

FINAL MINUTES

Natural Heritage & Endangered Species Advisory Committee (NHESAC)

December 13, 2018
DFW Field Headquarters, Southwest Meeting Room #103
1 Rabbit Hill Road, Westborough, MA 01581

MEMBERS:

Present: Mark Mello, Joseph Larson, Wayne Petersen, William Brumback, Tim Flanagan

Absent:

ASSOCIATE MEMBERS:

Present: Bryan Windmiller, Dave Small, Kevin Powers, Russ Hopping

Absent: Andy Finton

AGENCY STAFF:

Present: Commissioner Ron Amidon, Tom French, Jesse Leddick, Mike Nelson, Jennifer Longsdorf

OTHERS:

Brandi Van Roo (F&W Board Member)

– The meeting was called to order at 1:34 p.m. –

1. Approval of the October & November Minutes

Kevin Powers motioned that the October and November minutes be accepted, Joe Larson seconded, and members voted unanimously to approve.

2. Acting Chair's Comments – Mark Mello

Rhode Island put out a watch for the next invasive insect, the Spotted Lanternfly (*Lycorma delicatula*). This insect was first detected in the US in Pennsylvania in September 2014. It is native to China and is thought to have arrived in the US on gravel. Spotted Lanternflies feed on a wide range of fruit, ornamental, and woody trees, and has been detected in many mid-Atlantic and eastern states including Connecticut and New York. If you see this insect in MA, please report it immediately to Jennifer Forman-Orth with the Department of Agriculture at Jennifer.Forman-Orth@mass.gov or 617-626-1735.

Seven North Atlantic Right Whales were spotted in Cape Cod Bay in early December, meaning the whales have started feeding in the area earlier than usual.

3. Board Member's Comments – Joseph Larson

Law Enforcement Captain Robert Forsythe reported the following statistics for 2018: 116 boat accidents, 11 fatal (including 2 divers); and 60 OHV accidents, 6 fatal. The statistics are always alarming to the Board and there is much concern.

Coldwater Fisheries Project Leader, Dr. Adam Kautza, reported on the status of wild trout in Massachusetts and provided some specific updates on management and research projects. Adam explained the DNA research on Brown Trout in the Deerfield River which seeks to determine whether wild reproduction of Brown Trout is contributing to the fishery and to what degree. Adam also described the work being done by Trout Unlimited chapters to identify and monitor redds (breeding structures that trout and salmon build to lay their eggs). This work has revealed evidence of reproduction and issues with dewatered redds and eggs due to the flow regimes from the upstream power station. Adam also mentioned the donation of an outfitter-style 12-foot raft from Trout Unlimited which will enable surveys of large, shallow and swift rivers.

In discussing the power station on the upper Deerfield River, Jesse Leddick added that each dam along the river is evaluated and re-licensed at a different time, even if they are on the same portion of the river. Therefore, issues can't be sorted out unless federal license renewals for the whole river are conducted simultaneously. Joe Larson then invited Jesse to give a presentation on dam relicensing and the Federal Energy Regulatory Commission (FERC) process at a later Board meeting.

4. NHESP Report – Tom French and Jesse Leddick

Tom and Jesse were invited to give a presentation to the Environmental Protection Division of the Attorney General's (AG) Office on November 13th. Jesse provided an overview on the MESA regulatory review process. Tom provided information and perspective on Massachusetts's efforts and interest in the Migratory Bird Treaty Act, including potential consequences for MA is the "incidental take" provisions of the MBTS are no longer considered a violation of the Act. Our AG's office joined a federal lawsuit with several other states against the Trump administration reinterpretation of the Act. No final decision has been made.

Jesse added that there have been 6-8 legal appeals in the course of our Program, four of which have occurred during the past 1.5 years. These have been internal appeals where an applicant or abutter has appealed a decision. In each of these recent cases, the person or group appealing our decision does not think we did enough to protect the species. One appeal has been from an applicant, and the other three have been from non-applicants. Our regulatory review staff has been doing a lot of work on these appeals, and it has been a learning process since we haven't had to deal with many in the past. The appeals are typically neighbors who don't want a new development near their property, so they're trying to stop it.

Mike Nelson discussed the MESA list changes, noting that since the list has not been revised in a while, there are a lot of changes that to be made during this round. In addition to list changes with regulatory impact, we will also update scientific and common names as well as other editorial corrections. We are currently in the process of drafting the regulatory amendment document, which needs to go through an administrative review at the Executive Office of Energy and Environmental Affairs, and then to the Executive Office for Administration and Finance before the Board can schedule a public hearing date. We are still hoping for a 2019 release.

Tom brought attention to the Puritan Tiger Beetle included in the Member's packets, and talked at length about this topic. Puritan Tiger Beetles are New England's most endangered species and scientists have begun the largest insect reintroduction project in the country on the banks of the Connecticut River. Tom pointed out two relations to Massachusetts:

- 1) The captive rearing efforts by Dr. Rodger Gwiazdowski were done at his lab at the Cronin Fish Hatchery in Sunderland, MA
- 2) MA still has Puritan Tiger Beetles on Rainbow Beach in Northampton on the CT River

Since it was hard for the scientists involved to find good reintroduction sites that met all of their criteria, they restricted reintroduction to a handful of sites in CT. The Puritan Tiger Beetle population in MA has declined steadily since 2007, and has particularly suffered from changes in operations upstream from Rainbow Beach at the Turners Falls Dam. A few years ago, the population had dropped to fewer than 10 individuals, but has since risen to double digits. Most of the captive-bred releases discussed in the article occurred in CT because they don't have the same threats to larval habitat that MA has (i.e. inundation in summer months from water releases at peak power demand times, ramped up power generation with demand; and water releases occurring more frequently, and greater volumes released at shorter intervals of time, which has led to more frequent flooding). This year, excess larvae were released at Rainbow Beach, which will certainly help the population. Next year, vegetation management will be done at that site.

5. Assistant Director's Report – Tom French

Natural Heritage will soon experience several changes in staffing, with three large positions needing to be filled. The Chief of Conservation Science position has been posted, interviews were conducted, and the selection will be announced very soon. Interviews for the State Herpetologist position are being held tomorrow. Tom will be retiring in early 2019, but has yet to pick a date. Once a date is announced, the Program will work to fill his Assistant Director position as soon as possible.

Other articles in Member's packets included a New England Cottontail restoration effort at Nomans Land, science denialism regarding outdoor cat control, record number of Bald Eagles in MA, untouched forests, and Plymouth Harbor dredging.

6. Solar Photovoltaic (PV) Systems and Wildlife: Solar PV Siting Under the SMART Program and Development of "Wildlife-Friendly" Mitigation Measures for Solar Arrays – Zara Dowling, UMass Clean Energy Extension

Zara gave an insightful presentation on how the existing state solar incentive program deals with siting, which generated a lot of discussion. The Program seeks to investigate wildlife interactions with renewable energy, and what can be done to mitigate the effect of solar arrays construction and maintenance.

- SMART: Solar MA Renewable Target Program
- Replaces the SREC (Solar Renewable Energy Credit) program
- Launched on November 26, 2018 and will continue until 1600 MW have been put in place, including at least 320 MW of small projects

- The program is for solar PV systems that are grid-connected, have no more than 5 MW capacity, are located in MA, and are not in areas served by municipal utilities
- Base compensation rates: \$0.15 to \$0.39
- Incentives come in the form of a monthly check or direct deposit
- 1 MW requires 6-8 acres
- How incentives work: dollar per KW service, service territory, system size, capacity blocks (will decline through time)
- Adders: to offset the cost and also to incentivize putting solar arrays on brownfields etc.
 - Energy storage, tracking systems, off-taker bases (low income community etc.), location based (building mounted, floating, brownfield, landfill, canopy, agricultural)
- Greenfield subtractors: to discourage development on undeveloped land
 - Large ground-mounted arrays, located on undeveloped land (not brownfields, not landfills, not solar overlay districts), depend on zoning (industrial or commercial),
 - The disincentive seems very low, does the math work out to incentivize solar on undeveloped land? Seems like the incentives need to be adjusted and the disincentives need to be larger
- Current Solar PV status: 2,100 MW pre-SMART, DOER reviews after 2 capacity blocks filled
- Under SREC II: 3,500 acres not on brownfields, landfills, parking lots or buildings
- Under SMART: up to 1,280 MW for large projects = ~9,000 acres
- The goal of the program was to deter development on undeveloped land, but the incentives don't seem too promising. With the way the incentives are currently set up there will be large solar development on undeveloped land.
- Residential development will be 20-35% of the program, but will likely be closer to 20% because the larger projects are already filling up
- How quickly can residential projects be built compared to large projects? 25kW vs 1 MW. Will this make the rate of electricity increase for non-solar homes?
- MN, MI, VT, NC, VA, and IT already have pollinator-friendly solar programs
 - They're voluntary programs where the developer needs to meet a certain criteria or standards if they want to advertise as pollinator-friendly
 - Most scorecards are modeled after the first state, which is MN
 - Criteria used includes no insecticides, appropriate for habitat, appropriate seeding diversity, plant diversity, seasonal diversity of blooms, detailed establishment and monitoring plans, signage/education, mowing requirements, creation of bee nesting habitat
- Under the array, there can only be grass or meadow, no woody vegetation. Around the array, there can be shrubs.
- Brandi Van Roo did a study which showed that birds are not using solar arrays. Vegetated solar sites had lower invertebrate species abundance. She has no doubt that there will be species diversity at solar arrays, but you will not find uncommon or rare species. Even if you don't look at uncommon or rare species, what about

SGCN species? If a project attracts SGCN species, then the developer can get a higher credit or score.

- Additional ideas from the UMass Clean Energy Extension:
 - Wildlife considerations: 6” gap under fence, bird boxes
 - No fungicides
 - Checklist format, not a scorecard format
 - Perennial water source
 - Limiting nocturnal lighting
 - Plants that support specialist species (like specialist bees, host plants for butterflies)
- Concerns/Comments from the Committee:
 - Is wildlife-friendly appropriate terminology? Cutting down a forest to build a solar array is not truly wildlife-friendly. This is really just making solar arrays look prettier, but it’s disingenuous to call it wildlife-friendly because it’s not going to actually help any species. There is no appreciable ecological benefit for planting flowers in the space under solar arrays. Common pollinators will be attracted, but these species do not need these flowers to survive and prosper. Pollinator-friendly would be more appropriate.
 - Siting qualifications for certification tiers: If there are no tiers, then the incentive is lost
 - Mowing frequency restrictions: Is mowing once a year even feasible? What time(s) of year are they mowing? Mowing will cut off the flowers for pollinators.
 - Herbicides to limit the spread of invasives
 - Need for site-specific plans
 - Credentials of the ecologist preparing the plan
 - Trim zone versus vegetation screen
 - Maintenance: What about having a higher incentive for putting an array on higher steel posts? 2.5ft off the ground isn’t much, so there will need to be a lot of maintenance
 - Land developed with solar arrays is considered “lost” habitat
 - Putting a solar array in the middle of an open space hides it, but it fragments the land for wildlife
 - Even with a fence, mammals can get in. A credit for a 6” off the ground is foolish in our area because there’s no flat land so a fence is going to be off the ground anyway.
 - Best Management Practices should be relevant
 - Better to plant with a reasonably diverse seed mix and plant some relatively uncommon species, but need to ensure the species are not so rare that it affects the genetic diversity. Need to include criteria about where the seed mix comes from.
- Would it be possible to get Kaitlin Kelly, the Manager of Solar Programs at DOER, to give a presentation at a future Advisory Committee meeting?

7. Member's and Associate Member's Comments

Russ Hopping – The Trustees just received priority project status from DER for salt marsh restoration in the Great Marsh where the Trustees is working on improving salt marsh habitat currently impacted by sea-level rise and failing ditching from the past. The target sites include up to 300 acres and the first site is in Newbury where there is a good population of salt marsh sparrows.

Dave Small – Dana Duxbury-Fox and Bob Fox of North Andover gave a talk on the Lawrence crow roost site on the Merrimack River last night. This site hosts one of the largest winter crow roosts in New England. The talk was well-attended with about 55 people present. The Christmas Bird Count will be conducted between December 14, 2018 and January 5, 2019.

Bryan Windmiller – The Zoo New England Conservation Department has contracts with Mass Wildlife in 2019 to work on a Blanding's turtle project at Hockomock Swamp, a box turtle conservation project in Dunstable, and to begin a 3-year project to gauge and improve the conservation status of wood turtles in selected sites in northeastern MA.

Wayne Petersen – A Great Black Hawk, a non-migratory species, native to Central and South America, showed up unexpectedly in Biddeford, Maine in August. It disappeared for a few weeks before showing up again in Deering Oaks Park in Portland, Maine where birders from all over the region and across the country are still coming to see it. Unbelievably, this same individual had been seen on South Padre Island, Texas on April 24th. Its occurrence in the U.S. is unprecedented.

– The meeting adjourned at 4:59 P.M. –

Drafted & Submitted by: Jennifer Longsdorf, NHESP Program Coordinator