bay Park Conveyance Project
3. The Design-Build Process
4. Construction Methods
5. Public & Stakeholder Outreach
6. Q&A Session

1. Purpose and Need

Team Partnership

NEW YORK STATE | Department of Environmental Conservation

In partnership with

NASSAU COUNTY · STATE OF NEW YORK ·

Via the 2018 Bay Park Agreement

Team Coordination with Other Entities

In Communication with Towns, Villages, State, and Federal Agencies

Parks, Recreation & Historic Preservation

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

FEMA

Homeland Security and Emergency Services

In Communication with Environmental Partners

The Nature Conservancy

CITIZENS CAMPAIGN FOR THE ENVIRONMENT

STOP - POLLUTING - LITTERING SPLASH AND - SAVE - HARBORS

Sludge Stoppers Task Force

Long Island Regional Planning Council
Leadership on Regional Issues


The Bay Park
Conveyance Project

The Western Bays

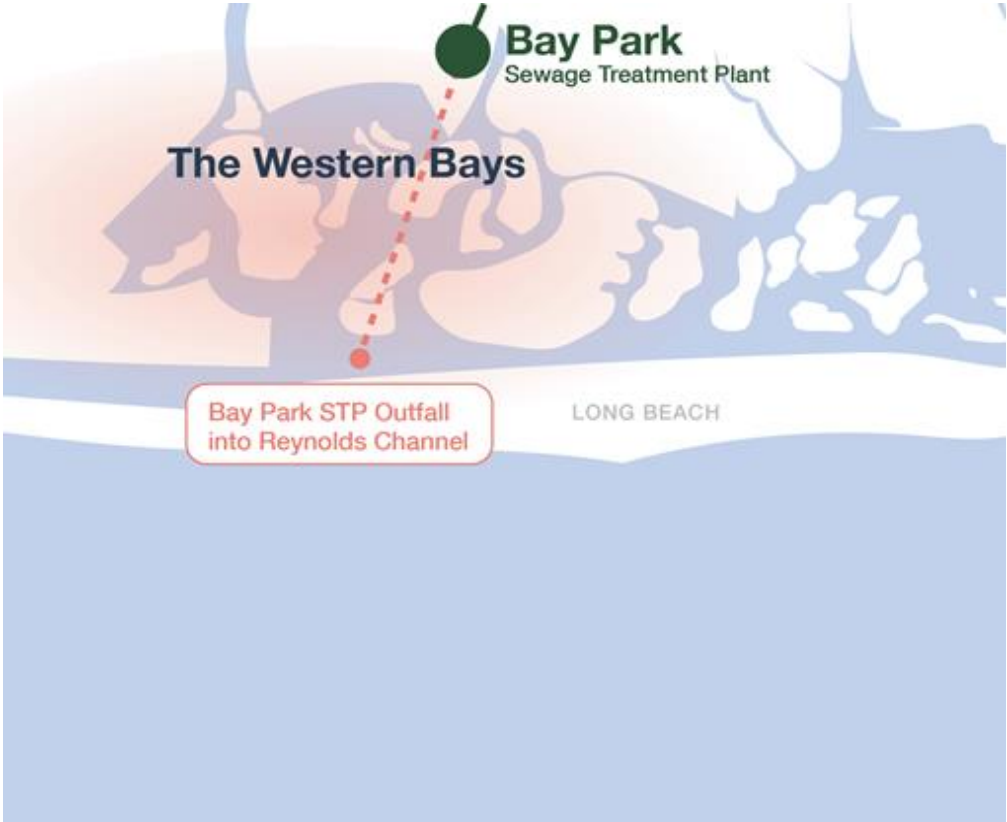
A sub-region of the South Shore Estuary Reserve that includes Hempstead Bay and South Oyster Bay, located on Nassau County's south shore

- Largest concentration of salt marshes
- Critical habitat for birds and marine species
- Recreational opportunities (swimming, boating, fishing)
- Productive fishing and shellfishing grounds

The Western Bays

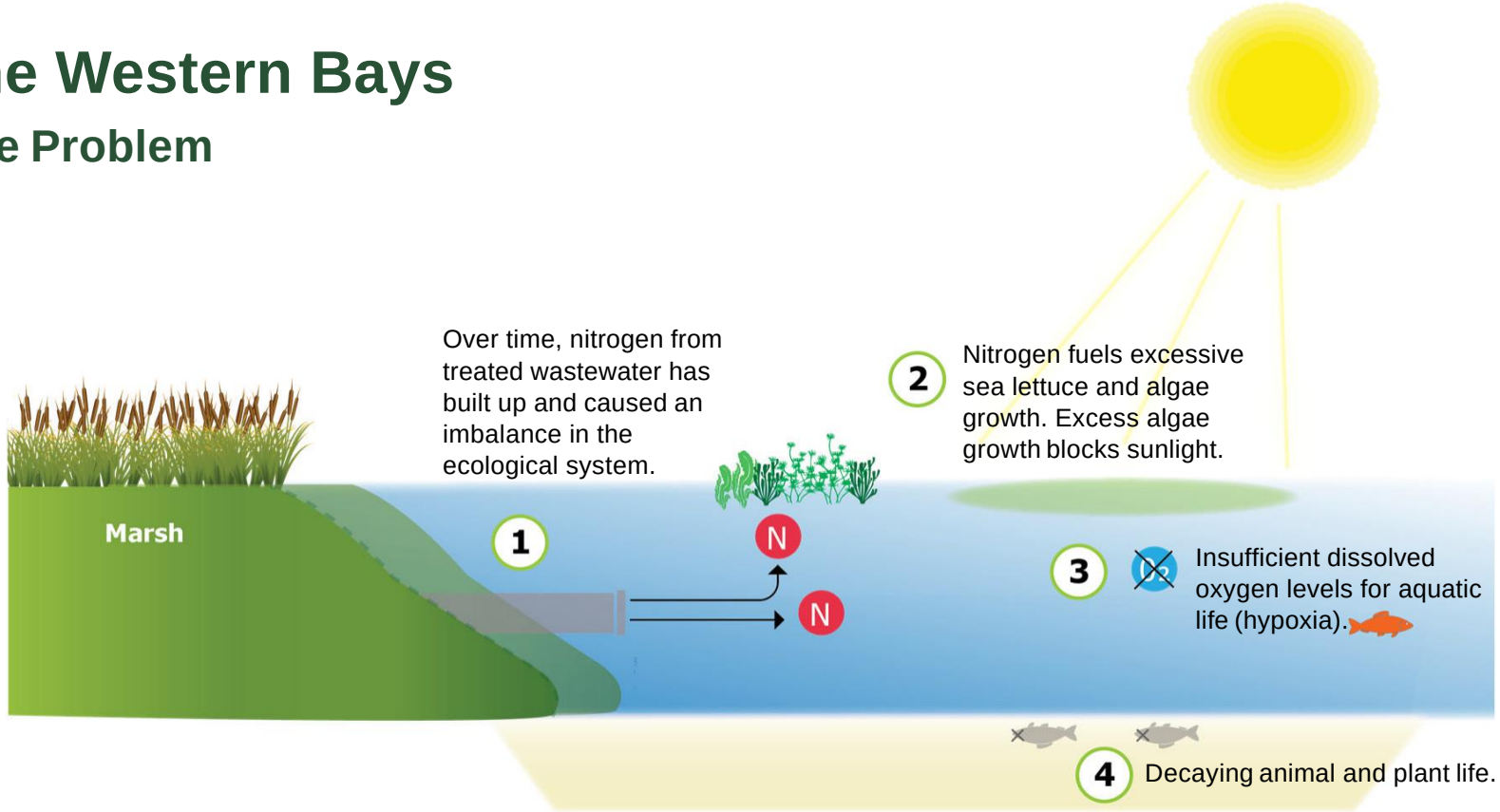
The Problem

Water flow paths in Reynolds Channel are limited and the turnover of water in the channel to the Atlantic Ocean is slow. This results in the build up and accumulation of nitrogen in the Western Bays waters.



The Western Bays

The Problem



The Solution

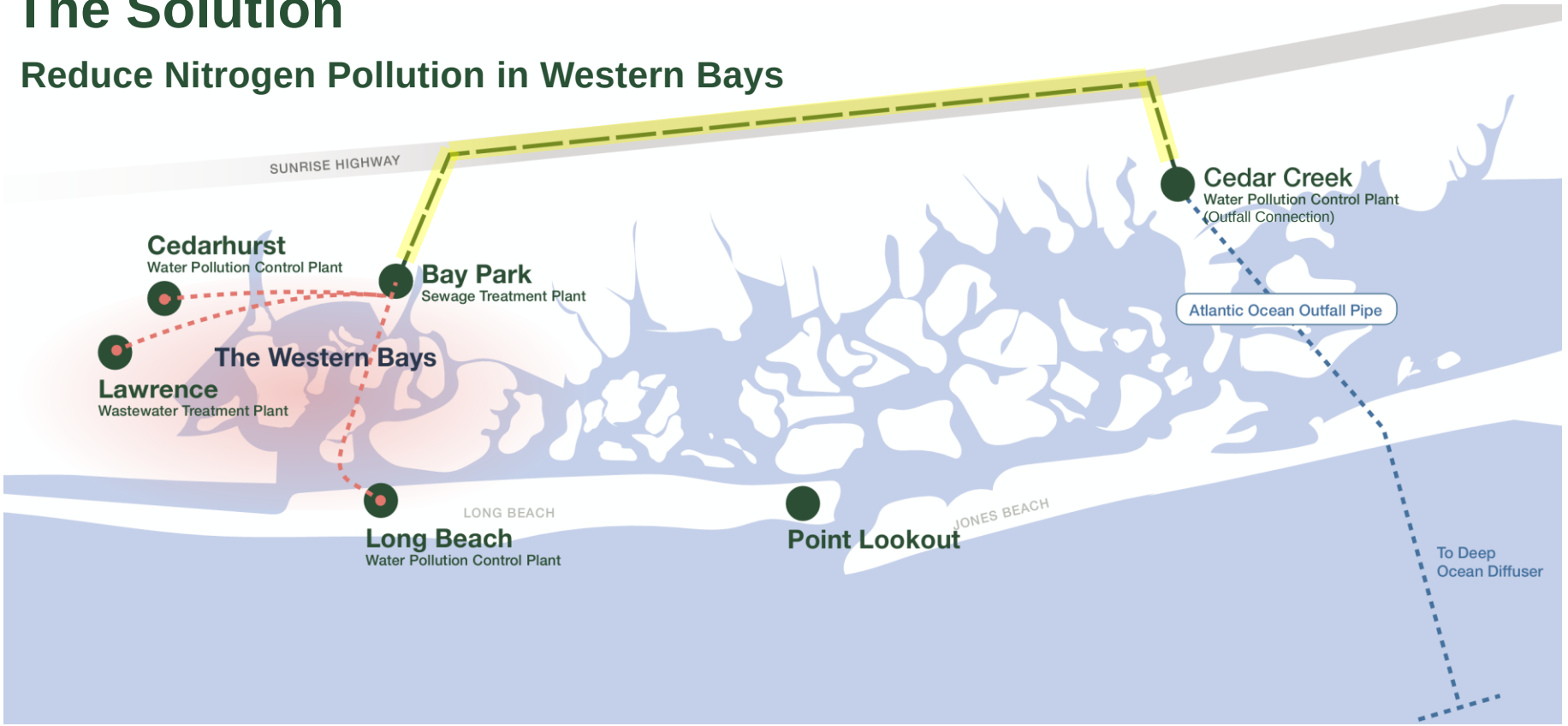
The Bay Park Conveyance Project is part of the larger Western Bays Resiliency Initiative. The Nassau County Department of Public Works (NCDPW) is leading a series of region-wide resiliency and sustainability projects that will improve the water quality of the degraded Western Bays.

Nassau County Nitrogen Reduction Objectives

- Improve water quality in the Western Bays
- Protect coastal marshlands (storm surge protection)
- Comply with future EPA/DEC standards for the Western Bays
- Remove sewage treatment plant discharges from the Western Bays

The Solution

Reduce Nitrogen Pollution in Western Bays



The Bay Park Conveyance Project

The Project will convey treated water from the Bay Park Sewage Treatment Plant to the Cedar Creek Water Pollution Control Plant ocean outfall

Project Goals

- Revitalizing and repurposing existing infrastructure (Sunrise Highway Aqueduct)
- Consolidating wastewater treatment services to divert flows from Reynolds Channel (Western Bays)
- Remove nearly all of nitrogen loads (from Bay Park STP) from the Western Bays
- Rejuvenate marshlands and wetlands that provide storm attenuation

Top & bottom photos: Existing marshland conditions (source: NC press office)

Project Benefits

Storm Protection

Spur the rapid ecological recovery of the Western Bays marshlands which will protect coastal communities from storm surge and sea level rise

Quality of Life Factors

Maximize quality of life by providing residents a place to work and play

Economic Benefits

The ecological recovery of the Western Bays and improved water quality will enhance and expand water-based recreational and commercial opportunities

2. The Bay Park Conveyance Project

Project Overview

Project Elements

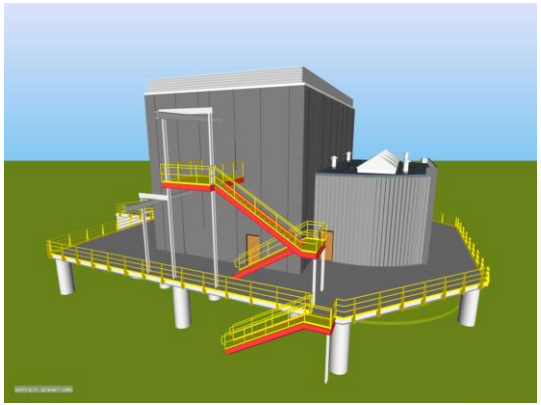
- Starting Point: Existing Bay Park Sewage Treatment Plant
- New Force Main:
  - Segment 1: Bay Park to Sunrise Highway Microtunnel
  - Segment 2: Sunrise Highway Aqueduct
  - Segment 3: Sunrise Highway to Cedar Creek Microtunnel
- Cedar Creek Water Pollution Control Plant (WPCP)
- Discharge Point: Existing Cedar Creek WPCP Ocean Outfall

Starting Point: Bay Park Sewage Treatment Plant

Force Main Segment 1 - Bay Park to Sunrise Highway Microtunnel

Main Project Element

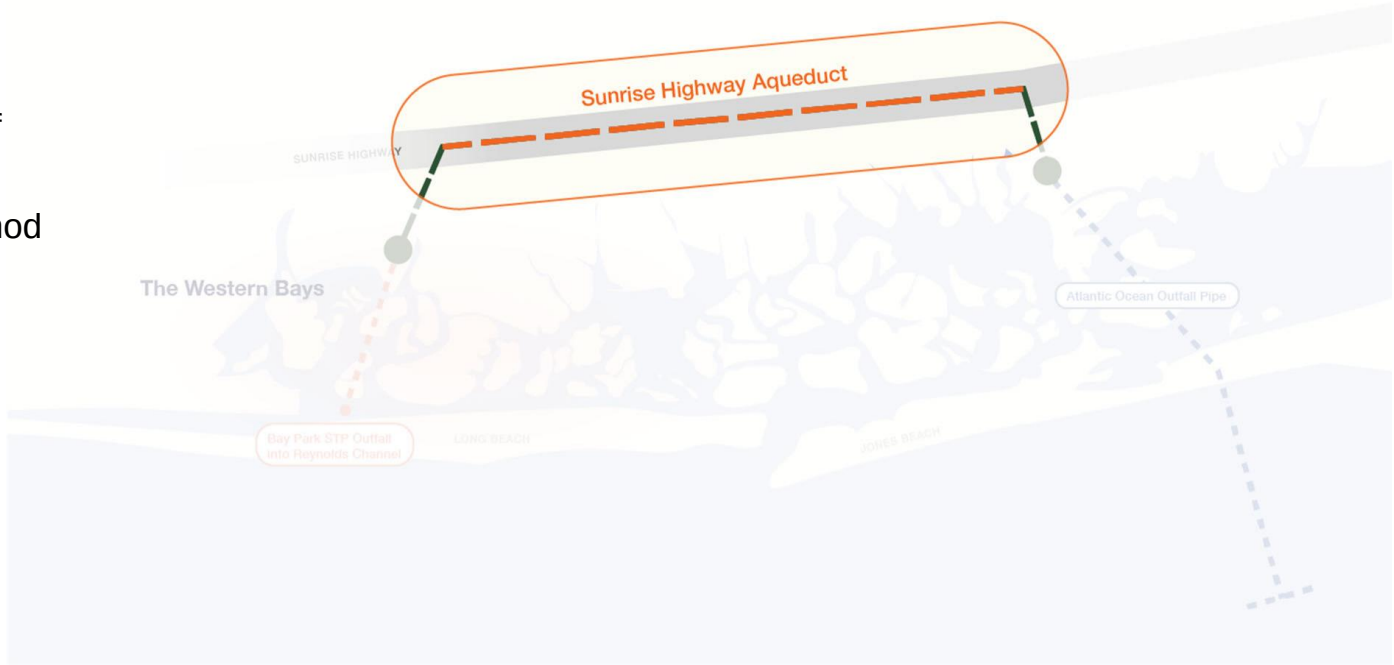
- At Bay Park – Construction of a new pump station
- Bay Park to Sunrise Highway – 2-mile force main via microtunneling



Force Main Segment 2 - Sunrise Highway Aqueduct

Main Project Element

- Sunrise Highway – Repurposing 7.3-miles of the existing aqueduct
- Innovative sliplining method to minimize disruption



Force Main Segment 3 - Sunrise Highway to Cedar Creek Microtunnel

Main Project Element

- Sunrise Highway to Cedar Creek – 1.6-mile force main via microtunneling
- At Cedar Creek – Upgrade tide pumps, connect force main to ocean outfall

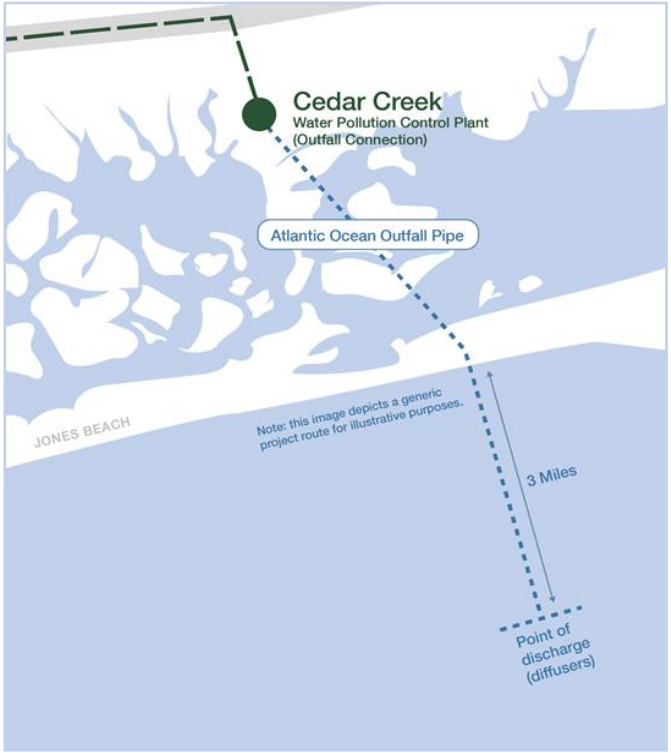
Cedar Creek Water Pollution Control Plant

- Replace 5 existing outfall pumps to pump up to 150 MGD of treated effluent
- A receiving connection at the Cedar Creek WPCP with connection to the existing 84-inch ocean outfall, downstream of the effluent pump building
- Connect new pipe (wet tapping) into existing outfall conduit

Cedar Creek, existing tide pumps

Discharge Point: Existing Cedar Creek WPCP Ocean Outfall

- Treated water will travel 7 miles from Cedar Creek WPCP to the existing ocean outfall (approximately 3 miles offshore)
- Existing ocean outfall pipe has 120 diffuser ports over the span of a mile
- Due to the Cedar Creek outfall location and diffusers, the treated discharge disperses quickly into the surrounding ocean water



Cedar Creek Ocean Outfall Pipe

Structural Integrity

The Cedar Creek outfall pipeline and diffuser array continues to undergo inspection, testing and maintenance necessary to sustain the current level of discharge of treated water from the Cedar Creek WPCP and the additional flow from the Bay Park STP. The Design-Builder will do additional testing and analysis.

Outfall Capacity

The Cedar Creek outfall has a working capacity of 150 million gallons per day (MGD). The existing outfall can carry the average daily flows of both plants, which range from 50-60 MGD.

Cedar Creek Ocean Outfall Pipe

Water Quality Analysis

Ongoing studies by the State University of New York School of Marine and Atmospheric Sciences (SoMAS) indicate that the current discharge from the Cedar Creek WPCP outfall has a negligible and minor localized impact on water quality three miles offshore.

No Implications to Shoreline

Cedar Creek outfall diffusers mix treated water discharge readily with the surrounding ocean water. Treated water discharge disperses quickly into the seawater, and any impact to the water column is local and very limited in extent and does not reach the shoreline.

3. The Design-Build Process

What is Design-Build?

- Governor Cuomo recognized Design-Build as the fastest, most cost-efficient manner to build this Project
- Design-Build is a project delivery method used to design and construct a project using just one contract
- Design-Build teams consist of a design engineering firm or firms and a contractor or multiple contractors
- There are several kinds of Design-Build procurements:
  - DEC is using the Fixed Price, Best Value Method pursuant to the New York State Infrastructure Investment Act

Benefits of Design-Build Delivery Method

- Better final design as the contractor is assisting with the design process
- The Request for Qualification (RFQ) process ensures qualified engineers and contractors are selected
- The Request for Proposal (RFP) process ensures that the selected Design-Builder is designing and building to the Project requirements in accordance with the Design Criteria Report
- Accelerated construction schedule
- All the above lead to fewer contract amendments, which saves time and money

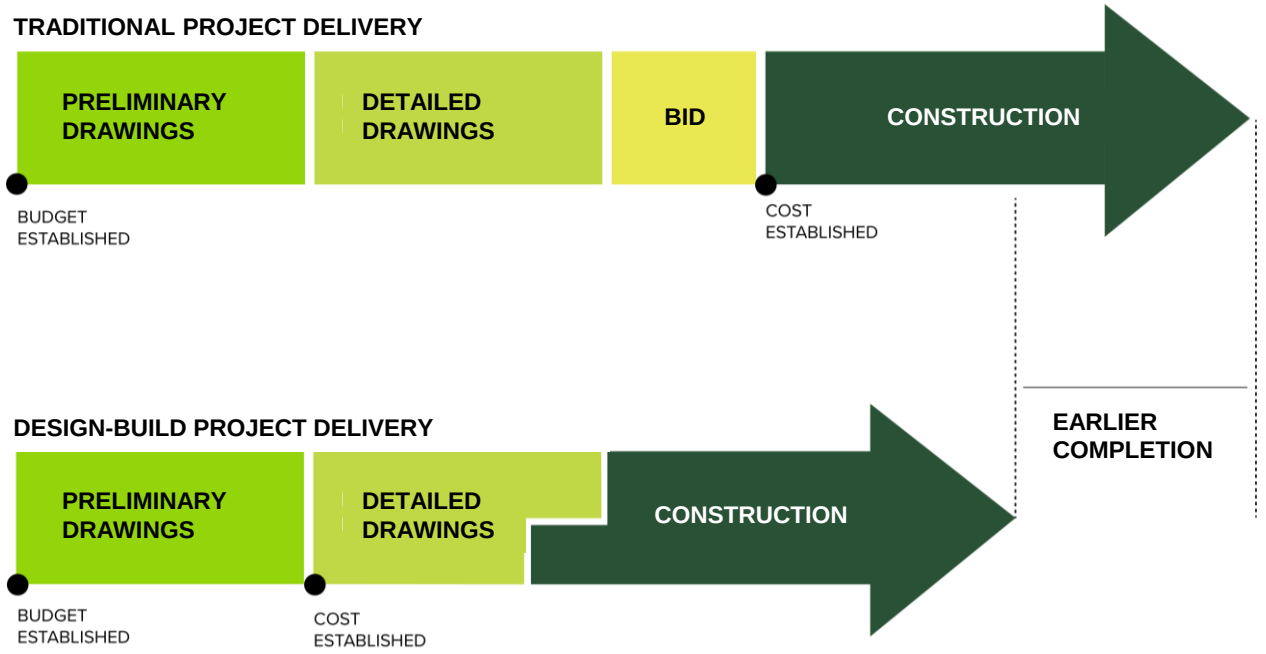
Design-Build Best Value Selection Process

- Two-step process with an RFQ and an RFP
- The RFQ is publicly advertised allowing any Design-Build Team to submit a Statement of Qualifications (SOQ)
- SOQs are reviewed and scored resulting in the Shortlist of the top 3 Design-Build teams
- The RFP is issued to the shortlisted Design-Build teams who submit Proposals
- Proposals are evaluated and scored for administrative, technical, schedule and price criteria
- The Proposer with the highest score is selected as the Best Value

Accelerating Construction

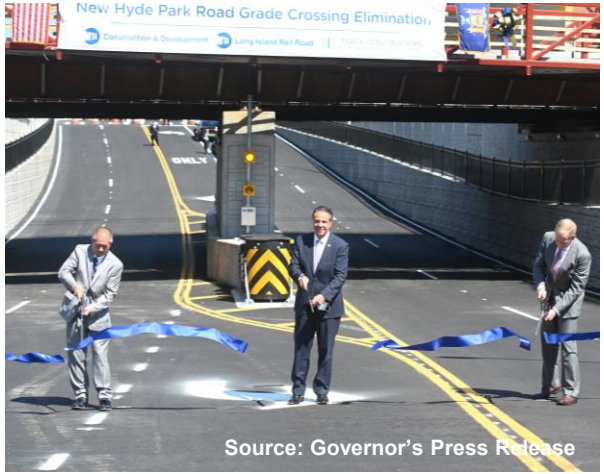
Efficiently implement the project by utilizing NYSDEC's design-build authority

- Two-step process with a Request for Qualifications (RFQ) and Request for Proposals (RFP)
- Ensures use of qualified engineers and contractors
- Ensures the selected Design-Builder designs and builds what the County needs

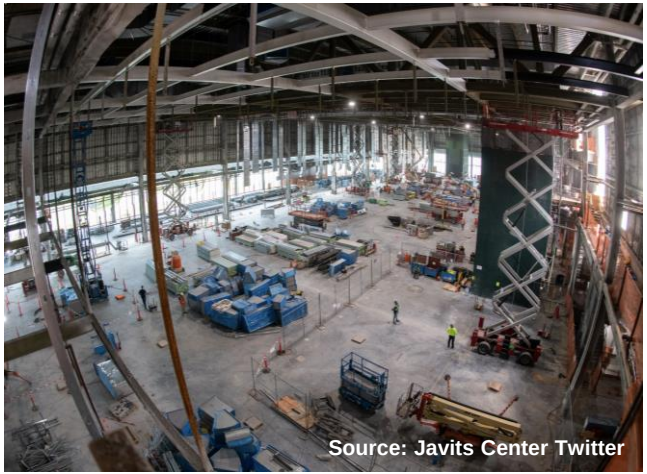


Design-Builder Selection

Design-Build Projects in NYS



LIRR Expansion Project from Floral Park to Hicksville



Jacob K. Javits Convention Center Expansion

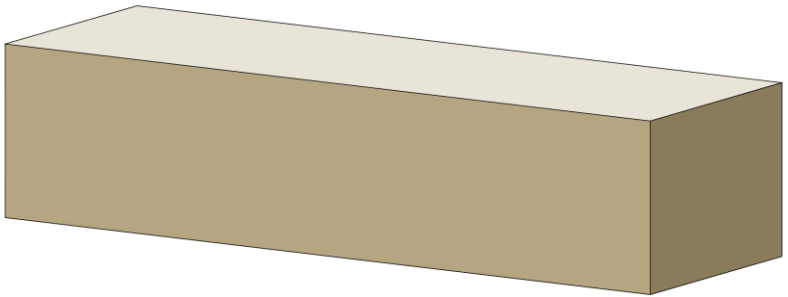
Governor Mario M. Cuomo Bridge

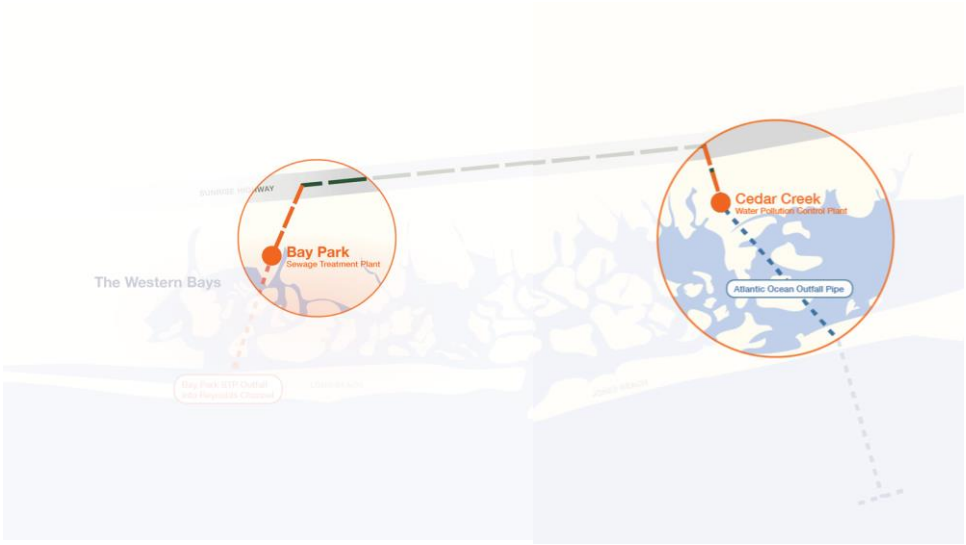
4. Construction Methods

Innovative Approach

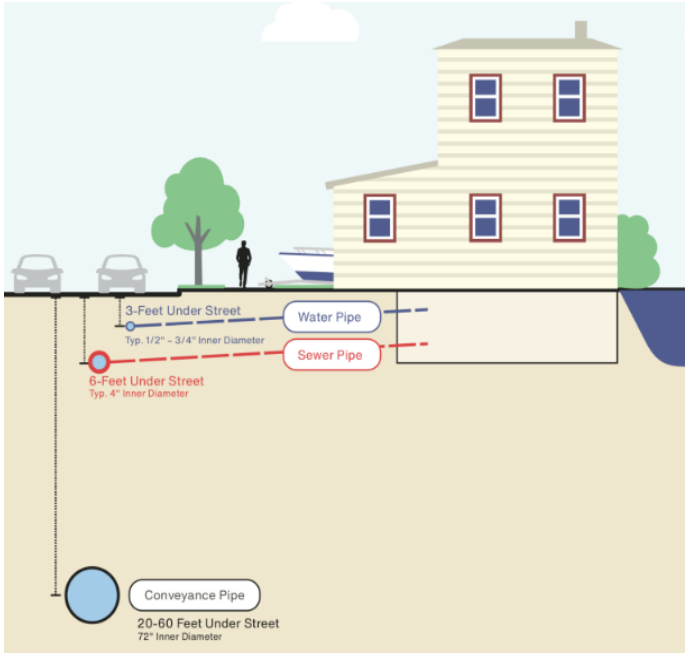
Innovative Technology to Minimize Disruption

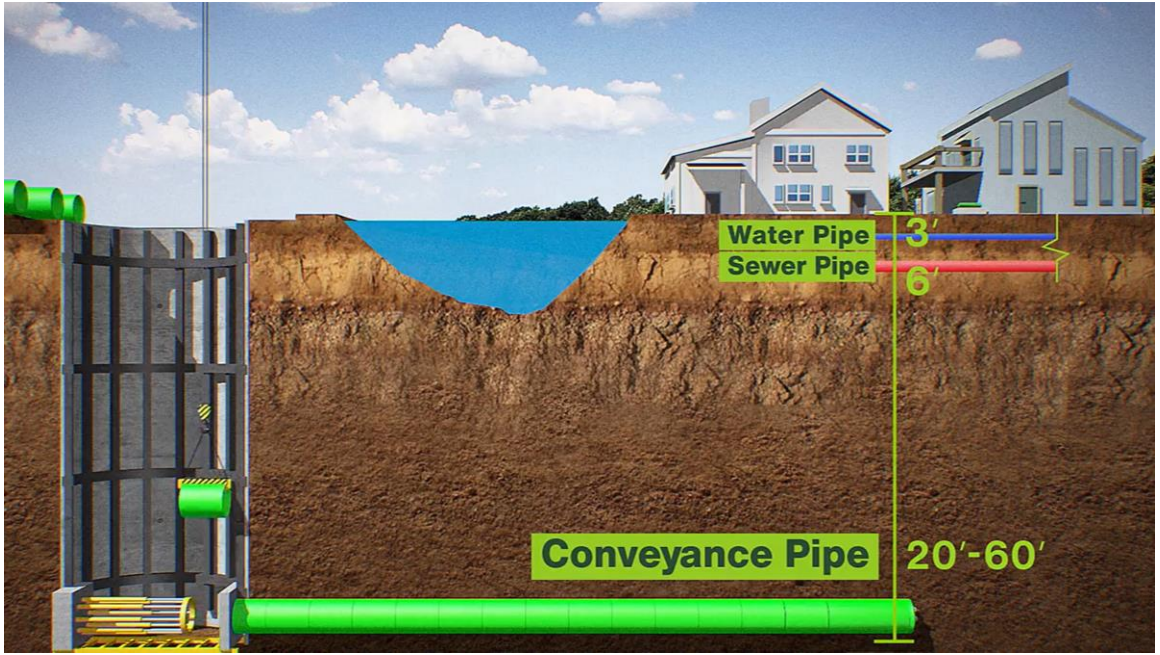
Microtunneling





Construction Activities - Microtunneling



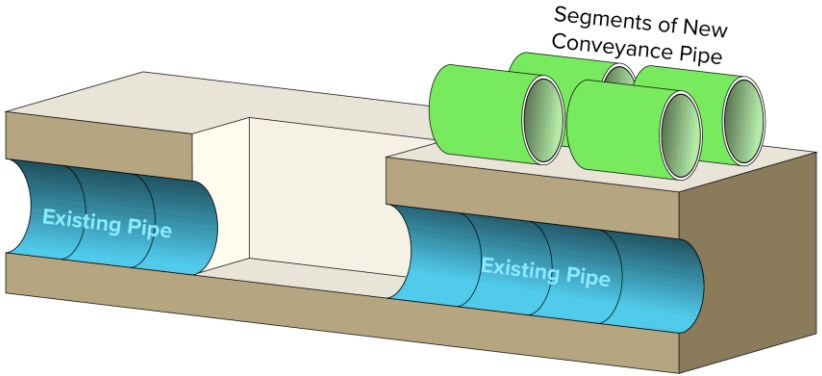


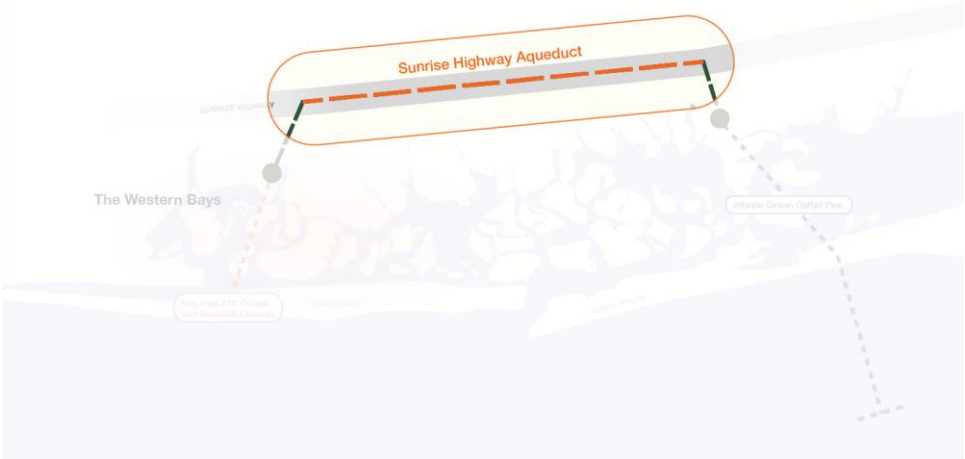
Construction Activities - Microtunneling

Innovative Approach

Innovative Technology to Minimize Disruption

Sliplining





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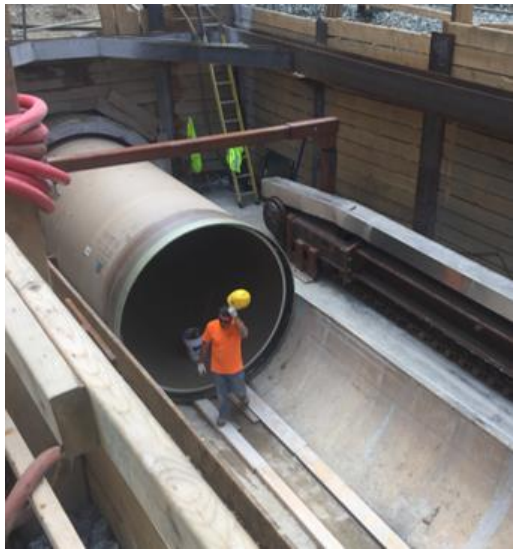


Sliplining

Work Pits constructed along Sunrise Highway

5. Public and Stakeholder Outreach

Addressing Construction Impacts

Using Innovative Methods to Minimize Potential Disruptions

Once construction begins, the Design-Builder and the Department's outreach team will:

- Provide regular construction updates
- Provide advance notification of any disruptive work or road closures
- Maintain a 24/7 hotline for the community to communicate with the Design-Builder
- Implement Work Zone Traffic Control Plans
- Maintain access to existing businesses
- Create and implement a dust management plan, and a community noise and vibration monitoring program

Engagement Moving Forward

Public Outreach and Communication are Cornerstones of the Project

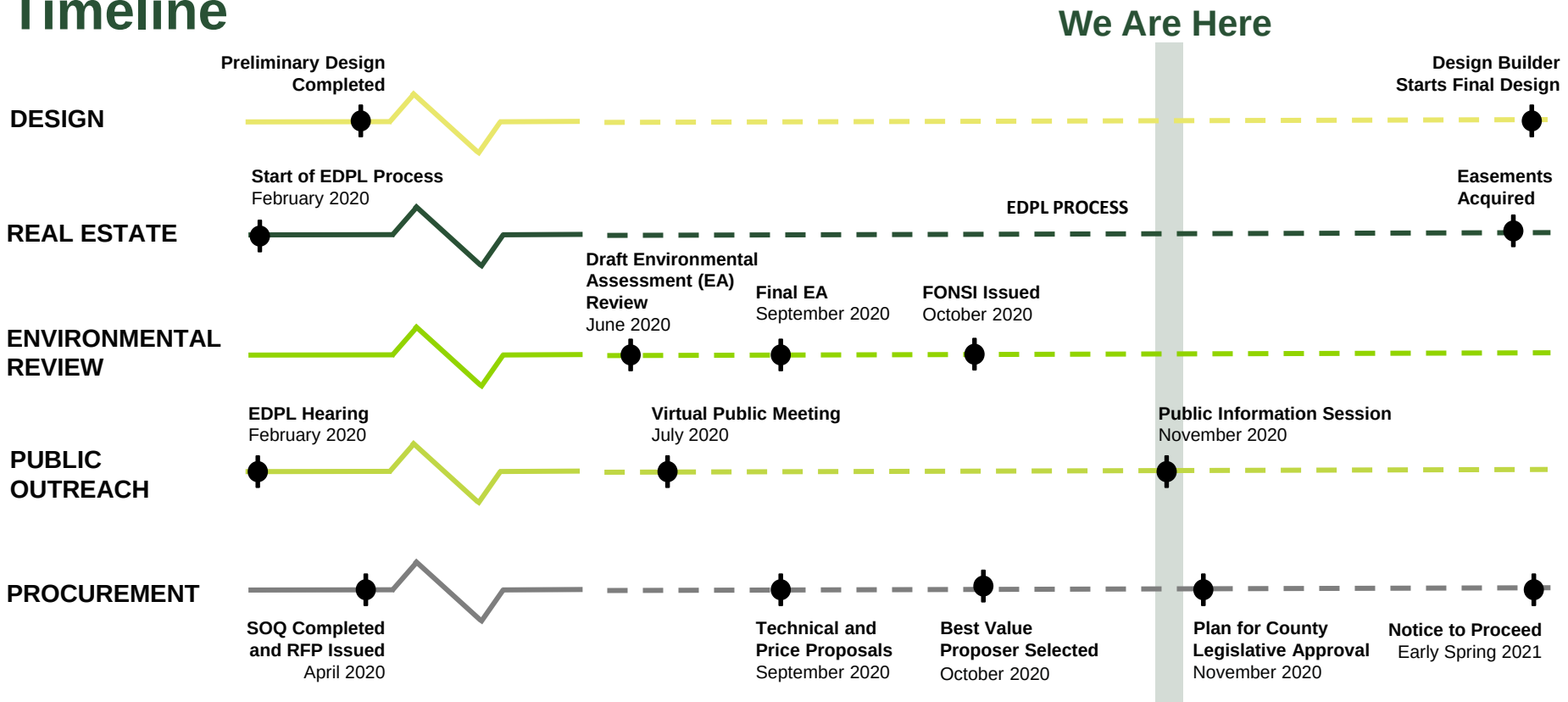
Regular Meetings

- General Public Meetings
- Stakeholder Meetings (civic associations, environmental groups, school districts, emergency services, etc.)
- Business Stakeholder Meetings (Chambers of Commerce, individual businesses)

Communication Tools

- Website – www.bayparkconveyance.org
- Email – bayparkconveyance@gmail.com
- Direct outreach to impacted and interested members of the public
- E-Newsletters, factsheets, and social media updates during project construction

Timeline



Major Construction Completion: November 2023

6. Question and Answer Session

Speaker Instructions

Use the raise hand feature to indicate you have a comment.

If you are joining by phone, press *9 to raise your hand.

When called upon, a member of the Project Team will unmute your audio.

You will then have to unmute yourself.

If you are joining by phone, press *6 to unmute yourself.

State and spell your name and affiliation (e.g. resident, press, etc.) prior to providing your comment. Please limit your comments to three minutes.

Thank You!

bayparkconveyance.org/contact-us