



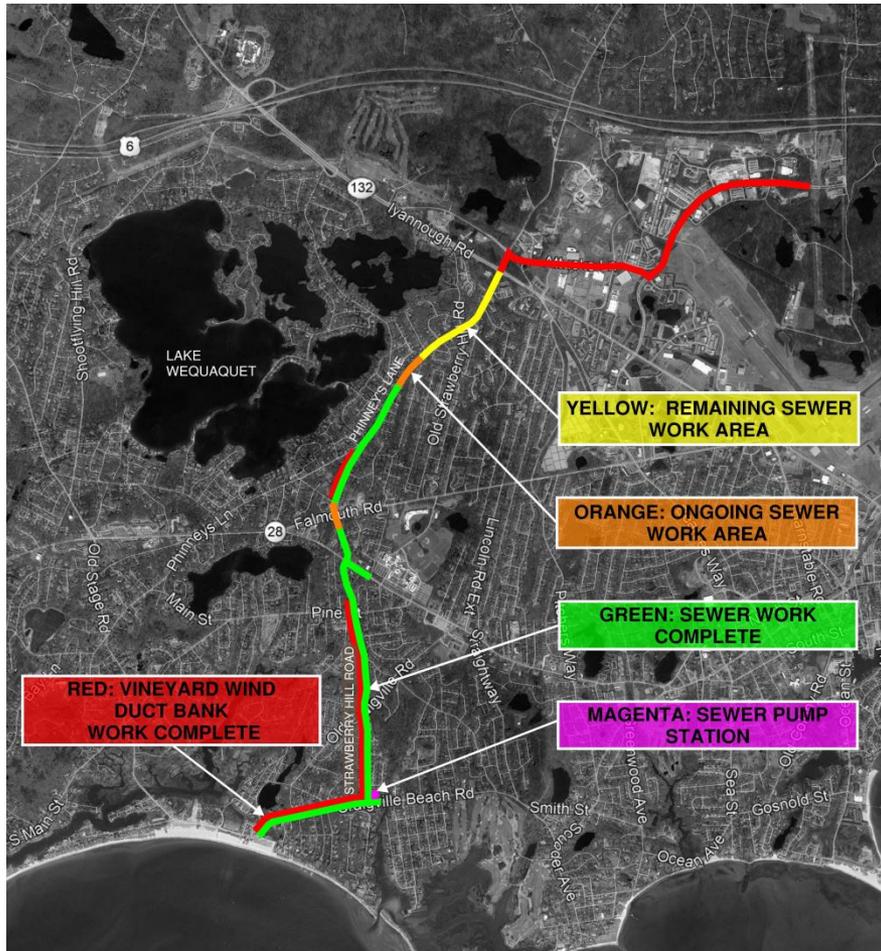
Barnstable Town Council

Water Resources Management Update

Department of Public Works
December 15, 2022



CWMP Construction Updates Strawberry Hill Road Sewer Project



- Project on schedule for completion this Spring
- Construction completed to date:
 - Sewer work on Craigville Beach Road.
 - Sewer work on Strawberry Hill Road, south of West Main Street
 - Hyannis Water water main replacement and extension.
 - ±18,700 LF (±72%) of gravity sewer
- On-going construction
 - Sewer on Phinney's Lane between Huckins Neck Road and Old Strawberry Hill Road
 - Pump station @ 528 Craigville Beach Road installing valve vault structure.
 - Horizontal Directional Drill (HDD) installing gravity sewer @ Route 28 intersection with Strawberry Hill Road

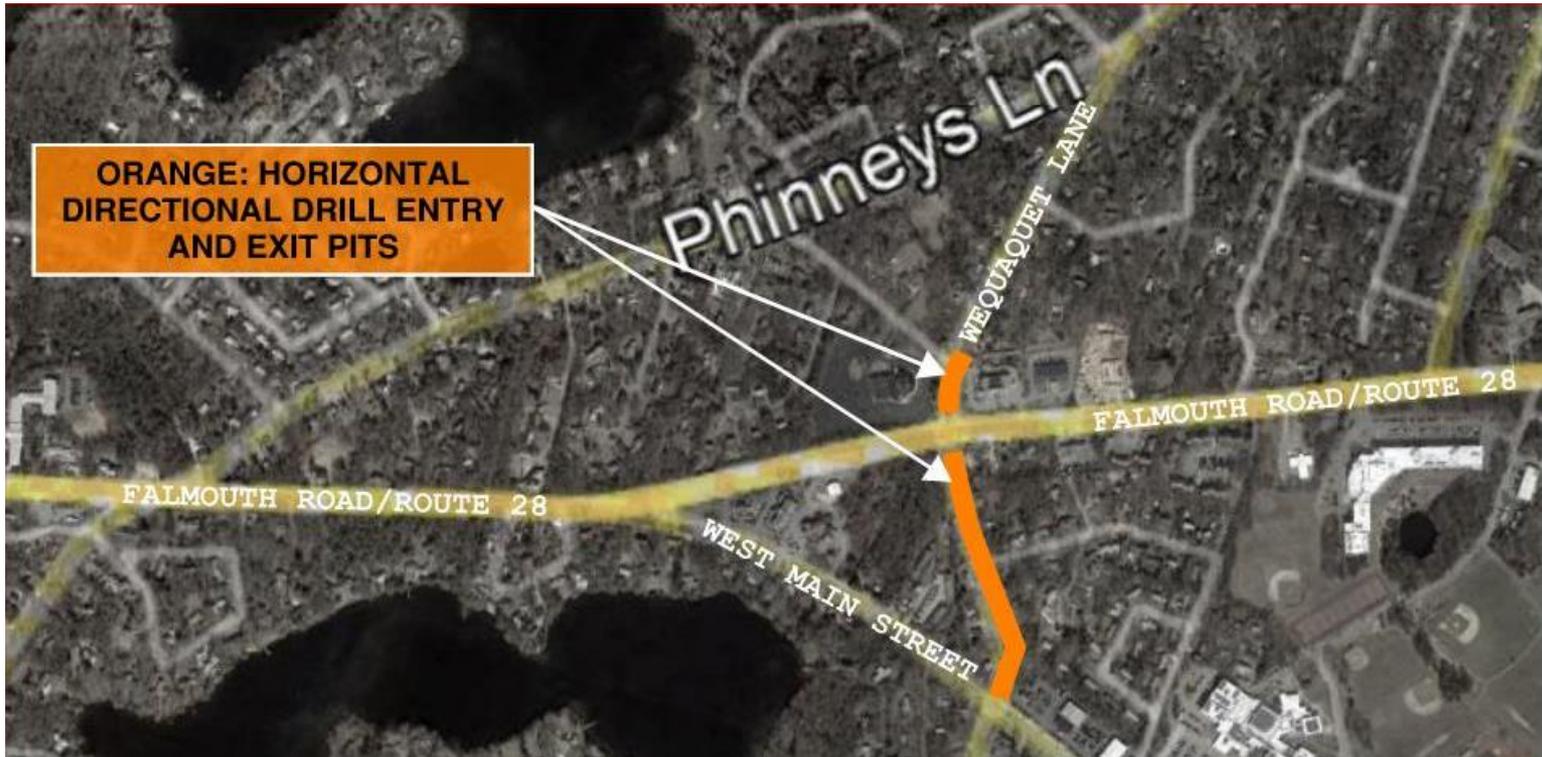


CWMP Construction Updates

Strawberry Hill Road Sewer Project



- **Horizontal Directional Drill (HDD)**
 - *Where: Strawberry Hill Road at the intersection of Route 28*
 - *When: December 19, 2022 to December 23, 2022*
 - *Why: Minimizes both the impact to travelling public on Route 28 and time required for crossing in comparison to traditional open cut over a state route. Anticipated cost savings of \$60,000.*



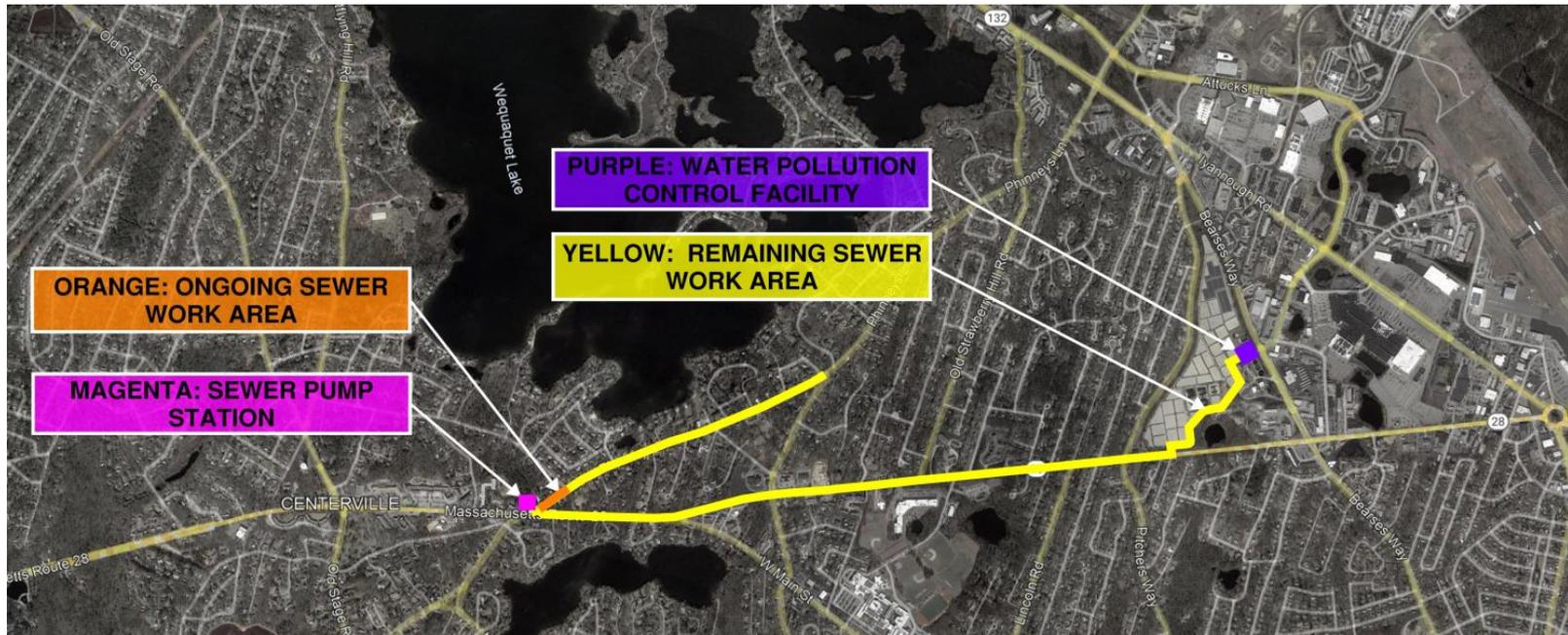


CWMP Construction Updates

Route 28 East Sewer Expansion

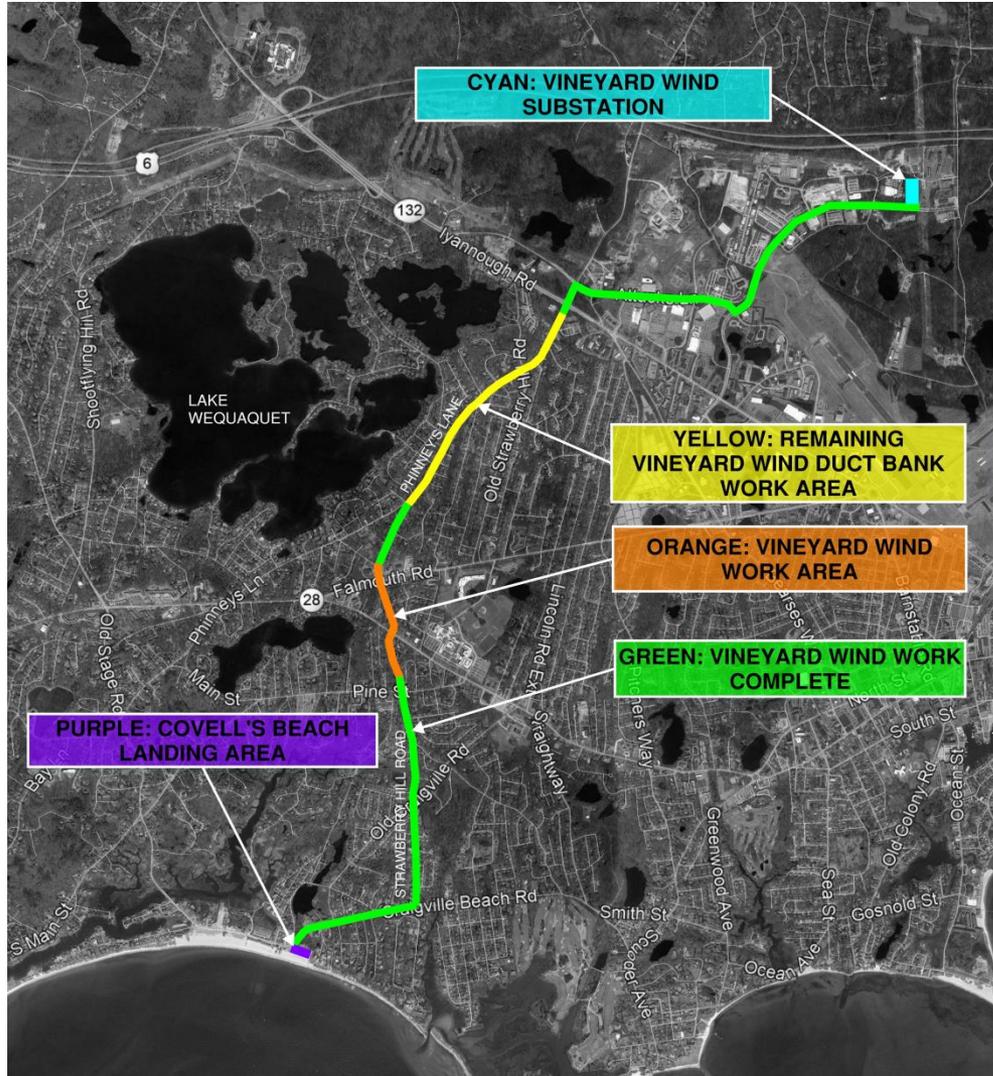


- *Phinney's Lane Pump Station construction underway*
 - *Installing rebar and concrete for lower level walls.*
- *Sewer Construction at Phinney's Lane underway*
 - *Working on Phinney's Lane proceeding north from Route 28.*
 - *Work in Route 28 scheduled to start in Spring 2023*
 - *Project completion anticipated Winter 2023*





Construction Updates Vineyard Wind Project



- Project on-schedule for completion this Spring
- On-going construction this fall:
 - Duct Bank and Water Main on Strawberry Hill Road
 - Construction at Covells Beach Parking Lot
 - Anticipated to be complete late Spring 2023
 - Testing and wire pulling along route
- Anticipated final paving schedule of disturbed roadways:
 - Spring 2023:
 - Strawberry Hill Road
 - Attucks Lane
 - Craigville Beach Road– Top Layer
 - Fall 2023:
 - Phinney's Lane
 - Wequaquet Lane



CWMP Project Updates

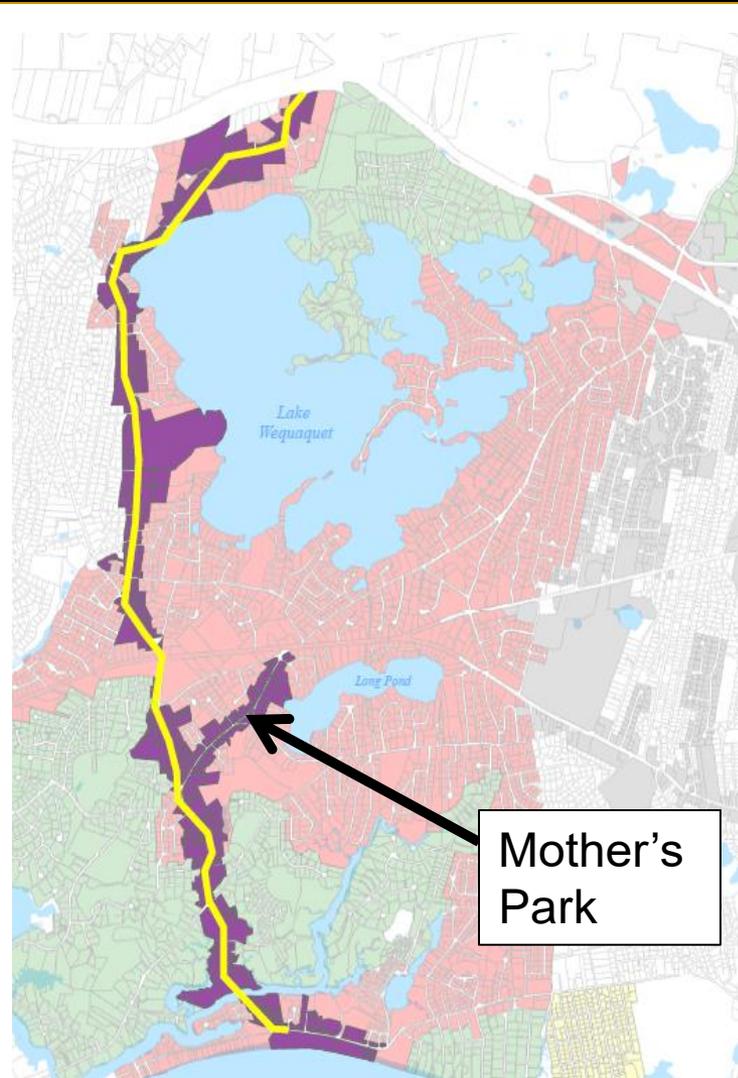
WPCF Projects



- *WPCF Updates*
 - *Nitrogen Removal and Headworks Improvements*
 - *Drafting RFP for Designer selection*
 - *Construction start anticipated for FY25*
 - *Effluent Disposal Evaluation*
 - *CDM Smith conducting refined modeling evaluation of identified options*
 - *Solids Processing Facility Upgrades*
 - *Construction on-going*
 - *WPCF Engineering Facility Study*
 - *Study on-going*



CWMP Project Updates Design Projects



- *Park City Wind Route Sewer Expansion*
 - *Designer retained (Stantec). Design on-going*
 - *DPW continues to meet w/ PCW staff weekly to coordinate design efforts.*
 - *DPW continues to coordinate w/ legal team re: pump station at Mother's Park Road and associated intersection improvements.*
 - *Sewer project anticipated to include 6 sewer pump stations (including Mother's Park Road).*
 - *Land acquisition anticipated to be necessary for 1-3 sites.*
 - *Construction start anticipated Fall/Winter 2023.*

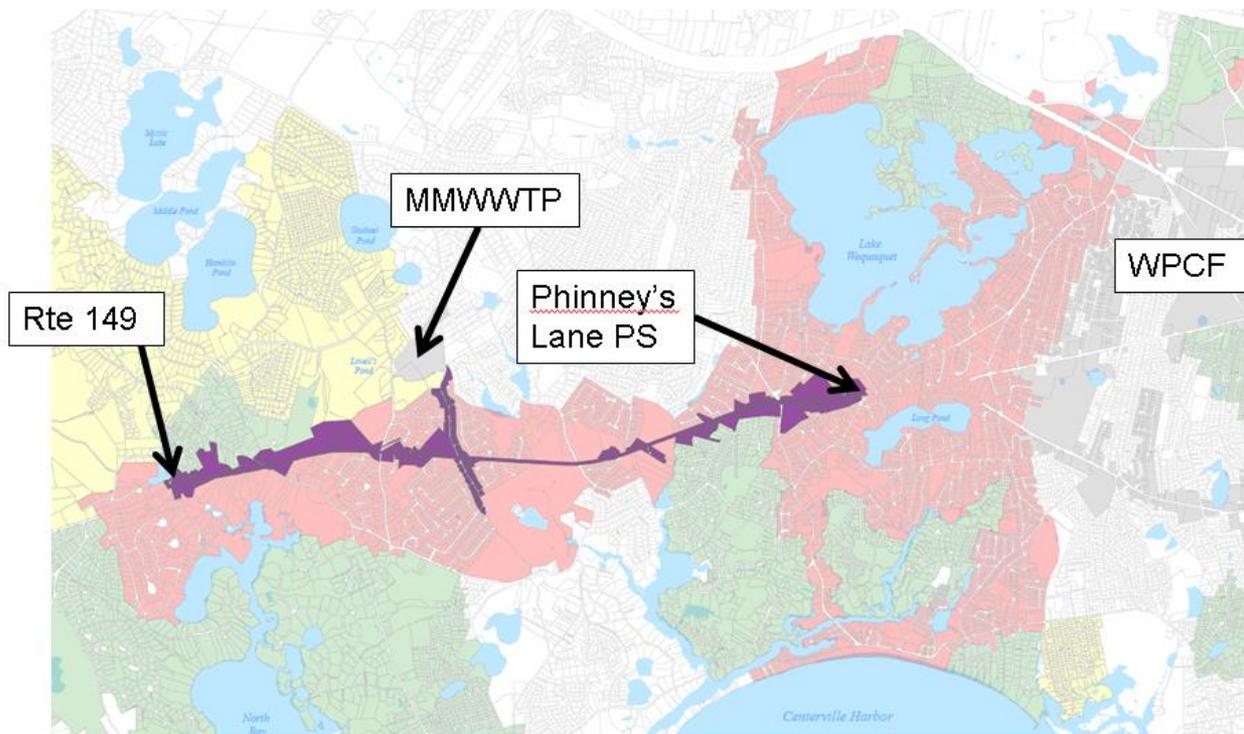


CWMP Project Updates

Design Projects



- *Route 28 “West” Sewer Expansion*
 - *Design contract awarded to Weston Sampson.*
 - *Construction scheduled to commence in FY2025 and be completed by FY2027*





CWMP Project Updates Design Projects



- *Phinney's Lane Sewer Expansion Project*
 - *Neighborhoods on east and west side of Phinney's Lane.*
 - *Preliminary design (in-house) nearing completion.*
 - *Legal work on-going regarding ±40 private roads in project area.*
 - *Construction anticipated to commence in FY25.*
- *Old Craigville Road, Old Yarmouth Road, and Shootflying Hill Road Projects*
 - *Preliminary design funding approved in FY23 CIP Budget.*
 - *Survey RFP has been issued. Responses due 1/11/23.*
- *Long Pond Sewer Expansion Project*
 - *Survey complete. Preliminary design (in-house) on-going.*
 - *Construction anticipated to commence in FY27.*



CWMP Project Updates Design Projects



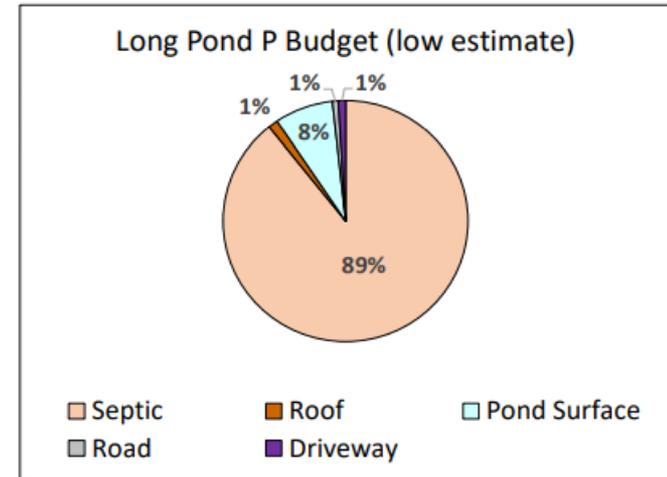
- *720 Main Street Pump Station Replacement*
 - *Project will construction new replacement pump station on Town property at 725 Main Street.*
 - *Project listed on 2022 CWSRF Intended Use Plan.*
 - *Conservation Commission hearing anticipated in January.*
 - *Public presentation anticipated first quarter of 2023.*
 - *Construction anticipated to commence in Fall, 2023.*



Ponds and Lakes Management Plans Updates



- **Long Pond Marston Mills**
 - Final Management Plan released in September.
 - Report can be found at <https://barnstablewaterresources.com/ponds-lakes/>
 - Public informational session held on November 29, 2022.
 - Report concluded that 89% of the phosphorus load into Long Pond is from septic systems.
 - Area in Phase 3 of CWMP.
 - DPW proposes conducting an experimental Floating Treatment Wetland pilot study.
 - DPW will continue to work with Friends of Long Pond MM to review opportunities and to monitor Long Pond for the purpose of adaptive management.





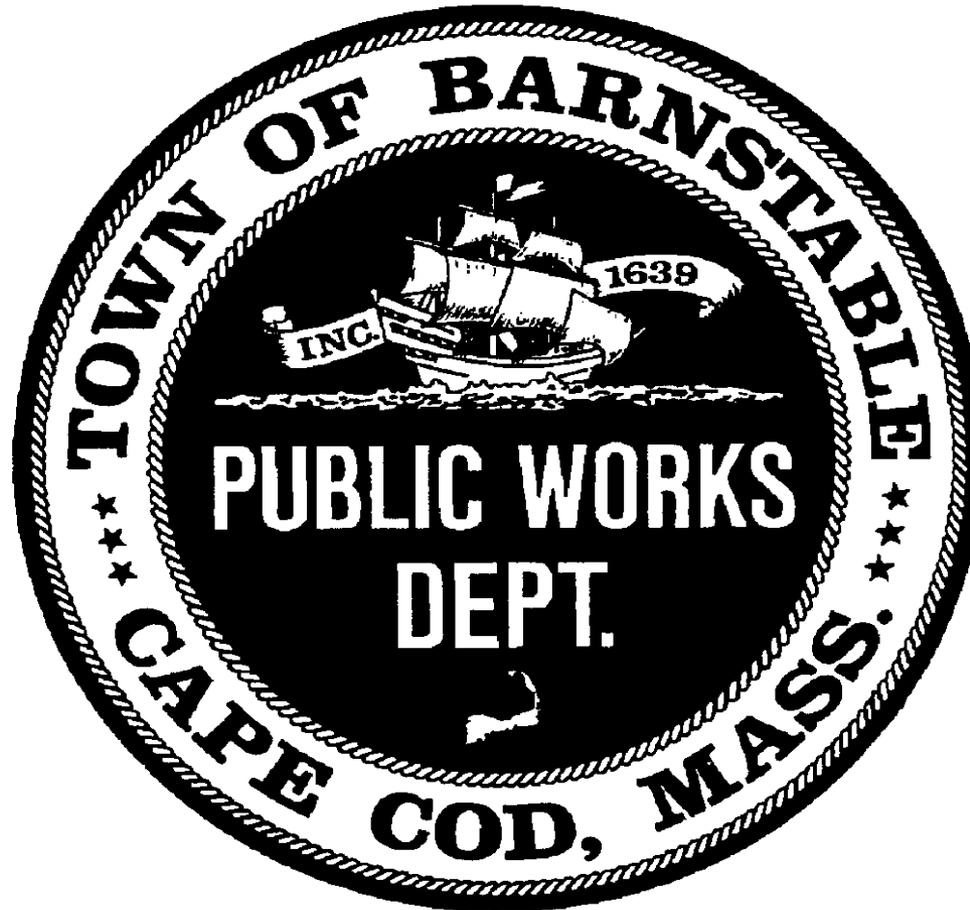
Ponds and Lakes Management Plans Updates



- ***Shubael Pond***
 - *Notice of Intent filed for alum treatment. Hearing in January, 2023.*
 - *Alum treatment anticipated to take place in Spring, 2023.*
 - *Design of Shubael Pond Road drainage outfall improvements on-going.*
- ***Lovell's Pond***
 - *Field work wrapping up*
 - *Management Plan anticipated in Fall of 2023.*

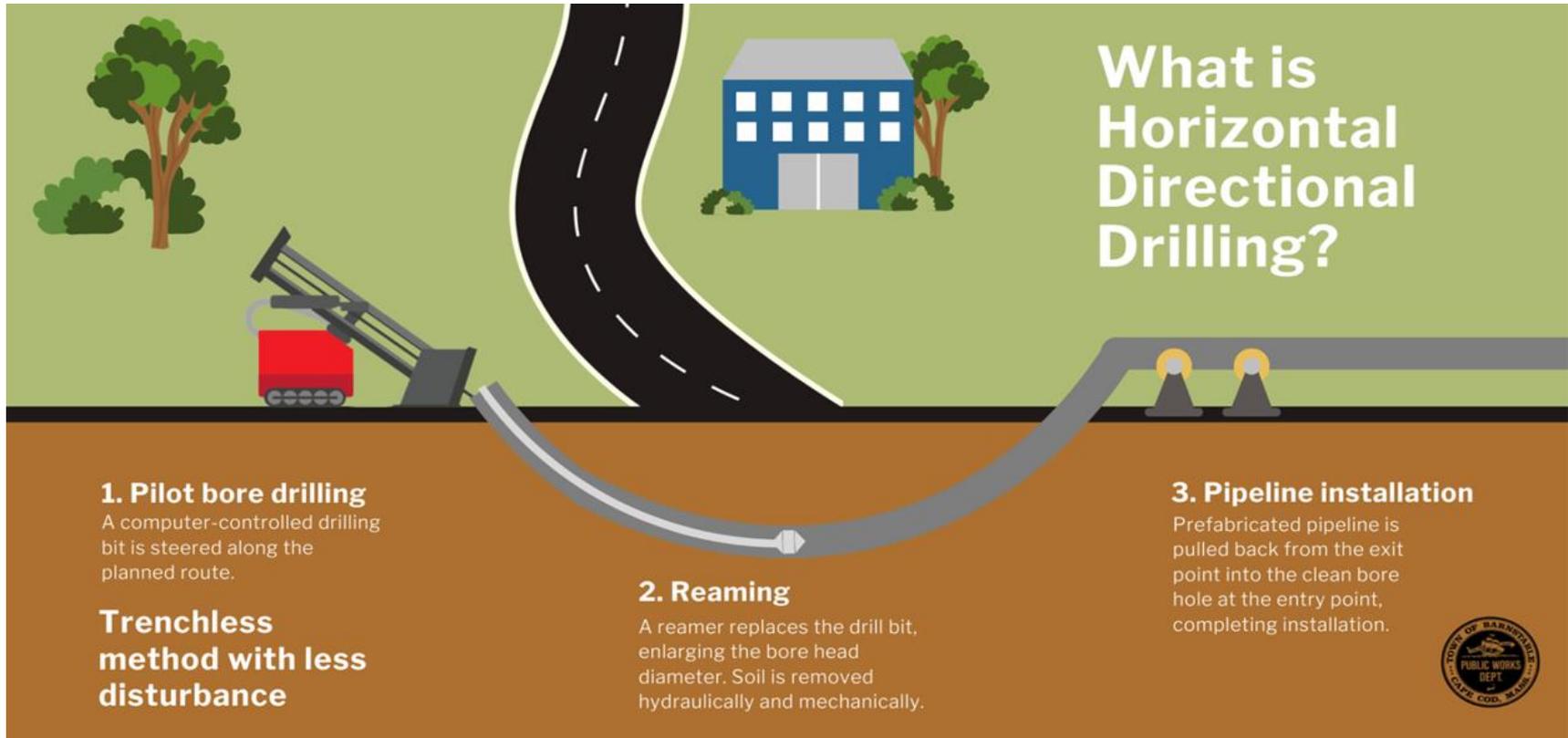


Discussion?





Horizontal Directional Drill





JBCC Update

Grant Scope Highlights



- **Develop Land-Based Disposal Options**
 - Work with EPA and DEP on:
 - Potential expansion of the existing DEP Groundwater Discharge Permit (GWDP) on-site
 - Expansion of the GWDP onto adjacent sites.
 - Work with MA Air National Guard on the extent to which additional land-based disposal capacity could be available
- **Develop Surface Water Disposal Options**
 - Conduct scientific studies such as sonde deployment, benthic studies, submerged aquatic vegetation studies, dye studies, fish habitat evaluation, hydrodynamic modeling, water balance/hydrologic evaluation, etc.
 - Coordinate with Buzzards Bay Coalition (BBC)
 - Identify technical information available from their Upper Bay Project outfall analysis
 - Identify technical concerns they have with the JBCC
 - Review results with EPA, DEP, CZM, ACOE, EMC, BBC, etc.
- **Identify Permittees for Effluent Disposal Permits**
 - Coordinate with EPA and DEP on potential permittee(s) for either a National Pollutant Discharge Elimination System (NPDES) permit or a DEP GWDP
- **Identify Long-Term Regulatory Permitting Strategy**
 - Outline long-term (20-year) regulatory permitting strategy
- **Develop Preliminary Nitrogen Balance**
 - Develop preliminary 'nitrogen balance'
 - Identify changes in the amount of wastewater-related nitrogen (positive and negative) that would enter Buzzards Bay and Cape Cod Bay based on the project for various discharge scenarios.
 - Identify effluent storage volume requirements for the alternative tidal discharge concepts.
- **Develop Capacity Thresholds Chart**
 - Outline key capacity thresholds as they relate to either permitting or capital expenditures

