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Linda Hansen, Administrator
Wayland Conservation Commission
41 Cochituate Road
Wayland, MA 01778

April 11, 2019

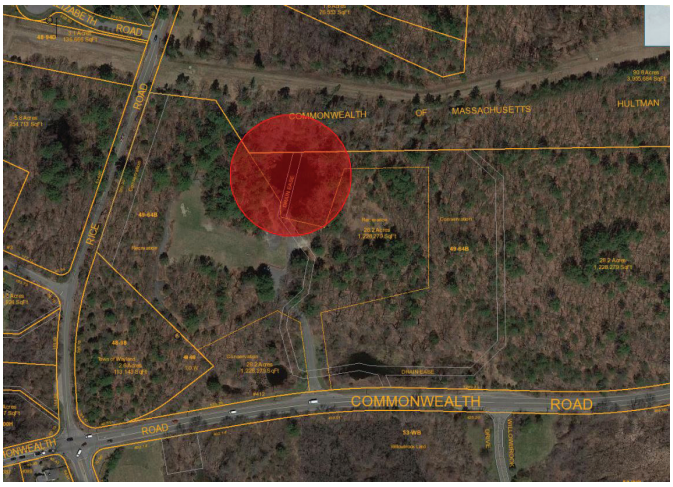
RE: Vernal Pool Evaluation, Loker Conservation and Recreation Area

Dear Ms. Hansen,

On Monday, 4/8/19, I was asked to conduct an evaluation of a potential vernal pool habitat located on the Loker Conservation and Recreation Area in the Town of Wayland on behalf of the Wayland Conservation Commission. I visited the site, along with Ryan Brown, Department Assistant, on Wednesday, 4/10/19, and I am pleased to provide you with the results of that evaluation.

Physical Description

The wetland in question is identified as a Potential Vernal Pool in the MassGIS database, and is shown on the aerial photo to the right. The pond is somewhat large; approximately 150 by 200 feet with a maximum depth estimated at 3.5 feet. It has a bottom characterized by deep muck and vegetation but is stony in portions of the basin. In the summer, I'd anticipate that the pool is well vegetated throughout. Without direct knowledge of the site, it's difficult to know whether this ever dries out, but I anticipate that it rarely, if ever dries completely.



Pond idenified on aerial photograph at Loker Conservation and Recreation Area. This is identified as a Potential Vernal Pool in the MassGIS database.

The pool margin is entirely forested, with trees over-reaching the water around its perimeter. In the western quadrant there is dense growth of mixed aquatic shrubs and hummocks with small trees. The north margin of the pool is fairly shallow and thinly vegetated with shrubs and small trees.

There is a man-made structure containing a flowing outlet, from which water flows to the south.

The pond is immediately adjacent to open field and parking to the south, and the viaduct to the north. There is mixed pine and hardwood forest proximal to the wetland.

Wildlife Observations

I arrived at the site at 12 PM on April 10, 2019. The sky was overcast but it was bright. Visibility was fairly poor, but aided by the use of polarized sunglasses. Temperature was about 40 degrees. I entered the pool in the western portion and immediately found two wood frog (*Lithobates sylvaticus*) egg masses.

In the vegetation along the western edge, I found a young Painted Turtle (*Chrysemys picta*). Throughout the western and northern portions of the pool I observed a variety of insects, including caddisfly larvae, back swimmers (Notonectidae), and water skaters (Gerridae).

Along the eastern margin of the pool I found a total of seven Spotted Salamander (*Ambystoma maculatum*) egg masses. Some of these masses were very newly-laid, still showing the black-and-white polar regions of embryos in the very earliest stages of development. My opinion is that over the coming days, it is not unreasonable to anticipate an increase in the number of egg masses present in the pool, based on the assumption that these very newly-laid eggs indicate on-going breeding activity.

Conclusions

The minimum requirements for official certification of vernal pool habitat by the Natural Heritage & Endangered Species Program were met on my visit to the Loker pool, confirming the vernal pool function of this pond. Though the egg mass counts were somewhat low, there is additional evidence of the value to wildlife habitat that this pond provides with the capture of a turtle and variety of invertebrates.

Two wood frog (Lithobates sylvaticus) egg masses found in the western portion of the pool.

Spotted Salamander (Ambystoma maculatum) egg masses were found in low numbers in the pool. Seven individual masses were observed.

A young painted turtle (Chrysemys picta) was captured in the shallow, vegetated west margin of the pool.

This water body has over 10,000 square feet of surface area and appears to rarely dry out completely. Its jurisdictional status under the Wetlands Protection Act Regulations is likely a pond, though I haven't been asked to comment on its jurisdictional status.

Status as vernal pool habitat is not dependent upon, nor indicative of jurisdictional status. Vernal pool function and wetland jurisdiction are entirely independent. The fact that this wetland may be a pond does not, therefore, preclude its designation as a vernal pool if it holds water for two months, is free of fish, and indicator wildlife use it for breeding.

This may not be a "typical" vernal pool in that it may not dry out on a regular basis, but the jurisdictional wetland does provide vernal pool habitat function and is eligible for official certification through the state.

Spotted Salamander (*Ambystoma maculatum*) egg masses were found in low numbers in the pool. Very recently-laid eggs (note white/black polarity in several embryos).

If you have any questions or would like to discuss my observations or conclusions, please don't hesitate to contact me.

Thank you for requesting an evaluation of this habitat from me, it is my pleasure to help the Commission in better understanding this important wildlife habitat resource.

Sincerely,

Matthew R. Burne