



Barnstable Town Council

Update on Wastewater Efforts In Barnstable

Department of Public Works
January 21, 2021

Town of Barnstable, Department of Public Works

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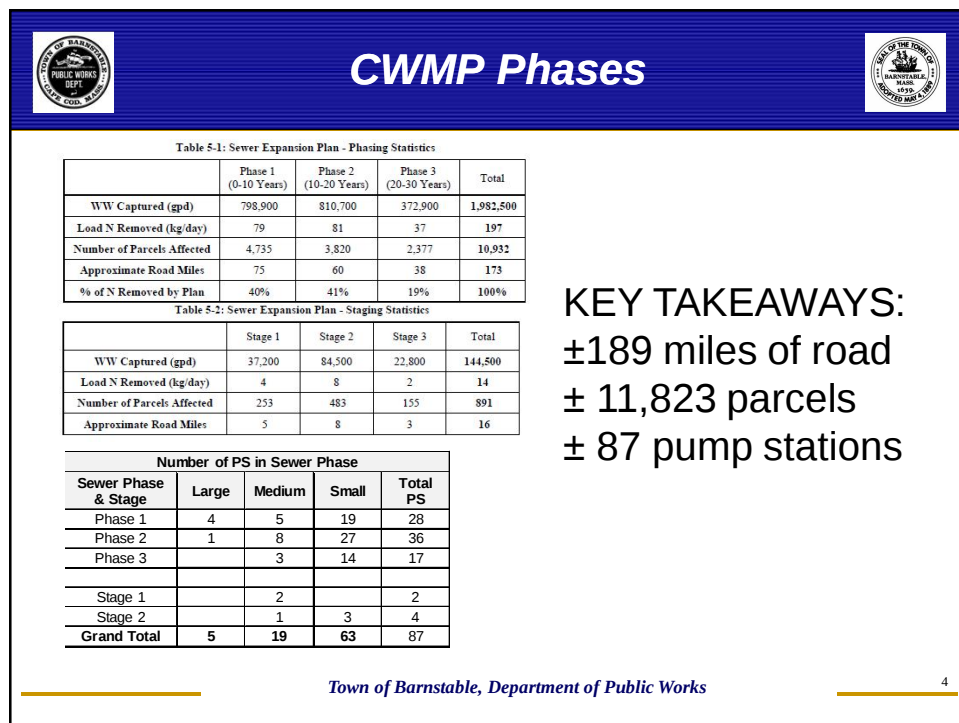
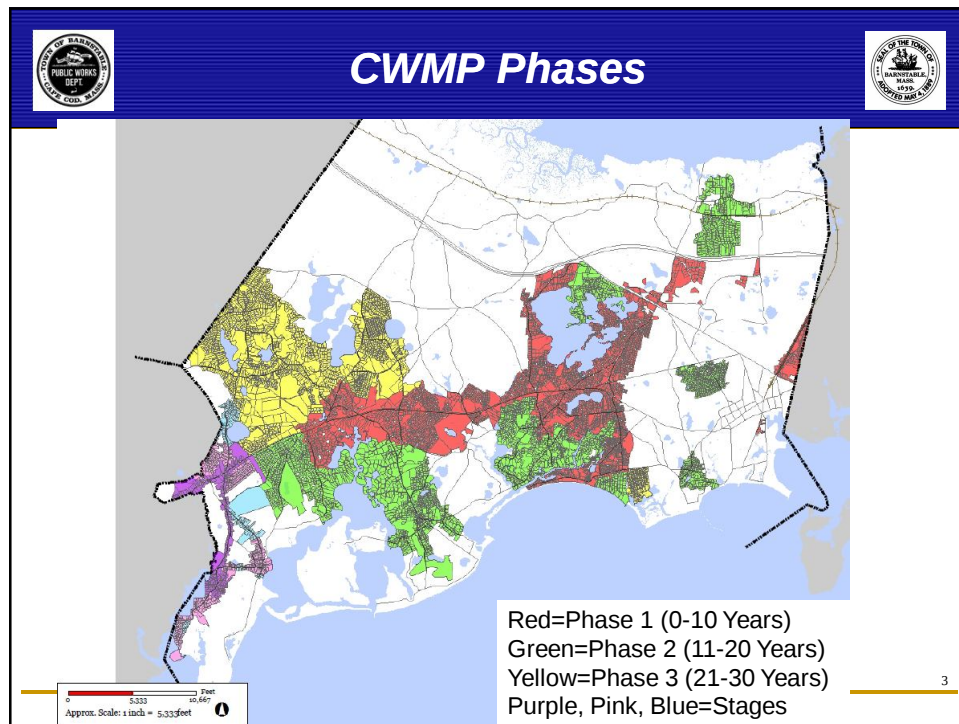
Update Since December

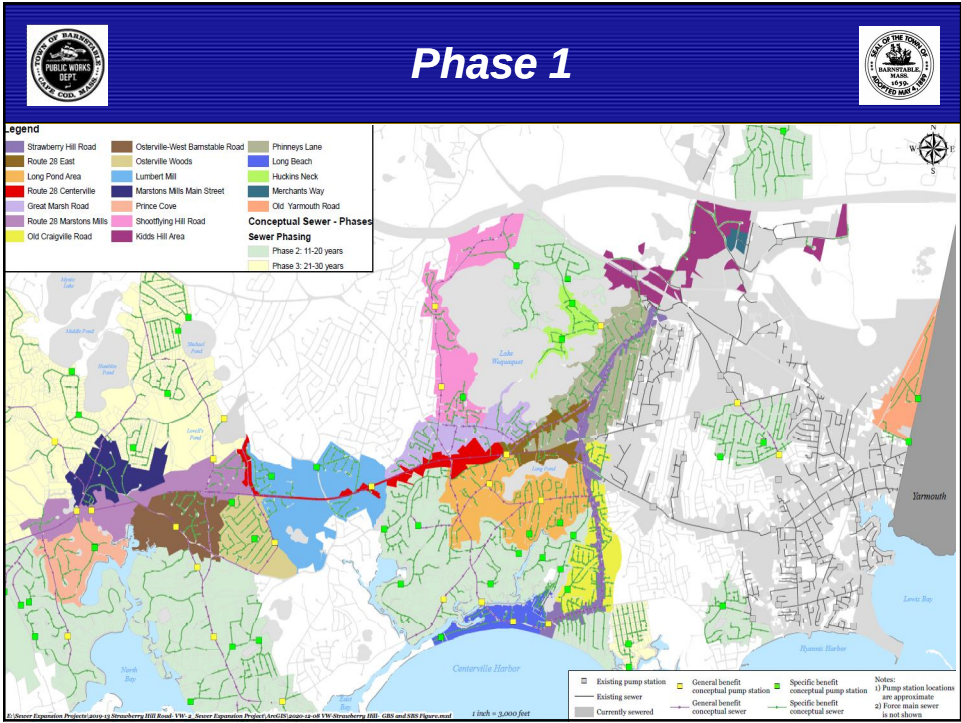


- ***Comprehensive Wastewater Management Plan and Environmental Impact Report approved by MEPA***
 - *Certificate from Secretary of Energy and Environmental Affairs states that the Plan “adequately and properly complies with the Mass. Environmental Policy Act and its implementing regulations”.*
 - *Next/final step: Petition Cape Cod Commission for 208 Consistency Determination.*
 - *Download document at:*
https://www.townofbarnstable.us/WaterResources/CWMP_Final.asp

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Phase 1

Table 6-1: Phase 1 Traditional Project Statistics

Project	Number of Parcels	Wastewater Captured (gpd)	Total N Removed (kg/day)	% of Total N Removed in Phase 1	Watershed ¹
Merchants Way ²	7	0	0.0	0.0%	BH
Strawberry Hill Road	237	46,467	4.6	5.8%	CR
Route 28 East	120	19,102	1.9	2.4%	CR
Old Yarmouth Road	131	22,603	2.2	2.8%	LB
Phinneys Lane	591	85,138	8.5	10.7%	CR & HC
Long Beach	203	37,647	3.7	4.7%	CR & UN
Route 28 Centerville	80	36,324	3.6	4.5%	CR
Huckins Neck	148	21,506	2.1	2.6%	CR
Long Pond Area	606	114,599	11.4	14.4%	CR
Great Marsh Road	378	51,355	5.1	6.4%	CR
Old Craigville Road	441	49,234	4.9	6.2%	CR & HC
Route 28 Marston Mills	161	36,429	3.6	4.5%	3B
Osterville Woods	331	60,719	6.0	7.6%	CR & 3B
Shooting Hill Road	383	57,583	5.7	7.2%	CR & BH
Lumbert Mill	350	50,374	5.0	6.3%	CR
Osterville-West Barnstable Road	154	32,787	3.3	4.2%	3B
Main Street Marston Mills	144	24,123	2.4	3.0%	3B
Prince Cove	158	32,972	3.3	4.2%	3B
Kidds Hill Area	97	18,354	1.8	2.3%	BH
Unassigned	14	1,613	0.2	0.3%	LB
Total	4,734	798,929	79.3	100.0% ³	

Number of PS in Phase 1 Sewer Projects

Sewer Project	Large	Medium	Small	Total PS
1 Strawberry Hill Road		1		1
2 Route 28 East	1			1
3 Long Pond Area		1	3	4
4 Route 28 Centerville	1			1
5 Great Marsh Road				
6 Route 28 Marston Mills	1		2	3
7 Old Craigville Road			1	1
8 Empty				
9 Osterville-West Barnstable Road			1	1
10 Osterville Woods	1		2	3
11 Lumbert Mill			2	2
12 Marston Mills Main Street				
13 Prince Cove			1	1
14 Shooting Hill Road		1	2	3
15 Kidds Hill Area				
16 Phinneys Lane			1	1
17 Long Beach		1	1	2
18 Huckins Neck			2	2
19 Merchants Way				
20 Old Yarmouth Road		1	1	2
Grand Total	4	5	19	28

Footnotes:

- ¹ BH=Barnstable Harbor, CR=Centerville River, LB=Levi's Bay, HC=Halls Creek, 3B=Three Bays, UN=Undeveloped
- ² Parcel to be served by this project are currently undeveloped.
- ³ Phase 1 is 40% of the Plan.

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Phase 1 Schedule

Sewer Expansion Collection System Projects - Phase 1

Phase 1															TOTAL
Project	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	
Merchants Way															\$0
Strawberry Hill Road															\$13,555,000
Route 28 East															\$14,540,000
Long Beach															\$0,000,000
Phinney's Lane															\$22,590,000
Old Yarmouth Road															\$7,970,000
Route 28 Centerville															\$11,100,000
Long Pond Area															\$33,445,000
Old Craigville Road															\$19,090,000
Great Marsh Road															\$15,100,000
Route 28 Marston Mills															\$17,745,000
Osterville Woods															\$16,830,000
Hickman Neck															\$0,825,000
Londert Mill															\$13,305,000
Shoutfing Hill Road															\$21,680,000
Osterville-West Barnstable Road & South County Road															\$9,975,000
Marston Mills Main Street															\$7,360,000
Prince Cove															\$8,870,000
Attucks Lane / Kinds Hill Area															\$7,670,000
NEW PARCELS CONNECTED	0	7	0	0	237	120	263	722	80	0	1,425	637	887	399	4,717
COMBINED FLOW (GPD)	1,670,000	1,670,000	1,670,000	1,670,000	1,716,000	1,735,000	1,773,000	1,881,000	1,917,000	1,917,000	2,132,000	2,250,000	2,381,000	2,466,000	796,000
Legend															
Evaluation and/or Preliminary Design															
Final Design															
Construction															
Currently Funded Project															
Currently Unfunded Project															

Note: All Costs are in 2020 Dollars

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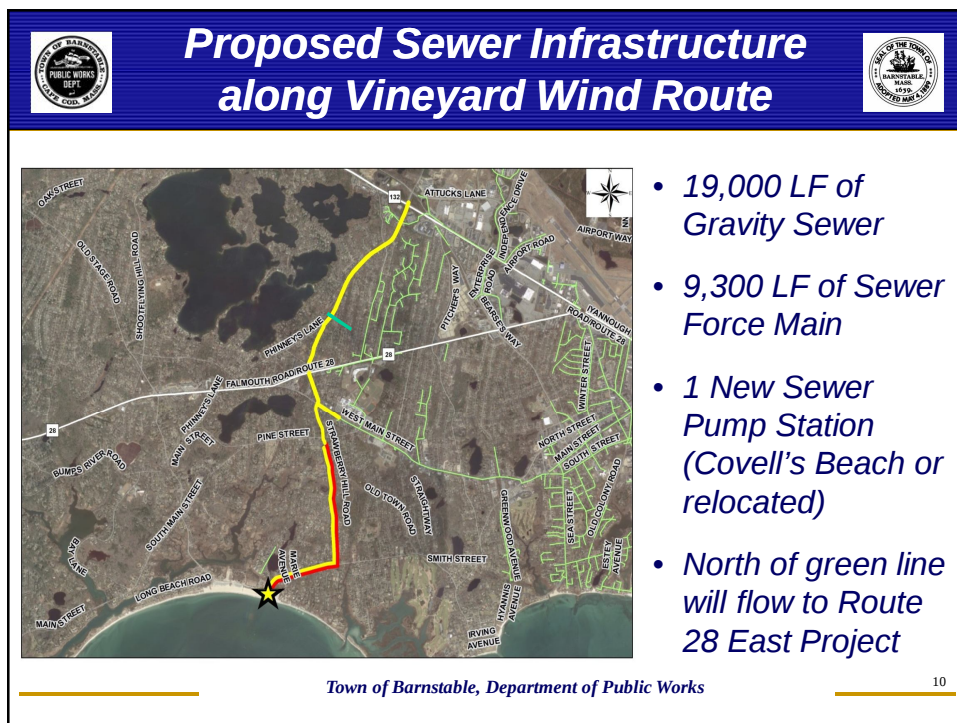
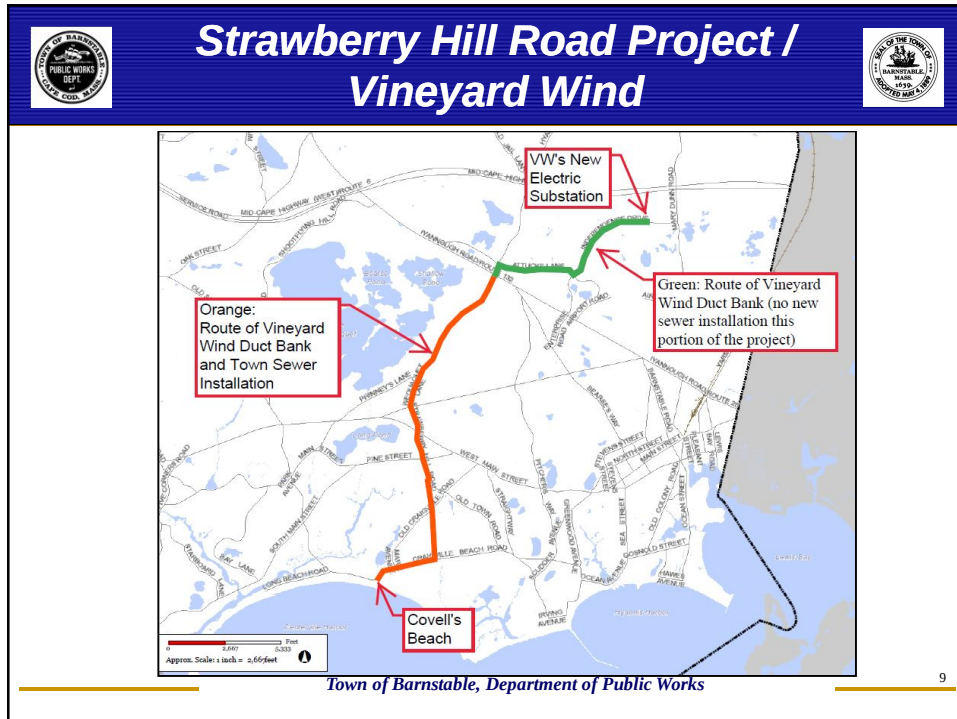
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Active Projects

- *Strawberry Hill Road Sewer Expansion*
- *Route 28 East Sewer Expansion*
- *Phinney's Lane Sewer Expansion*
- *Long Pond Sewer Expansion (includes Mother's Park)*
- *Route 28 Centerville Sewer Expansion (includes MMWWTF)*
- *MassDOT - Route 28 / Yarmouth Road Intersection*
- *Cape Cod Five Pump Station*
- *10 Hyannis Avenue Sewer Extension*
- *Solids Handling Facility Upgrade*
- *Effluent Disposal Studies*
- *Denitrification Improvements*
- *Inter-municipal Update (JBCC, Sandwich, Yarmouth)*

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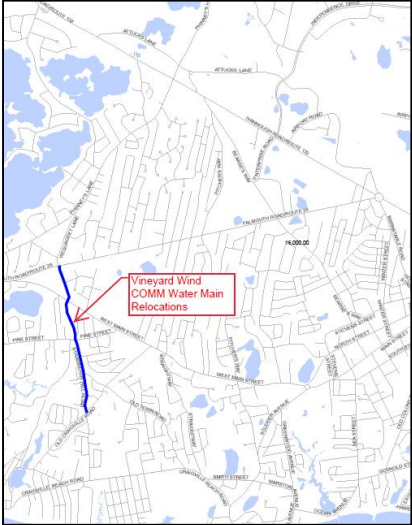
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VW Construction Schedule Spring 2021





- **Vineyard Wind**
 - Relocate about 5,200 LF of COMM Water Main on Strawberry Hill Road from Rte 28 to Old Craigville Road.
 - Start drainage system relocations along route (various locations)
 - Possibly start work at Covell's Beach and in Independence Park
- **Barnstable Sewer**
 - No construction anticipated
 - Award contract
 - Project kickoff, submittal review, etc.

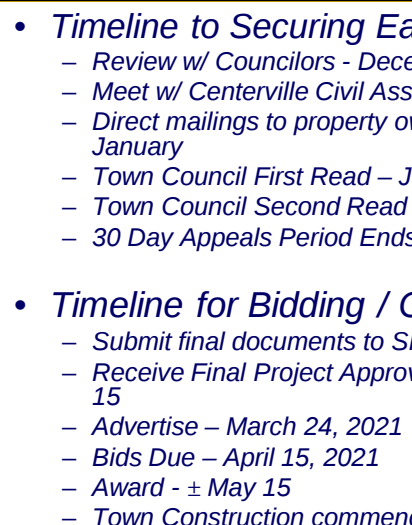
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Proposed Timeline – Strawberry Hill Road Pump Station





- **Timeline to Securing Easement**
 - Review w/ Councilors - December 21, 2020
 - Meet w/ Centerville Civil Association – Anticipate 1st week in January
 - Direct mailings to property owners w/in 400' – Anticipate 1st week in January
 - Town Council First Read – January 21, 2021
 - Town Council Second Read - February 4, 2021
 - 30 Day Appeals Period Ends / Taking Recorded – March 8, 2021
- **Timeline for Bidding / Construction**
 - Submit final documents to SRF - ± February 5, 2021
 - Receive Final Project Approval Certificate from SRF - ± Week of March 15
 - Advertise – March 24, 2021
 - Bids Due – April 15, 2021
 - Award - ± May 15
 - Town Construction commences Summer/Fall

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CWMP Civic Engagement



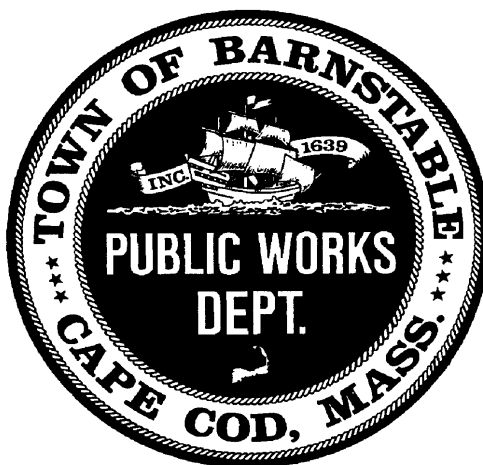
- *Ridley Associates – Harwich*
- *Carole Ridley, Principal*
- *Develop Strategic Communications Plan*
 - *Evaluation*
 - *Stakeholder Assessment*
 - *Messaging*
 - *Methods, strategies, timelines*
 - *Implementation*

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Discussion?



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Strawberry Hill Road Project - Why Should the Pump Station be Relocated?



- *To install sewer at Covell's Beach requires very deep excavation depths (up to 30' deep) in Craigville Beach Road.*
 - *In 15'+ of groundwater.*
 - *Extremely disruptive, slow and costly*
 - *Long-term maintenance issues*
 - *Infiltration and inflow into the system (groundwater entering system)*
- *A pump station at the intersection of Craigville Beach Road and Strawberry Hill Road significantly reduces excavation depths to around ±10' deep.*
- *Pump Station at Covell's Beach has been designed to be raised above the flood elevation by bringing in fill and creating a hill for the station to be sited on --- Alternate sites are above the flood elevation*
- *Savings = Estimated to be ±\$500K*

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Strawberry Hill Road Project Pump Station @ 528 SHR



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Similar Pump Station in Lexington, MA





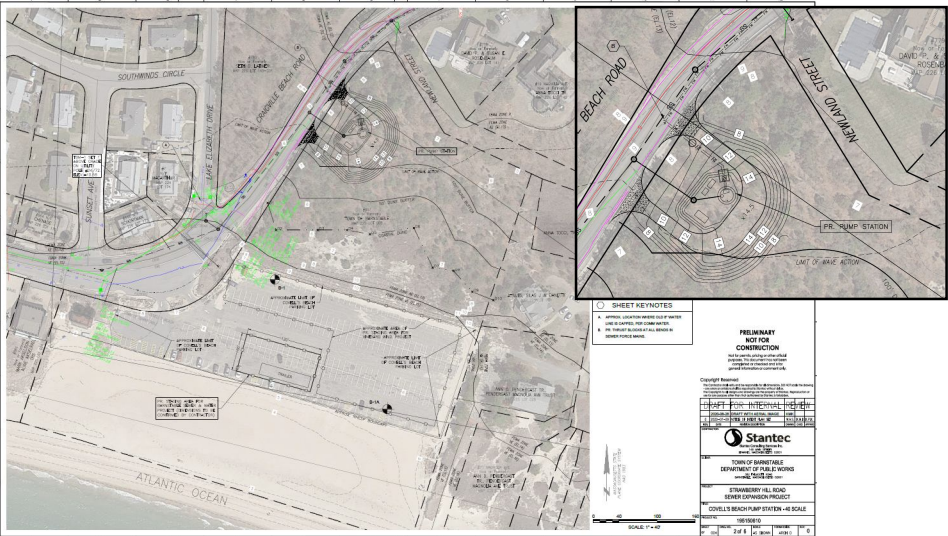
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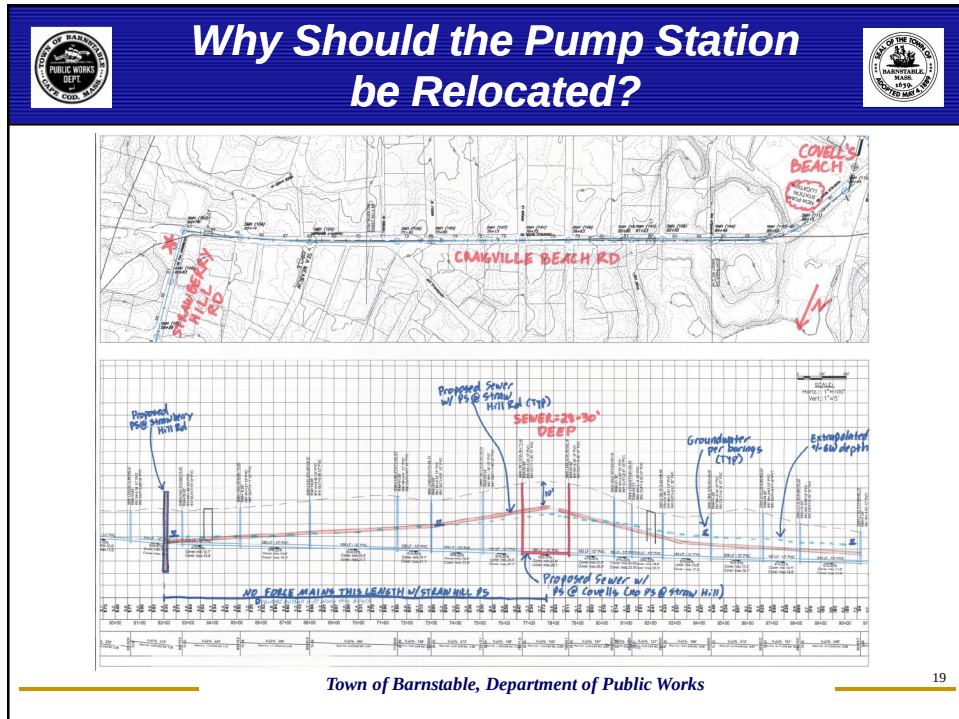
Strawberry Hill Road Project Pump Station @ Covell's Beach



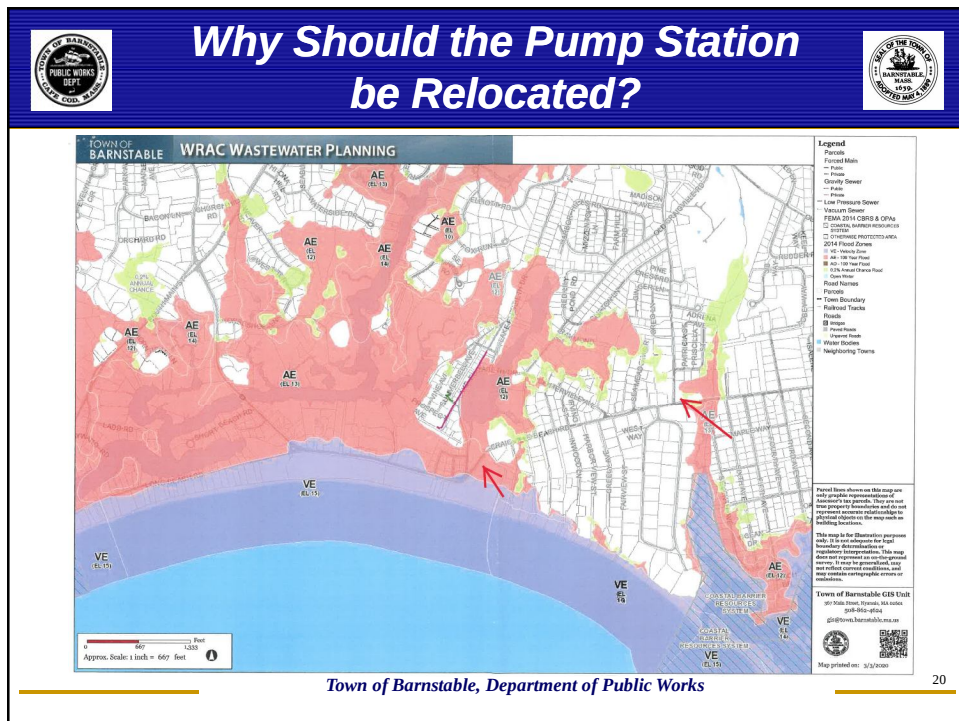


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Update Since October



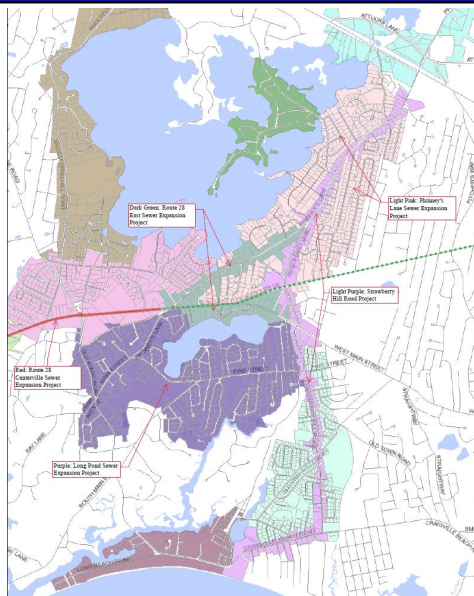
- **Projects**
 - **Rte 28 East (pump station & Sewering at Phinney's Lane and 28)**
 - Preliminary Design continues
 - Coordinating/partnering with Hyannis Water to remove “dead-ends” in water system as part of project.
 - Winter 2022 Construction Start Target
 - **Long Pond, Phinney Lane, and Rt 28 to Rt 149 survey commenced**
 - Survey completion Target March 2021
 - **Strawberry Hill Road Project**
 - Strawberry Hill Pump Station Easement, First Read this evening (2021-067)
 - Continuing design and coordination with Vineyard Wind designers
 - Anticipating Fall construction start
 - Coordinating SRF paperwork

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Phase I Projects - East



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