



Friends of Myles Standish State Forest (MSSF)

Resource Management Plan Workshop

Vernal Pools & Ponds

November 17, 2010

Meeting Minutes

Department of Conservation and Recreation Staff in Attendance: Brian Shanahan, Regional Director Southeast Massachusetts Division of State Parks & Recreation; Cape Cod District Manager Don Matinzi; Jim Baecker, Office of Regional Planning; Ecologist, Bureau of Planning and Resource Protection Heather Warchalowski; Assistant Management Forester Paul Gregory

Discussion Leaders: Jim Baecker, Don Matinzi, Heather Warchalowski, Evelyn Strawn, John Crane, Jessica Thomas, Irina Kadis

Public Attendees: Connor Crane, Roland Coultier, Bill Vickstrom, Laura Troll, Jim Nelson, Thom Gifford, Claude Hart, Debbie Hart, Pam Crowell, Dianne Cosman, Rose Melino, Jim Morrissey, John Neider, Helga Stottmeier, Dan Fortier, Amanda DeLima, Claire Smedile, John Welsh, Casey Shetterly, Sharl Heller

Sharl Heller, President Friends of MSSF – Opened the meeting at 7 p.m. *Welcome and self-introductions*

Jim Baecker – Ponds of Myles Standish State Forest

The 59 MSSF kettle hole ponds in MSSF are fed directly by the groundwater aquifer. Water quality in the aquifer is high. Water levels in the ponds fluctuate directly with the water table from year to year and during the season. Coastal pond shore communities contain animals and insects that have adapted to these fluctuations and only exist in coastal plain ponds. Concern about exceeding the sanitary code for bacteria levels. Last year in August, six tests at College Pond and three at Curlew Pond exceeded allowable levels.

DCR Ponds and Lakes Program restored Banks at Fearing Pond in 2009. Last state conducted water quality survey was in 2004. The 2004 tests found low nutrient and high dissolved oxygen levels in Charge, Fearing and College Ponds. Camp owners also periodically conduct the tests of wells at Fearing, Rocky, Curlew and Widgeon Ponds.

Don Matinzi – Water-Based Recreation

People have been swimming here for 400 years. MSSF was created in 1916. Beginning in 1919, private camps were leased to individuals at Curlew, Widgeon, College, Rocky and Fearing ponds. Population is doubling every ten years and recreational use of the forest has increased as open space diminishes. There has been a 7-fold increase in people coming to the forest. 2010 saw the highest attendance ever recorded, with the majority of visitors coming from Brockton, Fall River, Taunton. Many ponds are inaccessible. Camping is driven by water-based recreation. Community buildout is expected at 700,000. The RMP is very important to sustaining the forest given the heavy recreational demand.

Thom Gifford - Widgeon Pond has no public access and 3-Cornered Pond is only 5 feet deep.

Jim Nelson - Picnic areas at Widgeon and Fearing are closed

Claude - Hunting and fishing here is good. The forest is gorgeous but some use it as a dump.

Heather Warchalowski – Vernal Pool Management

New aerial maps show potential vernal pools. Vernal pools are nurseries for many organisms. The best management is to leave it alone, unless the area is being impacted by human activity. MA has the strongest regulations in the country for protecting vernal pools. 1987 was the first vernal pool protection. There are 8 criteria for certifying vernal pools: 1) water contained for 2 months for most years ; 2) springtime through summer; 3) fishless system; 4) contains obligate species; 5) depression in land; 6) associated with ponds; 7) saturated with ground water; 8) wildlife habitat.

Regulations protecting vernal pools (<http://www.vernalpool.org/pdf/3protection-s.pdf>): Title 5 regulations protect vernal pools. Mass. Surface Water Quality standards provide a 50 ft. setback priority for vernal pools in areas of development. US Army Corps of Engineers regulations were recently changed to include activities within 750 ft. of a certified vernal pool. Used to provide 750 ft. buffer zone. Northern portion of East coast has ½ the world's population of salamanders. Anything we can do to save them is very important. Some communities help with road crossings on "Big Night", in early spring, when warm rain triggers salamander's night migration. Consider the educational opportunities on Big Night. Up to 92 potential vernal pools in MSSF. Certifying them can trigger protections under Forest Cutting Practices Act regulations. Volunteers record data and send it to Division of Fisheries and Wildlife's Natural Heritage & Endangered Species Program and to DCR. There are fees for certification. Provided handout on certifying vernal pools.

Evelyn Strawn – *The Wetlands Protection Act and MSSF*

Complex layers emerge as we try to develop a RMP for MSSF. What happens in MSSF happens in the larger context of state and local laws. Under the Wetlands Protection Act of 1978, wetlands matter. Coastal ponds are important but man-made wetlands matter too, even if man-made, they are still considered wetlands. Power lines do not have to abide by the regulations and working farms are exempted. Wetlands come under state law but the towns enforce. Each town has a conservation commission. In Plymouth there are 7 members who volunteer. Municipalities each have their own bylaws and regulations. Inland ponds and vernal pools are the most important wetlands in MSSF. Vernal pools in Plymouth don't have to be certified to be protected. DCR must contact the Conservation Commission if doing any work within 35 feet of a vernal pool. Nothing can happen in that zone. Between 35 to 50 feet, no building is allowed, but some landscaping may be allowed. New access to water resource, new trails, major alterations to existing trails, fall under Conservation Commission review. Well marked trails would limit damage and would be acceptable, however all abutters must be notified.

John Crane – *Northern Red-Bellied Cooter Re-introduction Program*

Red-bellied cooters are a distinct population, removed from the core population from New Jersey to South Carolina. In the 1970s only about 250 adult turtles remained in the Carver-Plymouth area with no young turtles counted. Cooters live to 100 years old. The largest on record is 16 ¼" from shell edge front to back. Identified by notching the shell, then recapture in 10 years to re-notch the shell. 300 cooters left. Program designed to support cooters by finding the nests and protecting the eggs from predators. Samples collected to test for genetic diversity. Archaeological evidence of charred carapaces of cooters, indicates they were an important protein source for Native Americans. Turtle eggs are dependent on temperature. Warmer temperatures select for males. In late May turtles look for places to drop eggs. May create 8 nests in a day. Nest attempts make them vulnerable. 90% of nests destroyed by fisher cats, mink, skunk, and raccoons. Reintroduced 135 young turtles per year in the Head Start Program. Cooters are Federally endangered state-listed, which provides protection for the area and the animal. Finding areas for nesting is difficult, as they do not like activity on ponds. Huge amount of predation, only 1-3 out of 1,000 survive. They need open areas with light. They nest in organic materials or sand.

Jessica Thomas – MSSF Vernal Pool Inventory Program

Enthusiastic lover of vernal pools. Organisms in vernal pools are in a race against time to complete their life cycles before the pools dry up. Would like to work with DCR and the Conservation Commission to train people to identify and certify vernal pools. Transect the forest in the spring with volunteers to record GPS coordinates of possible vernal pools. It is important to identify them because you can't tell where they are when they are dry and they might be backfilled or trampled. Some organisms are only found in vernal pools, such as fairy shrimp. Salamanders only breed in the natal pond. Use vernal pools as an educational tool for children and adults. Once they learn they will want to protect them. Do the Big Night. Teach all visitors to the forest about vernal pools through posters. Highlight how mysterious they are.

Irina Kadis – Aquatic Invasive Plants in MSSF

The East Head Reservoir is infested with invasive plant Carolina fanwort, native to North Carolina. The plant clogs ponds. Cook's Pond and some other ponds in Plymouth already have it. The plant blooms in August. A survey in August 2010, found Carolina fanwort flowering all across the East Head Reservoir. Fanwort actually covers more than what was indicated by the survey, because in deeper areas it does not manifest itself by flowering. Why worry about invasive plants? When invasive plants come in, biodiversity decreases. The boat launch area is the most infested, indicating that the plants were brought in on boats. To deal with this is a real challenge. Chemicals are not an option due to the presence of rare animal species and usage of the reservoir as water source for cranberry bogs. Usually there are poor results with mechanical removal. Recommend surveying all ponds for Carolina fanwort. Try to find out how fast it is spreading. Place signs to prevent further spreading. Take water samples to see how water quality is affected.

Some bladderworts, giant bladderwort, *Utricularia inflata*, can be invasive. This species was first found in Federal Pond in 1980. Now it was found in the northeastern end of the East Head Reservoir. They are in many ponds. They can fill a pond.

The NHESP has a policy of keeping rare plants a secret. But how will people know that they are trampling rare plants if the public doesn't know to protect them? Rules need to be developed for fishing on beaches where there are vulnerable plant communities. Access to beaches must be limited or all pond shores will be empty.

Curlew Pond has Plymouth Gentian, a rare plant. This is the only place in the forest where it occurs. DCR should put up signs with a general advising message (don't have to name specific plants), the way they do it in Canada.

There is an invasive willow (rusty willow, *Salix atrocinerea*) around every pond, which is taking up valuable habitat. All the native willows are gone. One invasive species can take the place of many native species.

Casey Shetterly - Population growth is having an effect on the water table. Certain species require fluctuations in the water table. Population drawing water will alter the environment.

Meeting adjourned at 9:15 p.m.

Submitted by Charl Heller, Friends of Myles Standish State Forest