

Max Carter's Eagle Scout Project

Locating natural vernal pools in Newfield, NY

With the support of BSA Troop 34, the Town of Newfield, NY and the Upper Susquehanna Coalition (USC)



Presented to:

Newfield Town Board

Newfield, NY

Feb 13th, 2014



Background

- The **Town of Newfield 2013 Comprehensive Plan** includes the goal of creating an “inventory and map of vernal pools and unregulated wetlands” (Newfield Planning Board, 2008-13)

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Create a **Natural Areas Working Group** to protect Newfield’s natural resources through researching, educating, marketing, fundraising, and volunteer coordination

- Two vernal pools were constructed by the USC on Town property
- Zane Carter’s Eagle Scout project was partly designed to inform the local public about these pools
- There are potentially many “natural” vernal pools in Newfield and surrounding area
- Pools located on both privately and publically owned land

Eagle Project Goals/Tasks

1. Mail letter to “larger” landowners that describes vernal pools and asks the landowner to help identify any potential pools.
 - Zane’s brochure will be included with each letter
 - landowners can ask for help identifying potential pools
 - USC has volunteered to assist with locating pools
2. Collect responses from landowners and compile natural pool location data into a map/inventory. USC has an interactive map on their www site (www.u-s-c.org) and data will be included there as well.
3. Create a website that includes an electronic version of Zane’s brochure along with the new inventory/map of natural vernal pools along with a link to USC’s www site and map.
4. Hold an informational meeting in a public place (Newfield Library) to provide information and educate the local public about the importance of vernal pools (ask USC to assist with this).

Letter to Landowners

- Obtain names and addresses (target 100-150) from the Town of landowners with potential pools with help from USC.
- Letter based on Calhoun and Reilly. Mailed in early March. Goal is to identify potential pools in early spring when the pools are active.
- Organize a bottle/can drive to raise funds for the cost of printing and mailing the letters (we already have sufficient copies of Zane's brochure).

→ 16 Conserving Vernal Pool Habitat through Community Based Conservation

Aram J.K. Calhoun and Patti Reilly

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Zane Carter's Brochure



Wood Frog

Vernal pools are important for the reproduction of many species, such as Spotted Salamanders, Spring Peepers, Wood Frogs, and Fairy Shrimp.

Vernal pools protect these species from predators that exist in larger wetlands, allowing them to reproduce in a safer environment.



Spotted Salamander



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Resources:
Upper Susquehanna Coalition:
www.u-s-c.org

Environmental Protection Agency
www.epa.gov/biotweb1/html/vernal_pools.html

Vernal Pools by E. Colburn

Wetlands by W. Mitsch and J. Gosselink

Wetland Restoration and Construction
by Thomas R. Bleighauser

An Eagle Scout project by Zane Carter



Newfield's Vernal Pools



Vernal, which means spring, is when most pools fill with water. Some fill during the fall and stay full until the summer. The time that each remains filled can vary from year to year.

The vernal pools dry regularly, so large predators like fish cannot hatch or mature, and prey on the smaller amphibians.

Some species can't survive in habitats other than Vernal Pools. These are known as Obligate Vernal Pool species, and include both Spotted and the (protected) Jefferson Salamanders.

Jefferson Salamander



Small plants and wild flowers grow well near vernal pools because of the available water and fertile soil

Squirrel Corn



Trillium



In 2009, two vernal pools were constructed in Newfield by the Upper Susquehanna Coalition (USC). The pools are located in the wooded portion of the 20 acres along Van Kirk Road that was purchased by the Town as a potential park.



Besides amphibians and reptiles, many other creatures depend on vernal pools. Larger animals such as turtles, snakes, and occasionally ducks use the pools for shelter and food. Dragonflies and other insects lay their eggs in vernal pools and some migrating amphibians rely on

vernal pools as temporary shelter too.

The constructed pools are about 15 feet in diameter and a foot deep at the center. The liner allows the pools to stay full longer. Woody debris is added to provide shelter.

Several hundred brochures available

Collecting Landowner Responses

- Collect information from responses to letters. (I will consider 10-20% response rate as good)
- Organize the information into an inventory and map. Add data to USC website also.

Website/Web pages

- Create a website (or webpages) with the information collected from the landowner responses and the information from Zane's brochure.
- Website can be independent, but ideally the pages would be linked into the Town website:
<http://newfieldny.org/>

Public Meetings

- Hold a public meeting in the Newfield Library or the Masonic Temple:
 - presentation of pool inventory/map and new/existing web sites
 - held in April or May
 - ask USC to assist
 - question/answer session
 - a second meeting scheduled if necessary

Tentative Costs

Printer ink - \$30 for one black cartridge

Paper - \$10 for a ream of 500

Envelopes - \$12 for a box of 500 standard

Stamps – \$0.49 per stamp (\$147 for 300)

Software to create www site – free (Blue Griffon)

Public meeting space - free

Schedule

Present to Scout Master/Troop on 1/27/14

Present to the Town Board on 2/13/14

Present to District Committee on 2/27/14

Start project by completing and mailing the letter in early March.

Work on WWW site from early Mar until finished (May).

Hold Public meeting in April/May – need to coordinate with USC

Summary

1. Send out info about vernal pools (follow up to Zane's project).
2. Collect information about natural vernal pools in the area.
3. Educate and provide a resource about vernal pools.

USC Support

I wanted to pass along our website: <http://www.u-s-c.org/html/vppage.htm> we've updated a bit since the last time we worked with you, and we now have a field guide to vernal pools up there with photos of a bunch of vernal pool creatures and other resources.

We also have a great vernal pool mapping page where volunteers can submit mapped pools by navigating to the pool in Google maps, clicking on the pool in the aerial photo view, and then submitting some info about the site. it's really an excellent tool: <http://www.u-s-c.org/html/vpmappingform.html>

Please use any or all of this as a resource as you see fit, and I'd be glad to help with building the website if you need it.

I'm sure we could help with some aerial photo review too and provide Max with some areas to target his search. We have a pretty robust GIS department and we even have a modeler identifying high priority wetland areas throughout the state. We could take a peek at the results for Newfield and send them your way too. I don't think we have a linked tax parcel file, but we could come up with a list of parcels of interest, and then Max could cross reference town/county files to make the name and address list from our parcel list.

Thanks,
Melissa