# **Next Steps**

The Town of Truro will continue working with the Center of Coastal Studies and local, state and federal stakeholders to implement the best long term management for the Ballston Beach area and associated Pamet River Valley system. The Town understands and appreciates how environmentally sensitive and valuable this area is for ecosystems, public health and aesthetic nature. The following steps will aid in achieving the Town's goal:

- ⇒ Obtain a science-based analysis from the Center of Coastal Studies by December 2015
- ⇒ Collaborate with the U.S. Army Corps of Engineers, New England District. A Letter of Intent was sent to request redefining the scope of work and request a cost estimate to provide the new analysis of the Pamet River Valley under the Section 22 Planning Assistance to States program. The renewed study would evaluate flooding and tidal restrictions on the Pamet River, similar to what was conducted in 1998.
- ⇒ Identify potential funding sources through federal or state grant programs to conduct additional studies, data collection and planning.

We hope this information was useful in emphasizing how environmentally sensitive and dynamic the Ballston Beach and Pamet River Valley is.

If you have any questions please contact Jay Norton, DPW Director at 508-349-2140 or email at dpwdirector@truro-ma.gov. Have a safe and enjoyable summer season!

# 2016 Update

The Center for Coastal Studies concluded their research and data acquisition and is in the process of finalizing a report that will advise the Town on long term management options for Ballston Beach and the parking lot. In addition, the Town is in the process of contracting with the Army Corps of Engineers to initiate a larger scale review of the entire Pamet River Valley system.

### Breach vs. Overwash

Breach: Ocean waters create an opening in a barrier beach that allows water to flow in and out.

Overwash: Ocean water and sediment pour over the beach crest with no water flowing back through and returning to the ocean.

#### Resources

1. Kedzierski, J., H. Sullivan & C. Demos. 1998. Pamet River Investigation, Truro, Mass. U.S. Army Corps of Engineers, New England District

# Ballston Beach Overwash

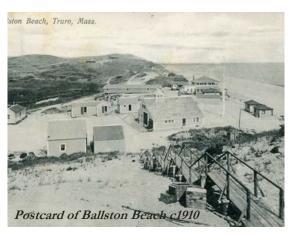
2016







Information provided by the Town of Truro



## History

1869 - The Town of Truro replaced a bridge below the former Route 6 with a dike "Wilder's Dike". The Dike is constructed with a culvert and clapper valve to prevent saltwater intrusion from entering the Upper Pamet River Valley (east of clapper). The valve is closed 2 hours before and 2 hours after a high tide cycle. This dike is located on Truro Center Road adjacent to the post office. Prior to the dike construction, salt water was allowed to flow freely throughout the entire Pamet River Valley.

**1952** - A 4 ft. culvert is installed under Route 6.

1978, 1991, 1992 - Storm events cause Ballston Beach to overwash which resulted in seawater and sand intrusion into the fresh water marsh system landward of the migrating dune at Ballston beach. The parking lot was also flooded.

1998 – The US Army Corps of Engineers

and the Cape Cod Commission completed a study<sup>1</sup> to assess alternatives for managing the upper Pamet to accommodate future overwashes.

2013 - Following one of the largest overwash events Ballston had seen in over 20 years, the Truro Department of Public Works with assistance from John F. Noons trucked in approximately 4,000 cubic yards of beach sand (about 400 dump trucks full) from the Head of the Meadow Beach parking lot to rebuild the barrier dune

### 2015 Overwash Event

On January 27, 2015 (Winter storm Juno), the combination of high tides and strong onshore northeast winds caused the barrier beach to overwash and allow floodwaters to enter the Upper Pamet River Valley and Ballston Beach Parking lot once again. The opening of the barrier beach is approximately 205 ft. wide, wider than the 2013 event and has extended further into the parking lot. Homeowners in the Upper Pamet River Valley were notified again of this event.



As in the 2013 overwash event, the Health Department recommended testing of wells for bacterial contamination and salt water.

The Town did not apply for the same emergency certification under the Massachusetts Wetlands Protection Act to restore the barrier beach following this event, but instead is exploring long term management strategies for the beach, Pamet River Valley and parking lot. In April, the Town met with local, Federal and State stakeholders as well as scientists from the Center of Coastal Studies to discuss the concept of restoring tidal flow to the Pamet River.

The Center of Coastal Studies has been contracted by the Town to complete an analysis and make recommendations for management of Ballston and the parking lot area. The DPW has moved the excess sand from the parking lot and temporarily stockpiled it in the far north corner of the lot.

### Fast Facts

- 2013—Truro DPW brings in 4,000 cubic yards (about 400 dump trucks full) of beach sand from Head of the Meadow Beach in North Truro to restore the dune.
- 2015—Mother nature moved in over 40,000 CY of material into the overwash fan (area of overwash into the marsh and parking lot)