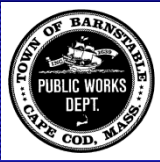




Barnstable Town Council

Update on Wastewater Efforts In Barnstable

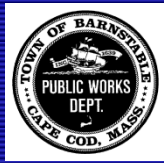
Department of Public Works
August 20, 2020



Update Since July



- **CWMP**
 - *Continue the Development of the Single EIR*
 - *Met with MEPA last week*
 - *Met with DEP last week*
 - *Initiated a second round of modeling with SMAST*
 - *Expected submission October 2020*
- **Projects**
 - *Rt 28 East (pump station & Sewering at Phinney's Lane and 28)*
 - *Met with MassDOT Two weeks ago*
 - *Preliminary Design continues*
 - *Winter 2021/22 Construction Start Target*
 - *Long Pond, Phinney Lane, and Rt 28 to Rt 149 survey commenced*
 - *Property owners w/in the project area have been notified via mail*
 - *Survey completion Target March 2021*
 - *Strawberry Hill Road Project*
 - *Continuing design and coordination with Vineyard Wind designers*
- **Annual Estuary Monitoring Sampling - Underway**



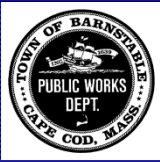
Conservation Law Foundation (CLF) Allegation



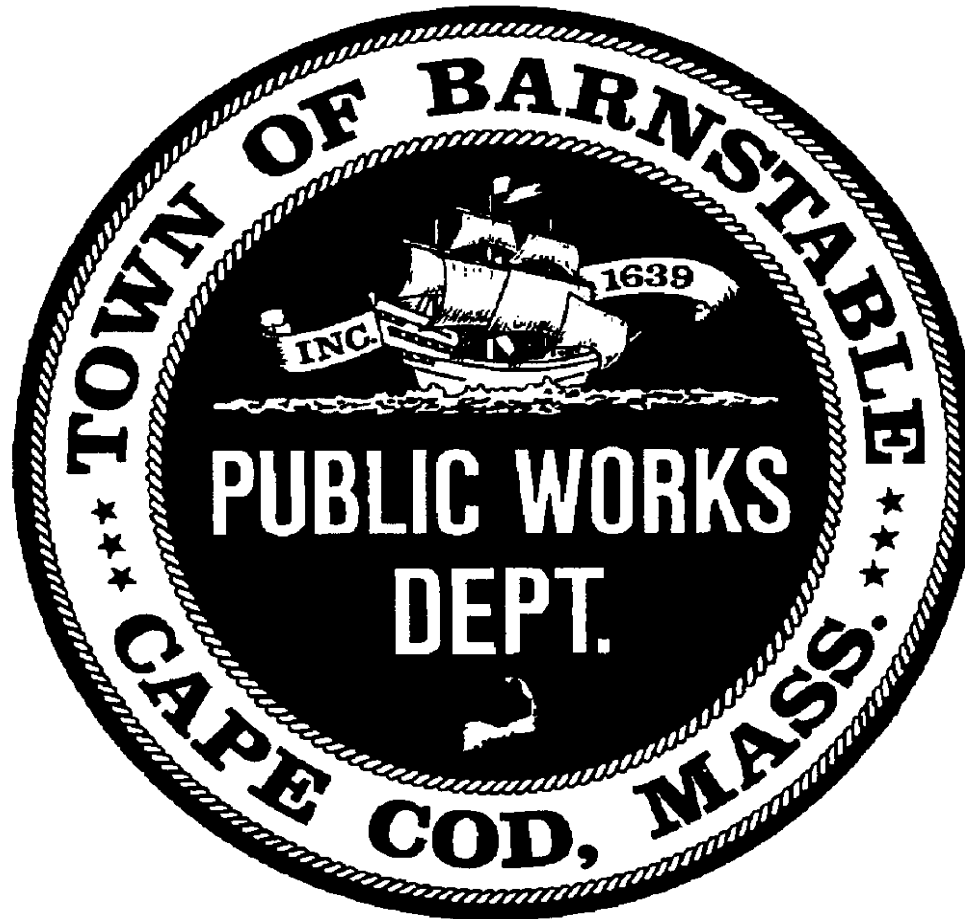
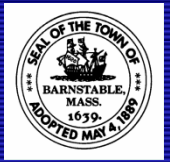
- *Notice of Intent to File suit*
- *CLF has provided the Town with notice of its intent to file suit. It is alleging that the Town is violating the Clean Water Act by discharging effluent into Lewis Bay, navigable waters of the U.S., without a National Pollutant Discharge Elimination Scheme (NPDES) Permit from the EPA allowing it to do so.*
- *NPDES permits traditionally have been issued by the EPA to regulate direct discharge to surface waters.*

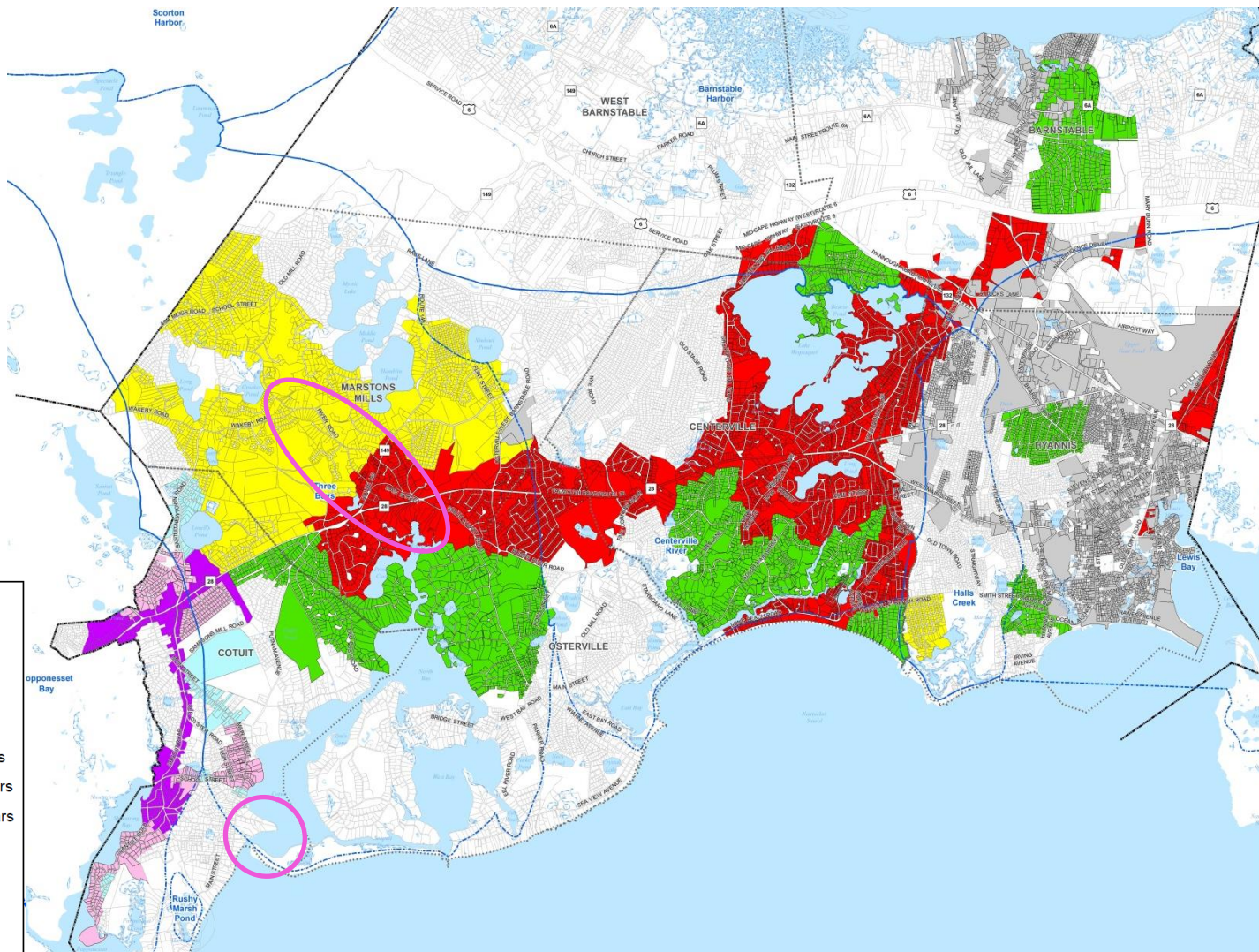
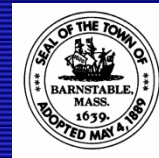
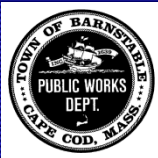


- *A recent U.S. Supreme Court decision found that NPDES permits are needed for discharges that are the “functional equivalent” of a direct discharge.*
- *The Water Pollution Control Facility does not directly discharge effluent into Lewis Bay. As such, it has traditionally been regulated by DEP.*
- *The Town is in full compliance with the required DEP.*
- *Groundwater Discharge Permit.*



Discussion?





Legend

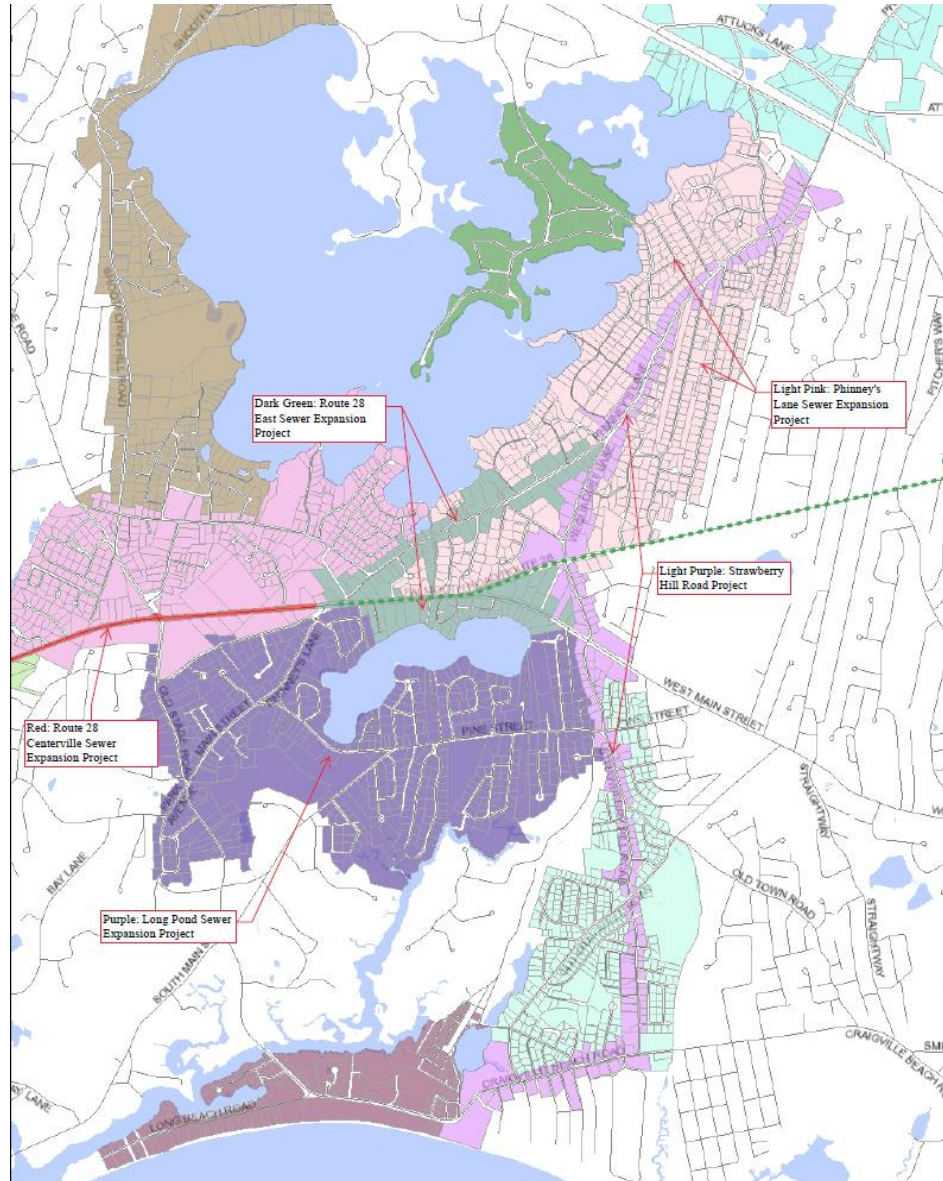
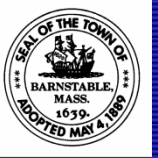
- District Villages
- Watersheds
- Parcels

Sewer Phasing

- Phase 1: 0-10 Years
- Phase 2: 11-20 Years
- Phase 3: 21-30 Years
- Stage 1
- Stage 2
- Stage 3
- Existing Sewer

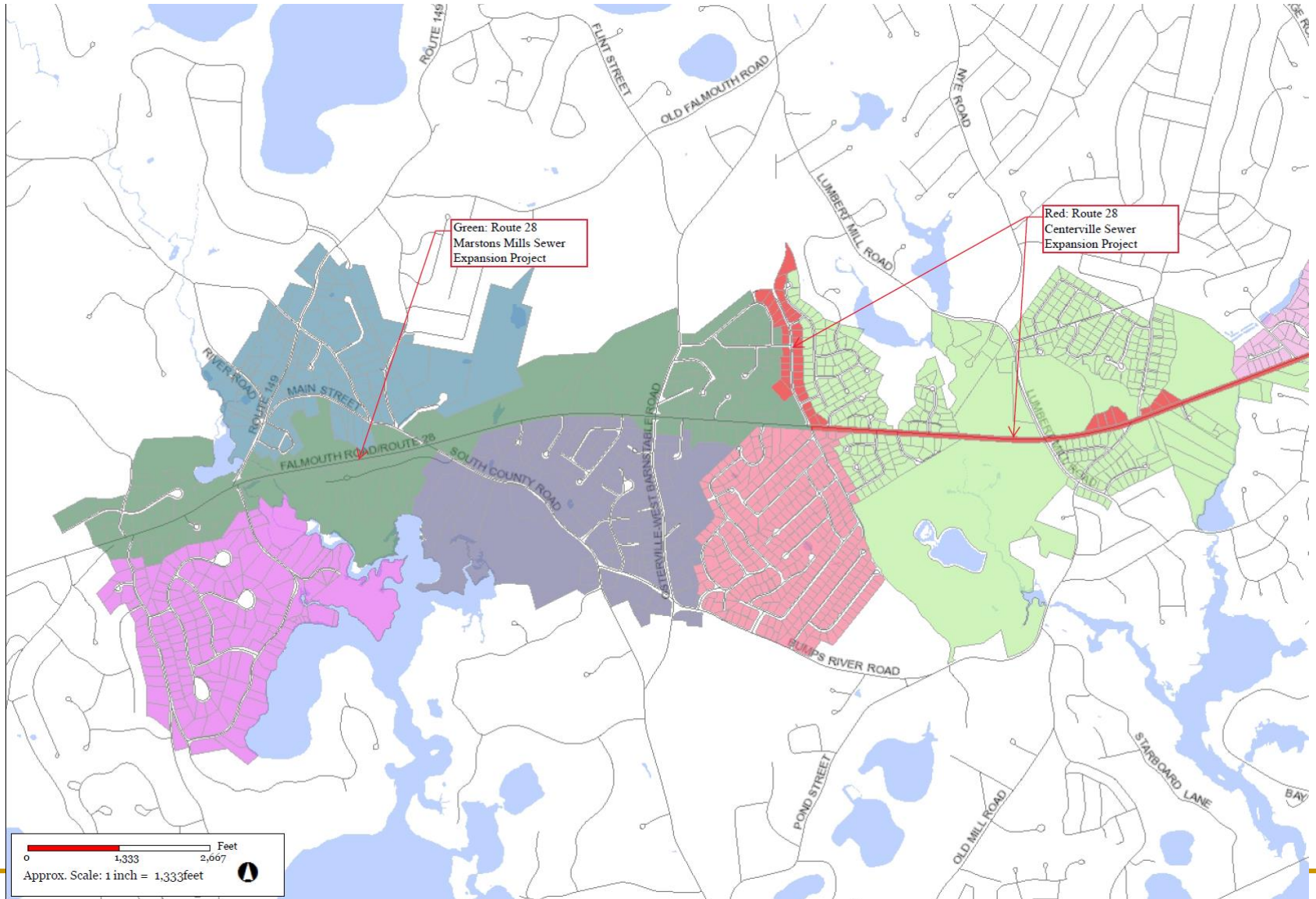


Phase I Projects - East



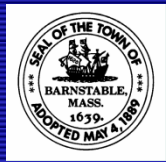


Phase I Projects - West

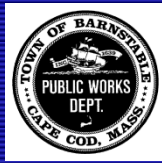




Financial Policy Decisions



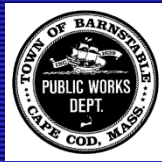
- *How will the town differentiate General Benefit Facility costs from Specific Benefit Facility costs?*
- *What assessment method will be used for allocating those costs?*
- *What limit, if any, will be set on the maximum amount for a sewer assessment?*
- *What interest rate will be charged on sewer assessments?*
- *What amortization period will be used sewer assessments?*
- *When will a property abutter be required to hookup?*



Financial Policy Decisions - Continued



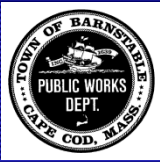
- *Will bond amortization be authorized beyond 20 years?*
- *Will the General Fund contribute to the program? If so;*
 - *How much?*
 - *What mechanism will be used?*
- *Will a Systems Development Charge be included?*
- *Should the town pursue special legislation to create a revolving loan program?*
 - *Amortization period and loan rate?*
- *Should the town administer a connection program?*



General Policy Issues



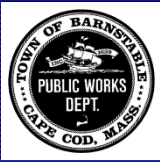
- *Effluent Disposal*
- *Handling of Private Roads*
 - *Easements needed for the pipes*
 - *With the planned improvements does the Town take them?*
- *Governance of the sewer system (Sewer Commissioners)?*
- *Approval of an updated Sewer Use Ordinance*
 - *Has a series of decisions associated with it*
- *Inter Municipal Agreements*
 - *Watershed Permits*
 - *Shared Technology*
 - *Conveyance of flows through adjoining Towns (JBCC)*



Projects Funded and Underway



- *Phinneys Lane Sewer Expansion*
 - *Conceptual Design \$315,000*
 - *Final Design \$735,000*
- *Long Pond Area Sewer Expansion*
 - *Conceptual Design \$402,000*
 - *Final Design \$938,000*
- *Attucks Lane Sewer Extension*
 - *Design \$100,000*
- *Cotuit Bay Channel Dredging*
 - *Phase I \$1,000,000*
 - *Phase II \$750,000*
- *Marstons Mills School Pump Station & Collection System*
 - *Conceptual Design \$612,000*



Projects Funded and Underway



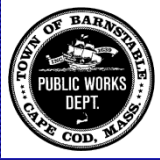
- *Marstons Mills River Treatment System*
 - *Evaluation \$250,000*
 - *Design \$612,000*
- *WPCF Effluent Disposal Capacity Study*
 - *\$195,000*
- *WPCF Effluent Disposal Location Evaluation*
 - *\$150,000*
- *WPCF and Collection System Improvements*
 - *Biowin Modeling \$55,000*
 - *Clarifier Upgrades and Rehab \$2,289,505*
 - *Generator Upgrades \$904,000*
 - *Solids and Septage Receiving Building Improvements*
 - *Design \$450,000*
 - *Sewer Capacity Evaluation \$200,000*
 - *Pump Station Evaluation \$200,000*



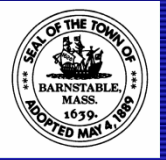
Projects Funded and Underway



- *Joint Base Cape Cod WWTF and Effluent Disposal Analysis*
 - \$250,000
- *Cotuit and Western Marstons Mills Sewer*
 - *Conceptual Design \$250,000*
- *Vineyard Wind Associated Sewering*
 - *Design \$835,000*
 - *Construction \$8,500,000*
- *Municipal Separate Storm Sewer System (MS4) Program*
 - *Part 1 \$87,500*
 - *Part 2 \$150,000*
- *Route 28 and Yarmouth Road Associated Sewering*
 - \$1,300,000



Summary of Funding for CWMP



Funding Sources		
Estimated Principal Subsidies on Bond Issues	\$112,229,437	11%
Sewer Assessments	\$255,764,639	24%
Investment Earnings	\$11,397,346	1%
General Fund Contribution	\$70,500,000	7%
System Development Charges	\$19,624,000	2%
User Rate Revenue	\$128,524,045	12%
Rooms and Meals Taxes including STR	\$463,211,220	44%
Total funding sources	\$1,061,250,687	100%



Phase I Implementation



Project	Number of Parcels Connected	Wastewater Captured (gpd)	Total N Removed (kg/day)	% of Total N Removed in Phase 1
Merchants Way	7	0	4.7	6.0%
Strawberry Hill Road	240	47,066	0.9	1.2%
Route 28 East	49	9,440	11.4	14.7%
Old Yarmouth Road	131	22,603	0.6	0.7%
Phinneys Lane	653	94,200	7.9	10.1%
Long Beach	203	37,647	3.6	4.7%
Route 28 Centerville	41	5,534	4.1	5.3%
Huckins Neck	148	21,506	3.3	4.2%
Long Pond Area	606	114,599	5.9	7.6%
Great Marsh Road	406	79,299	5.3	6.8%
Old Craigville Road	397	41,512	2.4	3.1%
Route 28 Marstons Mills	157	36,429	3.3	4.2%
Osterville Woods	328	59,571	5.2	6.7%
Shootflying Hill Road	348	52,306	1.7	2.2%
Lumbert Mill	357	53,221	9.4	12.0%
Osterville-West Barnstable Road & South County Road	153	32,787	3.7	4.8%
Marstons Mills Main Street	144	24,123	2.1	2.8%
Prince Cove	158	32,972	0.0	0.0%
Attucks Lane / Kidds Hill Area	87	16,893	2.2	2.9%
Total	4,613	781,708	77.7	100.0%¹

**Phase 1 is 44%
of the Overall
Plan.**