

Barnstable Town Council

Update on Wastewater Efforts In Barnstable

Department of Public Works
April 15, 2021



Update Since March



- *CWMP*
 - *Cape Cod Commission: Request for 208 Consistency Review Submitted – Response pending*
- *SRF 2021 Intended Use Plan Released*
 - *Route 28 East Sewer Expansion*
 - *Sewer Pump Station Rehabilitation*
- *Route 28 / Yarmouth Road - MassDOT*
 - *Sewer and water infrastructure to be installed as part of project.*
 - *Received SRF extension for project due to MassDOT anticipated bid schedule (late spring/early summer)*
- *JBCC*
 - *Negotiations progressing*
- *Mothers Park*
 - *Legal Continuing work on road ownership issues*



Update Since March



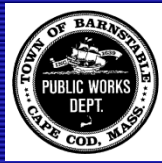
- *Projects*
 - *Strawberry Hill Road Project*
 - *Bidding end of month*
 - *Continuing coordination with Vineyard Wind*
 - *Anticipating Fall construction start*
 - *Rte 28 East (pump station & sewer at Phinney's Lane and 28)*
 - *Listed on 2021 SRF Intended Use Plan*
 - *Anticipate appropriation request for construction in June (required before end of fiscal year)*
 - *Preliminary Design continues*
 - *Spring 2022 Construction Start Target*
 - *Long Pond, Phinney Lane, and Rt 28 to Rt 149 surveys*
 - *Drafts being reviewed by Town surveyor*
 - *Next Steps – Commence preliminary design effort (in-house)*



Other Wastewater Projects



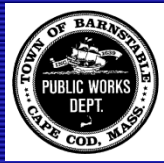
- *Projects*
 - *Rendezvous Lane Pump Station*
 - *Construction continues*
 - *Solids Handling Rehabilitation*
 - *Bids due May 5*
 - *Pump Station Improvement Program*
 - *Bids due April 21*
 - *Bearses Way Vacuum Sewer Decommissioning & Shared Use Path*
 - *75% design submitted to MassDOT*



CWMP & the Water Pollution Control Facility



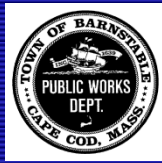
- *WPCF permitted via DEP Groundwater Discharge Permit*
 - *4.2 MGD*
 - *Requires submission of CWMP by 12/31/2021*
 - *With permit renewal application (2023), DEP requires an engineering report prepared by a professional engineering to evaluate and identify any upgrades or modifications required within Phase 1*



CWMP & the Water Pollution Control Facility



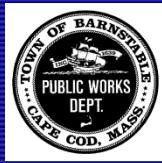
- *CWMP identifies necessary improvements to the WPCF in order to execute the program.*
 - *Section 2.2.2.1: Completed projects*
 - *Section 5.3.1: Anticipated Upgrades*
 - *Table 6-3: Capital Plan for Phase 1 Upgrades*
 - *Projects are included in the total cost of the program*



CWMP & the Water Pollution Control Facility



- *Projects Completed Since Needs Assessment Report*
 - *Underground Storage Tank Removal*
 - *Renewable Energy Facility Construction (solar and wind)*
 - *Effluent Disposal Modeling*
 - *Solids Processing Evaluation*
 - *Biowin Modeling*
 - *Clarifier Rehabilitation*
 - *Standby Generator Installation*
 - *Effluent Flow Metering Installation*



CWMP & the Water Pollution Control Facility



- *Anticipated BWPCF Upgrades*
 - *Solids Processing Facility Rehabilitation and Upgrades (currently out to bid)*
 - *Aeration Tanks/Systems upgrades*
 - *Nutrient Removal Technologies*
 - *Headworks Facility Upgrades*
 - *Backup Power Upgrades*
 - *Secondary Clarifier Upgrades*
 - *Effluent Disposal*



CWMP & the Water Pollution Control Facility



Table 6-3 of CWMP outlines the Capital Plan for Phase 1 Upgrades to the Facility

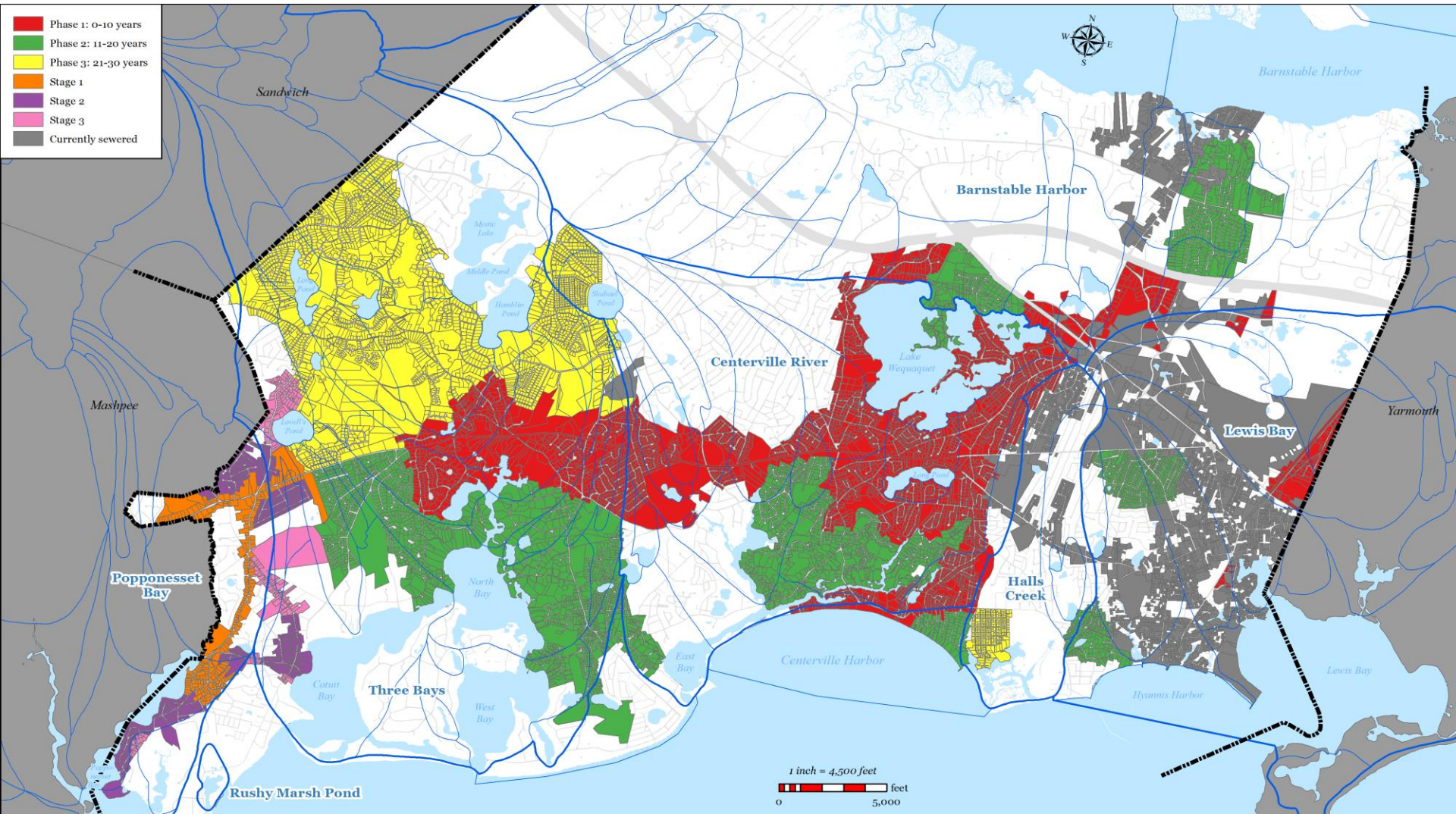
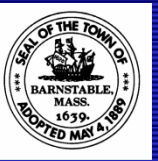
Table 6-3: Phase 1 Treatment Plant Upgrades CIP Schedule

WPCF Sewer Expansion Related Upgrades - Phase 1															
				Phase 1											
Project	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	TOTAL
Aeration Upgrades			\$200,000	\$200,000		\$5,500,000									\$5,900,000
Effluent Flow Meter (Permit Requirement)		\$600,000													\$600,000
Denitrification		\$15,000		\$200,000		\$2,000,000		\$18,000,000							\$20,215,000
BWPCF Effluent Disposal Capacity	\$195,000														\$195,000
Effluent Disposal Location	\$150,000			\$1,000,000		\$3,500,000			\$35,000,000						\$39,650,000
Future Pipes for Potential Yarmouth Connection		\$1,300,000													\$1,300,000
Secondary Clarifier Upgrades											\$300,000		\$800,000	\$800,000	\$1,900,000
Solids Handling Rehabilitation			\$8,500,000												\$8,500,000
Infiltration and Inflow (I/I) Program		\$380,000			\$600,000										\$980,000
Pump Station Rehabilitation Program		\$1,160,000	\$1,200,000	\$2,200,000	\$650,000	\$350,000	\$1,200,000	\$1,200,000	\$1,300,000	\$1,400,000	\$1,500,000	\$1,600,000	\$1,700,000	\$1,800,000	\$17,260,000
BWPCF Facility Study (Permit Requirement)				\$250,000											\$250,000
Headworks Modifications					\$350,000		\$5,000,000								\$5,350,000
Main Switch B Generator						\$550,000									\$550,000
TOTAL COSTS - WPCF UPGRADES - CWMP	\$345,000	\$1,915,000	\$200,000	\$1,400,000	\$0	\$11,000,000	\$0	\$18,000,000	\$35,000,000	\$0	\$300,000	\$0	\$800,000	\$800,000	\$69,760,000
TOTAL COSTS - WPCF UPGRADES- Enterprise	\$0	\$1,540,000	\$9,700,000	\$2,450,000	\$1,600,000	\$900,000	\$6,200,000	\$1,200,000	\$1,300,000	\$1,400,000	\$1,500,000	\$1,600,000	\$1,700,000	\$1,800,000	\$32,890,000
TOTAL COSTS - WPCF UPGRADES- CWMP + Enterprise	\$345,000	\$3,455,000	\$9,900,000	\$3,850,000	\$1,600,000	\$11,900,000	\$6,200,000	\$19,200,000	\$36,300,000	\$1,400,000	\$1,800,000	\$1,600,000	\$2,500,000	\$2,600,000	\$102,650,000

Legend	
Evaluation and/or Preliminary Design	
Final Design	
Construction	
Currently Funded Project	\$400,000
Currently Unfunded Project	\$500,000

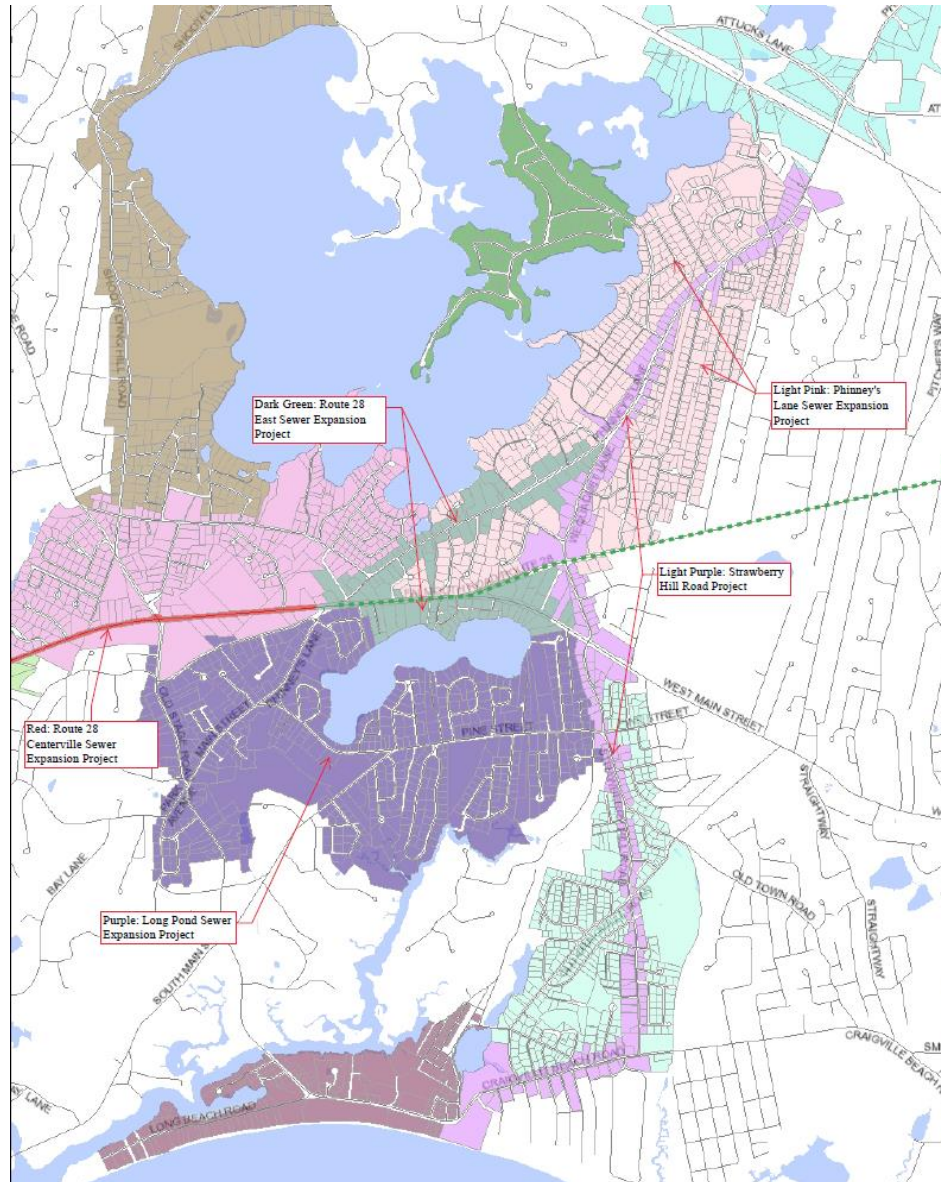


Phasing Plan



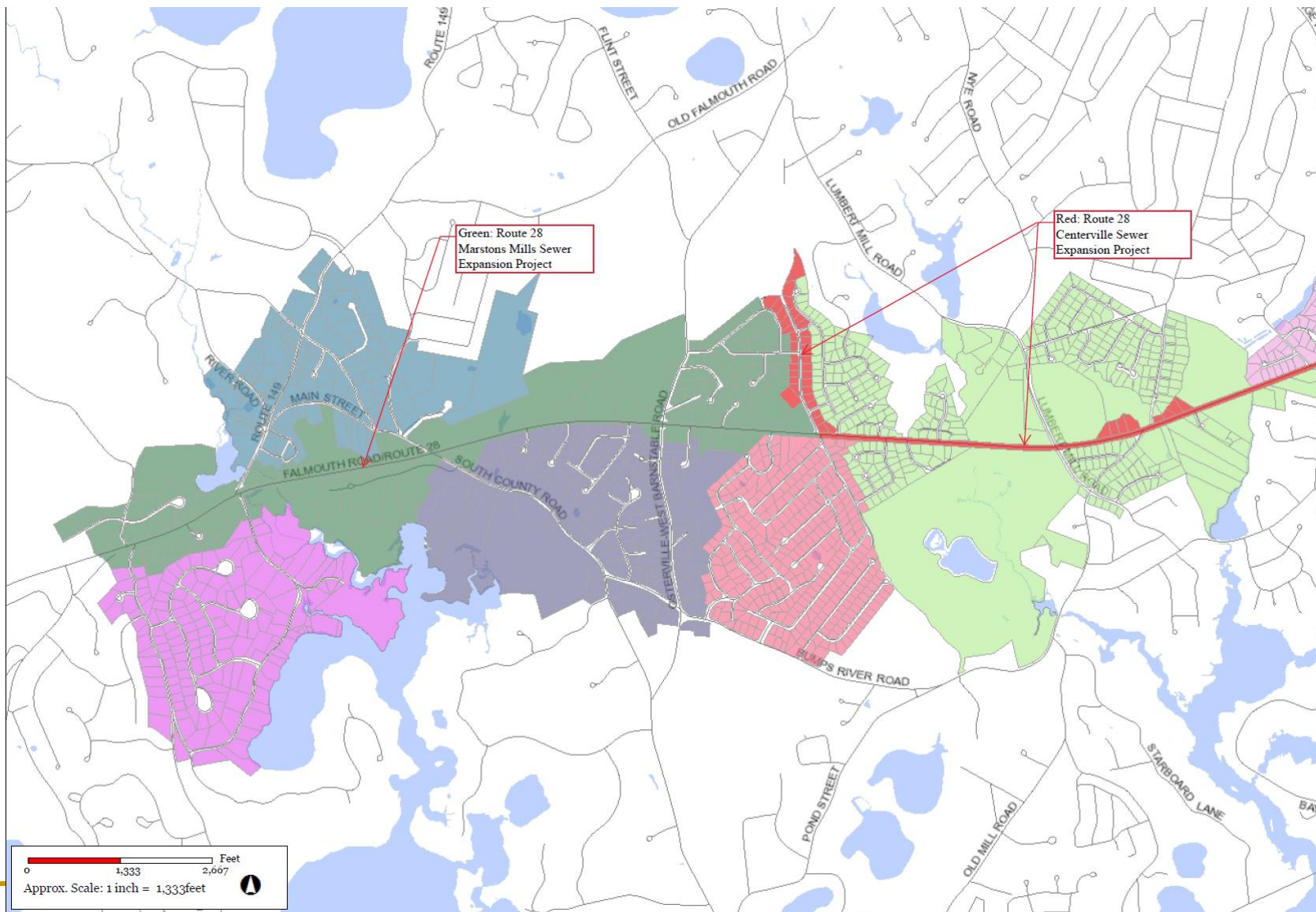
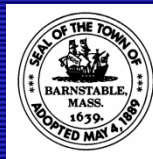


Phase I Projects - East





Phase I Projects - West





Discussion?

