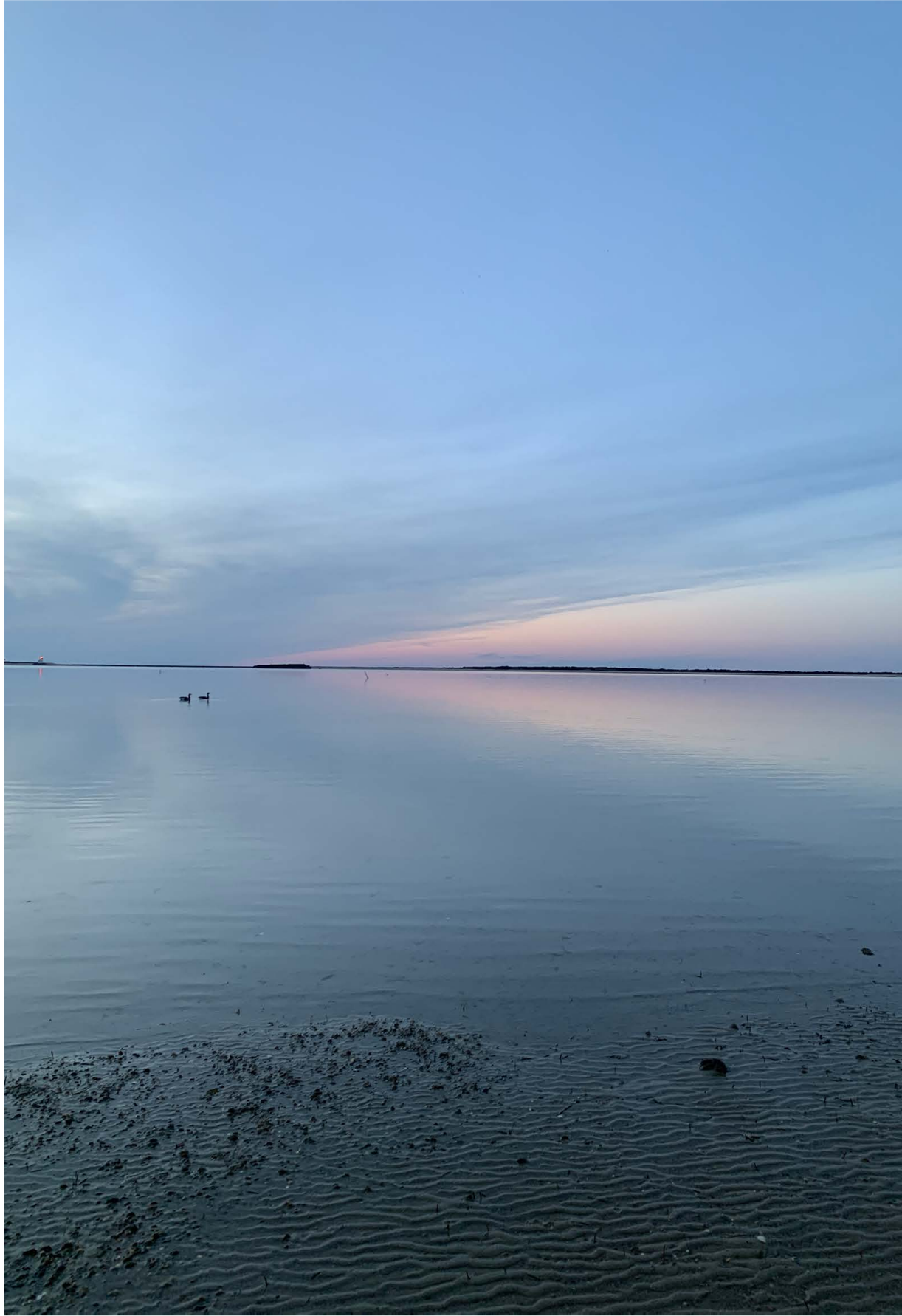
Services & Facilities

- Water Supply
- Sewer System and Wastewater
- Solid Waste
- Fire Protection
- Electricity
- Roads
- Overhead Utility Lines
- Monomoy Neighborhood Survey Highlights - Services & Utilities

WATER SUPPLY

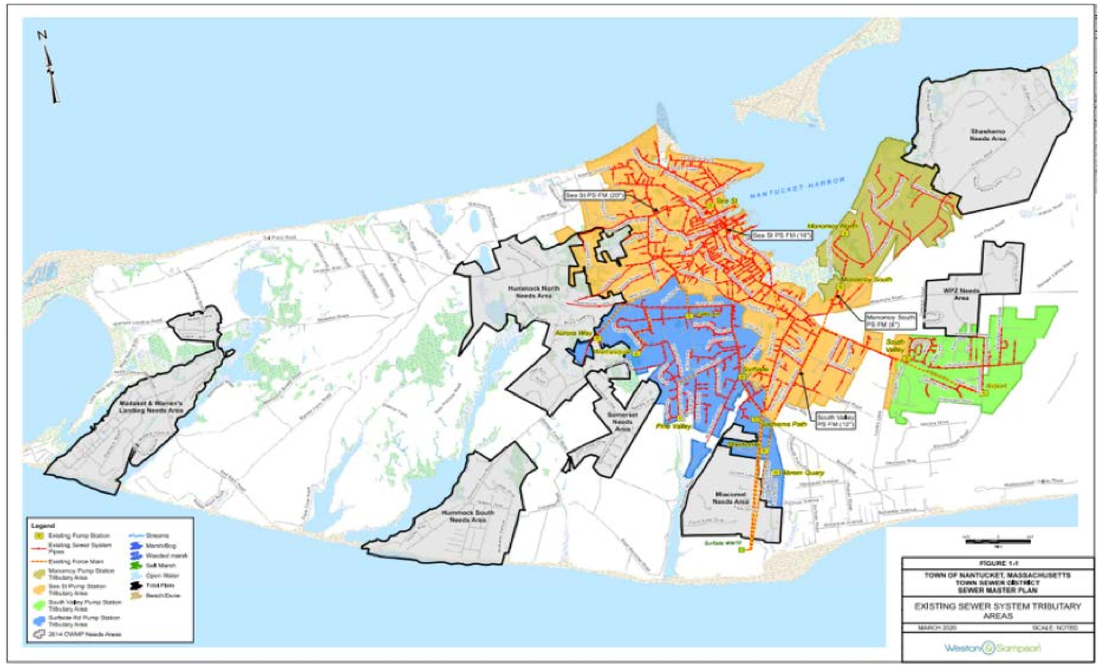
The Wannacomet Water Company, an Enterprise Fund of the Town, provides potable water and fire protection to the island. An Enterprise Fund is a fund to account for an operation for which the Town charges user fees to pay for delivery of services to the public. Wannacomet's water is drawn from a groundwater supply, pumped from four different water wells located mid-island in Nantucket's Sole Source Aquifer. The water is distributed through a network of water mains ranging from 2 inches to 16 inches in diameter.[12]

Given our reliance on a sole-source aquifer in proximity to the ocean, water conservation is vital. Saltwater is kept out of the aquifer because of the hydrostatic pressure of the fresh water against the salt. Likewise, the pressure of the salt water on the aquifer keeps it from leaking out into the sea. The more water we pump out of our aquifer, the more vulnerable it becomes to salt-water intrusion.



12 2020 Annual Drinking Water Quality Report, Wannacomet Water Department https://www.nantucket-ma.gov/DocumentCenter/View/39314/Water-Quality-Reports-2020-PDF?bidId=

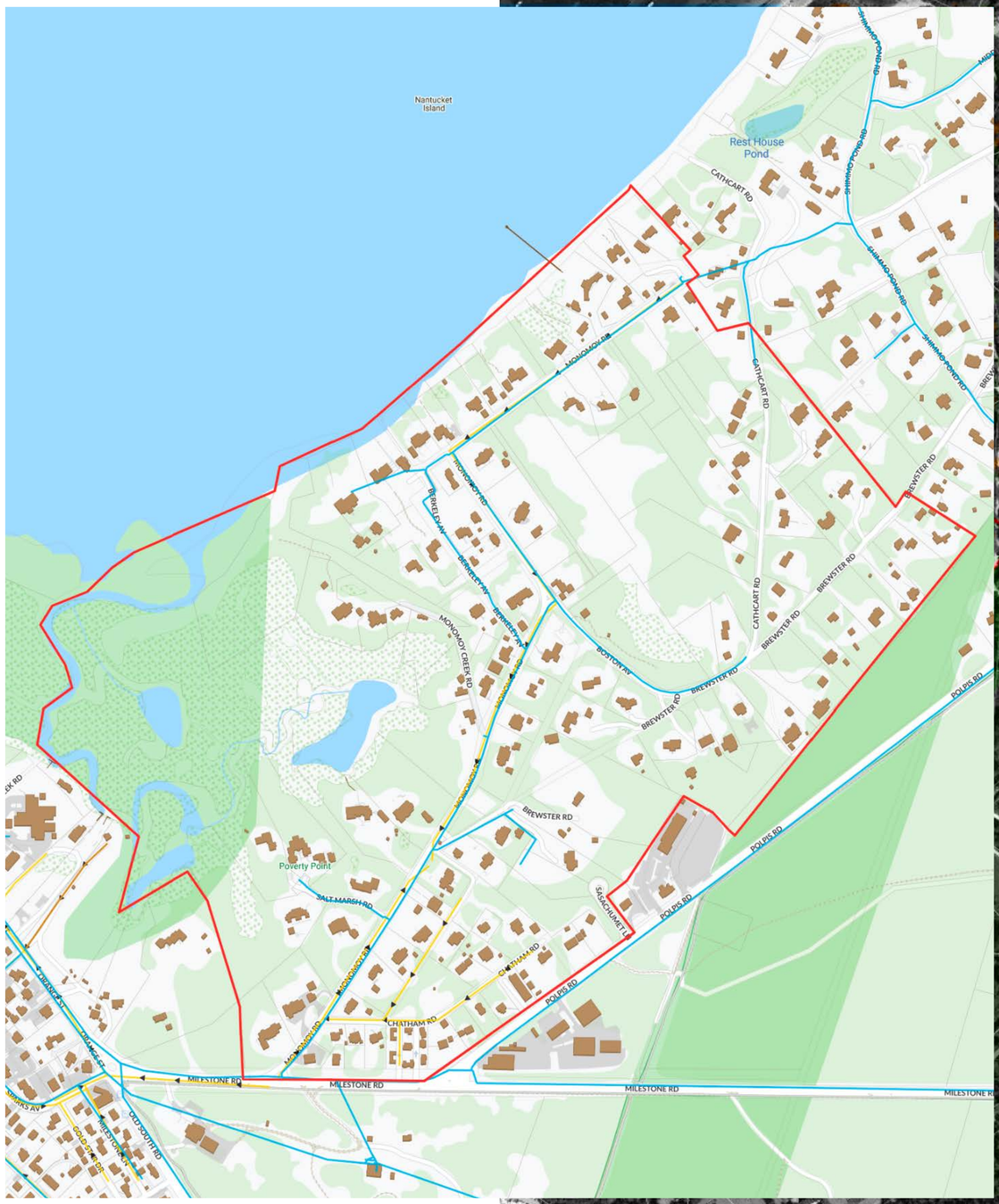
SEWER SYSTEM AND WASTEWATER



Nantucket has made progress over the last decade to provide a separated sewer system for wastewater (separate from storm water), with approximately 70 miles of sewer mains, 14 publicly-owned pumping stations, and two municipal wastewater treatment facilities.

A large portion of Monomoy properties were first connected during an expansion that started a decade ago. Monomoy is now fully connected to the Town Sewer District and served by two pump stations: Monomoy North at 61 Monomoy Road, installed in 2002, and Monomoy South at 21 Monomoy Road, installed in 2019.[13]

With Monomoy now fully connected to the sewer system the threat of deteriorating and leaking septic tank systems to the Nantucket watershed and wetlands has been eliminated and the neighborhood is now compliant with the Town's Comprehensive Wastewater Management Plan.



Monomoy Area Plan -
Utilities (Water & Sewer)
Nantucket GIS, 11 December 2021

13 https://www.nantucket-ma.gov/DocumentCenter/View/36750/Nantucket-Sewer-Master-Plan-Report-FINAL

SOLID WASTE

In 1994, the State of Massachusetts ordered the Town of Nantucket to close its landfill and begin shipping its solid waste off island to mainland landfills and processing sites because Nantucket had outgrown its current location.

Realizing that shipping its solid waste to the mainland by boat was a cost it couldn't afford, the Town completed the Materials Recovery Facility (MRF) at its landfill in 1996 and hired Waste Options, Inc. to run it.

The island's mandatory recycling program also began that year.

The MRF recycles and diverts nearly 80 percent of the solid waste brought to the landfill through recycling of paper, plastic, glass, metals and cardboard and wood, and composts household organic waste, yard waste and sludge from the Surfside Wastewater Treatment Plant. It also collects refrigerators, dishwashers, computers, televisions, mattresses, tires, stoves, sofas and computer monitors.

In 2020, the Madaket facility processed 11,197 tons of municipal solid waste (MSW) and other organics, about half of the daily solid waste stream generated in New York City. It also processed 1,820 tons of wastewater treatment plant bio-solids.[14]

The landfill is projected to achieve full capacity by 2030, after which a new waste management solution for the island will be required.

14 Waste Options Inc. 2020 Annual Report, https://records.nantucketma.gov/WebLink/ElectronicFile.aspx?docid=127616

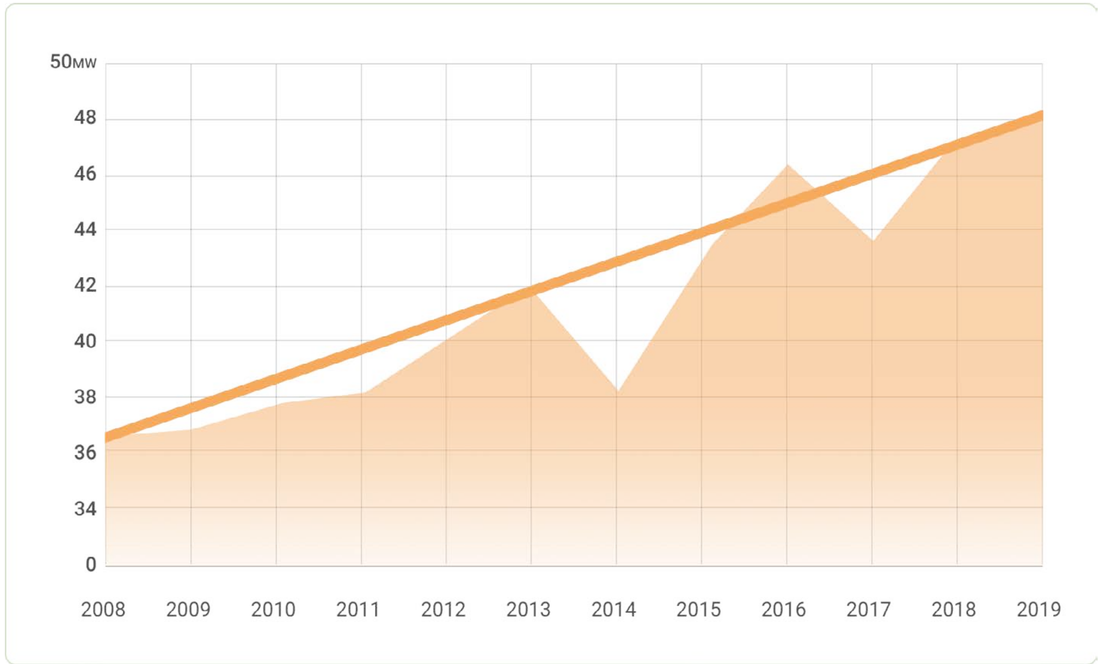
FIRE PROTECTION

Monomoy has a total of 17 fire hydrants located at key locations within the boundary area, and another 9 situated within operational distance of the boundary perimeter. However, it does appear that there are an insufficient number of fire hydrants for the area around Cathcart and Brewster Road.

Monomoy Area Plan - Hydrants
Nantucket GIS, 11 December 2021

ELECTRICITY

Nantucket receives electricity through two submarine cables, one from Hyannis and the other from Harwich on Cape Cod, that enter the island in the Jetties area and then connect to the Candle Street National Grid substation. From the Candle Street substation, electricity is distributed to the rest of Town primarily through overhead powerlines. The two lines provide 36MW and 38MW respectively.



With unceasing growth in the island population, the demand for electricity on Nantucket has grown in the past 10 years, a jump of 25%, from 37 MW in 2008 to nearly 49 MW in 2019, while new data suggests peak load demand at 55 MW for 2022.

A proposal for a third cable, at a cost of $200 million, has been put off by National Grid, which elected instead to install a state-of-the-art Tesla 6 MW, 48 MWh battery storage facility as a back-up to the submarine cables, at a cost of $81 million. The battery and back-up generation are vital components to the island's resilience during peak summer months, when the battery will be charged during the night and dispatched during the day.

While this hybrid solution resolves the power demand situation over the medium-term, continued strain on electricity supply for both year-round residents and summer visitors ensures this issue is far from resolved.

ROADS

The Monomoy Boundary Area has a road network with a total length of 2.8 miles, consisting of one main paved road, Monomoy Road, which is owned by the Town, and a patchwork of 12 smaller roads, all unpaved, the majority of which are privately owned."

With the above, 34% of the Monomoy road network is paved, while 51% is publicly owned. The balance, 63%, unpaved, consisting of primarily rough, narrow dirt roads.

Name of Road (Town GIS & Google Earth)	Length (in miles)	Ownership	Condition
1. Monomoy Road	0.92	Public	Paved/Asphalt
2. Monomoy Creek Road	0.16	Private	Dirt
3. Boston Ave	0.12	Public	Dirt
4. Cathcart Road	0.32	Public	Dirt
5. Salt Marsh Road	0.08	Private	Shell
6. Berkeley Ave	0.18	Private	Dirt
7. DeWolf Ave (connector between Monomoy Rd & Berkeley	0.03	Private	Dirt
8. Brewster Rd (East)	0.43	Private	Dirt
9. Brewster Road (West)	0.14	Public	Dirt
10. Catham Road	0.22	Private	Dirt
11. Sandwich Road	0.08	Private	Dirt
12. Orleans Road	0.06	Private	Dirt
13. Oily Road	0.06	Private	Dirt
	2.80		

OVERHEAD UTILITY LINES

Monomoy Road and other parts of the community are blighted with overhead utility lines, which are not appropriate for the historic and natural character of the community.

Nantucket has had a long-standing goal of burying utilities underground, which is anchored on Town of Nantucket Bylaws that prohibit overhead utilities in both the "Core Districts" of the Town and Village of Siasconset.[15] While it appears the existing utility poles in Monomoy are grandfathered and exempt from a legal requirement for removal due to being outside these historic core districts, nearly 30 years of planning policy and guidelines, island sentiment and Town law make clear such utility poles violate the island's commitment to historic preservation, and the designation of the island as a national historic landmark district.

Continuing past practice of allowing above-ground utilities undercuts the Island's historical character, and damages the natural sight lines within Monomoy, which is home to a number of historic structures. Further, the island's commitment to burying utilities is related to a growing awareness about the importance of resiliency and climate change, and the need to protect utilizes and services from increasingly severe weather events.

Given this history, Bylaws and growing threat of severe weather events, there appears to be strong legal and practical rationales for such utilities to be placed underground.

15 See Town of Nantucket Bylaws / Part II: General Legislation: Chapter 113 at https://ecode360.com/11471073#11471074.

MONOMOY NEIGHBORHOOD SURVEY HIGHLIGHTS - SERVICES & UTILITIES

1. Top Three Concerns

A majority of respondents are either extremely, very or somewhat concerned about these three issues related to Services & Utilities:

1. **The near-capacity Nantucket landfill: 95% (94 respondents)**
2. **The presence of above ground utility lines: 83% (84 respondents)**
3. **Access for emergency vehicles on unpaved roads: 76% (75 respondents)**

Following closely thereafter is concern regarding the condition and maintenance of unpaved roads (76%, 74 respondents) and water usage and supply (68%, 67 respondents).

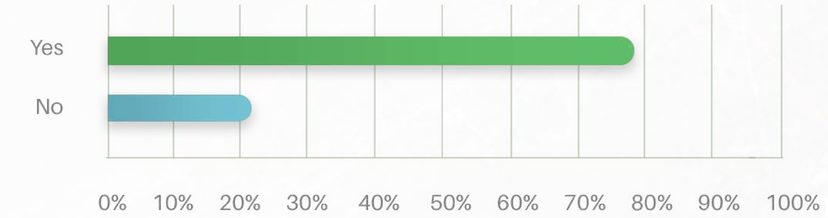
	EXTREMELY CONCERNED	VERY CONCERNED	SOMEWHAT CONCERNED	NOT VERY CONCERNED	NOT AT ALL CONCERNED	TOTAL	WEIGHTED AVERAGE
Water usage & supply	18.18% 18	20.20% 20	25.25% 25	13.79% 16	7.07% 7	99	2.83
Electricity usage & supply	9.09% 9	17.17% 17	31.31% 31	6.00% 7	7.07% 7	99	3.10
The near-capacity Nantucket landfill	18.18% 18	45.45% 45	3.03% 3	23.28% 27	2.02% 2	99	2.25
The Condition & maintenance of unpaved roads	24.24% 24	17.17% 17	17.17% 17	12.90% 15	8.08% 8	99	2.68
Access for emergency vehicles on unpaved roads	18.18% 18	12.12% 12	16.16% 16	16.38% 19	8.08% 8	99	2.84
The presence of above ground utility lines	20.20% 20	27.27% 27	10.10% 10	19.83% 23	7.07% 7	99	2.57

Answered: 99 Skipped: 44

2. Maintaining and Improving Unpaved Roads

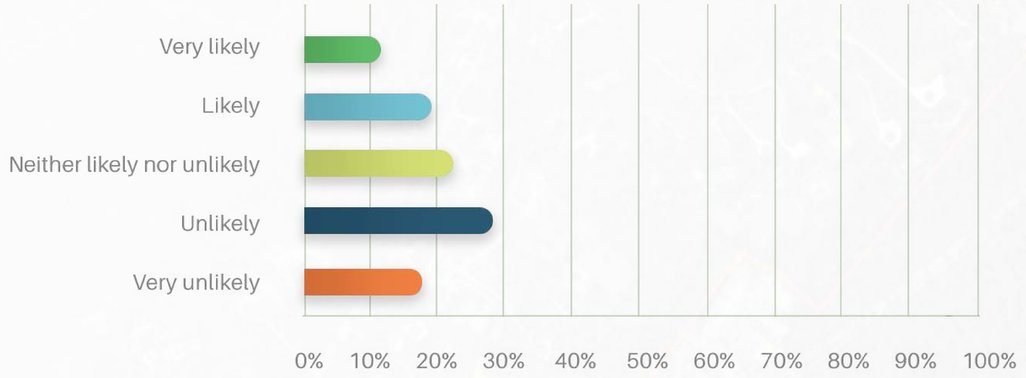
Are you in favor of increasing the frequency & quality of grading/maintaining our unpaved roads?

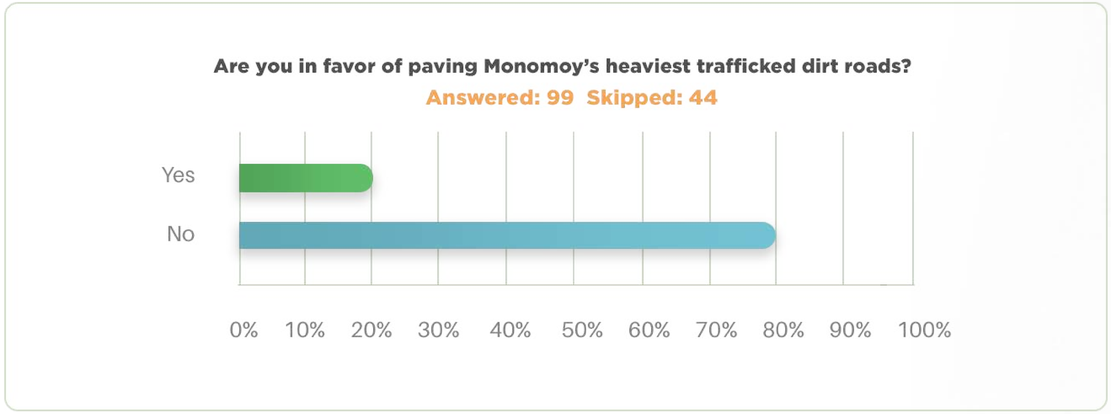
Answered: 99 Skipped: 44



About half of the road network in Monomoy is private. How likely would you be to contribute funds towards road maintenance, if necessary?

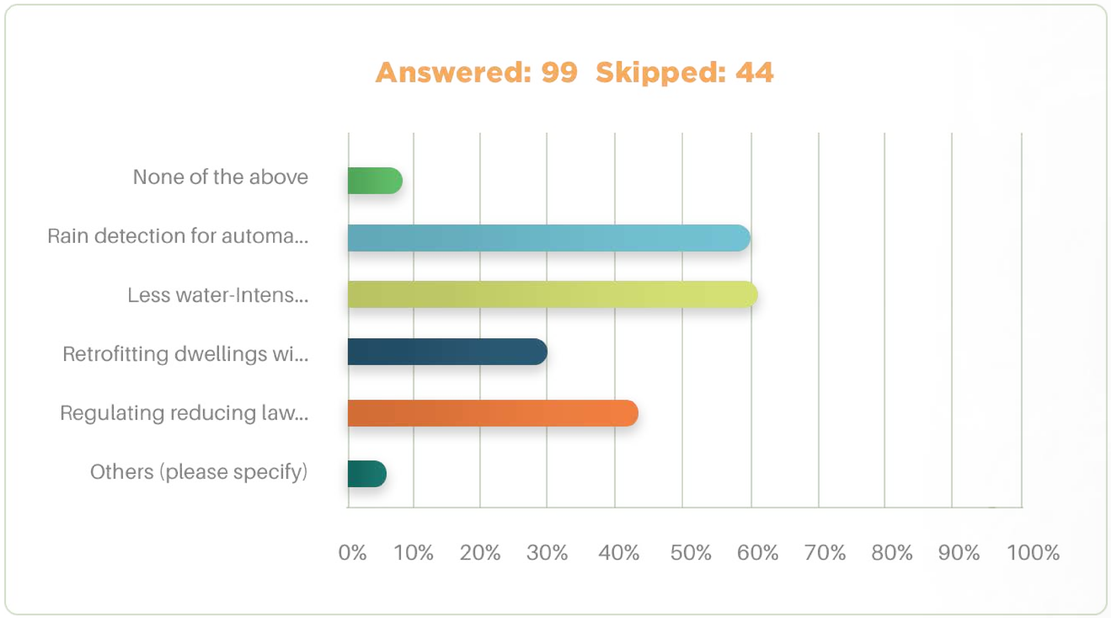
Answered: 99 Skipped: 44





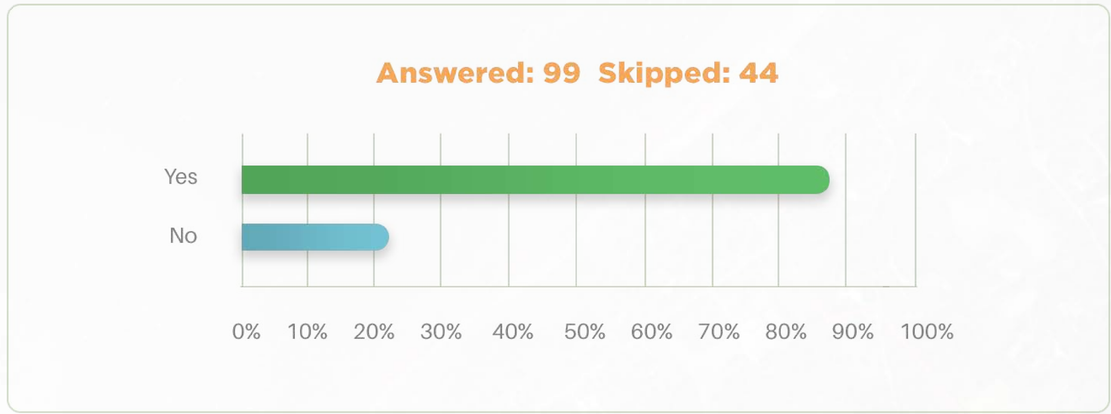
While 77% of respondents are in favor of better maintenance of Monomoy's unpaved roads (79%, 78 respondents), only 30% are likely or very likely to contribute funds for that purpose. There is little interest to see these roads paved (20% in favor, or 20 respondents), with 80% (79 respondents) against.

3. Water conservation



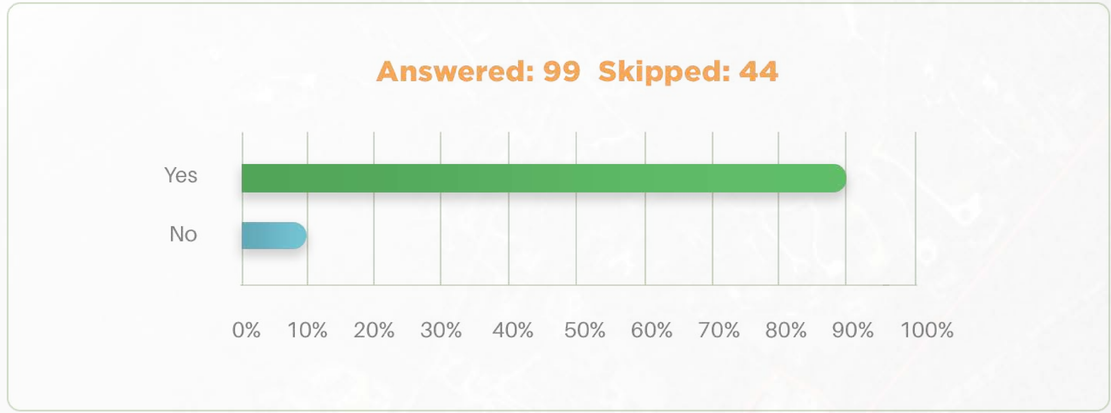
92% of respondents have implemented water conservation measures, ranging from rain detection systems on sprinkler systems (60%, 59 respondents), less intensive native landscaping (61%, 60 respondents) and regulating and reducing lawn watering (43%, 43 respondents). Four households report they have installed wells for irrigation.

4. Conserving electricity



87% of respondents stated they would be willing to consider steps to conserve electricity to avoid building additional infrastructure such as a 3rd underwater cable.

5. Burying utility lines underground



90% of respondents would like to see utility lines along Monomoy buried underground, as protection from severe weather and to preserve the historic character of the island.

RECOMMENDATIONS - SERVICES & FACILITIES

1 Explore options for better maintenance of unpaved roads

Residents are concerned over the maintenance and quality of the community's unpaved roads, which suggests a need to explore options to improve grading and seasonal maintenance with the Town, abutting property owners and the wider Monomoy community.

2 Support water conservation efforts

The Monomoy community is committed to water conservation measures that include installation of rain detection equipment on automatic sprinkler systems, introduction of less water-intensive native landscaping, and retrofitting of dwelling with low flow toilets, shower heads and faucet aerators.

3 Support electricity conservation efforts

The Monomoy community commits to work through the Town of Nantucket Energy Office to promote energy efficiency and conservation actions that include home energy assessments, improved lighting efficiency, energy-efficient equipment and appliances and improvements to heating and cooling systems, such as geothermal and air-source heat pumps.

4 Engage on island-wide solid waste solutions

Monomoy is cognizant of the challenges solid waste brings to our island community and is keen to engage in discussions with the Town's policymakers and other stakeholders on long-term, integrated and sustainable solutions that include improved efforts at avoidance, reuse, repurpose, reduction and recycling, and exploration of innovative technologies for waste management.

5 Enhance fire protection infrastructure, as needed

The Town's Department of Public Works should assess the placement of fire hydrants and confirm sufficient coverage of the Monomoy community. If necessary, the network of fire hydrants in the neighborhood should be expanded.

6 Explore options to burying overhead utility lines

Monomoy will engage with the Town and utility companies to bury overhead utility lines. This is important for many reasons, including environmental aesthetics and as a means to reduce climate- and weather -related vulnerabilities through strengthened resiliency.