



Water Resources Management Update

Barnstable Town Council

**Department of Public Works
February 16, 2023**

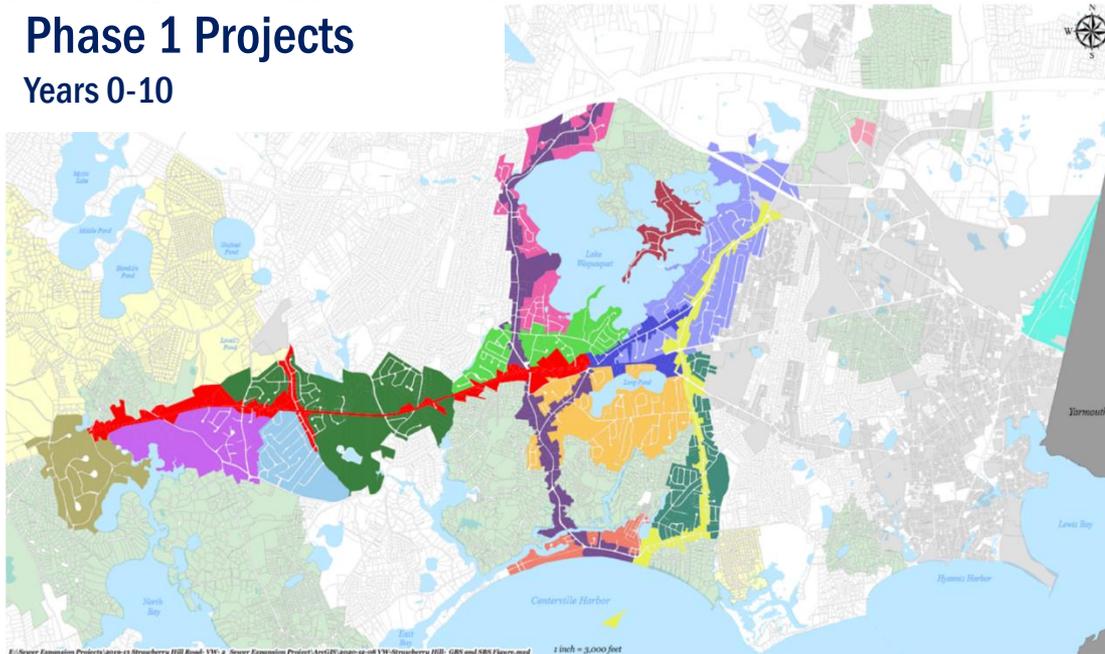


CWMP Construction Updates

Phase 1 Implementation Progress

Phase 1 Projects

Years 0-10



Key Milestones

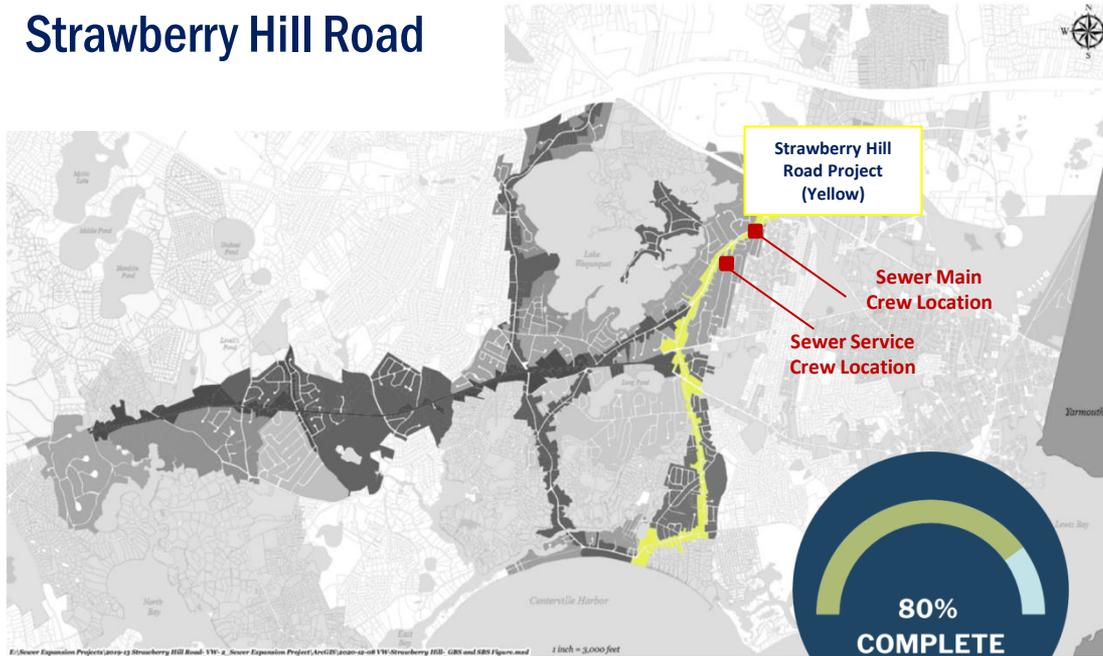
- Year 2 of 10
- Strawberry Hill Road Project, ~80% complete
- Route 28 East Project, ~15% complete
- Nitrogen addressed: Completion of these current construction projects will remove roughly 8% of the total nitrogen to be in Phase 1
- 53% of Phase 1 projects are actively in design or construction
- Centerville River Watershed treated by current Phase 1 projects



CWMP Phase 1 Implementation

Strawberry Hill Road Project

Strawberry Hill Road



**Project Status: On schedule
for completion Spring 2023**

Current construction:

- Sewer main installation advancing north of Old Strawberry Hill Road
- Sewer lateral installation continuing north of Huckins Neck Road, providing services to each parcel along the route
- Pump station at 528 Craigville Beach Road; installing valve structure

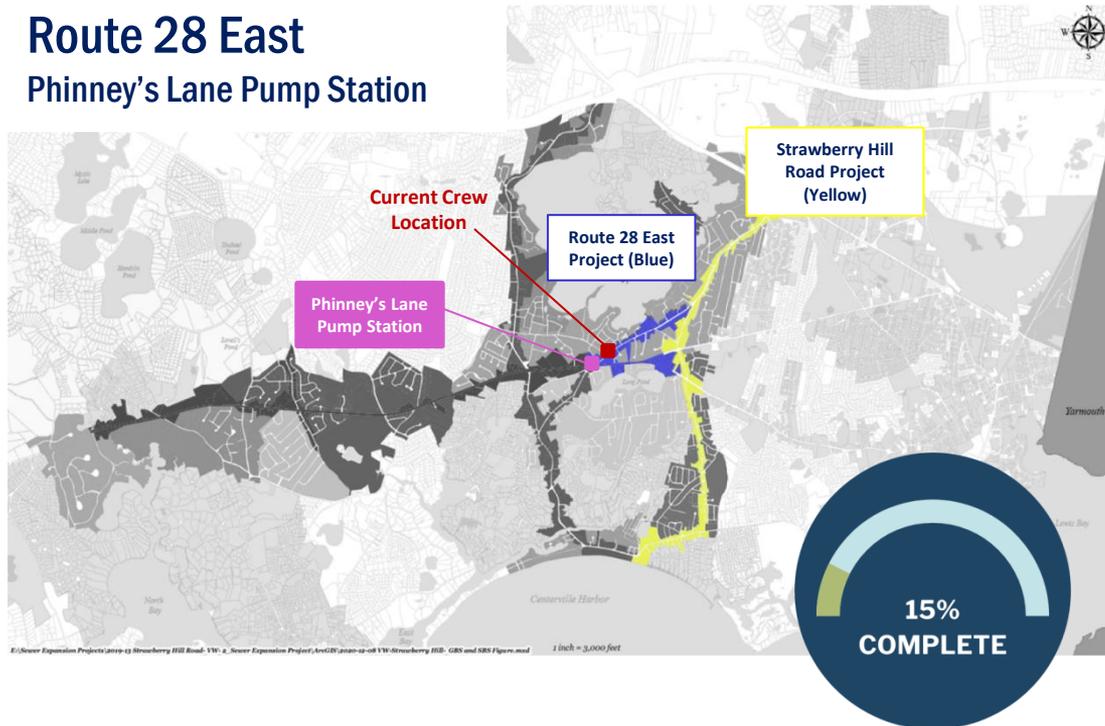
80%
COMPLETE



CWMP Phase 1 Implementation

Route 28 East Project

Route 28 East Phinney's Lane Pump Station



**Project Status: On schedule
for completion Winter 2023**

Current construction:

- Sewer installation progressing along the southern portion of Phinney's Lane, proceeding north from Great Marsh Road toward Pond Street
- Construction in Route 28 roadway anticipated to start late March 2023

Phinney's Lane Pump Station:

- Continuing concrete work for foundation and influent channel



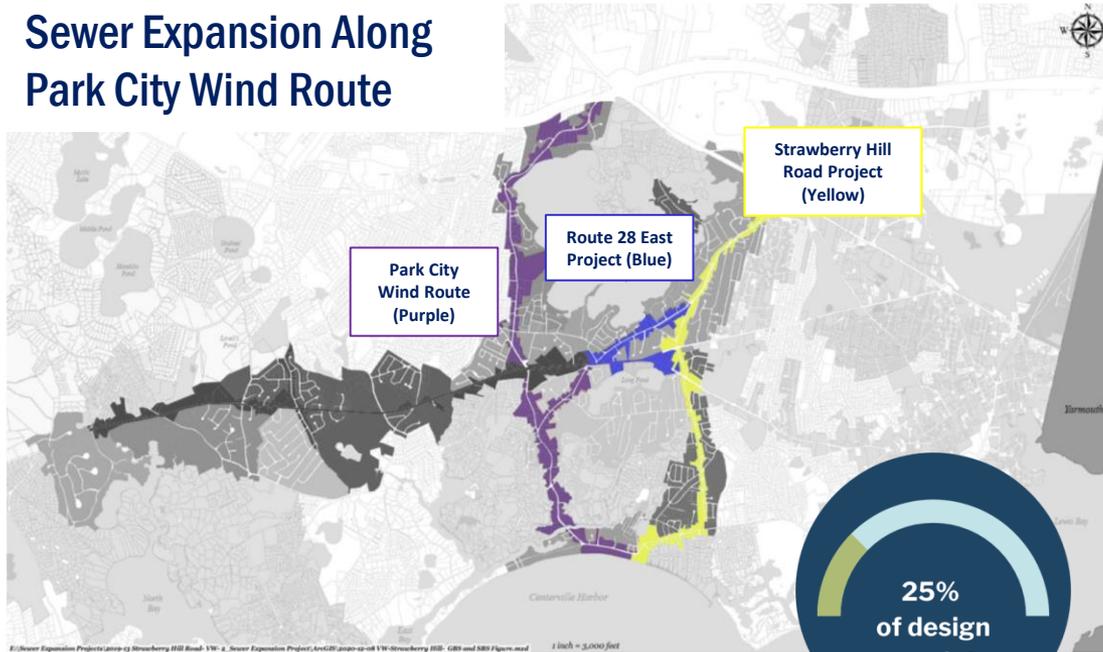
February 2023



CWMP Phase 1 Implementation

Park City Wind Project

Sewer Expansion Along Park City Wind Route



Construction anticipated to commence in Fall/Winter 2023

Sewer expansion along Park City Wind Project route:

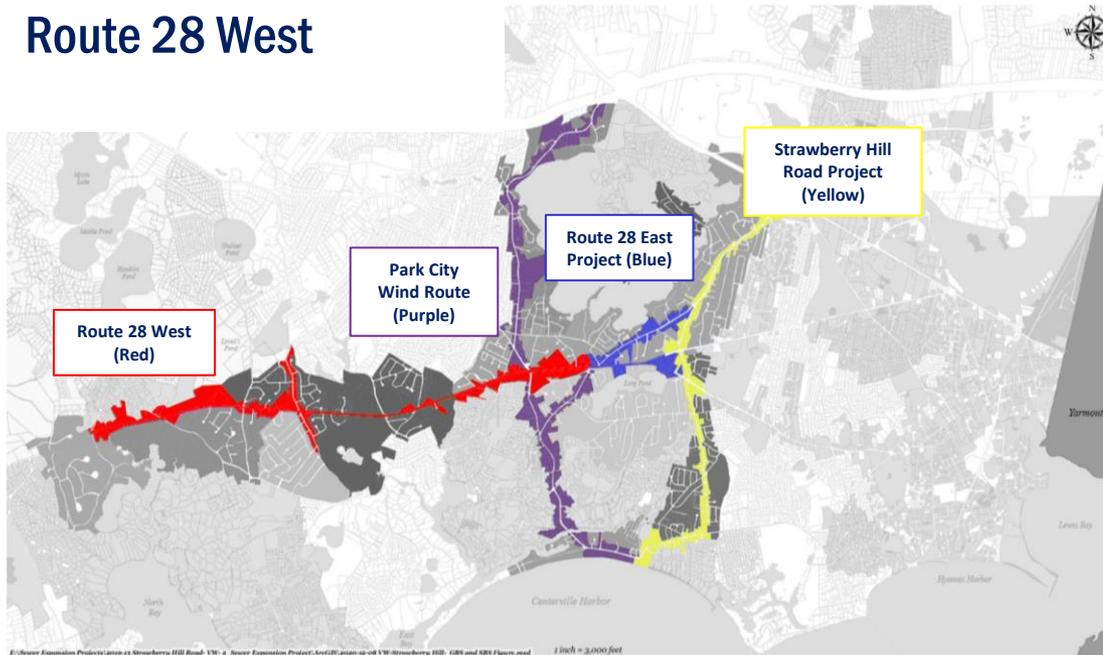
- Design coordination with PCW staff
- Continued coordination with legal team regarding pump station at Mother's Park Road and associated intersection improvements
 - Informational Meeting to be scheduled for early March
- Sewer project anticipated to include 6 sewer pump stations (including Mother's Park Road)
- Land acquisition anticipated to be necessary for 1-3 pump station sites



Phase 1 Implementation

Route 28 West Project

Route 28 West



Construction anticipated to commence in late 2025

Project status:

- Design contract awarded to Weston Sampson
- Survey work in progress

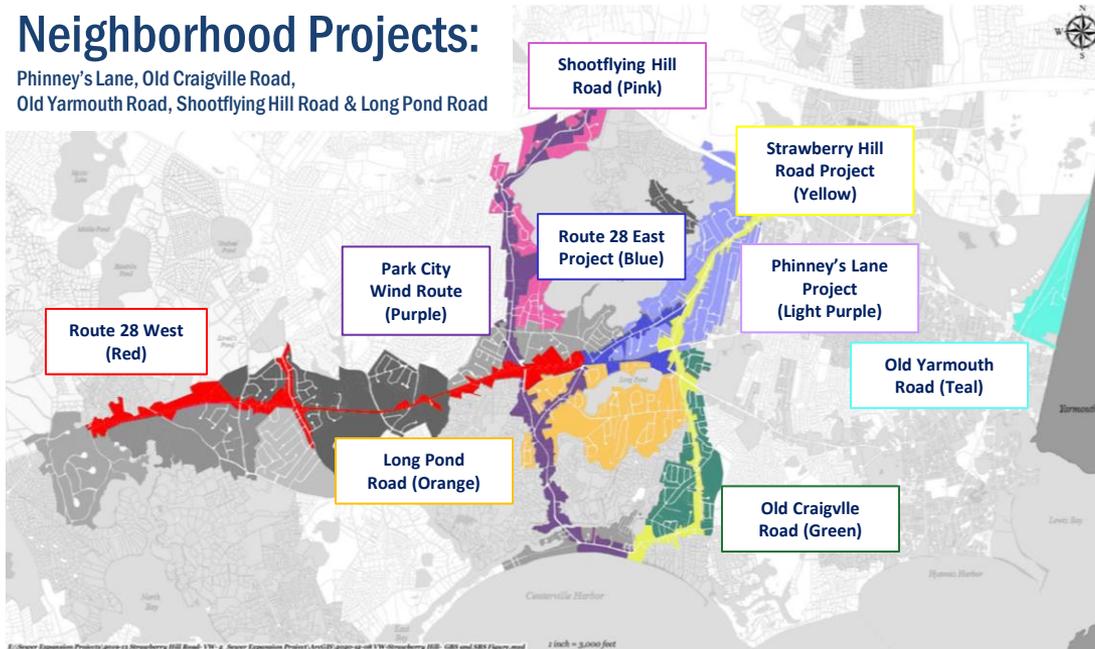


CWMP Phase 1 Implementation

Neighborhood Projects

Neighborhood Projects:

Phinney's Lane, Old Craigville Road,
Old Yarmouth Road, Shootflying Hill Road & Long Pond Road



© 2023 Sewer Expansion Project, map 03 Strawberry Hill Road, V10, © Sewer Expansion Project, map 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100. 1 inch = 3,000 feet

Current Survey & Design

Phinney's Lane Project:

- Neighborhoods on east and west side of Phinney's Lane
- Preliminary in-house design complete and undergoing internal review
- Water and sewer easement taking for ±40 private roads in project area; first 7 at this evening's Town Council

Old Craigville Road, Old Yarmouth Road & Shootflying Hill Road Projects

- Preliminary design funding approved in FY23 CIP Budget
- Survey RFP has been issued

Long Pond Road Project

- Survey complete
- Preliminary in-house design on-going
- Construction anticipated to commence in FY27



CWMP Phase 1 Implementation

Private Road Utility Easements

Sewer and Water Utility Easements

- First 7 private road takings presented at this evening's Town Council meeting
- In order to secure financing and ultimately construct sewer within these private roads, it is necessary that the Town take sewer and water utility easements over the roadway
- These easements grant the Town unobstructed access to install, operate and maintain the proposed utilities within the private roadway
- Does not change the status of the road, private roads will remain private
- DPW performed direct-mail outreach to identified property owners
- Most projects moving forward include private roads and will require these takings

Next Steps

- Further communication will be provided to residents as construction proceeds, currently scheduled for late 2025
- Expected to come before Town Council approximately every other month with these easement requests, as project design and construction evolves



Water Pollution Control Facility Projects

Nitrogen Removal and Headworks Improvements:

- Design RFP issues, responses due March 3, 2023
- Construction anticipated to start in FY25

Effluent Disposal Evaluation

- CDM Smith conducting refined modeling evaluation of identified options

Solids Processing Facility Upgrades

- Construction on-going
- Scheduled to be completed before end of calendar year

WPCF Engineering Facility Study

- Study on-going



CWMP Communications

Waze Partnership: Real-Time Traffic Management



Waze for Cities Partnership:

- Allows DPW to re-open and close roads in real-time resulting in more efficient traffic flow
- Integrates with Google Maps

Progress

- Successful early re-opening of closures, and extension of closures when needed, providing accurate alerts to motorists during rush-hour commutes
- Addition of Vineyard construction activities, providing complete road closures across all projects

Next Steps

- Waze Live Map embed on Barnstable Water Resources website
- Leverage Waze for Cities Data to make relevant traffic and infrastructure decisions
- Develop use case for crisis event support (i.e. natural disasters and severe weather)



Existing Sewer Infrastructure Improvements

720 Main Street Pump Station Replacement

Project Status:

- Existing 720 Main Street Pump Station does not have the capacity to handle peak design flows and is at the final stage of its intended design life
- Sewers on South Street are approaching capacity; if unaddressed, would restrict growth within the Downtown Hyannis Growth Incentive Zone (GIZ)
- Infrastructure improvement project scope includes construction of new replacement pump station located on Town property at 725 Main Street
- Project listed on 2022 CWSRF Intended Use Plan
- Conservation Commission approved project at January 10, 2023 hearing
- Construction anticipated to start in Fall 2023

Public Meeting:

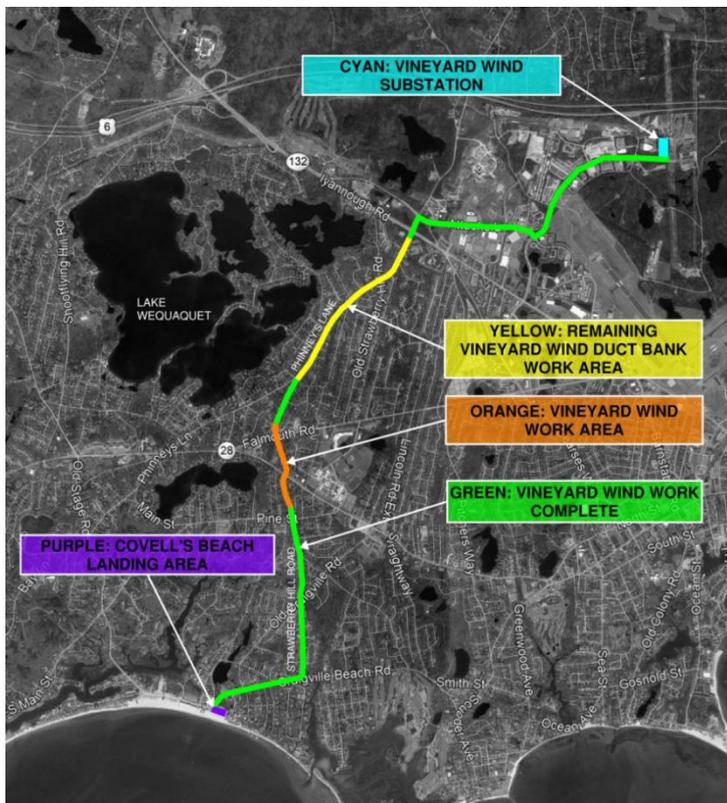
- Public presentation of project and proposed designs presented at February 15, 2023 Informational Meeting
- Public feedback received through Friday, March 3, 2023 via email to Kelly.Collopy@town.barnstable.ma.us



Looking South from Main Street



Vineyard Wind Project



Project Status: On schedule for completion Spring 2023

On-going construction:

- Duct bank installation at intersection of Route 28 and Strawberry Hill Road during February school vacation week, with request for Saturday work
 - A portion of this work will require a detour around the construction zone, please follow posted detour signage
- Construction at Covell's Beach parking lot continues
- Testing and electrical cable pulling along route, second offshore cable pull complete

Anticipated final paving schedule of disturbed roadways:

- Spring 2023:
 - Attucks Lane
 - Craigville Beach Road – Top course
 - Strawberry Hill Road
- Fall 2023:
 - Phinney's Lane
 - Wequaquet Lane





Questions or Feedback?