Centerville Village Sewer Expansion Project – North Phase

Informational Meeting

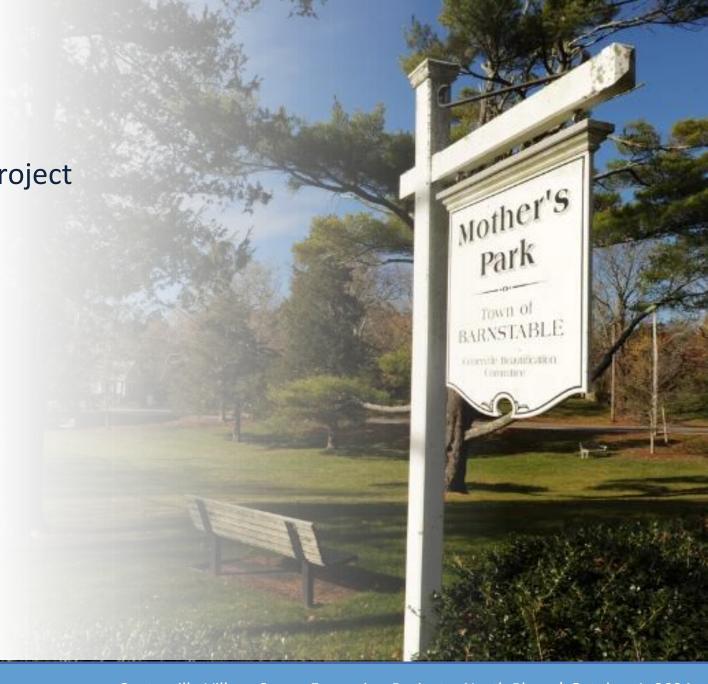
October 1, 2024
Barnstable Adult Community Center





Meeting Agenda

- CWMP Overview
- Centerville Village Sewer Expansion Project
 - Project History
 - Phased Approach
 - Review Scope of North Phase
 - Contract Conditions
 - Construction Impacts
 - Pump Station Sites
- Communications Plan
- Sewer Connection Process
- Questions



What is the CWMP?

- Comprehensive Wastewater Management Plan
- A planning document, required by regulatory agencies, which identifies the Town's wastewater needs and establishes a recommended plan for resolving them
- Barnstable's CWMP was regulatorily approved in April of 2021
- Barnstable's CWMP is a 30 Year Plan
 - In Year 4 of 30



Town of Barnstable, Massachusetts

Comprehensive Wastewater Management Plan / Single Environmental Impact Report



Volume 1: Report Text, Tables and Figures

November, 2020

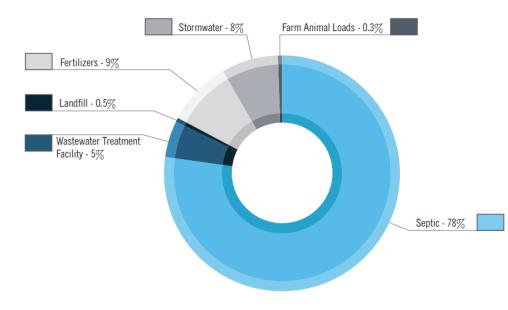
The General Problem

- Impaired coastal waters (nitrogen)
- Groundwater quality concerns
- Pond water quality concerns
- Flood zone and climate change
- Promote targeted economic development
- Regulatory requirements



Nitrogen Pollution in Barnstable

- Nitrogen pollution in Barnstable has been documented by the Massachusetts Estuary Project (MEP)
- Barnstable's coastal waters are impaired due to nitrogen
- Town must meet Total Maximum Daily Loads (TMDL's)
- ±78% of controllable nitrogen comes from septic systems
 - Title V systems are not designed to remove significant nitrogen
 - Currently approved Innovative/Alternative (I/A) septic systems do not remove enough nitrogen to achieve TMDL's in Barnstable
- Sewers necessary to achieve TMDL's.



Controllable Nitrogen Sources on Cape Cod

Source: Cape Cod Area Wide Water Quality Management Plan Update, 208 Plan; Cape Cod Commission; June 2015

Cost of Inaction

- Federal Clean Water Act requires communities to meet TMDL's
- Failure to implement:
 - Further damage to water quality and water resources
 - Negative impacts to local economy and property values
 - Town at risk of court order, lawsuits and/or regulatory enforcement
- Newly proposed Title V regulations
 - Town must implement watershed management plan or all properties potentially required to install I/A systems



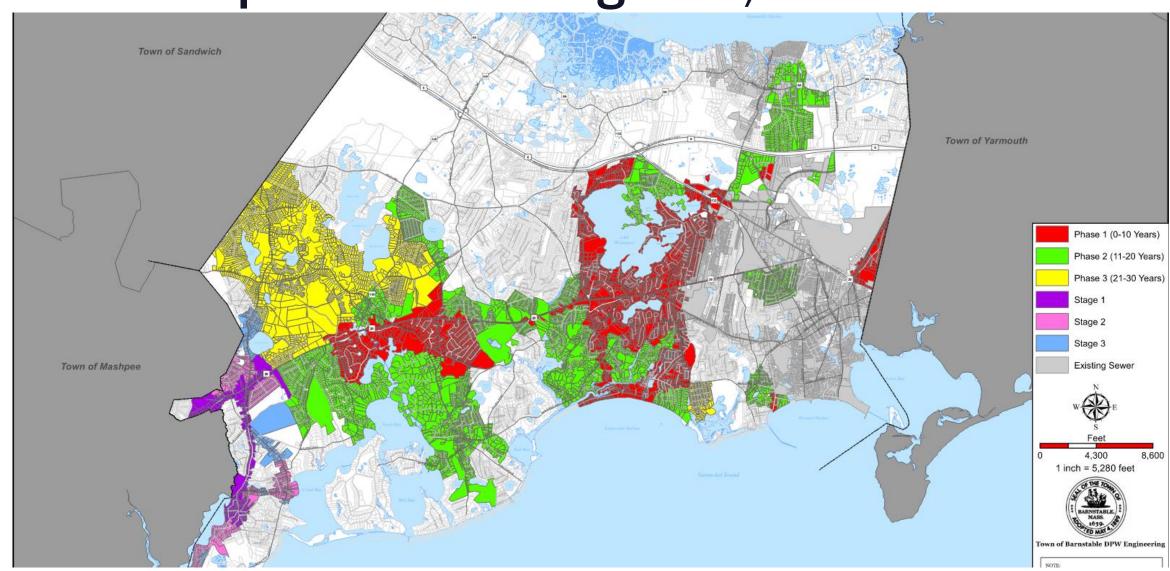


Barnstable's Plan

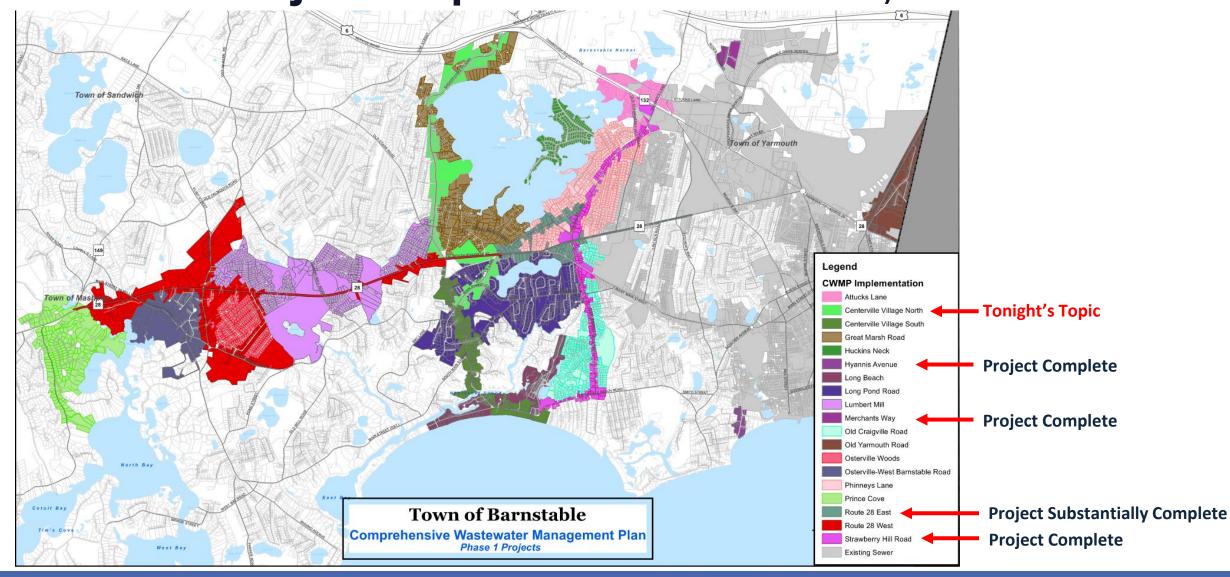
- (3) 10-Year Phases of Sewer Expansion
 - ±190 miles of new sewers
 - ±11,800 properties to be connected to sewer
 - Phases executed as multiple smaller projects
 - Centerville Village Sewer Expansion Project
 - North Phase is the third major sewer expansion project in the program
- Leverages existing infrastructure to the maximum extent possible (WPCF, sewers, etc.)
- Incorporates "non-traditional projects" (dredging, stormwater, etc.), but doesn't rely on them
- Adaptive Management
 - Plan is flexible and adaptive
 - 5-Year updates required
 - Annual updates to Cape Cod Commission
- Achieves TMDLs



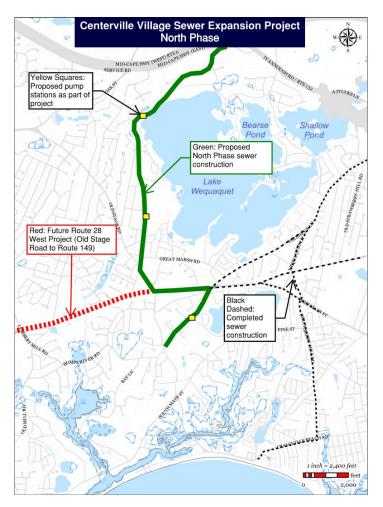
Sewer Expansion Phasing Plan, June 2024

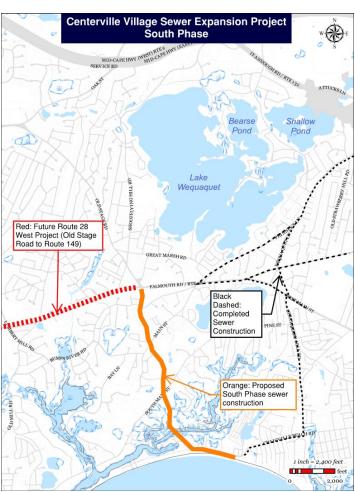


Phase 1 Project Implementation Plan, June 2024



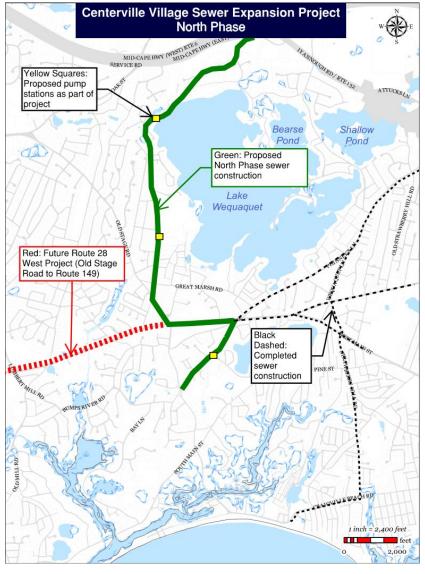
Centerville Village Sewer Expansion Project





- Project developed to expedite sewer expansion along planned offshore wind project route
- Due to wind project delays and to maximize financing and subsidies, project was Phased into 2 Phases: North Phase and South Phase
- North Phase: Topic for this meeting
 - Construction to commence this fall
- South Phase: In development.
 Construction anticipated to commence next fall

Centerville Village Sewer Expansion Project



North Phase

- ±3.8 miles of new sewers to be installed on:
 - Route 28 from Phinneys Lane to Old Stage Road
 - Phinneys Lane/Main Street from Route 28 to Old Stage
 - Old Stage Road from Route 28 to Shootflying Hill Road
 - Shootflying Hill Road from Old Stage to Service Road
- 3 new submersible sewer pump stations
 - 567 Shootflying Hill Road
 - Easement on a Portion of 944 Shootflying Hill Road
 - Mothers Park Road
- ±220 parcels to be connected to sewer
 - Removal of 5.7 kg/day of Nitrogen from the Centerville River Watershed
- Construction contract award in process
 - Contractor = CC Construction --- Contract = \$20,380,342.14

CVSE - North Phase: Contract Conditions

- Contractor has 870 days (29 months) from issuance of Notice to Proceed to complete the contract
 - Anticipate construction starting before end of year
 - Completion Spring, 2027
- Work Hours
 - Normal Work Hours will be Monday through Friday, 7 AM to 3:30 PM
 - Work within Route 28 will be night work, Monday through Friday, 9 PM to 5 AM
 - Work hours may be modified/extended upon approval of DPW Director
- Work Restrictions
 - No work on Town observed holidays
 - No work from Memorial Day to Labor Day
 - Restrictions may be modified/waived upon approval of DPW Director
- Contractor's traffic management plans must be reviewed and approved by DPW and Emergency Services (Police, Fire, etc)
 - DPW also coordinates with School's to coordinate bus routes and postal service to coordinate mail delivery

Construction Impacts

- Major infrastructure project
 - Sewer = deep excavations (10-15' deep, up to 25' deep)
- Multiple crews in multiple coordinated work zones
- Trenching within roadway, shoulders and sidewalks
 - Temporary uneven road surfaces
- Coordinated road closures and detours necessary for public safety
 - Police details, flaggers, signage
- Trimming of trees above roadway necessary; selective removal of trees may be necessary
- Noise and vibrations from construction activities
- Fences, landscaping, etc. located in the public right of way may need to be relocated



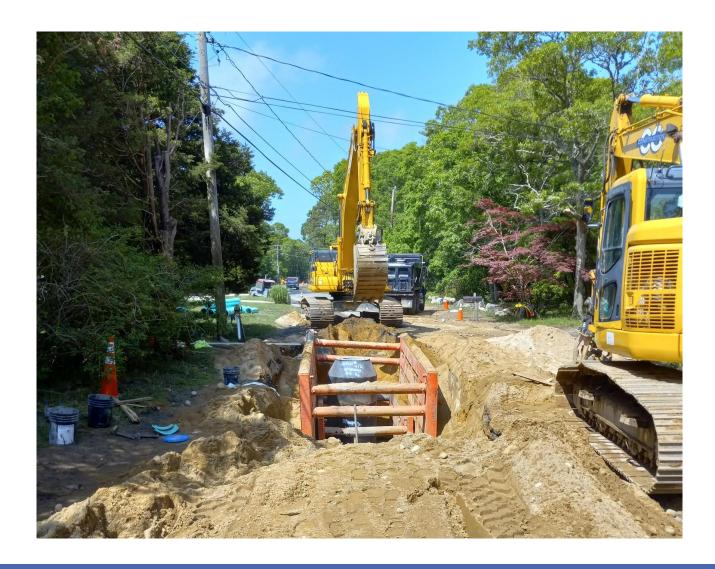
Preparation: Tree Trimming



Construction: Road Closures and Detours

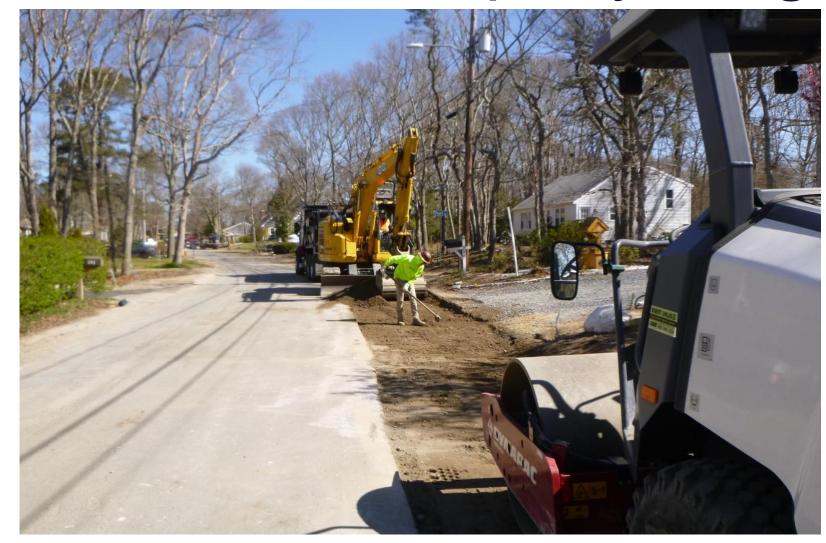


Construction: Excavation



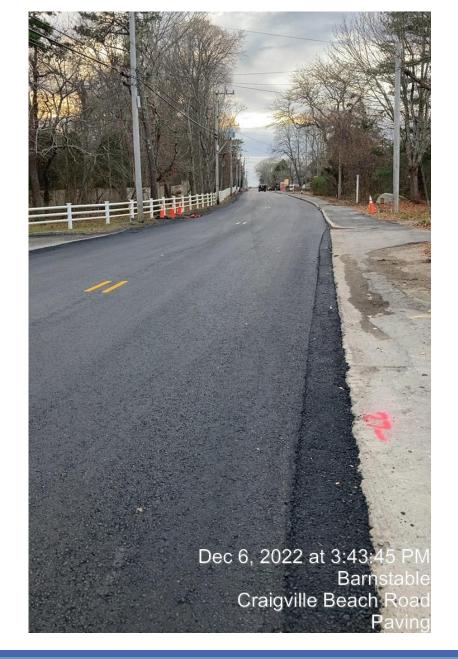


Construction: Temporary Paving





Final Paving





Construction Coordination with Wind Project

- It is anticipated that coordination with the wind project will be necessary on Shootflying Hill Road
- Utilities are <u>not</u> installed at same time and are <u>not</u> in the same trench. Sewer work to be completed first.
- General sequence of construction for Shootflying Hill Road:

Preparation

• Utility markouts, tree trimming, survey work, equipment mobilization

Sewer Construction

- Removal and/or relocation of utilities within proposed sewer trench, if necessary
- Sewer mains being the deepest utility, will be installed first (20-100 LF per day)
- Sewer laterals installed to the property line of each property along the route. Generally after sewer main is installed. (2-4 laterals installed per day)
- Testing of sewers

Permanent Utility Relocations/Improvements (water, drainage, gas, etc.)

Water Main relocation (by wind developer) anticipated along length of wind project route

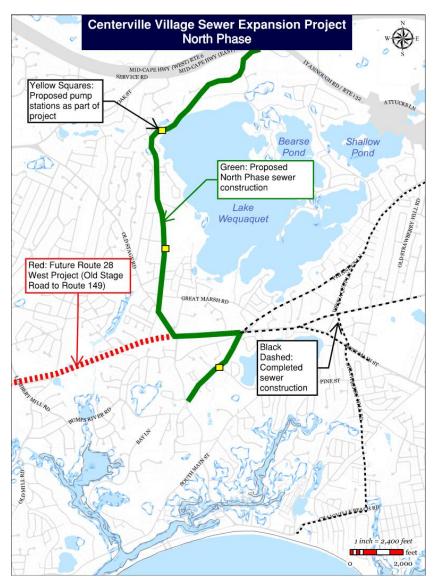
Wind Duct Bank Installation

- Install pull vaults (1 approximately every 1,500 LF)
- Install duct banks (100-200 LF per day)
- Testing of duct bank
- Pulling of cable through duct bank

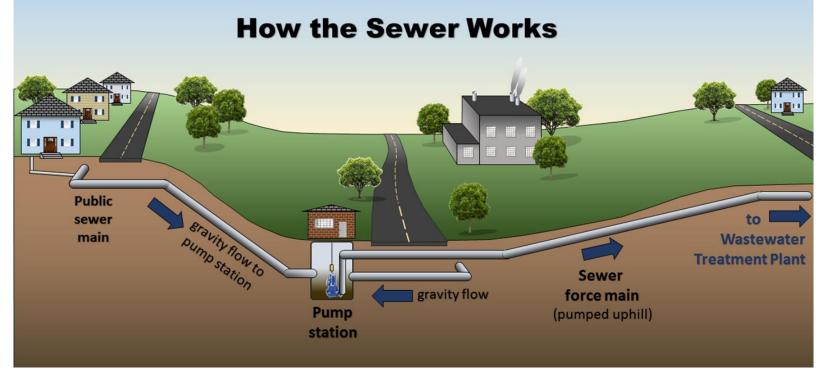
Restoration/Improvements and Final Paving of Roadways

Wind Developer

Sewer Pump Stations



- 3 proposed submersible sewer pump stations
 - 567 Shootflying Hill Road
 - Easement on a Portion of 944 Shootflying Hill Road
 - Mothers Park Road



Submersible Pump Stations



Strawberry Hill Road, Centerville

(Note: Final Restoration has not been completed)



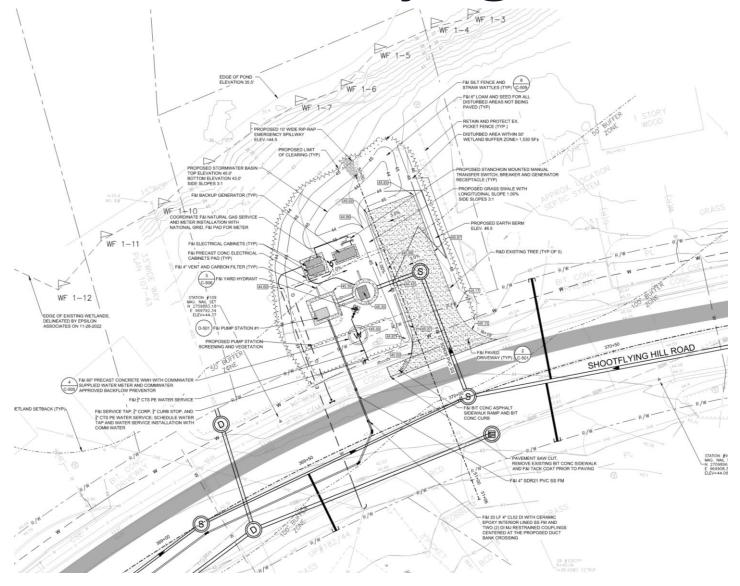
Rendezvous Lane, Barnstable Village

Pump Stations Operations and Maintenance

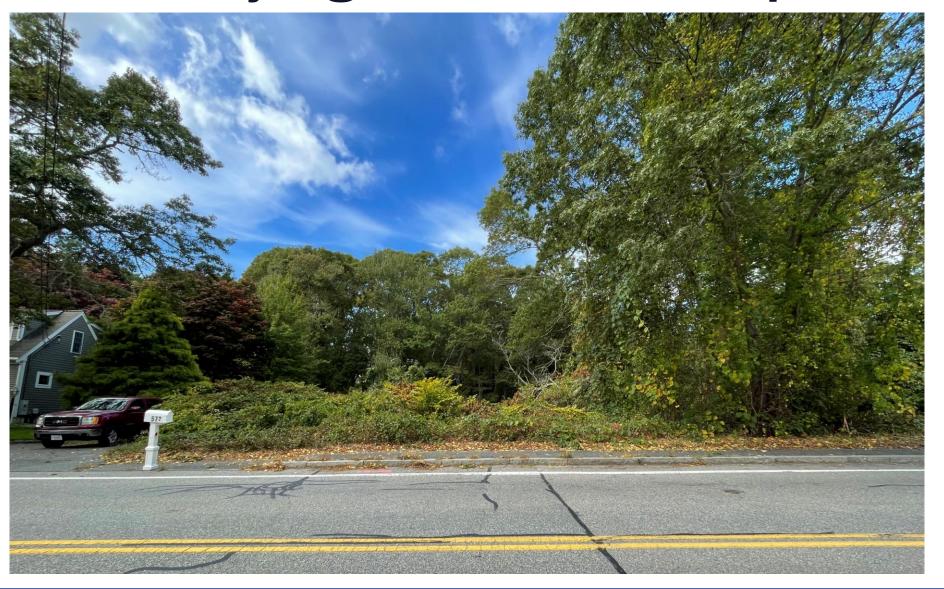
- Crews required to visit the pump station once a day
 - Identifiable in Town pickup truck, will consist of visual inspection
 - Pump station monitored remotely
- Periodic maintenance to service old/failing components
- Generators automatically exercised weekly for 15 minutes
- Odors and noise are generally not an issue for pump stations when properly functioning
- Landscaping is maintained by Town crews

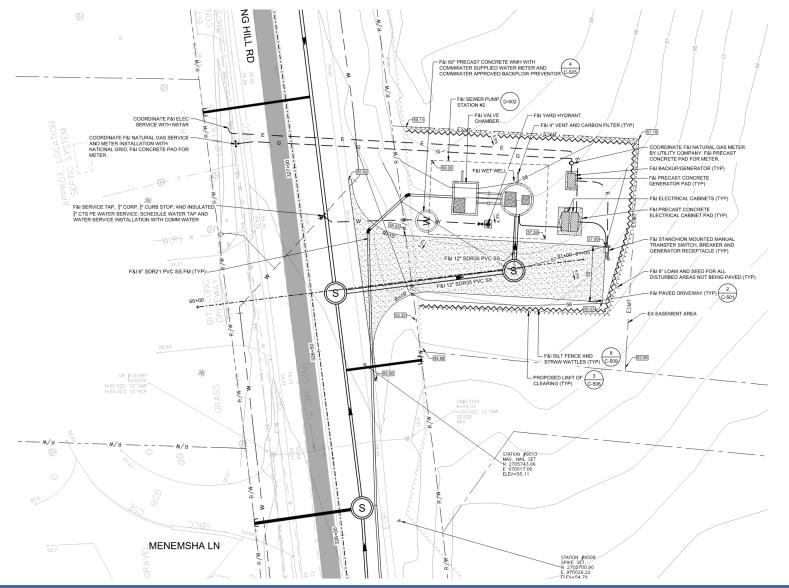




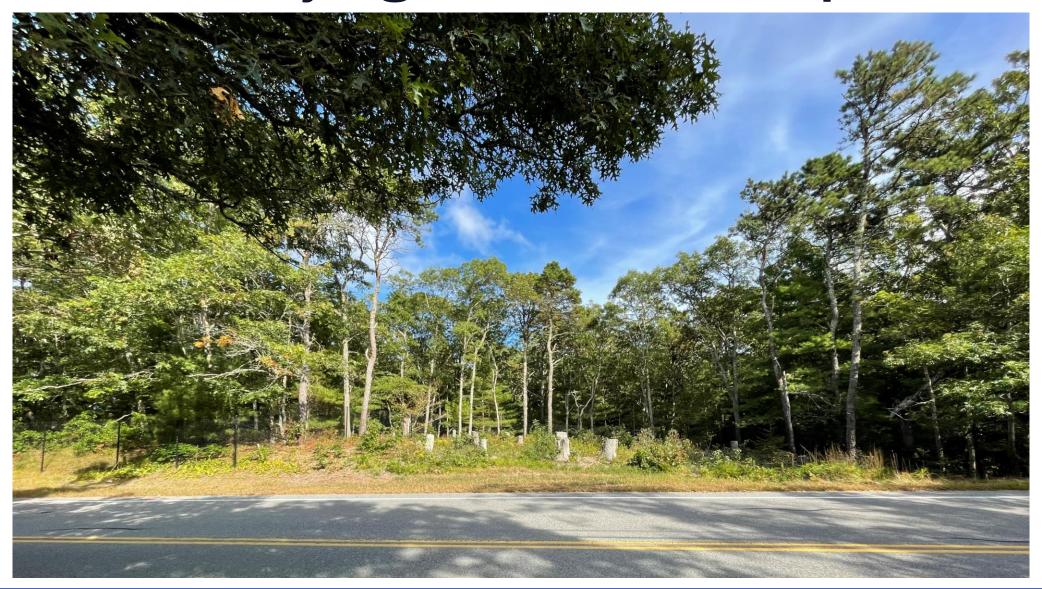


- Vacant Town owned parcel
- Submersible pump station
- Standby generator, electrical control cabinet, paved driveway and stormwater management basin
- Conservation Commission approval secured





- Town acquired an easement from the property owner
- Submersible pump station
- Standby generator, electrical control cabinet, paved driveway and stormwater management basin
- Property owner cleared the easement area prior to Town's acquisition





- Remove Mother's Park Road
- Install submersible sewer pump station in northern portion of formerly Mother's Park Road
- Realign intersection of Main Street/Phinney's Lane/North Main Street
- New sidewalks and crosswalks
- New parking area
- Net increase in size of park
- Second open space created on south side of intersection



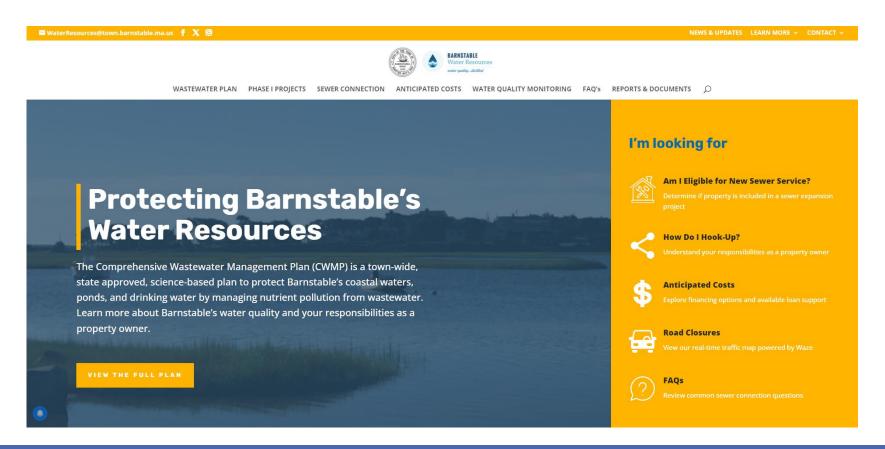




Communications Plan

https://barnstablewaterresources.com/

A centralized 'communications hub' simplifies access to information.



Pre-Construction Communications



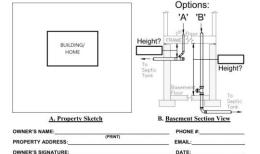
The Town of Barnstable Department of Public Works 82 Falmouth Road, Hyannis, MA 02601

Document A: Sewer Service Connection Form (See enclosed Document B for instructions on filling out this form)

Is the property a S	lingle Family, Duplex, Condon	ninium or Business:	
Full Cellar	Finished Cellar	Crawl Space	No Cellar
How does your sewer pipe exit your basement?		Through the wall	Through the Floor
Comments:			

A. <u>Property Sketch Instructions</u>: Please provide a sketch of your property in the "Property Sketch" area below and indicate the position of your building in relation to the surrounding street(s), including street name, building additions, garges, drieways, walksys, landscape features, location of existing septic system and where the existing sever pipe leaves the house (if known), existing underground utilities, and the desired location of your new severe service comence.

B. Basement Section View Instructions: Please circle the "Basement Section View" option that best represents where the sewer pipe exits your basement and provide the height measurement in the box



Please return the completed form by September 3, 2021 via email to paul.rus with a digital scan or photo of the form, or by the return envelope to the Barnstable Department of Public Works at 382 Falmouth Road, Hyannis, MA 02601.

PLEASE COMPLETE AND RETURN THIS FORM SO THAT WE MAY BETTER SERVE YOU!!!

Sample Sewer Connection Form



The Town of Barnstable Department of Public Works

382 Falmouth Road, Hyannis, MA 02601

Daniel W. Santos, P.E.



Robert R. Steen, P.E. Assistant Director

November 8, 2023

725 Main Street Sewer Pump Station Project Construction Update

Dear Property Owner:

The Town of Barnstable's Contractor, RJV Construction Corporation, will begin mobilizing within the vicinity of 725 Main Street, in anticipation for the start of construction at the 725 Main Street Sewer Pump Station. Starting, Monday, November 13, 2023, RJV will begin the installation of erosion controls, followed by site preparation and tree clearing along Dumont Drive, temporary fence installation, and performing test pits. This work will occur Monday through Friday, from approximately 7:00AM to 4:00PM. As construction progresses, Department of Public Works personnel will provide further communication.

This work is part of the Town's Sewer Pump Station Rehabilitation Program. Previous evaluations of the 720 Main Street Sewer Pump Station determined that the current infrastructure does not have the capacity to handle existing peak design flows, is approaching the end of its intended design life, and there wasn't sufficient room on the existing 720 Main Street parcel for additional sewer pump station infrastructure. As a result, the need to construct a new sewer pump station at 725 Main Street has been identified.

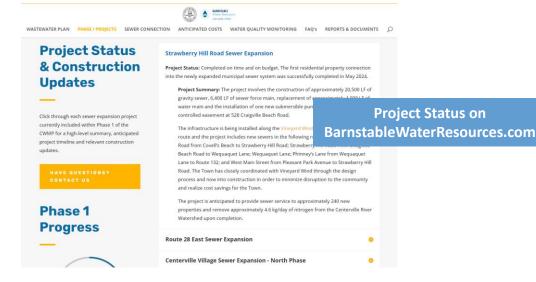
A public informational meeting reviewing the project was hosted on Wednesday, February 15, 2023, which included a public comment period. To review the meeting recording and supportive presentation materials, please visit: https://bit.ly/725MainStreetPS

If you have any questions, or wish to receive project updates, please contact Kelly Collopy, Communications Manager, at the Department of Public Works, at 508-790-6400 or

Sincerely

Kelly Collopy Communications Manager Barnstable Department of Public Works

Sample Project Start-Up Notification





Active Construction Communications

Goal: Proactively communicate project status and construction impacts in a timely manner, utilizing multiple formats across varying outlets to increase widespread community awareness

Traditional Communication Methods

- Media releases
- Local radio
- Mailings
- Signage (project wide and location-specific when appropriate)

Digital Communication Methods

- Barnstable Water Resources
- Official Town of Barnstable social media postings
- Town of Barnstable weekly e-News
- Barnstable Water Resources issue-based newsletter
- MyBarnstable mobile app
- Waze for Cities partnership
- Use of QR codes to drive traffic to tracked landing pages for easy access and enhanced analytics

In-Person Outreach

- Town Council briefings
- On-going neighborhood association, business, and civic organization meetings
- CWMP public workshop series (i.e. Barnstable Adult Community Center)
- Door-to-door outreach ahead of major traffic or construction changes
- Property owner phone call and email tracking

Customized Tools and Tactics

- Barnstable Government Access advertisements
- Discover Barnstable podcast to communicate evergreen content
- WaterWorks video series to educate about projectspecific topics and program initiatives
- Local Business Toolkit including custom traffic management maps, sample social media postings, and communication best practices

Active Construction Communications



The Town of Barnstable Department of Public Works

382 Falmouth Road, Hyannis, MA 02601 508.790.6400



January 12, 2024

Construction Notice Route 28 East Sewer Expansion Project

Dear Property Owner

Sewer construction is actively underway as part of the Route 28 East Sewer Expansion Project. The Town's contractor, Robert B. Our, will continue excavation and installation of sewer pipe on Phinney's Lane.

You are receiving this notice as access to your property on Sail-a-Way is anticipated to be restricted due to active construction within the Phinney's Lane roadway.

Access is anticipated to be restricted between Monday, January 15, through Friday, January 19, 2024, from the hours of 7:00 AM to 5:00 PM.

Impacts will vary, dependent upon construction. Department of Public Works personnel will provide further communication to residents, as needed, as construction progresses.

Please note that all emergency access will be maintained throughout construction

If you require special assistance to access your property during construction, please contact the Department of Public Works.

We apologize for any inconvenience this may cause. If you have any questions, please contact Kelly Collopy, Communications Manager, at the Department of Public Works, at 508-790-6400 or Kelly.Collopy@town.barnstable.ma.us.

To learn more about the CWMP and to review current Phase 1 projects, please visit:

Thank you,

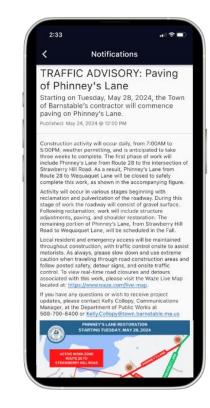
Kelly Collopy Communications Manage Town of Barnstable DPW

Sample Access Notification





Email Newsletter



MyBarnstable App

Post-Construction and Sewer Connection Communications

Goal: Proactively communicate completion of project and restoration expectations while preparing property owners for the sewer connection process

Project Closeout Communications

- Project Closeout letters mailed to all identified property owners eligible for connection within a sewer expansion project
- Includes Sewer Connection process document
- Provides an overview of the anticipated communications cadence and outline of each Town department/division's role in the sewer connection and assessment process
- Media releases, traffic advisories, and door-to-door notifications as needed during restoration

Homeowner's Sewer Connection Guide

- Roughly 30-page document that details the step-by-step process for connecting to municipal sewer, including important considerations and financial responsibility
- Outlines basic understanding of the Sewer Connection Policy, Sewer Assessment Ordinance, and available financing options with contact information to learn more
- Available for download with print hard copies to be available at Town facilities

Additional Supportive Tools and Tactics

- CWMP public workshop series (i.e. Barnstable Adult Community Center
- Annual neighborhood association and civic organization meetings
- Video assets, social media, mobile app, e-News, and Barnstable Water Resources newsletter
- Media pitching and storytelling

Post-Construction and Sewer Connection Communications



NOTICE OF SEWER CONNECTION HOOKUP

Per the Board of Health Sewer Connection Policy, property owners will be responsible for connecting to the municipal sewer system within 6 months of receiving notification from the Barnstable Health Division.

HIRE A LICENSED SEWER INSTALLER

You will need to hire a licensed sewer installer. This installer will do the actual construction necessary to connect your property to the sewer service stub installed at the property line. To view a list of licensed sewer installers, please visit: bit.ly/sewer-installers

SEWER CONNECTION

Your licensed sewer installer will apply for necessary permits prior to commencing work on your property. With permits in hand, your contractor is authorized to begin work.

INSPECTION PROCESS

A Department of Public Works inspector will inspect the installation to ensure it complies with Town specifications. A tie card will be generated, which will be maintained in Town records. DPW will notify the Barnstable Water Pollution Control Division that your property is ready for sewer service billing.

SEPTIC SYSTEM ABANDONMENT

Your septic system must be either removed or filled in due to future safety concerns. This may be done by the same contractor who connects you to municipal sewer. Questions should be directed to the Barnstable Health Division at 508-862-4644 or via email at healthstown.barnstable.ma.us

SEWER SERVICE BILLING

Property owners will be charged a sewer service user fee, based on their water usage. Your sewer service bill will occur at the same frequency as your water bill. The typical residential sewer usage bill averages \$490 annually.







HOMEOWNER'S

M PUBLIC WATER WORK A CONVERSATION ABOUT SEWER CONNECTION WOR

> **Video: A Conversation About Sewer Connection**

Sewer Connection Process Document

Homeowner's Sewer Connection Guide

CONNECTING TO SEWER



Project Completion Letter

Upon completion of sewer construction, the Barnstable Department of Public Works will mail all eligible property owners a letter of project completion. This letter will include an overview of anticipated communications from Town departments such as the Barnstable Health Division and Barnstable Treasurer/Tax Collector's Office.



Notice of Sewer Connection Hookup

Once the newly expanded sewer system is deemed active, the Barnstable Health Division will issue a Notice of Sewer Connection Hookup for all properties eligible to connect to municipal sewer. In accordance with the Board of Health Sewer Connection Policy, property owners will be required to connect to the municipal sewer system within six (6) months of receiving notification (See below excerpt or Appendix A).

On December 19, 2023, the Board of Health approved its POLICY: Deadline to Connect Buildings to Public Sewer (Appendix A), which

"Section 360-13 of the Town of Barnstable Code requires that the owner of a building on a parcel of land which abuts a public or private way in which there is a public sewer shall connect the building to the public sewer. The Board of Health (Board) requires the owner of a building to comply with the Code and connect to the public sewer within six (6) months of the Board's letter notification if the owner has not yet complied with the Code."

HOMEOWNER'S SEWER CONNECTION GUIDE | VI SUMMER 2024



Hire a Licensed Sewer Installer

Once you have received your Notice of Sewer Connection Hookup, you will need to hire a licensed sewer installer (Appendix B). Your licensed sewer installer will do the actual construction on your property and will be responsible for applying for the necessary permits.

In most cases, a qualified sewer installer is sufficient for both design and implementation; however, in a limited number of cases it may be necessary to also secure the services of a licensed professional civil engineer to assist with your sewer connection. The connection must comply with the Town of Barnstable's sewer connection specifications. Your contractor will assist you in determining the most effective way to arrange pipes on your property.



Sewer Connection

Your licensed sewer installer will apply for necessary permits prior to commencing work on your property. Contractors are required to contact DPW 48 hours prior to construction so that DPW can schedule an inspection. Ultimately, construction on your private property will consist of connecting the septic pipe that exits your building(s) to the sewer service stub installed at your property line. This will require excavation and installing pipe between those two points.

Depending on the connection, your contractor may be responsible for obtaining one or more of the following permits:

- . A Sewer Connection/Trench Permit from the DPW: needed in all
- · A Septic System Abandonment Permit from the Board of Health: needed in all cases where a septic system is being abandoned or
- A Plumbing Permit from the Building Department: needed when work as part of the connection is happening within the home, or within 10 feet of the property's foundation

HOMEOWNER'S SEWER CONNECTION GUIDE | VI SUMMER 2024

barnstablewaterresources.com/sewer-service-connection-center

HOMEOWNER'S

CONNECTION

What you need to know about connecting

to the municipal sewer system.

SEWER

GUIDE

Sewer Connection Process

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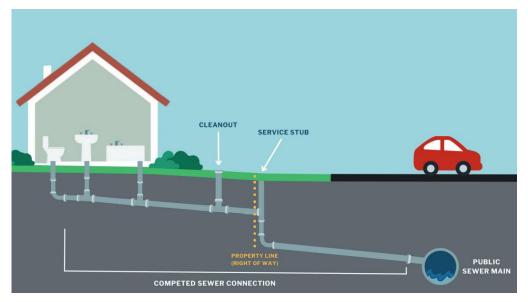
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6 SEWER SERVICE BILLING

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Anticipated Sewer Connection Costs

Each property owner receiving sewer will be responsible for (3) three costs:

1. Sewer Assessment

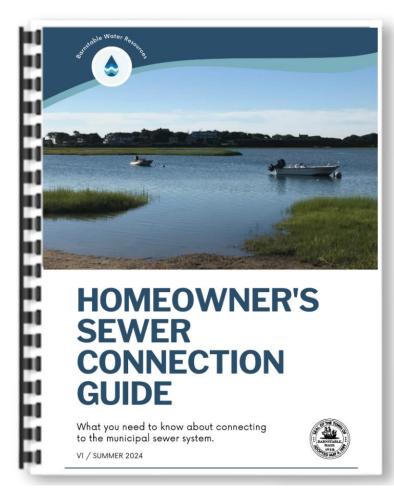
- Voted on by Town Council in July 2021 to be capped at \$10,000 per Sewer Unit
- A **Residential Sewer Unit** is defined as the number of dwelling units on a residential lot.
 - Additional Dwelling Units, two-family homes, etc. to be assessed additional units as necessary
 - One bedroom and fewer shall be considered a half dwelling unit; therefore these properties will be assessed at half, or \$5,000.
- A **Commercial Sewer Unit** is defined by the amount of sewer flow on the property based on Title 5 of the State Environmental Code, 310 CMR 15.203, system sewage flow design criteria; whereby every 330 gallons per day of flow equals one (1) sewer unit.
- Can be financed as part of your Quarterly Tax Bill via the Treasurer/Tax Collector's Office with a +2% interest rate above Town's current borrow rate

2. Sewer Connection

- Property owner hires a licensed sewer installer to complete the connection
- Cost will vary on a property-by-property basis
- Encourage to receive 2-3 quotes from licensed sewer installers
- Costs can be financed through the Barnstable County Cape Cod AquiFund
 - 0% and 2% interest rate loans available for NEW sewer connections
 - 4% interest rate loans available for condominium and apartment communities
- Massachusetts State Title V (Septic) Tax Credit also available to full-time primary residents

3. Utility Billing

- Based upon water usage
- Billed at the same frequency as you receive your water bill



Available for download at BarnstableWaterResources.com

Project Contacts

Project Contacts

Griffin Beaudoin, P.E. at Griffin.Beaudoin@town.barnstable.ma.us

Town Engineer, Barnstable Department of Public Works

Tyler Gilman, P.E. at Tyler.Gilman@town.barnstable.ma.us

Project Manager, Barnstable Department of Public Works

Ansley deMerlier at Ansley.Lanier@town.barnstable.ma.us

Sewer Connection Program Manager, Barnstable Department of Public Works

Christopher Gadd at Christopher.Gadd@town.barnstable.ma.us

Communications Assistant, Barnstable Department of Public Works

Inquiries or Public Comment

Email: WaterResources@town.barnstable.ma.us

Phone, DPW Administration: 508-790-6400

 Review project materials and presentation on Barnstable Water Resources website: https://barnstablewaterresources.com/ For Financial Questions, please contact the Treasurer's Office at 508-862-4054



Questions?