#### How can I get involved?

- As a beachfront property owner, allow beach access to program volunteers
- Take note of erosion problems and contact local officials to encourage them to take action
- Become a beach profile monitoring volunteer

Thank you to all the volunteers, landowners, towns, and researchers who have contributed to the success of the Beach Profile Monitoring Program since 1999!

The Southern Maine Beach Profile Monitoring Program is coordinated by Maine Sea Grant and University of Maine Cooperative Extension, in partnership with the Wells National Estuarine Research Reserve.

#### For more information, contact

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# Mapping the State of Maine's Beaches

#### What is beach profile monitoring?

Beach profile monitoring is a simple surveying technique to measure monthly changes in sand levels on the beach and in the dunes.

### Why do we need beach profile data?

Collecting long-term data on beach condition is the **first step to understanding complex processes that shape our beaches over decades**. Profile monitoring data is used by coastal scientists in combination with ocean current and wave studies to track monthly, seasonal, and decadal trends in sand erosion and accretion. This analysis provides a broader look at the forces that shape our beaches and the rate at which these changes occur. Beach profile monitoring is an important tool for policy-makers to use in making informed decisions about beach management issues, such as how to address property loss due to erosion, or deciding when beach nourishment is needed.

### What does monitoring the beach profile tell us?

This graphic representation of profile data from Gooch's Beach illustrates the changes that occur seasonally with beaches losing sand during the winter storm season. **Long-term monthly data are useful for tracking this natural variability**, as well as the **influence of ongoing sea-level rise**. In addition, long-term data enable scientists to monitor the response of the beach to **significant erosion** events such as hurricanes and nor'easters. In some instances it may take years for a beach to recover from the effects of a major storm, and the rate of recovery can be tracked by monitoring the beach profile.



# Who collects the data?

**Community volunteers**, in collaboration with Maine Sea Grant, Maine Geological Survey, the University of Maine Cooperative Extension, and Wells Reserve have been profiling local beaches from South Portland to York on a monthly basis since the program began in 1999. Volunteers include coastal property owners, business people, community groups, students, teachers, and scout troops.

## Who uses beach profile monitoring data?

Every two years, the **Maine Geological Survey** compiles and analyzes beach profile data and publishes their findings in the State of Maine's Beaches Report. The report, which provides a comprehensive look at the current condition of the beaches and associated dune systems and evaluates their response to major storms, helps **municipalities** develop community level plans to address local coastal issues. At the **state** level, monitoring data can inform statewide landuse planning processes and coastal legislation. Findings of the beach profile monitoring program are shared every two years at the Beaches Conference, a forum for information exchange among beach stakeholders.

