



City of Cambridge Conservation Commission

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Public Meeting – Monday, February 13, 2023 at 7:00 PM Zoom MEETING MINUTES

The following meeting minutes were taken by Tracy Dwyer and are respectfully submitted.

Present Commission Members: Jennifer Letourneau (Director), Purvi Patel (Chair), David Lyons (Vice Chair), Kaki Martin, Erum Sattar, Kathryn Hess, Michelle Lane, Elysse Magnotto-Cleary

Absent Commission Members: n/a

Attendees: Tracy Dwyer, DPW; Jim Wilcox, DPW; Matthew Burne, BSC Group; John Maday, BSC Group; Laura Jasinski, Charles River Conservancy

Purvi Patel opened the meeting.

7:00 – Annual Report Presentation

Charles River Conservancy
Floating Wetland and Hell's Half Acre

Laura Jasinski the Executive Director was present from the Charles River Conservancy to present the annual report on the floating wetland and Hell's Half Acre. Laura stated that the Hell's Half Acre project started several years ago which was to remove invasive species from the area which is located across from BB & N. Laura stated that they have been work with DCR on this project for several years and have been using some herbal pesticides as well as some hand pulling to get rid of the invasive species. Laura stated that in 2022 they held six events that included volunteers to remove mustard weed, honey suckle and bittersweet with hand pulling and cutting methods. Laura also stated that in with DCR and the contractor there were several herbicide applications performed in the area. Laura stated that they are also working with DCR on their vegetation management plan and that Hell's Half Acre was a great test plot for them for this project. Laura said that the Charles River Conservancy has been assisting DCR with four of their test plots for the vegetation management plan along with Hell's Half Acre, which has been a test plot for removing invasives and replacing with natives. Laura stated that these different test plots represent different landscape types, lawn, meadow, and rivers edge. Laura shared with the commission that over the last two years, the first point was that these test plots have suffered a lot of drought conditions and because of this the shrubs and larger plants struggled but the grasses and smaller plants did ok. Laura believes that they will need some more time to grow and

establish themselves. Laura stated that they do about fifty group volunteer events a year which brings in about two thousand volunteers which help with litter clean up, bench painting and cleaning and have worked with invasive removals. She stated that these events are supervised by one of their members who works extensively along the river. Laura stated that they have formed a volunteer group called Charles River Environmental Watch (C.R.E.W) and have formed zones for the volunteers to not only work on litter clean-up but also will start to train them on invasive removals in compliance on the VMP. She stated they will focus on black swallow wart, garlic mustard and bittersweet because those are easy to identify and have clearer seasons. She said that the volunteers will be trained on identifying invasives, disposal and reporting and the Charles River Conservancy will use that reporting to report back to DCR and the Conservation Commission.

Kaki Martin asked how the test plots will continue if they use other species or monitor with volunteers the work that has already been done.

Laura stated that DCR will take the lead on these areas, but they can work with them on what works and what does not work. She said that they just started their seasonal meeting with DCR about the next phase and can work with them on what to do next and use the information and volunteers to help with the areas. She said DCR had some turnover with their ecology department, and they have hired some good candidates, so she is hopeful that DCR is making this a priority. She said that CRC would continue to monitor these areas though over the next year.

Laura went into the presentation about the Charles River Floating Wetland project. She stated that this is a project that they have been working with the city on and is an artificial floating island at the mouth of the Broad Canal near the Longfellow Bridge. They are just wrapping up their third year of the pilot phase of the project. Laura stated that the goal of CRC is to get people connected to the river and have them use it in many ways and one of those ways was to have people swim in it. She said that the wetland was installed in 2020 and was delayed due to COVID. She stated after it was installed in year two, they really started to see some plant growth and were able to really start their research. Laura stated that this research was in partnership with Northeastern University and one student who was getting his PhD in Environmental Engineering. Laura shared that this student has graduated and is now working for the Charles River Watershed Association. Laura stated that his primary focus was on the zooplankton. The research showed that this is helping the zooplankton and what types of species there were. The other observation Laura stated was that there was no algae bloom, so that also didn't help with the zooplankton. Laura stated that they were starting to observe insects on the floating wetland and lastly in the third year they were able to see phosphorous removal from the water. Laura said that they have seen its benefits with just a small wetland and would like to expand. She and Jennifer Letourneau went to Chicago and visit the Wild Mile which is a floating wetland. Laura stated that they are proposing to expand the floating wetland and were looking at doing so in the Broad Canal which would enhance the boating and kayaking experience on the canal. The decision to choose this area because it is a stormwater feed canal and tend to notice algal blooms in this area. Laura stated that this would remove about 21 pounds of phosphorous per acre. Laura said a big component to this floating wetland project was the education behind it and with partnership of MIT and the Sea Grant they were able to provide students with a floating wetland kit so they would have the opportunity to see how they grow and do experiments. This year they were able to supply all the sixth-grade classes in Cambridge Public Schools with kits and will also do the same for the coming new school year as well as translate the booklet into different languages.

Erum Sattar asked are their plans to expand or lessons learned.

Laura stated they are planning to get the floating wetland out onto the river this year and will do some more cuttings to measure phosphorous. She said they would work on a campaign and get some support from near by landowners to help more than plan more projects moving forward.

Erum asked Jennifer if this was something that the commission would see in the future.

Jennifer agreed with Erum that the commission would see this project.

Jennifer also stated that per their last meeting with Max he stated that it was \$10,000 per pound of phosphorous to \$64,000 per pound of phosphorous, just the floating wetlands effect on water quality.

David Lyons asked if the \$64,000 was for the current floating wetland or a larger one.

Jennifer said that that would be for a bigger wetland, she said the bigger we go the more money it would be.

7:30 – Request for Determination of Applicability

Aquatic Plant Management at Discovery Park

BSC Group

Matthew Burne from BSC Group was in attendance representing Bullfinch Properties who is the property manager for Cambridge's Discovery Park. Matt stated there is a long permitting history with Discovery Park which is located on the northwest side of Cambridge. Matt stated that the permitting history goes back to 2004 with an Order of Conditions for the CDP master plan and Building 100. Also, in April 2005 the western stormwater pond was built and in April of 2011 the eastern stormwater pond was built. Matt stated that over time there has been excess amounts of algae growth and Bullfinch would like to manage the problem. He stated that these ponds are not jurisdictional resources, and the work is not something that the commission can regulate and feels like the work proposed should have a negative determination. Matt stated that what processes they were looking at to manage the algae in these constructed stormwater management ponds were; aeration, phosphorus mitigation and herbicide or a combination of all three. Matt said right now they have three aerators in the eastern pond which can help prevent algae from growing. Aerators help with moving the water as well as adding oxygen to the water. Also, phosphorous mitigation would help and using alum would make the algae species unusable and prevent blooms from happening. The herbicide treatment application rate is much lower for algae treatment than for aquatic vegetation and treatments can take up to one to two weeks to be fully effective and can last for many months.

Purvi Patel asked why they were requesting the RDA, she said she was not disagreeing and understands that these ponds are not under the jurisdiction of the commission and would be managed through a long-term O & M plan but wants to make sure she is not missing anything. Matt stated no just trying to be a good neighbor and trying to keep the commission apprised of what they are doing. He stated that originally, he filled out a Notice of Intent but that was not the right approach because the ponds were not jurisdictional. However, Matt stated that they are in bordering land subject to flooding (BLSF) and just nick the buffer zone to bank, there is concern for the commission.

Purvi stated that where they are not filling BLSF, she said she would think this is a regular maintenance under the O & M plan.

Jennifer Letourneau stated that she consulted with the DEP circuit writer, and this is what she suggested.

Jennifer stated that this project is straightforward, but they are trying to have a more consistent approach to vegetation management and nuisance vegetation management and Bullfinch Properties has had a long-standing history with the city so she thought it would be good to bring this before the commission. She thought the RDA would be good to loop it into the vegetation management plan which is linked to DCR and doesn't really involve these stormwater features.

Purvi asked if it would be possible to loop it into the larger vegetation management plan in the future.

Jennifer stated that in the future she would like to see it be incorporated and Bullfinch be in collaboration with the Alewife Watershed vegetation management plan on these properties.

Jennifer stated that this is something that she has voiced to DCR and hopefully now that they have one for the Charles River that we can get them to commit to one for this area.

Purvi stated that this is something that we should bring up in the next couple of months and add it to the agenda.

Kathryn Hess had a general question about the ponds, she said that these were constructed at two different times and was wondering if these ponds are functioning how they intended them to.

Matt stated they are working and functioning, he said they are catching stormwater runoff and with all the growth they know that they are a stopping ground for a lot of nutrients, but it is something that needs to be managed on a regular basis.

Kathryn said as Matt stated they are stormwater management for the site are they discharging to anywhere, or any stream.

Matt said to his knowledge they are closed basins. Matt said these are designed to the Massachusetts standard as a pocket wetland. He said when he looks at the drawings there is no outflow like with a detention pond.

7:42 – Public Comment Closed – no comments.

7 – In Favor, 0 – Absent, 0 – Opposed, 0 – Abstained

David Lyons asked Jennifer when she took it this to the circuit writer how much did you talk about the jurisdictional features of a stormwater feature within a wetland. He said most of these are within buffer zones, so it's a preexisting resource area so he said there is jurisdiction over that.

Jennifer said there are seven interests within the act, and we are also mitigating for any filling, dredging or altering of any of the resource areas, and this does not have any impacts to the seven triggers to act, as well as no mitigation of the wetland's protection act, it is itself an exempt activity.

David said that he is more comfortable with saying the activity is exempt rather than an area that is exempt.

Matt stated that the stormwater pond was not jurisdictional but that area that it is in is.

Jennifer agreed with Matt.

David said the activity with the pesticides haven't we been regulating that on the Charles River. Jennifer said yes, but that work is for more than algae and its for a larger area and there is a loss of biomass so there was a specific permitting process for the VMP and not only is the Charles River area a wetland resource area but also the river itself.

Purvi also wanted to clarify that buffer zone is not a resource area its buffer to a wetland resource area and that distinction should be noted.

7:49 – The commission approves a negative determination of applicability and that the activity is exempt.

7 – In Favor, 0 – Absent, 0 – Opposed, 0 – Abstained

7:50– Administrative Topics

Meeting Minutes from January 23, 2023

6 – In Favor, 0 – Absent, 0 – Opposed, 1 – Abstained

7:53 – Meeting Adjourned

7– In Favor, 0 – Absent, 0 – Opposed, 0 – Abstained