Can We Re-Brand Maintenance?
By Michele Bakacs, Associate Professor, Rutgers Cooperative Extension

There is no better indicator of how successful your restoration project will be than how well it is monitored and maintained. Be it a rain garden, riparian planting, streambank stabilization, or forest restoration... a project is only as good as its maintenance. When a project is not maintained, inevitably invasive plants creep in, erosion gullies form, native plants die from lack of first year watering, or the project becomes an eye-sore and neighbors complain.

Lack of attention and appreciation of maintenance is not isolated to the environmental restoration community. The podcast Freakonomics tackled this issue in their 2016 episode titled "In Praise of Maintenance" (Ep. 263) where they argue that our society embraces and celebrates innovation at the expense of maintenance. We are always looking for the new, glamorous, cutting-edge technology often prioritized for funding. It’s difficult to sell maintenance to a funder because it is just not as exciting as supporting a new program or project which will get more attention.

Rutgers Cooperative Extension of Middlesex County has come out with their 4th video in the Restoring the Watershed series titled "Maintenance of Lake Shoreline Restoration projects". The video highlights the importance of preventative and corrective maintenance practices such as watering, weeding, site assessment, mowing, ... (Continued on page 2)

For the latest news and events visit the Green knight Blog greenknightnewsletter.tumblr.com/ or subscribe to RSS salem.njaes.rutgers.edu/greenknight/events.html
and re-planting. A maintenance plan that lists the original plant species installed at the site is essential. Monitoring the project on a monthly basis is important in the first year to address erosion issues, fence repairs, and aggressive plants before they become out of control.

This particular video highlights maintenance of lake shoreline projects but the topics covered could easily be transferable to other types of restoration projects. The entire video series is available at www.tinyurl.com/ManalapanWatershed

Maintenance needs to be re-branded... a smart marketing campaign that gives maintenance the credit it deserves for being an essential part of the restoration process. It should be the first topic discussed when planning a project. The Freakonomics podcast notes that society needs a more balanced appreciation for the innovators and the maintainers in the world. This is as true in the technology sector as it is in ecology... and certainly in watershed restoration.
The Lake Audrey Project – An Examination Completed by Cumberland County 4-H Fishing Club

Joe Haase and Donna Griebau, Cumberland County 4-H Program

Authors’ note: During the spring and summer, club members that range in grade from seventh to Kindergarten, took a very hands on approach to examining where this habitat sits now. This will be a multi part series, which will span over the next several issues. The goal of this series is to highlight some of the methods and cutting edge technology developed for the club to complete this study.

The Lake Audrey Project Part 2 – Setting The Bar

Much like a diamond, there are many facets when trying to determine the condition of a lake. There first needs to be a benchmark, or some sort of comparison. A lake that is perfect for swimming is very different from one for fishing, which also is different from a lake good that is for sailing. Being a fishing club made up of a wide range of ages, it only made sense to compare it for fishing. But compare it to what?

In 2016 our club started keeping individual fishing logs. Each club member was given a sheet before we started fishing, and they were responsible for keeping track of their ventures. Every Monday members would meet after school, and head to a lake. Each member was given one hour to try their best, while trying new things. Various baits, hooks, and locations made for a wide array of results. Each time we fished a new lake, we would revisit the following week and try a new spot. This assured us that we were maximizing our chances.

At the end of the season, and just in time for our County Fair, all of the results were compiled. Each member counted their fish, and organized them in all various ways. At one of our pre-fair meetings, everyone began comparing notes. Statements such as “I had the best luck with worms” would quickly be trumped by “No way; meal worms work better”. Each member had a different result, and each member had a different story. Almost 200 pages of fishing logs were added together.

The first fish of the year always brings smiles. Corson Park, Millville, 2019.

(Continued on page 4)
Lake Audrey Project... continued

(Continued from page 3)

Trying to decipher the scribbles of a 6 year old on a muddy piece of paper proved to be a challenge, but we made it work.

Our project entry for fair was a visual summary of each member’s results, along with an overall review. They ended up with just under 200 fish for the year, found out that night crawlers make awesome bait for bluegill, and a small pond nearly produced as many fish as all other locations combined. Little did they know it, but our club members conducted their first scientific research project. Learning and creating a bar graph is something not many 6 year olds can say they can do.

With years of logs from all over our county, our club members have proven they can catch fish. Using everything from meal worms to crickets, hundreds of fish have been caught and released to live a happy life. Armed with the logs, members were challenged to find out how our trips to Lake Audrey compared. Over the course of three years, members logged about 100 man-hours of fishing time, but the results were disappointing at best. Three fish in three years is bad...
Lake Audrey Project... continued

(Continued from page 4)

enough, but catching all three fish in one day made it worse. Needless to say, Lake Audrey didn’t match up to other lakes.

All three fish the club ever caught at Lake Audrey. 2017.
New Jersey’s Bayshore Heritage Byway
Sal Mangiafico, Rutgers Cooperative Extension

The Bayshore Heritage Byway stretches along Delaware Bay, connecting Salem, Cumberland, and Cape May Counties, and provides vistas of agricultural landscape, bayshore marshes, historic villages, and the East Point Lighthouse.

Visitors can view collections of prehistoric artifacts at the Cumberland County Prehistorical Museum. Or visit the Hancock House State Historic Site, with it’s Revolutionary War history. Or Fort Mott which protected the Delaware River in the 19th Century.

The vision, goals, and strategies to preserve the Byway is presented in a Corridor Management Plan, which also lists the natural, historical, cultural, archaeological, scenic, and recreational qualities (www.state.nj.us/transportation/community/scenic/pdf/bhbcmp.pdf, 163 mb).

Other Scenic Byways in the State include Pine Barrens, Millstone Valley, and Palisades, among others. (www.state.nj.us/transportation/community/scenic/cmp.shtm).

The Bayshore Heritage Byway can be visited on social media (www.facebook.com/BayshoreHeritageByway/).

A roadside sign marks the route of the Bayshore Heritage Byway in Greenwich, NJ. Photo: Sal Mangiafico.
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Some roadside scenery in Greenwich, NJ. Photo: Sal Mangiafico.

The Greenwich Tea Burning Monument in Greenwich, NJ. Photo: Sal Mangiafico.
Snakehead Fish in New Jersey
Sal Mangiafico, Rutgers Cooperative Extension

Northern snakehead fish, *Channa argus*, are a concern in New Jersey because they are non-native large predators that may out-compete native fish.

They were once imported live as an ornamental species and as food for people. Their presence in the Mid-Atlantic region may be explained by accidental or intentional releases for these purposes. They can tolerate warm, shallow water, which may make some waterbodies in New Jersey hospitable habitat as these waterbodies silt in.

Interestingly, they are able to breathe outside of water, and can tolerate burying themselves in mud when water levels are low.

The U.S. Geological Society provides a map of recorded observations of the northern snakehead fish with several observations in the Delaware River Basin (see following page).

In addition, in the Down Jersey area, in April 2019, there was a report of a northern snakehead caught in Woodstown in Salem County, NJ. A quick internet search found reports that they were observed in Salem County in 2011, 2015, and 2016, but I found no reports of them in Cumberland County. This search also suggested that they are regularly found in some creeks draining to the Delaware River in Gloucester and Camden Counties.

For more information on snakehead fish, see:
www.usgs.gov/faqs/what-are-potential-effects-snakeheads-our-waters?qt-news_science_products=0#qt-news_science_products
Snakehead Fish in New Jersey... continued

********** NEWS AND UPCOMING EVENTS **********

**Bring Your Own Boat, Buck Moon Kayak, August 17, 2019, Fairton, NJ**

Explore Clark's Pond with us! It's free, courtesy your friendly neighborhood watershed association, Cohansey Area Watershed Association.

Visit the event:  
[www.facebook.com/events/361888501230457/](http://www.facebook.com/events/361888501230457/)
Turf’s Up!: Environmentally-friendly lawn care and weed identification, September 19, 2019, Millville, NJ

September 19, 2019
9:30 am - 12:00 am

Rutgers Extension Education Center
291 Morton Ave.
Millville, NJ 08332
856-451-2800

Cost: $5.00

Instructors: Sal Mangiafico, Pam Burton, and Rutgers Master Gardeners

For Rutgers Fact Sheet 102: Your Lawn & Its Care, go to njaes.rutgers.edu/fs102/
****** NEWS AND UPCOMING EVENTS ******

Cumberland County Water Quality Forum, September 7, 2019, Vineland, NJ

The Cumberland County Health Department is happy to announce that we will be holding our first Water Quality Forum on Saturday, September 7th at the Cumberland County College (Rowan College of South Jersey).

In years past we have held a septic and well training for our friends in the real estate community where we talked about septic inspections, water testing, and regulations that go along with them.

This year we received a state grant that is allowing us to open the event up to a larger group. We are also expanding the topic to include the Water Quality Management Plan so that our attendees get a better idea of how the State and local regulations work together.

Discussion topics will include:
- Residential Development
- Nonpoint Source Water Pollution
- Private Well Testing Act Requirements
- Water Certifications
- Septic Inspections

The Luciano Conference & Event Center catering staff will be provide lunch to all attendees. The event will run from 10:30 am to 4:00 pm. This is free to attend but seating is limited to 150 people so registration is required.

Those interested can register at [www.eventbrite.com/e/cumberland-county-water-quality-forum-tickets-56497824514](http://www.eventbrite.com/e/cumberland-county-water-quality-forum-tickets-56497824514)
Jersey-Friendly Yards. October 19, 2019. Toms River, NJ

The focus of the conference is to give residents of New Jersey best landscaping practices to help them make decisions for a healthy environment and a healthy economy.

This year’s featured speakers are Bruce Crawford, Director of Rutgers Gardens, and Pat Sutton, Naturalist and Author.

There are workshops on reusing materials in your yard, creating a native edibles garden, and other great topics.

For more information and to register for the conference, please visit www.jerseyyards.org/workshops-events/conference-2019/.

Registration is limited so act fast!

Cost: $35
New Rutgers Factsheet: Stormwater Utilities in New Jersey – Frequently Asked Questions

njaes.rutgers.edu/fs1307

EARTH Center Open House Offers Fun for Whole Family, August 24, 2019, South Brunswick, NJ

The Rutgers Cooperative Extension of Middlesex County will host its Garden Field Day/Open House from 11 a.m. to 5 p.m. on Saturday, August 24 at the EARTH Center, located in Davidson’s Mill Pond Park at 42 Riva Ave. in South Brunswick.

The day will be filled with family-oriented activities, including garden tours, presentations and showcases on gardening and landscaping and live music. Throughout the event, the Extension’s Agriculture Office and Rutgers Master Gardeners will offer advice on horticulture and environmental stewardship while guiding visitors through various teaching gardens and learning projects. Examples of their work include: the children’s garden with green roof playhouse, an enormous vegetable display garden and the popular butterfly house.

Another highlight of the event will be the annual “Greatest of the Garden” competition. Gardeners are welcome to bring their biggest or most outstanding home grown produce for a chance to win. Categories include but are not limited to:
- Biggest tomato
- Biggest cucumber
- Biggest squash
- Biggest watermelon
- Longest gourd
- All vegetables: Best Likeness to a Celebrity or Historical Figure

“Come enjoy the beautiful gardens and educational presentations, while taking in the sounds of local musicians in beautiful Davidson’s Mill Pond Park,” said Freeholder Kenneth Armwood, Chair of the County’s Business Development and Education Committee.

“Garden Field Day is an entertaining event for the entire family,” said Freeholder Director Ronald G. Rios. “Through the educational displays, the beautiful scenery and the spirit of collaboration, this event illustrates that caring for the environment is a fun and enjoyable experience.”

Many exhibitors who collaborate with Middlesex County Extension throughout the year will be on hand to share their programs and accomplishments. There will also be a food truck and ice cream vendor on site.
********** NEWS AND UPCOMING EVENTS **********

Putting Your Garden to Bed, October 17, 2019, Millville, NJ

Wes Kline will discuss how to winterize your vegetable garden including the best practices for effective disease management as well as potential cover crops for overwintering that will help improve the soil. He will cover what to do with your tools and equipment before winter sets in and you close the shed door. You will be well-prepared for a good start to your 2020 vegetable garden after attending this class.

The demonstration portion of this program includes a “how-to” sharpen your tools.

October 17

9:30 am – 12:00 pm

Cost: $5.00

Register by: October 10

For more information, download the flyer, or call 856-451-2800.
Composting, November 21, 2019, Millville, NJ

Rutgers Master Gardeners excel at “reduce, reuse & recycle”, and the "Compost Team" will talk about how to make a compost pile and the benefits of using compost in the garden. They will also cover how to make backyard leaf compost and how to use it.

The Compost Team will demonstrate how to set up worm composting by using the red worms that reside at the Extension Center.

For Rutgers Fact Sheet 811: Home Composting, go to njaes.rutgers.edu/fs811/

November 21

9:30 am — 12:00 pm

Cost: $5.00

Register by: November 14

For more information, download the flyer, or call 856-451-2800.