

Demystifying the Tide Gate and the Water Around Ocean Park

*Presented by Don Hoenig and Mark Lauritano, members of the
Environment and Natural Resources Committee*

August 6, 2026

Agenda

1 Introduction & Welcome

The Tidal Gate

2 Purpose and History

Old Orchard Beach 2025 Marsh Resiliency Study

3 Project goals, Analysis, Recommendations

Water Quality In and Around Ocean Park

4 What's being measured, findings, and future analysis

5 How Can We Make A Difference?

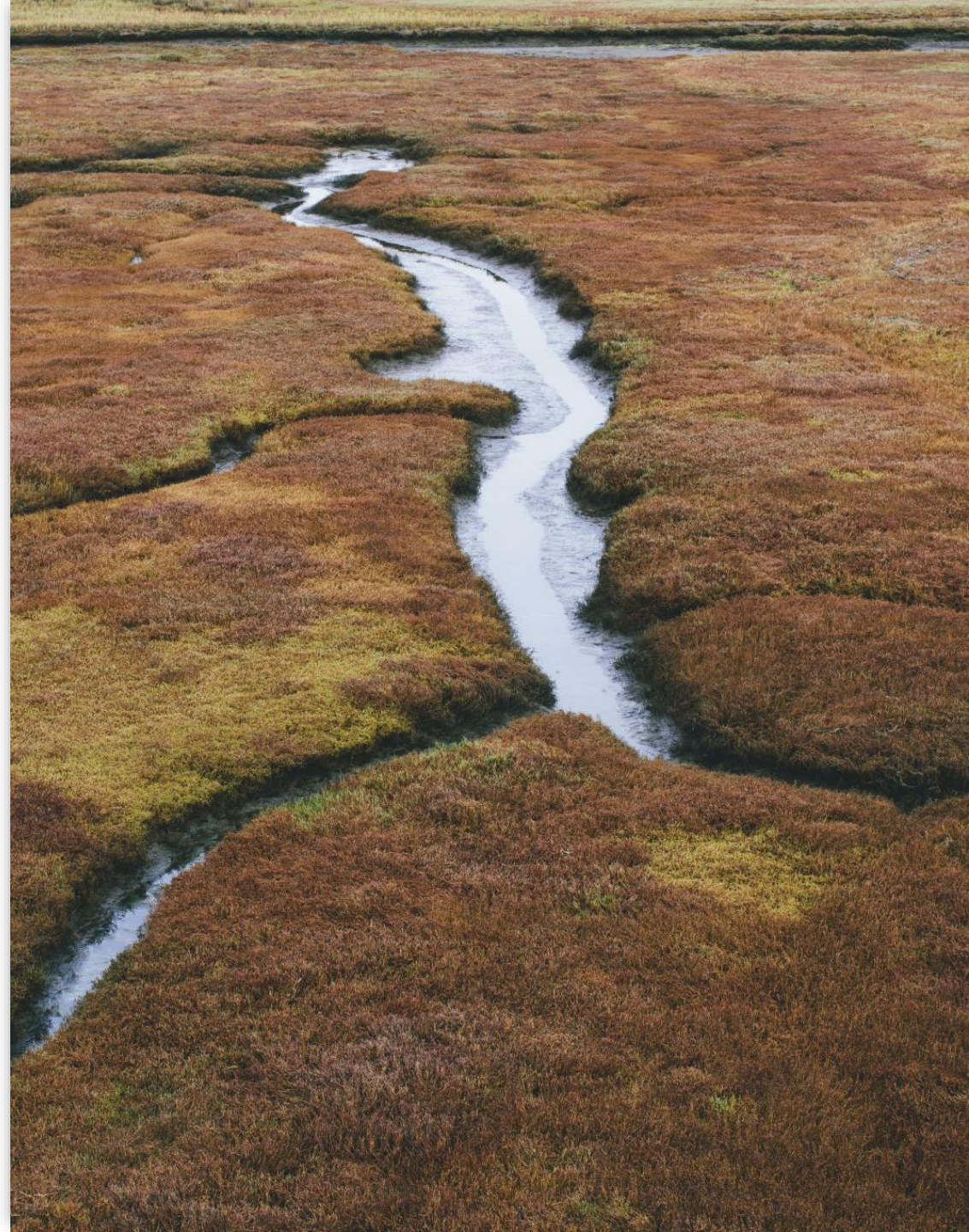
How Does A Self-Regulating Tide Gate Work?



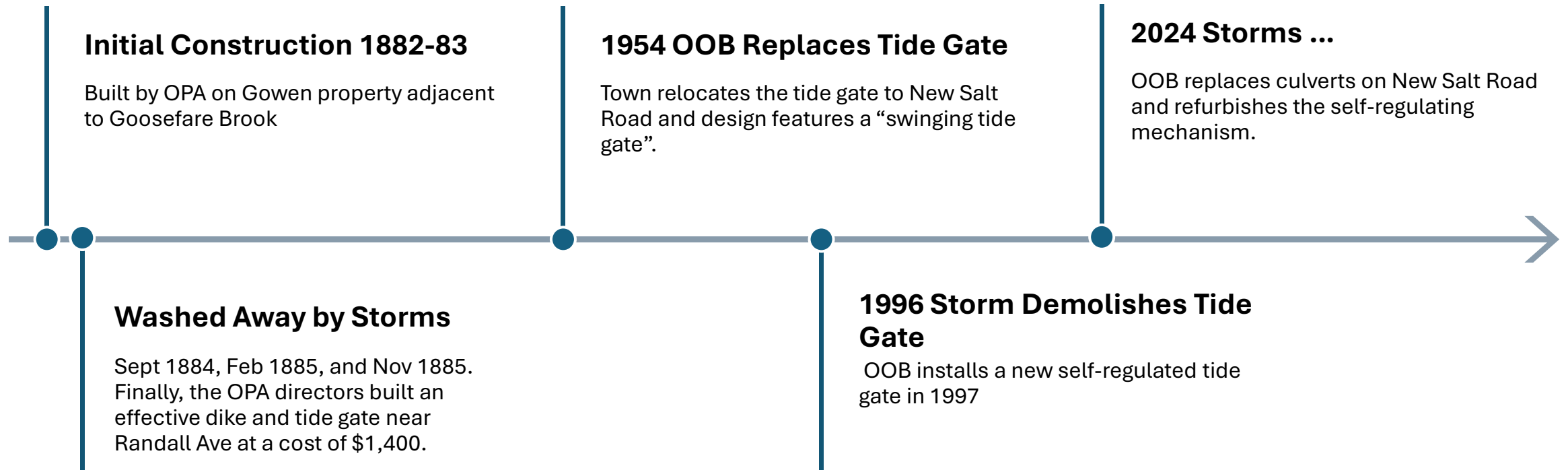
The Balancing Act Of A Tide Gate

Two Objectives:

1. To allow for enough water to enter the tidal marsh system to flush the marshes with salt water,
2. while maintaining protection for infrastructure and residential properties from detrimental flooding.



Ocean Park's Battle With The Sea



What The Tide Gate Can Not Prevent...

Jan 13, 2024 - Corner of Seaside & Sandpiper



Jan 13, 2024 – Corner of Seaside & New Salt Road



Height of Storm Surge Is Trending Upwards



Due to Climate Change, Saco Bay's Sea Level Has Risen 5 Inches Since the Blizzard of 1978

Old Orchard Beach 2025 Marsh Resiliency Study

- In 2023 the Town of Old Orchard Beach received a \$50k grant through the Community Resiliency Partnership to assess the tide gate function and its effects on the Ocean Park marshes.
- Wright-Pierce was hired by the town to conduct this study.

Project Scope:

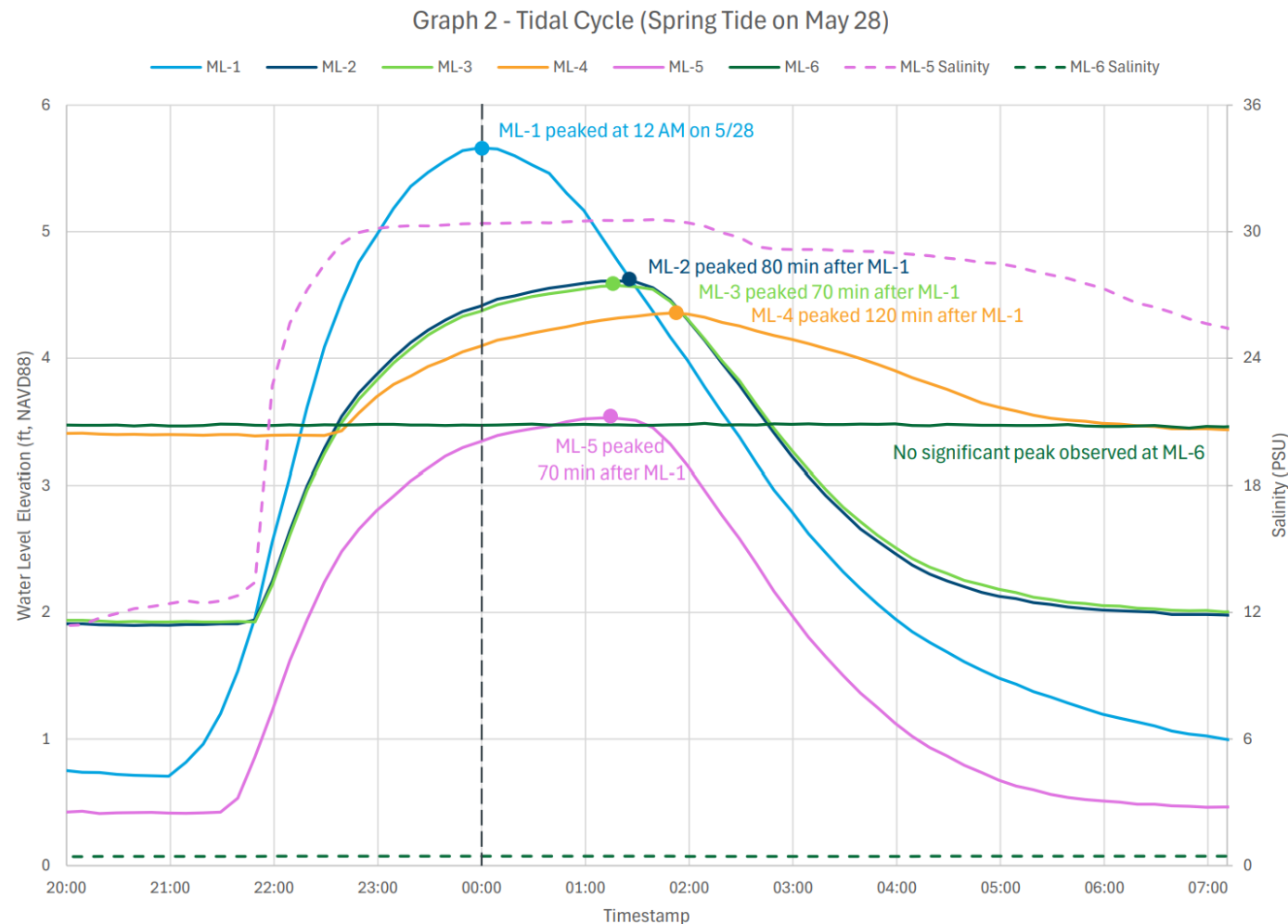
1. assessment of the current conditions of each marsh,
2. survey of elevations of structures surrounding each marsh,
3. evaluation of current and projected conditions (regarding precipitation, storm surge, and sea level rise), and
4. determination of an optimal setting for the tide gates for marsh resilience and flood mitigation

Health Assessment of Ocean Park Marshes

- **New Salt Road Marsh** - a healthy saltmarsh habitat
- **Randall Park Marsh** - tidal inundation in this area may be insufficient for a for an optimal high marsh vegetation community
- **Ancona Marsh** - tidal inundation in this area may be insufficient for a for an optimal high marsh vegetation community
- **Jordan Park Marsh** - The sparsely vegetated mudflat and salt panne habitat in the southwest portion of the Jordan Park Marsh indicates impairment of saltmarsh habitat

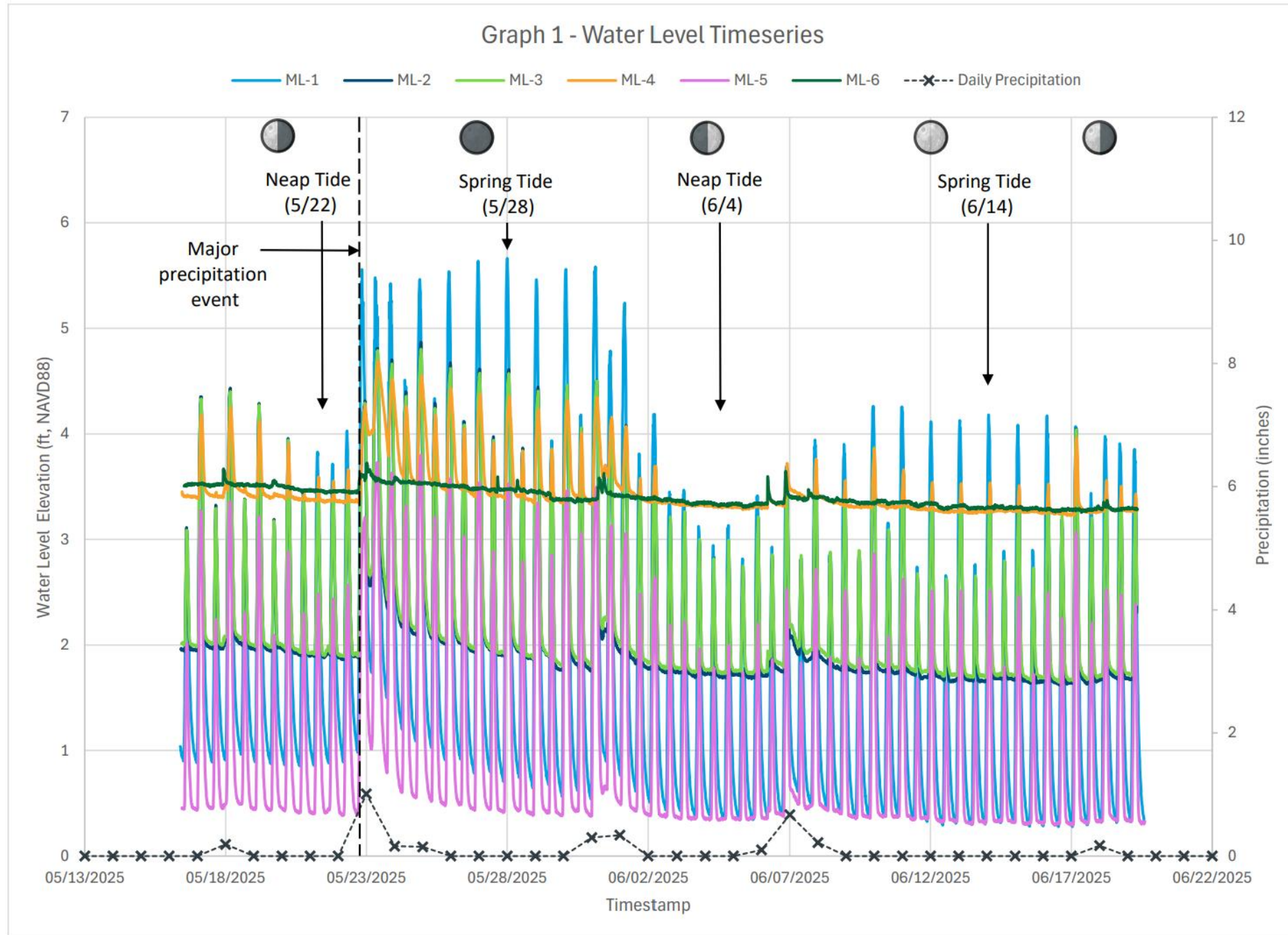


Evidence of Tidal Water Impairment



Tidal Flow Impairment

Tidal monitoring suggests that tidal range is being reduced by up to 40 percent in the Jordan Park Marsh.



Wright Pierce Recommendations



Continued Monitoring



Additional Actuating Gates



Structure Cleaning



Stormwater Improvements



Vegetation Management



Future Considerations



Monitoring Water Quality Around Ocean Park

- Maine Healthy Beaches (MHB) Program which was established to ensure that Maine's saltwater beaches remain safe and clean.
- Every Tuesday morning between Memorial Day and Labor Day volunteers gather information about activity on the beach, air & water temperature, water salinity and walk out into knee-deep water to collect samples that are sent off to the state laboratory.
- By Wednesday afternoon MHB posts the results from the water sample tests for the presence of harmful bacteria on its web site.

How Does MHB Determine Safety Levels?

- The federal gov't recommends caution when enterococcus (ENT) bacteria levels exceed 104MPN/100ml
- Contact with water containing elevated levels of ENT bacteria may cause symptoms ranging from gastrointestinal pain to eye and ear discomfort to flu-like symptoms
- The primary source of ENT bacteria is from animal and human feces



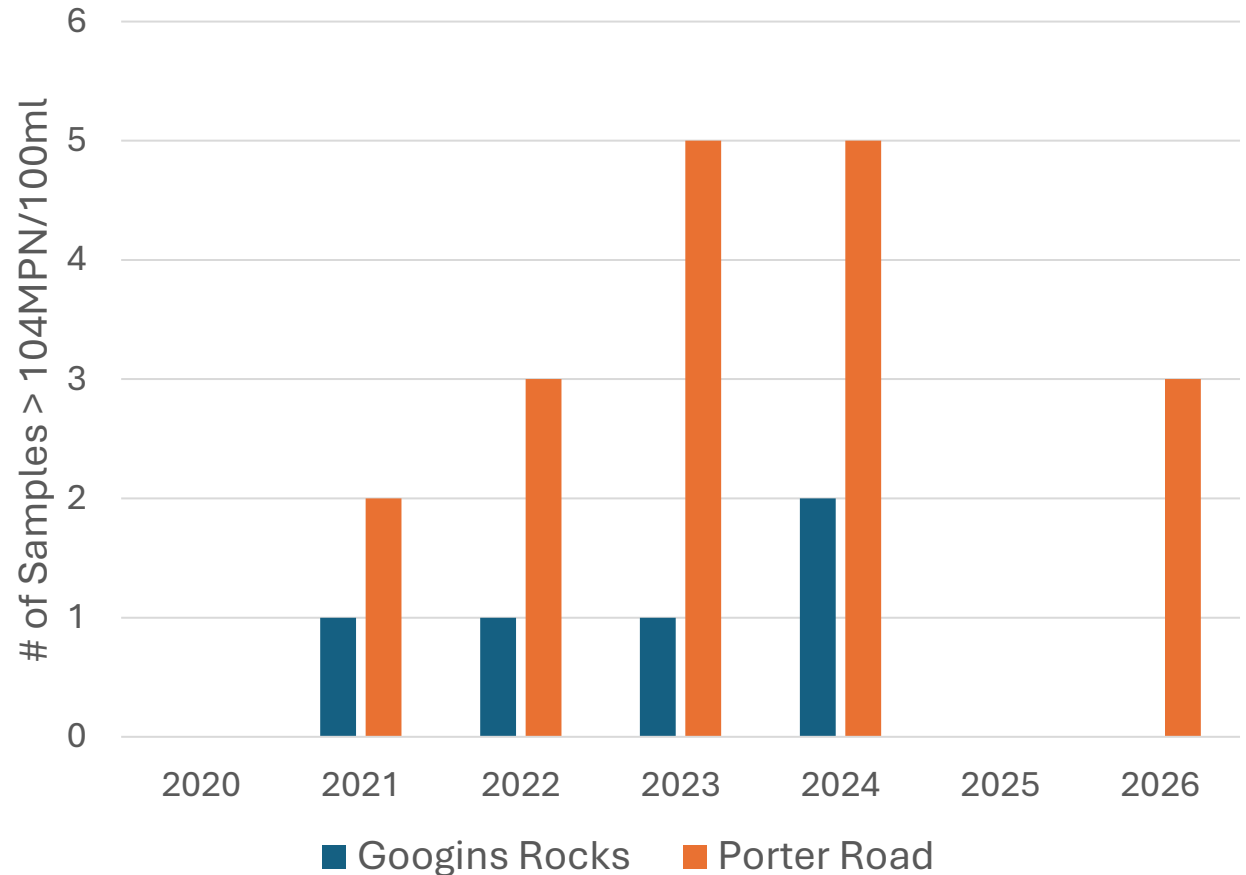
- Googins Rocks (OOB-7)
- Porter Road (OOB-8)

- Ocean Park FYI Sites:
- New Salt Road (GFB-01)
- Route 9 Bridge (SACO-00)

Some Troubling Results

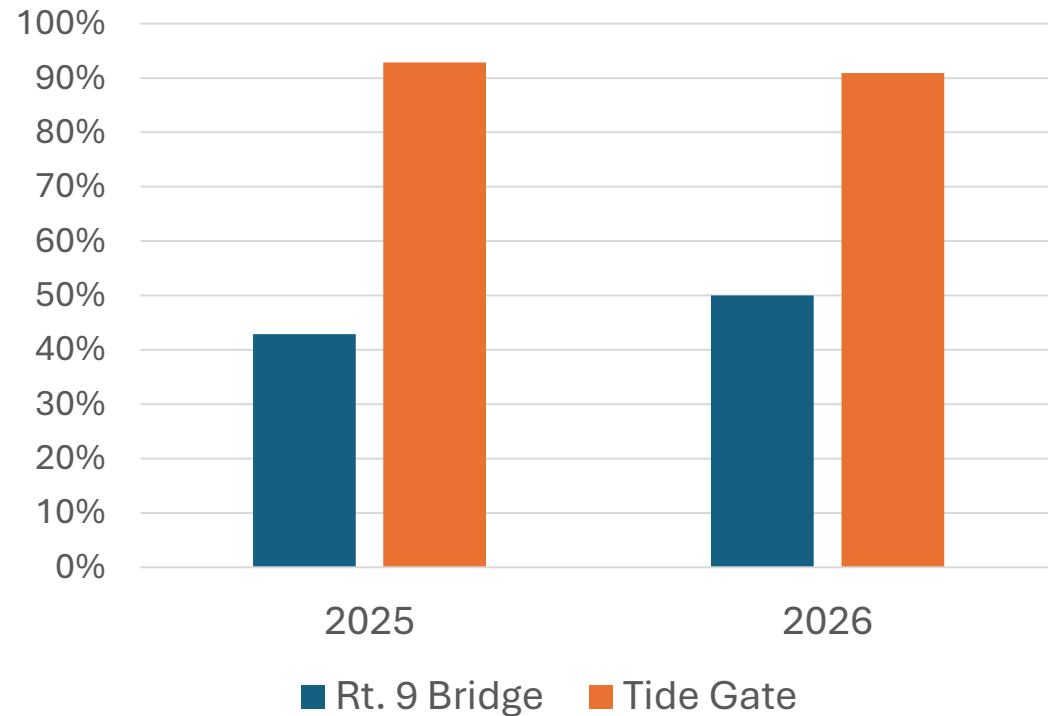
- The number of samples above the safety threshold is consistently higher near the Goosefare Brook
- The bacteria counts are consistently higher at Porter Road than Googins Rocks
- Samples are only drawn once a week unless there is an elevated result
- The degree to which the bacteria levels exceed the safety threshold at Porter Road can be quite high
 - July 11, 2023 a sample was 55 times above the safety threshold
 - June 23, 2026 a sample was 100 times above the safety threshold

Elevated Bacteria Events 2020 - 2026

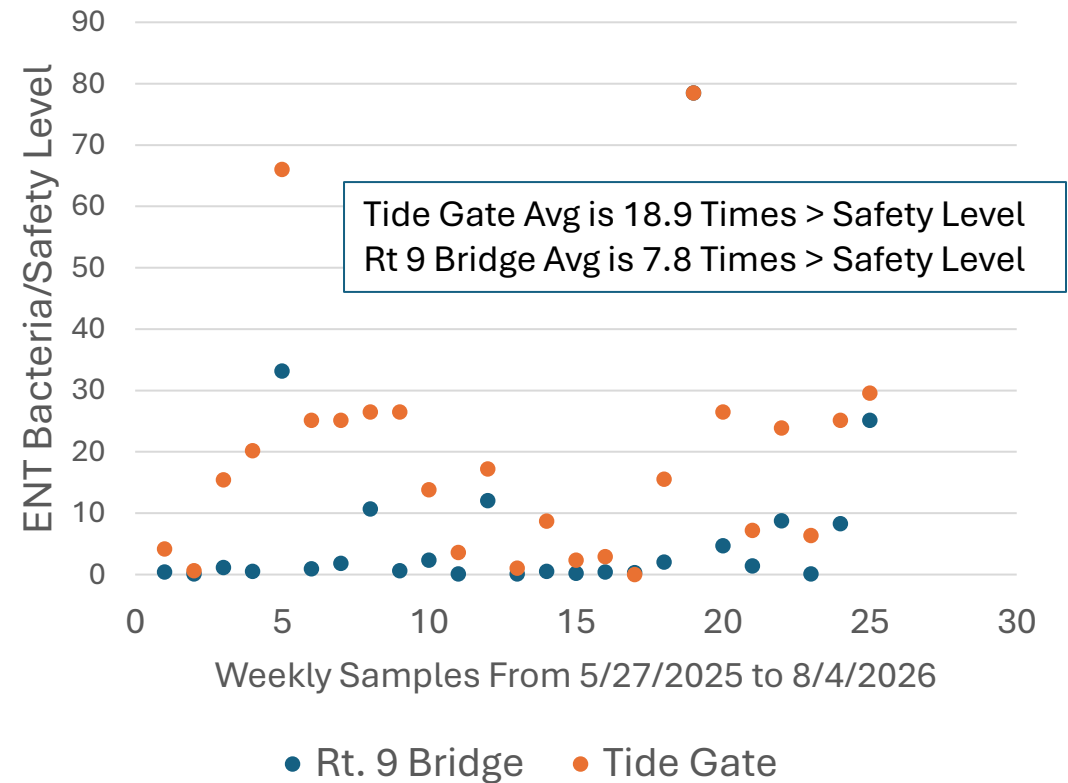


Source of Bacteria Appears to Originate From The Marshes

Percent of Samples Above Safety Levels



Bacteria Counts



What Can You Do To Protect Ocean Park's Beaches



Safely dispose of pet waste



Minimize surface runoff on your property by limiting paved/impervious surfaces



If you have a septic system, get it inspected or better yet connect your home to the Town of Old Orchard Beach sewer system



Join OOB Conservation Commission



Run for OOB Town Council