

Shoreline Recession and Erosion of Matunuck Beach Area



Source: <http://www.beachsamp.org/resources/coastalpropertyguide/erosion-sealevelrise/>

Information on Site: East Matunuck State Beach

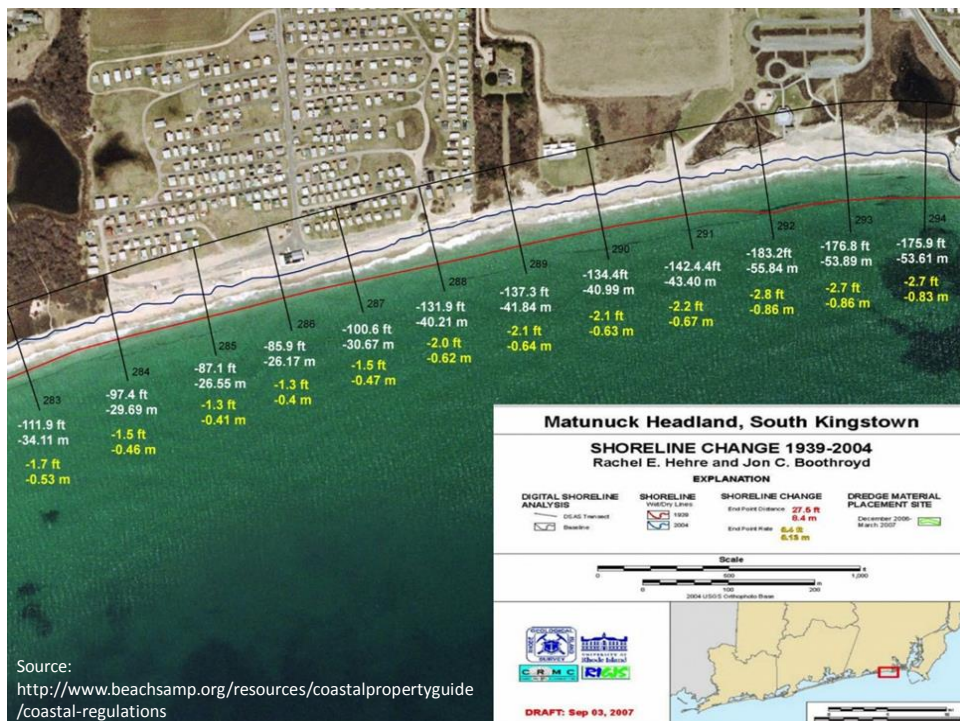
- Located on the South East coast of South Kingston, Rhode Island
- 144 acre area (State of Rhode Island Parks and Recreation, 2012)



<http://newenglandboating.com/news/matunuck-ri-battles-beach-erosion.html>

Erosion in the Area

- 50% of shoreline is composed of sediment susceptible to erosion (Proft 2012)
- The south shore (Pt. Judith to Westerly) has lost nearly 400 feet of beach over the last 40 years (Haas, 2014)



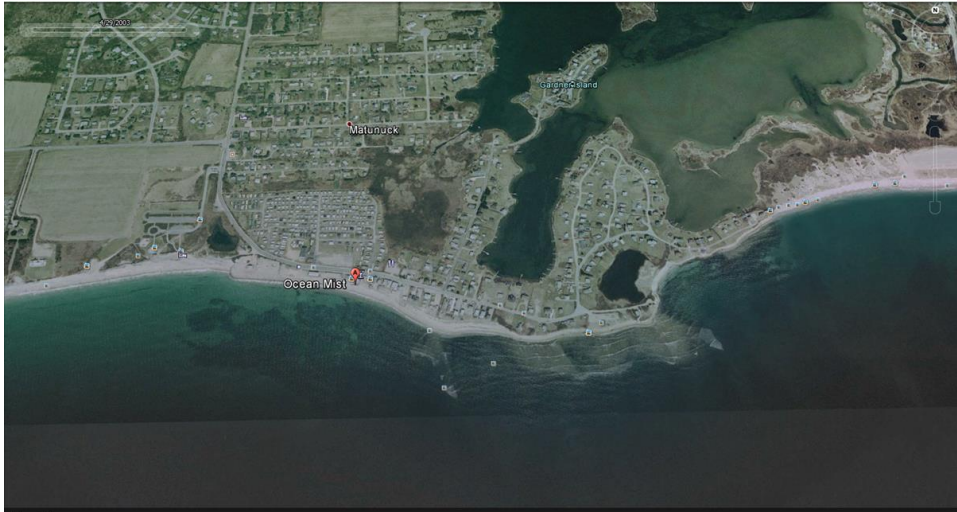
Expositional factors

- The average rate of erosion is currently 1.6 feet per year (Sullivan, 2012)
- Increasing sea level has expedited coastal erosion
 - Sea level in Rhode Island has risen nearly 7.6 inches since 1938 (Rhode Island's Climate Change, 2016)

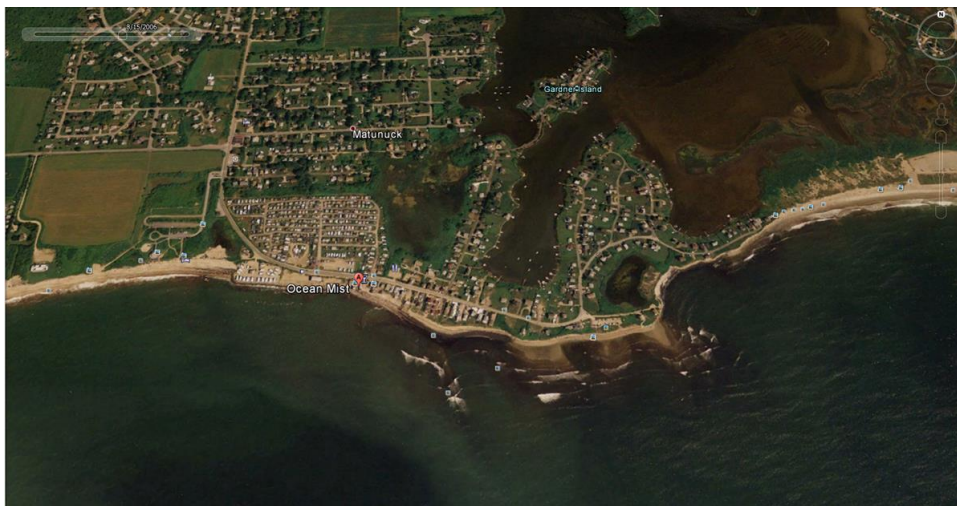
3/28/1995



4/29/2003



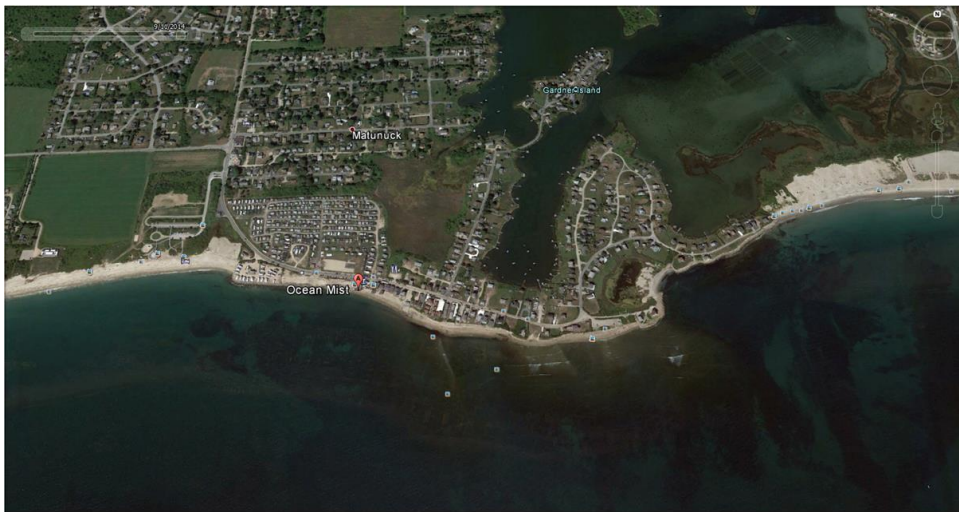
8/15/2006



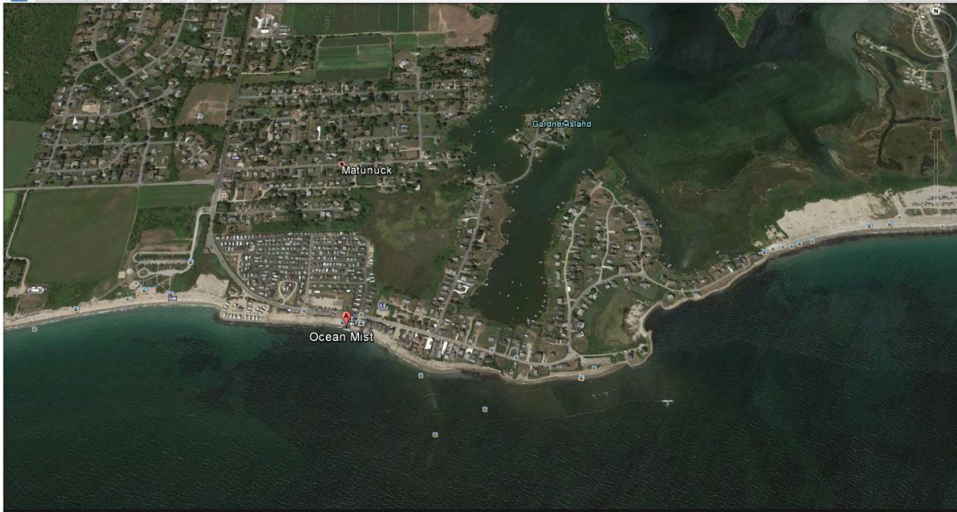
Pre-Sandy (4/2/2012)



Post-Sandy (9/11/2014)



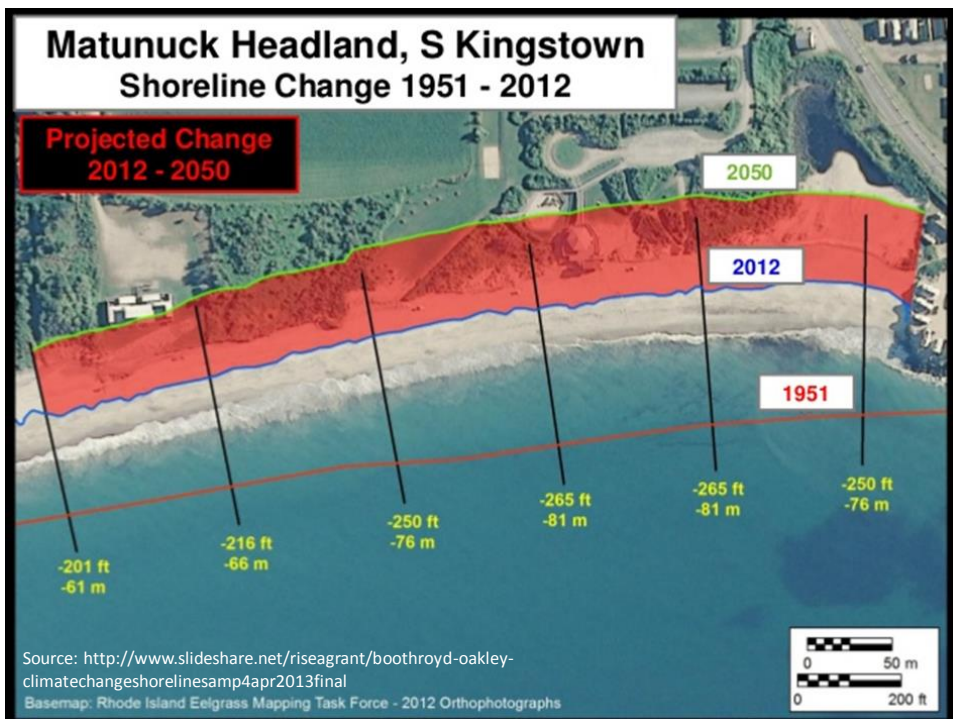
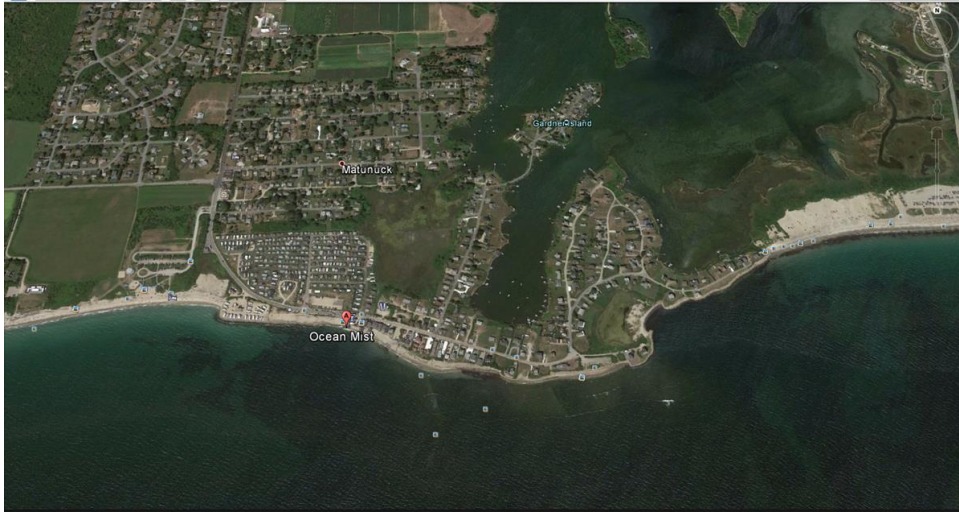
11/24/2016



3/28/1995



Current



Conclusions

- Shoreline recession/erosion will continue to get worse as sea level continues to rise and powerful storms become more frequent
- Methods such as beach renourishment and seawall construction have only proven to be short term solutions (Haas, 2014)

“Water is going to do what water is going to do. The issue isn’t the ocean. It’s our responses and abilities to manage our own actions.” (Haas, 2014)

References

- Coastal Flooding and Erosion: Rhode Island's Climate Challenge. N.p., n.d. Web.
- Haas, Meredith. "Building on Borrowed Time - Rhode Island Sea Grant." Rhode Island Sea Grant. N.p., 23 June 2014. Web. 30 Nov. 2016.
- Proft, Kevin. "Rhode Island's Eroding Coast a Serious Problem." EcoRI News. N.p., 23 Aug. 2012.
- Sullivan, Margo. "Beware Coastal Erosion." Jamestown Press. N.p., 2012. Web. 30 Nov. 2016.