

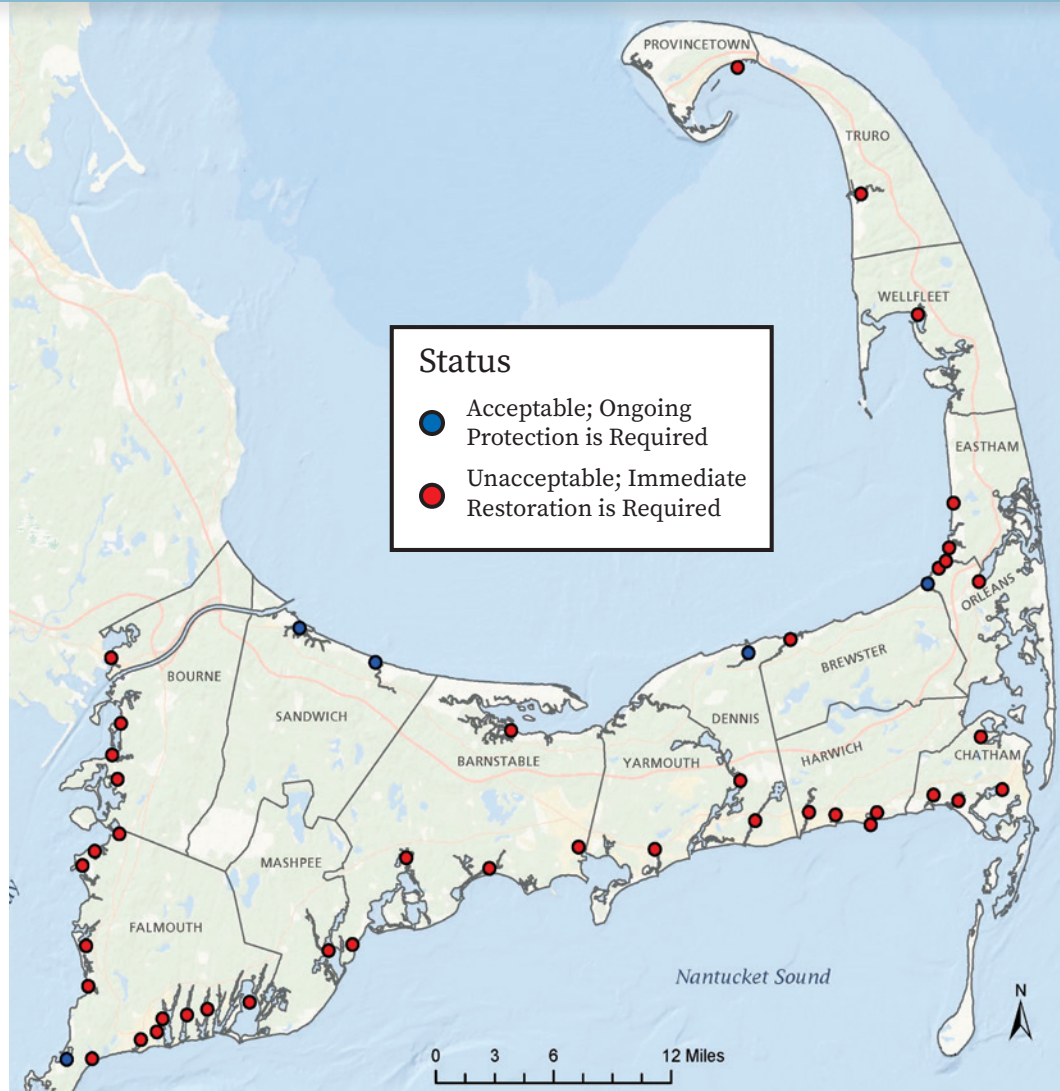
# State of the Waters: Cape Cod 2024



The Association to Preserve Cape Cod's sixth annual *State of the Waters: Cape Cod* report shows that the Cape continues to experience a significant number of coastal embayments and freshwater ponds with unacceptable water quality, while the quality of the Cape's public water supplies, for the most part, remains excellent.

The report is a comprehensive assessment of the quality of the Cape's monitored coastal embayments, freshwater ponds and public water supplies. It grades water quality based on up-to-date sampling and monitoring data collected by organizations, towns, and other sources. Three grading systems are used for the report, one each for coastal embayments, freshwater ponds and drinking water. Each of the grading systems utilizes specific water quality parameters to develop scores, and the scores are translated into grades of either **acceptable** or **unacceptable** water quality for coastal embayments and freshwater ponds, and **excellent, good** or **poor** for public water supplies.

The purpose of the *State of the Waters* report is to generate greater public awareness of the Cape's water resources and to motivate policy makers to adopt measures that will improve water quality.



## EMBAYMENT STATUS

Red dots show embayments with unacceptable water quality; blue dots indicate acceptable water quality.

Data sources: BBC, BCWC, CCC, Towns, PBA, SMAST, WBNERR

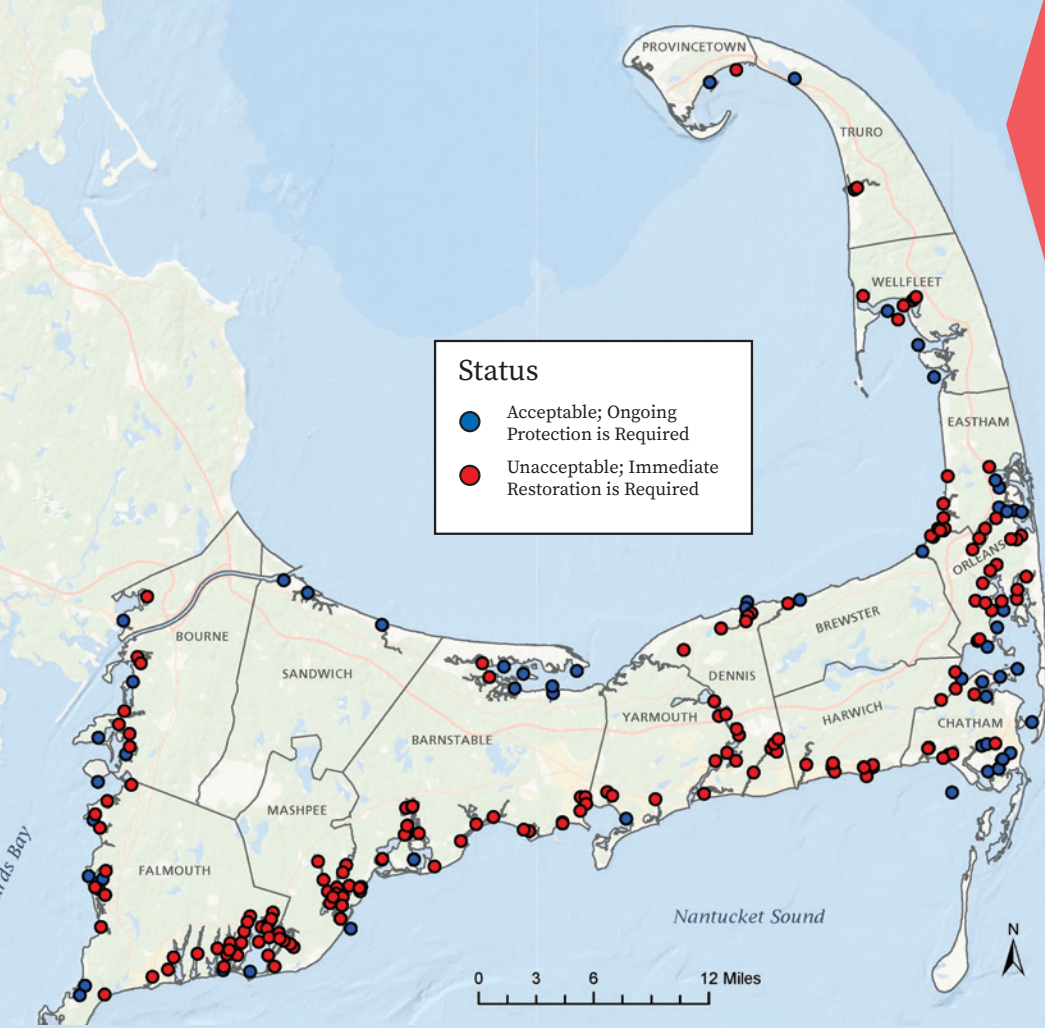
Coastal Embayment scores were not updated in 2024, as any worsening conditions would not result in modified grades in embayments already designated as unacceptable. Furthermore, we have not seen any mitigation projects implemented since 2022 with the magnitude necessary to show measurable improvement across an entire embayment within a one-year timeframe. Therefore, the results depicted on the map represent data collected from 2018–2022 and scored in 2023. The number and percentage of embayments with unacceptable water quality in 2023 remained the same as 2022. A total of 43 embayments—or 90 percent of embayments graded—had unacceptable water quality. Since 2019, the number of embayments with unacceptable water quality has increased steadily to 43 embayments. No embayments graded as unacceptable have improved in the following years. Since 2019, the number of acceptable embayments steadily decreased to a low of 10 percent in the 2022 report with no change in the 2023 assessment.

# EMBAYMENT MONITORING STATIONS

Red dots show embayment monitoring stations with unacceptable water quality; blue dots indicate acceptable water quality.

Scores were not updated in 2024, as worsening conditions would not result in modified grades at stations already designated as unacceptable, and measurable improvements to stations seemed unlikely, given the slow implementation of mitigation strategies since 2022. Thus, the results depicted on the map represent data collected from 2018-2022 and scored in 2023. Grades for coastal embayments stations were based on the data collected by several organizations, towns and agencies from 226 monitoring stations located in 48 embayments and estuaries across Cape Cod.

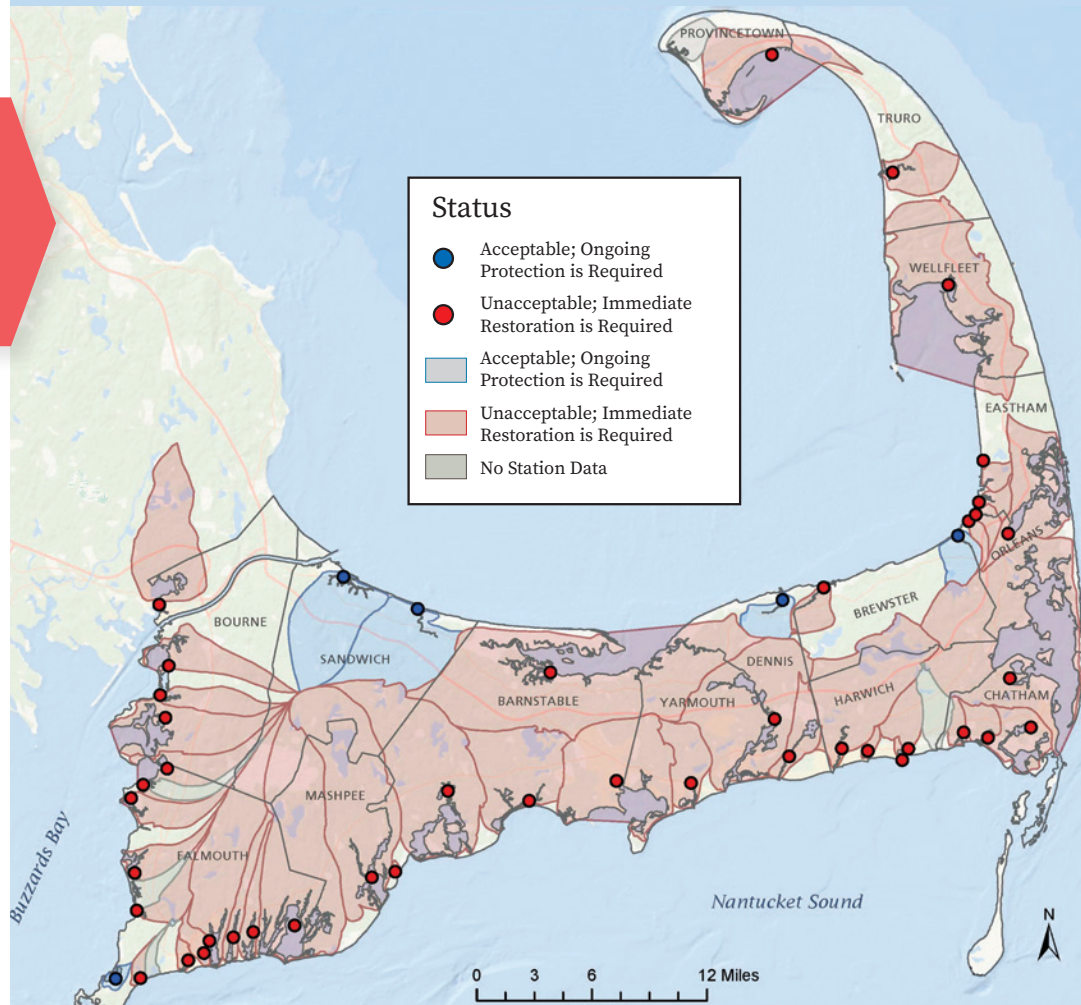
Data sources: BBC, BCWC, CCC, Towns, PBA, SMAST, WBNERR



# EMBAYMENT WATERSHEDS

This map shows graded coastal embayments and their watersheds—the area of land that channels groundwater, precipitation and runoff into a body of water. Nutrient pollution from wastewater, stormwater and fertilizers originating within a watershed impacts the water quality of its embayment.

Data sources: BBC, BCWC, CCC, Towns, PBA, SMAST, WBNERR

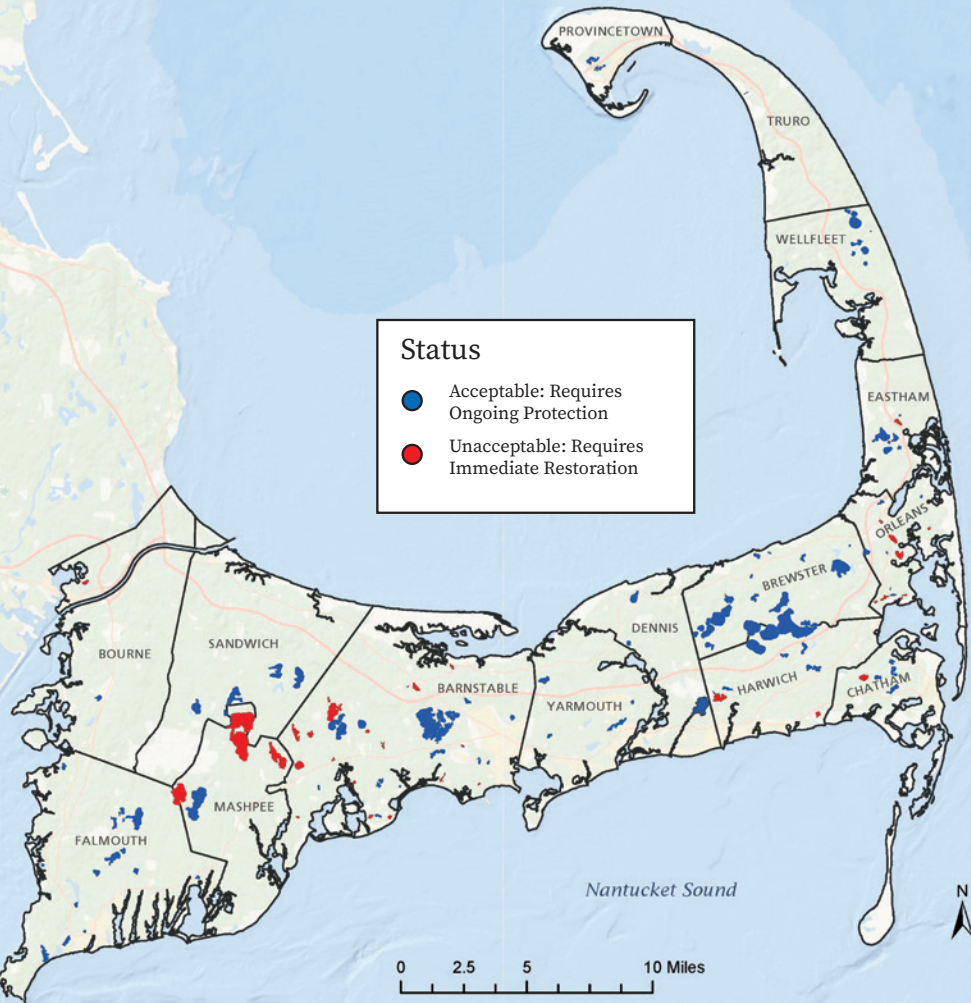


# POND STATUS

Ponds in blue were graded as having acceptable water quality. Red ponds indicate unacceptable water quality.

The percentage of ponds with unacceptable water quality has remained fairly consistent over the past six years, with a slight increase in ponds graded as “Acceptable.” Over one-quarter—28 percent—of all graded ponds in the 2024 *State of the Waters* report were determined to have unacceptable water quality. A total of 138 ponds were graded, representing only 16 percent of the Cape’s 890 freshwater ponds. The small number of graded ponds demonstrates the ongoing shortage of water quality data available for most of the Cape’s ponds. Ponds in blue were graded as having acceptable water quality.

Data source: Towns, CCC, CCS, Mashpee Wampanoag Tribe, BCWC, APCC



# PUBLIC WATER SUPPLY STATUS

Green stars indicate excellent water quality, yellow stars indicate good water quality, and a circle around the star indicates the detection of PFAS6 within state standards.

Nineteen public water supplies received an “Excellent” water quality grade, meeting all state and federal drinking water standards. Two public water supplies received a “Good” grade due to the detection of total coliform bacteria, but both suppliers followed up the detection with appropriate response measures. There were no “Poor” grades this year. The report covers the third year of new state regulations limiting concentrations of six types of per- and polyfluoroacetate substances, referred to as PFAS6. Of the 21 graded public water supplies, 11 had detected PFAS6 in some groundwater wells, but still met the state standard.

Data sources: Consumer Confidence Reports

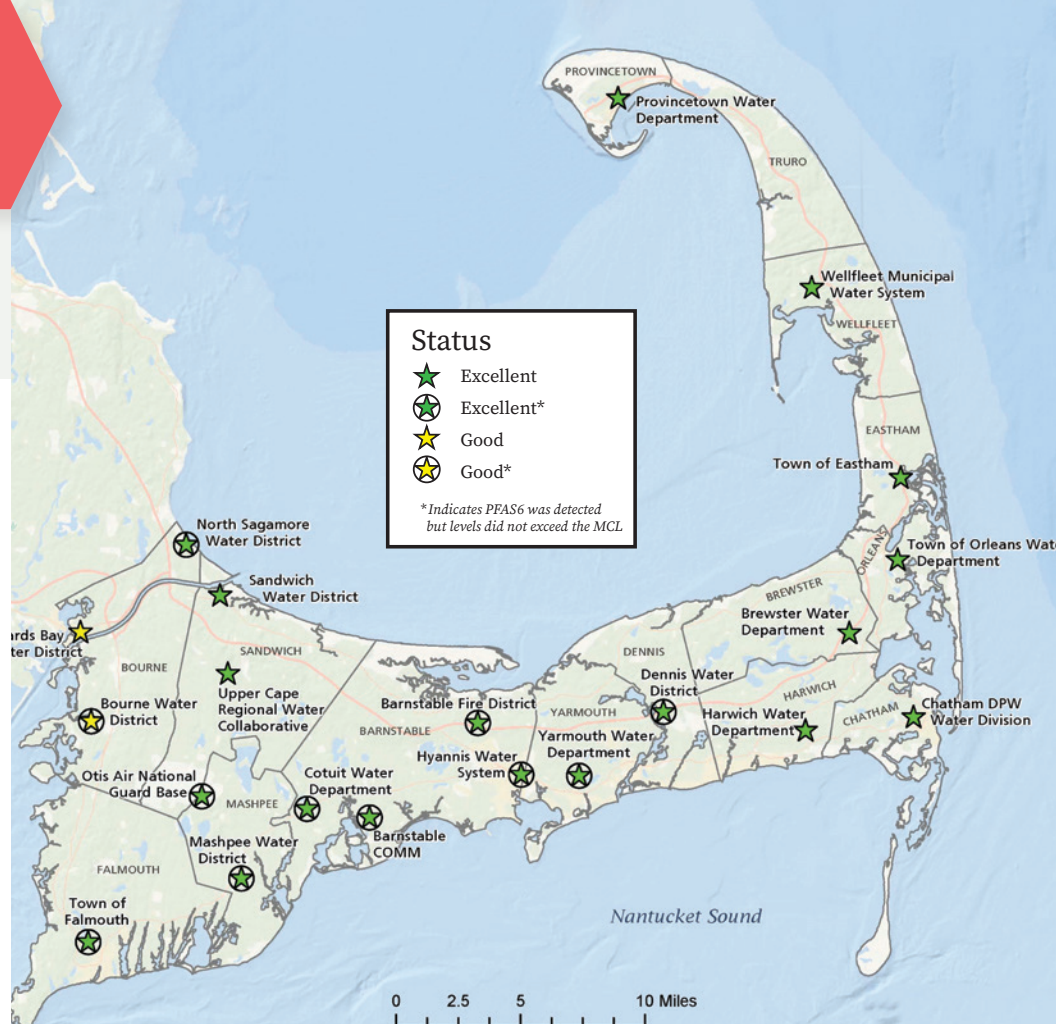




Photo: Gerald Beetham

# State of the Waters: Cape Cod 2024

*State of the Waters: Cape Cod* is an annual water quality report by the Association to Preserve Cape Cod. Please visit [CapeCodWaters.org](https://CapeCodWaters.org) to view the full report, interactive map, Atlas of Water Restoration Needs and Solutions, and State of the Waters Action Plan.



 [Visit CapeCodWaters.org](https://CapeCodWaters.org)

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