



Friends of Ellisville Marsh Newsletter

May, 2017

This newsletter is produced on a periodic basis to keep members of the Friends of Ellisville Marsh, Inc., apprised of developments and opportunities to become involved.

In this issue:

- **President's Corner**
- **Ten Years and Counting!**
- **Ellisville Inlet Study Investigates Options for Maintaining Tidal Flows**
- **Savery Pond Project Update**



Owen Dawson, gung-ho veteran of several Friends' annual clean-up days, with part of his latest haul.

SAVE THE DATE

The Friends' 2017 Annual Meeting will be held at 10:00 am on Saturday, July 15th at the Wildlands Trust headquarters, 675 Long Pond Road in Plymouth.

PRESIDENT'S CORNER

I was recently at the Tesla Giga-Plant in Sparks, NV and it is a state-of-the-art facility furthering the science of manufacturing, building structures, and work flow. This one plant will double worldwide manufacturing capacity for lithium-ion batteries! Incredible. Science, engineering, application. The ongoing grant study with the Town of Plymouth, highlighted in this newsletter, has been given scientific data the Friends have been gathering for ten years now. We have carried out extensive research and monitoring programs covering wetlands vegetation, water quality, eel grass, threatened shorebirds and changes in the coastline. These programs have yielded a great deal of important environmental data. Scientific monitoring and the application of scientific data are what guide us as an organization. We trust that the Town's current study will also reflect and embody this theme. Our expectations of the analysis of alternatives for maintaining tidal flows to the marsh is that scientific and engineering analysis offer the best foundation for decision making. In addition to having the Friends' monitoring data, the project team has brought other tools to bear including sediment transport modeling and several years of beach topology changes as measured by LIDAR, a technology that can precisely measure an entire strip of beach using lasers on board an aircraft. We hope that our diligent, community-based effort to help protect the health of the marsh will serve as a model for other projects. We feel confident that with your continued support, a long-term, sustainable solution can be identified.

Jack Scambos, President

Ten Years and Counting

Time really does fly! Did you know the Friends will be ten years old on July 16th? Our story is remarkable in many ways. Here are a few highlights:

- We acquired and maintain all the local, state and federal permits necessary for us to reopen the Ellisville inlet when it becomes blocked by sediment. Each of these permits has now been renewed or extended at least once.
- A new species of insect was discovered in the marsh and its taxonomic name reflects its source, "*Encarsia ellisvillensis*."
- We raised and invested more than \$100,000 to restore tidal flows to the marsh and thereby enhance vegetation, fisheries and wildlife. None of this money has come from taxpayers. We have no paid staff and have funded summer internships for highly motivated college students pursuing environmental studies since 2014.
- Our Threatened Shorebirds monitoring program has been featured on US Fish and Wildlife's national web site.
- Four of our five founding directors still serve on the board. The fifth remains an active member.

Ellisville Inlet Study Investigates Options for Maintaining Tidal Flows

Since our last newsletter the consultant on the Town's grant-funded project to study options for keeping the Ellisville inlet open has been busy analyzing historic data on shoreline changes and developing a model that could be used to simulate the response to various alternatives. The project's objective is to identify an alternative to mechanical breaching of the barrier spit that is effective, economically viable, and can be permitted. Options under study include: reconstructing the rock jetty on Ellisville Harbor State Park, rebuilding the dune system north of the inlet, trapping sediment on the north side of the jetty and periodically moving it around the jetty (called sediment bypass), and other options. Maintaining the *status quo* of periodically maintaining the inlet is also on the list. As of this newsletter, attention is focusing on changing the profile of the rock jetty, perhaps in combination with dune rebuilding. Three members of our board of directors are participating directly in the project.



Aerial View of Ellisville Inlet taken April 23, 2017, showing the telltale hook from a barrier spit newly formed in early April. Photo courtesy of Mike Brennan.

Public Presentation of Inlet Project

The Town of Plymouth will host a public meeting to present the status of the grant-funded project to assess alternatives for maintaining tidal flows to Ellisville Marsh. All are welcome.

When: Thursday, May 25 at 7:00 pm.

Where: Wildlands Trust Headquarters, 675 Long Pond Road, Plymouth

Positive changes underway at Savery Pond

No new fertilizer inputs on the bog! Last fall, the Town of Plymouth acquired the last active commercial cranberry bog adjoining the pond and will restore it to a grassland habitat. We are looking forward to seeing whether our first summer in decades without fertilizer applications on the bog will make a difference in the level of algae in the pond. The Friends are working with the Town toward studying and eliminating the toxic cyanobacteria (blue-green algae) blooms that have been occurring in recent years. So far, our data suggests that, along with ongoing nutrient inputs (agriculture, landscaping, storm water, septic discharge to groundwater), the sediments on the bottom of the pond experience low oxygen ("anoxic") conditions that may liberate accumulated "legacy" nutrients and contribute to the ongoing algal blooms. During this critical time, the Friends will continue to work with Town staff to monitor water-quality conditions. This summer, you will see us out in boats taking samples and measuring water clarity, temperature and dissolved oxygen.

Join us! We need volunteer assistance in performing these measurements, as well as monitoring pond level, groundwater level and pond discharge. If you are interested in volunteering, or just would like more information about Savery Pond, please contact us at SaveryPondProject@EllisvilleMarsh.org. Also, keep an eye out at www.ellisvillemarsh.org for the Savery Pond Data Analysis Report. We are near completing a comprehensive analysis of all collected water-quality and hydrologic data, and it will be posted on our website by early summer.

Funding. Your financial support is critical to allowing the Friends to perform our share of the data collection, and to position us to receive future grants. When you renew your membership, please consider an additional donation of any size to our Savery Pond initiative—click on "Donate" tab at www.EllisvilleMarsh.org.