

Chelmsford Conservation Commission
Town of Chelmsford
50 Billerica Rd. Chelmsford, Ma 01824
Meeting Minutes
January 10, 2023

Members Present: Chris Garrahan, Marc Gibbs, Karl Bischoff, David McLachlan, John Swenson, William Vines, Peter Spawn

Members Absent:

Others Present: David Koonce-Conservation Agent

Meeting was called to order at 7:00PM by Mr. Garrahan.

All documents referenced in these minutes are available for review at the Community Development Office, 50 Billerica Rd., Chelmsford Town Offices Building. This meeting was hand recorded via the Recording Secretary, and televised by Chelmsford Telemedia.

Open Session / Citizen Concerns

Mr. Garrahan thanked Mr. Tymula for his assistance for over 8 years of service.

The Commission welcomed Peter Spawn as the new Commissioner. Ms. Spawn has a Civil Engineering background.

Mr. Garrahan received a report on drainage issues on Middlesex St., by St. John's Church from the parking lot. Mr. Koonce will follow up on this.

Regulatory Hearings

• Request for Amended Order of Conditions 129-0929; Town of Chelmsford; Freeman Lake Emily Vulgamore/SOLitude Lake Management, representing Applicant

Mr. Koonce reminded the Commission that the original filing was for treatment to the entire lake. The Order of Conditions was appealed. Subsequently, a suggestion was made to amend the Order and work area of the project to just the swimming area of the lake. The project would now not be a limited project for ecological rehabilitation.

Legal notice was read. Work is for land under water, for an area of 43,560.SF at the Varney Beach swimming area. The resource area includes land under water bodies and waterways.

Emily Vulgamore explained the Plan has been revised to treat only the Varney Beach area and they would be targeting fanwort with a chemical treatment. Treatment will also impact other native plants that are causing a nuisance in the beach area. The chemical they would use is called Flumigard SC, as it is more

effective for a limited area, and can be used as treatment every year. The EPA has no restrictions on this chemical, as the lake is not used for irrigation. There is no harm to animals or people or drinking water.

Hand pulling or harvesting fanwort is not the best method for removal because the roots are brittle, break off, and make the problem worse.

Data will be collected to track invasive species spread, and work towards completing a complete survey.

Ms. Vulgamore felt this is the best way to handle this situation, and it will benefit the ecosystems. Doing nothing is not an option.

Mr. Bischoff asked if there would be any side effects downstream, and how long would the chemical stay in the water? Ms. Vulgamore acknowledged that this chemical can only be used once every 4 years, except for beaches. The herbicide will kill other plants. It will not decimate these populations, but will control them. It is applied subsurface. Concentrations are determined by water movement. Here, the water moves toward the shore.

Mr. Gibbs asked how this would impact the balance of the lake. Ms. Vulgamore advised that she still wants to pursue treating the rest of the lake, however, keeping the beach clean helps.

Treatment in May/June is the best time to do the application, before the beach gets busy.

Mr. McLachlan noted funding concerns. Town Meeting previously approved a budget of \$60,000, and now the proposed scope of work is less. This may have consequences as the funding is not being used as originally approved. He asked for more information on annual costs. Treatment cost should be similar to what is done at Hart Pond.

DPW Director Christine Clancy indicated that the DPW would be responsible for creating an annual plan for the lake. If a different proposal is warranted, they would come back before the Commission. There is \$48,000.00 remaining in the contract. The entire lake will be surveyed in May and in August/September, and then action will be determined.

Mr. Spawn noted the application is on the surface of the water, not the roots. Ms. Vulgamore confirmed that this was the standard approach. The chemical is mildly toxic to fish and other invertebrates, however, in monitoring use in other areas, there appears to be very little impact. The herbicide has a very short half-life, and there are virtually no impacts downstream. Mr. Spawn agreed that a complete lake survey should help target concentrated areas. Ms. Vulgamore also agreed that the survey will help them see how the plants are reacting and spreading.

Mr. Swenson felt the North Chelmsford Water District should be contacted, as their wells are downstream. Ms. Vulgamore reiterated that the herbicide is short acting, so there is no impact downstream. Ms. Clancy advised that the Water District was notified as an abutter, but the lack of downstream impacts make the risk small. The Water District will be asked for their input.

A boat is used for the application, which takes about 30 minutes to an hour. The herbicide is applied under water, and the chemical sinks.

Mr. Koonce advised that this project is now not an ecological restoration project, and therefore needs to comply with land under water and water ways regulations. He read the applicable sections of the regulations into the record, which notes composition of land, fish spawning areas, vegetation is used in this process, and that vegetation created wildlife habitat is sometimes a food source. This proposal is an alteration of land under water. Mr. Koonce asked if these interests have been studied, and whether there was anything being done to protect the wildlife habitat. Ms. Vulgamore conceded that these specifics had not been studied as they were not in their scope of work. This is something that will be studied in future survey work.

Mr. Koonce read the General Performance Standards into the record, and noted that the 43,000SF of project area is more than the 5000SF threshold under 310CMR 10.56(3). This regulation requires a habitat evaluation be done prior to any proposed treatment.

Audience Comments:

Wanda Dunn, 60 Willis Dr., noted that the certified letter she received had the wrong email and phone number for the Conservation Agent. She also noted that on the 2018 lake study it said that fanwort on the east side of the lake was sparse. Since the Town has paid to redo the whole area, washout is not going into the lake which reduces nutrients going into the lake. The DPW did hand-pull weeds last year. A new survey needs to be done prior to herbicide application, just like DEP advised. This past summer, the issue was made worse because of excessive rain and geese. The drought caused the water to be low, and many people were able to clean their beaches. Herbicides are not needed. Flumigard will not work if the PH in the water is over 8.5, and she questioned whether the PH levels in the water were tested. Ms. Vulgamore stated that water profiles are tested as allowed under the contract, and their company knew about the parameters. Mrs. Dunn stated the lake is not always calm. How will you determine when to treat? How will abutters be notified, especially if the application date has to be changed. Mrs. Dunn felt that Ecoharvester is a company in CT that could present a more ecofriendly way to deal with weeds. They have to treat up to 50 feet from the shoreline. This is an option where the Town doesn't need to worry about the unknown long term effects of herbicides. What happens with the decomposing weeds? Muck will kill the fish. The sludge would need to be removed. Mrs. Dunn agreed that the Water District would want to look into the new herbicide to determine any impact to their wells.

Peter Severance, 48A Middlesex St. and Merrimack River advocate. He wants to review more of the regulations, and wants to hear an alternatives analysis. Mass. DEP is awaiting the Town to provide a study of the water chemistry. This is required under CMR 310, and by DEP. The Town cannot make management decisions without this survey. A more detailed vegetation map of the lake is needed. The study from 1995 needs to be updated. This is moving beyond the Order of Conditions. Mr. Koonce advised that Mr. Bogue is aware of the Town's plan to move forward, and has not indicated the original Order needs to be rescinded. Mr. Severance countered that he also did not deny the appeal. Mr. Koonce agreed this was a fair question. Mr. Severance advised that prevention of pollution, protection of fish, and protection of wildlife habitat is done under Chapter 310. There is an exemption for areas under 5000SF. There is an exception if a wildlife study has been done. The study is needed before this proposal moves

forward. Plants improve water quality. Phosphorus and nitrates are controlled by the plants. Bacteria and micro-invertebrate and macro-invertebrates help with water quality, like snails and insects, fish, birds, ducks, dragonflies, minnows all contribute to habitat and food sources. The plants also contribute to the ecosystem. Herbicides are minimal labor and very expensive, and impact nutrient release to the rest of the lake in as little as 24-36 hours after application. The herbicide would cause an increase of algae in the lake, and increased sedimentation, especially in the swimming area. The lake water rotates clockwise. Herbicides will not stay in the treatment area. There will be drift effects. Will concentrations be monitored outside the target area? How long has the beach been raked by DPW? This type of removal has advantages-no cost or chemicals. There is still the disadvantage of loss of plant life. He would help with manual removal. People have done it this way for a long time. How far are you going out? What will the plan be moving forward. Pulled weeds can be composted on dry land. Ms. Vulgamore reiterated that this is a fast acting chemical.

Mr. Garrahan advised that this hearing would be continued.

Tim McGarry, 7 First Ave. asked what is the half-life and the residual effect of the treatment. Ms. Vulgamore responded the chemical lasts for 72 hours and is localized to beach area. Mr. McGarry asked about the depth of the water column, and how deep are the roots. Ms. Vulgamore stated 15-20 feet. Mr. McGarry asked if the water was lowered 3 feet, the roots would be ripped out. Ms. Vulgamore didn't answer the question. Mr. McGarry referenced another lake that is maintained. He is opposed to chemical use.

Mr. Koonce asked what category Freeman Lake would be in a Natural Communities study. The Town would need to determine what the habitat functions are, and develop an impairment ranking of the lake. Reference the 2018 study. Do an assessment to the impacts to fish and wildlife, and water quality. There is a strong desire to look at alternatives.

Mr. McLachlan commented that the original Order treated the whole lake with herbicide. It did not address these issues because it was an ecological restoration. He feels the Original Order should be overturned and the whole project should be denied and the whole proposal done over.

Mr. Spawn agreed the Notice could be withdrawn. Mr. Garrahan agrees that the Commission needs to decide what the alternatives are.

Motion: by Mr. Gibbs to continue the Hearing for Freeman Lake to January 24, 2023. Seconded by Mr. McLachlan. **Motion carries, unanimous, 7-0.**

A break was taken at 8:23PM.

The Meeting resumed at 8:28PM.

• Notice of Intent; MMP Construction; 11 Tremont Road Ian Ainslie/Meisner Brem Corporation, representing Applicant

Legal notice read. The resource area is river front area at Deep Brook. Work is for the construction of a detached garage and utilities.

Mr. Ainslie advised that Matt Palmer was on the Zoom call, as representative for MMP Construction. The town line between Chelmsford and Tyngsboro goes through the property. The single family home and work area are in Chelmsford.

There will be no work done in flood plain, riverfront, or Bordering Vegetated Wetland, which are all on this parcel.

The proposal is to remove existing pavement and build a 24'x28' garage. A shed will also be removed. There will be a net impervious area increase of 160SF. An infiltration system for roof runoff can be used to mitigate the increase in impervious area. The house was built in the 1960's and is exempt from setbacks. There will be no tree removal. Erosion controls will be installed.

Removed pavement will be brought offsite. Dewatering is not anticipated, as ground water is 10 feet below where garage will be. Excavated material will be stored away from the wetland. The garage location was chosen because they can't get closer to the road because of zoning setback requirements.

Soils are sandy, so the proposed drainage system should work. Tyngsboro abutters were notified.

There were no comments received from the audience.

Motion: by Mr. McLachlan to close the Hearing for 11 Tremont Rd. Seconded by Mr. Bischoff. **Motion carries, unanimous, 7-0.**

Motion: by Mr. McLachlan to issue a Standard Order of Conditions for 11 Tremont Rd. with a Special Condition to pull removed pavement material forward, and then remove it from the site. Seconded by Mr. Bischoff. **Motion carries, unanimous, 7-0.**

• Notice of Intent (After-the-fact filing; cont'd from 09.27.22); Keith Silva; 120 Gorham Street Susan McArthur/McArthur Environmental Consulting, LLC, representing Applicant

Mr. Koonce is requesting continuance of this matter to May 23, 2023. He visited the site, and noted that some erosion control was installed. Recent rain did cause erosion. More erosion control is needed. The Hearing should be kept open due to the enforcement order.

The area still needs regrading and planting. This is not the time of year to be able to plant. The ground is frozen, however, the weather is warm and there will be more rain coming. Mr. Koonce will continue to monitor the area regularly.

Mr. Garrahan agreed that having regular reports is necessary.

Motion: by Mr. Bischoff to continue the Hearing for 120 Gorham St. to May 23, 2023. Seconded by Mr. Gibbs. **Motion carries, unanimous, 7-0.**

• Notice of Intent; DIV Riverneck, LLC (cont'd from 12.13.22); 191, 195, 199, 201 Riverneck Road Zachariah Chornyak/Tighe & Bond, Inc., representing Applicant

A site walk was completed last week.

Kevin McHutchin, Tighe and Bond Inc. explained that the Storm Water Management System is being described tonight. The system is complicated, and includes underdrains and control structures that are tied in to the Compensatory Flood Storage area. Part of the system will isolate flows from loading dock area. Various equipment was described. Which systems were catching flows from different areas of the parcel were shown. Hydrodynamic separators (2 of them) help direct the flows and are considered water quality structures.

Preliminary soil testing has been completed. Final testing will still be done. The Planning Board is still reviewing the site plan, and changes are still being made.

Mr. Chorniak explained that test pits were done at the infiltration areas; seasonal ground water was higher than expected. The Town Engineer also needs to witness the tests, and calculations will be finalized. Ground water was determined to be between 4-5 feet. Work is ongoing pending the Planning Board and peer review processes.

Biofiltration systems testing thresholds were described. Peak flows and volume leaving the site starts at the 2 year storm. A comparison table of storm water management data was provided. The table was dated May 17, 2022, for 2, 10, 25 and 100 year storms. The original system for the existing building does no treatment. The system for the second existing building does very little infiltration treatment. Proposed condition compensatory flood storage reductions were provided, and meet storm water standards.

It was acknowledged that climate change could change the definitions of the different year storms. Calculations are based on the current standards.

Per Mr. Koonce's request, an emergency spillway will be researched.

The property owner will be responsible for managing the storm water plan through the Operation and Maintenance Plan. There may be a specific employee charged with doing this work. The occupants are not responsible for the maintenance.

One infiltration system is 40 feet away from the Water District's Zone 1 well head protection area. Existing pavement goes right to the edge of the protection area. The applicant is removing some of this pavement to be further away from the Zone 1 area. It discharges to critical areas, and these have very specific requirements. The system will meet TSS removal requirements.

The Water District has requested a closed system in this area. The applicant is addressing this comment. Infiltration is needed to meet other storm water requirements. The system will be adjusted, and water could be piped further away. The Planning Board would ultimately condition the requirements.

Soil testing in the Zone 1 abutting area is still pending. It has been alleged that there may have been a lot of fill brought in from earlier development. Tests to date are consistent with the US Geological data on record.

Contaminants are generally washed away and would be infiltrated in the first inch of any storm. Overflows would go to the brook and the wetland. The proposed storm water design should improve conditions over what is happening now.

Work on the systems will continue, including seasonal high ground water determinations. Soil textures will be helpful.

Mr. Koonce would recommend an independent third party peer reviewer to witness the additional soil testing, and possibly a hydrogeologist. This would be at the applicant's expense. Additional concerns also need to be addressed.

Audience comments:

Joel and Ruth Luna, 10 Carter Dr., provided two additional letters to the Commissioners. The applicant will be sent electronic copies. Storm water plans were reviewed, and they were glad to hear the comments. Confirmation on whether the rain garden is lined or not is needed. The garden will need test pits as well. A planting plan for the rain garden was requested, and it should have at least a 24 inch depth. The applicant was advised not to use fabric filters, as they clog easily.

The snow storage near the rain garden needs a berm to keep snow out of the garden.

The Operation & Maintenance Plan is ambiguously worded. Monthly tasks need to be looked at, not just every two years. Mosquito control needs to be updated.

For the sub surface systems, soil categories listed are not consistent with hydro-something soils that have been indicated. Mr. Luna agrees more testing is needed. He recommended three more testing pits on the western side, and 5 on the eastern bed. They agree with hiring a peer review with a soils expert.

The clay reference came up in a MEFA filing. This prevented previous development for 3 buildings from happening, and only one building was permitted.

Mounding analysis was requested because of the elevation of the seasonal high ground water.

Addressing the Water District's concerns is a good idea, and they have been known to be good negotiators. It was recommended to obtain a confirmation letter from them that they agree all conditions have been met.

There should be a narrative that describes how all these systems works in case of problems down the road.

The Lunas have been researching the allegations of swamp filling. Meeting Minutes in 1976 reference for contour maps being done. Wetland topo maps from 1976 were done, and were found. There was a wetland there in the 1970's. The GIS maps show a building proposed over a swamp/wetland area. The wetland markings match what is in the plans submitted at that time. The wetlands were not delineated then. In 1990, DEP installed some monitoring wells, and used the same wetland map. The Town map from 1987 from Weston and Sampson during the sewer project shows 2 ponds. In 1997, reference was made from borings that there was a peat deposit. A local resident described finding blueberries and other trees consistent with this area being a wetland. The ground was spongy and wet. The resident described sedge growing here. There is a hydrological connection between this property and there was a culvert there in 1982.

The situation is that there is an ongoing violation. The permits were issued because the Conservation Commission was not informed the area was a wetland. Mr. McLachlan, read chapter bylaw language from 1995 into the record. In 2009, the language was amended. Mr. McLachlan suggested that Town Counsel should be asked for an opinion on whether the site should be restored. Mr. Luna requested consulting with a special wetlands legal counsel.

Mr. Koonce will request permission from the Town Manager to consult with any legal counsel.

Motion: by Mr. McLachlan to authorize the Conservation Agent to request permission from the Town Manager to seek legal counsel to determine whether there was a violation under Chapter/ Section 186-13D, and what are the Commission's options to take legal action.

Discussion: The Commission would be asked to fund the legal fees. Mr. McLachlan disagrees, and believed this is a Town problem and should be funded with the Town's general legal funds.

The Motion was Seconded by Mr. Vines. **Motion carries, unanimous, 7-0.**

There was some opinion that the existing building is being torn down anyway, and the wetland should be restored.

Motion: by Mr. McLachlan to continue the Hearing for 191, 195, 199, 201 Riverneck Road to January 24, 2023. Seconded by Mr. Bischoff. **Motion carries, unanimous, 7-0.**

• Notice of Intent (cont'd from 07.26.22); DH Property Holdings, LLC; 270 Billerica Road Kasey Ferreira/Howard Stein Hudson, representing Applicant Discussion

The applicant has requested continuance to February 14, 2023.

Motion: by Mr. Bischoff to continue the Hearing for 270 Billerica Rd. to February 14, 2023. Seconded by Mr. McLachlan. **Motion carries, unanimous, 7-0.**

• **Map 92/Block 337/Lot 3 (Littleton Road) violations (Donald St. John, Conservation Agent)**

Mr. Koonce noted that Mr. St. John was present, but left. It was 10:18PM at this point in the meeting.

Mr. Koonce met onsite with Mr. St. John, and advised him that an RDA filing is needed.

Work was done right to the edge of wetlands. Mr. St. John needs to get the wetlands delineated, and file the RDA application. Discussion Tabled to the next meeting.

The property is across from Enterprise Bank on Littleton Rd.

Continual Business Land Management

• **Update on Warren-Pohl Reservation**

Mr. Bischoff reported that the Conservation Restriction document is almost ready to be submitted to the State.

The granite has not been received yet. The Town Manager is working on it.

• **Native pollinator plant kits**

Mr. Bischoff is looking to purchase 75 plants from the Sudbury Valley Trust, at an approximate cost of \$300.00 to be planted at Warren-Pohl Reservation.

Other:

A site visit of Oak Hill and Deep Brook Reservations were done last Saturday; a summary letter of needed work will be submitted.

Mr. McLachlan suggested that the entrance on Oak Hill Reservation needs to be improved, as it is an eyesore.

Agent's Report

The title report for Wilson Lane was received. The Town does not have any easements to access this parcel. Access could be gotten from Meadowbrook Rd. through existing conservation land. Mr. Koonce agreed this would be a good acquisition. Mr. Bischoff was going to request authorization to apply for CPA funding, possibly in February, to purchase the 1.3 acre lot. Work and negotiations are ongoing for a possible Town Meeting warrant article.

The property owner at 201 Boston Rd. has not filed the RDA application yet to address a violation at this location. Still pending.

For Approval/Signature

• **Minutes of November 22, 2022, December 13, 2022**

Motion: by Mr. McLachlan to approve the Meeting Minutes of November 22, 2022 and December 13, 2022, as presented. Seconded by Mr. Vines. Mr. Spawn abstained, all others in favor. Mr. Vines stated that he filed a Mullin certificate for the December 13, 2022 meeting.

Motion carries, 6-0.

Adjourn

Next Meetings January 24, 2023

February 14, 2022

Motion: by Mr. McLachlan to adjourn the meeting at 10:31PM. Seconded by Mr. Gibbs. **Motion carries, unanimous, 7-0.**

Respectfully submitted,
Vivian W. Merrill

Supporting documents:

- Applications for Notices of Intent, and for Certificates of Compliance
- Draft Minutes