



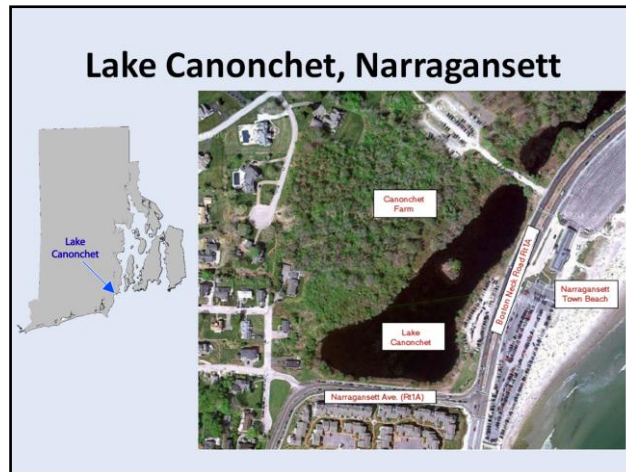
**Friends of Canonchet Farm
Habitat Restoration Committee
2014 Land and Water
Conservation Summit
Ten Steps to Habitat Restoration**

Welcome to Lake Canonchet, and thank you for your interest in the Friends of Canonchet Farm's project to remove invasive plants and promote the growth of native species along the edge of this coastal fresh water pond.

My name is Kathie Kelleher and this is David Smith. We are both members of the Friends of Canonchet Farm Habitat Restoration Committee, and we are at the site today to get ready for the start of our third season on April 4.

It's a little early. The knotweed has not yet dared to show its ugly green and red shoots, and of course the shad and many of the other native species will not be out for another month or two.

I know you are considering similar projects for a land trust property or publicly owned land. So we'll spend some time describing the 10 steps to habitat restoration here along Lake Canonchet, and then we will hear from some of our hard-working volunteers. And if you can stay a little longer we might even put you to work cleaning up from the winter storms.



First a little orientation. Lake Canonchet is one of two freshwater ponds across Boston Neck Road from the Narragansett Town Beach. It is in the southeast corner of Canonchet Farm, a 160-acre property which the town acquired in the 1974 with state and federal assistance for open space and passive recreation.

Back in 1865, former Governor and then Senator William Sprague and Kate Chase Sprague purchased a farm here on Little Neck and built a sprawling 68-room mansion on the high ground just west of where we're standing. They named the mansion Canonchet, and until the mansion burned in 1909, Canonchet Farm was the site of many wonderful stories, and delicious scandals. The Friends of Canonchet Farm was formed in 2007 to work in partnership with the town to preserve the natural beauty of the farm, and to provide funding and volunteers for enhancing the property.

Canonchet has many rich habitats including these ponds, saltwater and freshwater marshes, forested upland, and abandoned farm fields. As those fields revert to woodland, they have been invaded by oriental bittersweet, black swallowwort and other villains. And because the property is on the Rhode Island coast, Japanese knotweed and other species find many opportunities to take over along the roads and in disturbed areas.

Step 1: CRMC Invasive Plant Manager Certification



From its beginning, the Friends of Canonchet Farm has been very interested in solving the problem of invasive vegetation. But ah! Where to begin?

Our first step was to learn all we could about invasive plants and how to get rid of them. In 2010, three of us took the Invasive Plant Management Certification Program offered by the URI Outreach Center and the Rhode Island Coastal Resources Management Council. The program trains green industry professionals working in coastal zones to provide sustainable invasive plant management services to clients, and to facilitate restoration of degraded coastal habitats. With classroom instruction and field training, the course covers:

- CRMC Regulations and permitting
- Ecology of Invasive Species and Coastal Plant Communities
- Different Methods for Controlling Invasive Plants

The field training for the course that David and I took was held right on Canonchet Farm. Since then three others on the committee have taken this course and the six of us are recognized as **Coastal Invasive Managers** by the CRMC. There is information in the packets about the course, including how to apply for the class in July.

Step 2: Select and Evaluate a Site



Step Two was figuring out where we were going to apply that knowledge.

We decided to manage the east edge of Lake Canonchet for our first project because:

- It is accessible for volunteers (where we are standing was once a parking lot for the beach across the road)
- Those volunteers can work safely along the embankment
- It is also visible to the public – our project is now part of the scenery on Scenic 1A
- The site allows us to work from least invasive to more invasive
- We can add subsequent phases in adjacent areas while maintaining what we started in 2012
- And the town is now finalizing a master plan that calls for development of a linear park along Lake Canonchet and Little Neck Pond – managing the invasives is a great first step.

Our site assessment included:

- An inventory of plants: both native and invasive plants
- Testing the soil, and testing the water
- Looking at adjoining areas, their vegetation or lack of it, their uses, and any special logistical problems
- Determining the control methods
- Checking for safety issues
- Assessing the suitability of the site for volunteer project

Survey Plants on Property 2012



Our plant inventory in 2012 revealed the presence of multiple invasive species.

There was bittersweet, knotweed, honeysuckle, phragmites.

And it was mixed in with bayberry, clethra, willow, oaks and other desirable native plants that could prosper in the coastal environment.

The invasives were competing with each other as much as they were with native plants.

**Invasive Plant
Japanese knotweed**



But clearly the dominant problem is Japanese knotweed.

If you look over there to the untreated south edge of the pond you can see that ugly stand of brown stalks, some as tall as 7 feet.

That is debris from the growth from previous years and it is blocking the growth of native plants.

In the first season, we spent the first five or six work sessions hauling away debris like that. And once we cleared it, the new knotweed came roaring out of the gate.

**Native Plants
Skunk Cabbage and Rose Mallow**



Mixed in with those thugs was evidence of many desirable native plants.

As we have cleared knotweed and other invasives from the pond edge over the last two years, bayberry, skunk cabbage, golden rod and other native plants have enjoyed the sun light and taken hold.

And then there's rose mallow, the symbol of our success.

Testing the Water and Soil



We also tested the soil, mailing samples to the University of Massachusetts Extension Service to see what other conditions might prevent the native plants from prospering.

Veronica Berounsky from the Narrow River Preservation Association assisted us in testing the water for salinity and dissolved oxygen. In 2012 the salinity was **0 Parts per Thousand**, and so we made an application to “Alter a Freshwater Wetland.”

Six months after Superstorm Sandy the water had **7 Parts per Thousand** and has since become less brackish.



So that brings us to step three: Make a Plan

Because we are working along a coastal feature, CRMC requires the property owner, that is, the Town of Narragansett, to apply for a permit for work to be done by a landscape professional who is a Certified Invasives Manager, in our case a volunteer organization led by certified managers.

Technically, the Town of Narragansett applied for the permit. But in reality we developed the proposal and shepherded it through the town and the CRMC. This can be a daunting task for a small non-profit with no staff. But we had a lot of help:

First, the invasives management training itself helped us divide the project into manageable phases, start from easy areas, identify methods, schedule reporting.

But most helpful, the training included a checklist from CRMC and a practice session in developing a proposal.

Second, we hedged our bets by hiring an expert to review the proposal. Linda Steere of Applied Bio-Systems was a great reality check and made several key suggestions.

By the way, we'll gladly share our proposals and reports with you to use as models.

Welcome to Our Site
CRMC Assent # W2011-11-56



We proposed to manage the 900 feet along the east side of Lake Canonchet.

Working from south to north we are using hand tools, **and hand tools only**, to remove the invasives so as not to damage adjacent natives plants that we want to promote.

Of course, cutting a plant like knotweed stimulates its growth. So we have to cut again in a week or two. But the repeated cutting denies the weed of nutrition, and the plant becomes weaker and weaker.

Because we are protecting a native population we avoided plowing up the site and broadcast spraying of herbicides.

The project calls for us to develop a planting plan for those areas in which the natives are completely absent. In subsequent phases we will work on the east shore of Little Neck Pond while maintaining the progress at Lake Canonchet.

The permit was approved on March 28, 2012, two days before our first scheduled work session.

Step Four: Find the Right Tools



Hand tools! Now that brings up step four: Find the right tools.

In previous clean up projects on Canonchet Farm, we asked volunteers to bring their own tools and work gloves.

But with a 3-year project, where we wanted to control (and evaluate) methods, we decided to provide all the tools and safety equipment.

Some tools we purchased right away and some we borrowed from the Rhode Island Natural History Survey.

Over the course of two years we have spent about \$7,000 for tools and for supplies such as gloves and first aid items, some of which are spread out on the tarps so volunteers can pick their weapon of choice and get to work.

Bean Hook and Homer Bucket



The tools they select vary through the growing season. Loppers and clam rakes were useful when we were clearing debris from previous year's growth and storm damage.

Then, when we were making multiple passes at the knotweed, we all grabbed a bean hook to shear the growth right at ground level by either stabbing, or hooking and pulling.

And there are occasions when the knotweed is so weak that all we need are a good pair of gloves and a Homer bucket.

Loppers



Toward the end of the first season and throughout the second, we were able to pay more attention to the bittersweet that was tangled up in the oak and willow trees, and to the rosa rugosa. So out came the loppers and hand saws.

Paper Bags and Bagster



But probably the most useful investments were containers, from the orange buckets from Home Depot, to the expandable leaf bags and paper bags from Benny's.

And look at those two green canvas bags in the background filled with phragmite reeds. They are called "bagsters" and were designed for one-time use to pick up construction debris. But they can be easily slid in and out of the bed of pick-up truck. We purchased two of them in 2012 and we use them over and over again.

Step 5: Train the Volunteers



In the spring and fall we typically work for about four hours on a Friday or Saturday morning, and in the summer we pick a weekday evening.

Each session is run by two committee members who are certified invasives managers.

We begin with a quick training session. We describe how to identify the target invasive for the day, suggest tools and treatment, review safety, and form work groups.

By just targeting one invasive species for each work session, we simplify the plant ID process for volunteers. “If it don’t like this, leave it alone.”

It also allows the volunteer to figure out the most efficient way to attack the target plant given the strength of the plant and its surroundings.

Step 6: Organize the Work

Solo Expert on Black swallowwort



Some “groups” include just one person. For example, Selena over there is an expert at finding and uprooting emergent Black swallowwort.

Buddy Up
Experienced with New Volunteer



More often we pair up an experienced volunteer with a new person.

Teams

Conservation Corps

Bank of America



And some times we have the benefit of teams of volunteers from other organizations -- Organizations, such as the Youth Conservation Corps sponsored by the Audubon Society, the Nature Conservancy and the Rhode Island Natural History Survey.

URI Master Gardeners



Twenty percent of the volunteers are URI Master Gardeners. This project is a Master Gardeners approved project and volunteers receive service credit for their work.

Weekly Maintenance



And we always find time to go back over areas treated the previous week to take out anything we missed.

Educating Visitors



We said before that we picked this site for its visibility, and we do attract many visitors. We always take the opportunity to describe the project and talk about sustainable practices, and recruit more volunteers.

Step 7: Adapt

Dave Nickerson, Certified Applicator



Step 7 is be ready to adapt.

After two seasons of suppressing the knotweed, there were still some sections that needed to be managed with herbicides. With a modification to our permit, we allowed those areas to leaf out and Friends of Canonchet Farm volunteer and certified chemical applicator, Dave Nickerson, used a backpack sprayer to apply Garlon to the selected areas.

It is important to note that the spraying was minimal and highly effective because the knotweed and other invasive plants have been weakened from repetitive punishment.

Step 8: Support the Volunteers

Coffee
Muffins
Donuts
Snacks
Sandwiches
Pizza
Water
Water
Water



Volunteer Support is Step 8

Four hours of digging up plants, cutting vines and hauling debris is no one's idea of a relaxing spring morning or summer evening. And it can be very discouraging to discover new shoots of knotweed popping up in the area you cleared just two weeks ago.

So perhaps the most important task in the project is a robust volunteer support program to make sure the volunteers are productive and committed and that the project is a safe and enjoyable one for them.

We have a committee member dedicated to arranging volunteer support.

In addition to training volunteers and providing the right tools and equipment, we have a four-step routine of recognize, thank, feed, repeat.

Hydration Break



Poison Ivy Watch



Frequently during the work session, we make sure everyone has water to drink.

And we pay special attention to poison ivy, an all seasons problem, by marking infested areas with orange flags, showing volunteers how to identify poison ivy leaves and roots, and providing Tecnu, a lotion that helps to remove the plant oil from your skin.

Socializing Is Important



And don't underestimate the importance of socializing. We encourage the volunteers to pace themselves, take breaks when they want to, and chat with team mates.

While they are getting caught up on town politics or Downton Abbey, they are encouraging one another and sharing knowledge about plants and care for the environment.

Volunteer Appreciation Event
South County Museum



At the end of the first two seasons, we invited the volunteers to an appreciation event at the South County Museum. Again, recognize, thank, feed, repeat.

**Thank you to the volunteers
from the Town of Narragansett**

Steve Wright, Parks & Recreation



Pam Nolan, Town Manager



Last year we even had official thanks from the Town of Narragansett.

Step 9: Enjoy the Recognition
Restoring Habitat Committee



After three years of meeting, learning, planning and running work days, the Friends of Canonchet Farm Restoring Habitat Committee not only took satisfaction in the results,

Narragansett Community Service Award
Knights of the Rockingham Arch



But we have also been recognized by the Narragansett Town Council.



We could not do a project like this all by ourselves. Four years ago we did not know much about invasive plants and even less about how to get rid of them. But we did know that we had to do something, and from the start we have received support and guidance from various organizations and individuals.

So, we say that Step 10 is to create and strengthen partnerships with other organizations. And like the volunteers, always remember to recognize and thank them for their contributions to your project.

Follow this link to hear from Habitat Restoration volunteers:

<http://www.youtube.com/watch?v=2OQHUIBpWy0&feature=youtu.be>

Now let's hear from some of the volunteers who have worked so hard to restore habitat here along Lake Canonchet.

<http://www.youtube.com/watch?v=2OQHUIBpWy0&feature=youtu.be>