

These minutes were approved at the September 23, 2024 meeting.

DURHAM CONSERVATION COMMISSION
Monday, July 22, 2024
DURHAM TOWN HALL, COUNCIL CHAMBERS
7:00 p.m.

MEMBERS PRESENT: Dwight Trueblood (Chair); Erin Hardie Hale (Vice Chair); Wayne Burton (Town Council Rep); Richard Kelley (Planning Board Rep); Nick Lanzer; John Nachilly and Neil Slepian; Alternates: Jacob Cragg, Anne Lightbody, and Steve Moyer.

ALSO PRESENT: Michael Behrendt, Durham Town Planner and Sara Callaghan, Land Stewardship Coordinator

I. Call to Order

Chair Dwight Trueblood called the meeting to order at 7:00 p.m.

II. Land Acknowledgement Statement

The Chair read the statement as adopted by the town's Human Rights Commission.

III. Roll Call and Seating of Alternates – (took place during Item VI).

Roll call attendance was taken.

IV. Approval of Agenda

*Mr. Slepian **MOVED** to approve the agenda as presented; **SECONDED** by Mr. Nachilly; **APPROVED** unanimously, 7-0, Motion carries.*

V. Public Comments: None this evening.

VI. Land Stewardship Update. Sara Callaghan, Land Stewardship Coordinator.

Ms. Callaghan shared highlights from her recent activities:

- Heirs of Doe Farm contacted her from California wanting to visit the homestead and cemetery site. She thanked DPW and Rich Reine for a phenomenal job mowing and cleaning up the site for their visit.

- Sara has been coordinating efforts to keep the White Trail open, which passes through UNH's West Foss Farm and private land subject to a conservation easement held by the Town of Durham. A portion of this conservation easement cannot be posted against recreational use, with the exception of hunting. Steve Eisenhaure, from UNH Woodlands, has been involved. John mentioned that the private landowners have posted the boundary where public restriction is allowed. Sara explained that the private landowners posted their private trails to prevent stragglers on their property.
- Sara said the trail crosses a wetland which could use improvement. The private landowners also requested updates to the UNH trails map as they have concerns about how the property is represented on the map.
- Trail maintenance work was done at Stillworthy, to help prepare for the Recreation Department's summer program.
- The Land Stewardship Committee has had a number of discussions about improving trail accessibility at Wagon Hill, prompted by an email from a resident. As a result, she contacted Enoch Glidden, a wheelchair user with his own consulting business. Mr. Glidden will provide an estimate to improve accessibility at Wagon Hill and also portions of Oyster River Forest, Jackson's Landing and Thompson Forest. In some cases, he might provide a detailed written description of existing trails so users can decide for themselves if it would be accessible.
- An NHPR reporter approached Ms. Callaghan about Durham being a "Bee City," which the town has not renewed. She noted the town has Monarch Way Stations, designated over the last several years (through Monarchwatch.org). Way Station properties are Thompson Forest, Oyster River, Wagon Hill and Milne Sanctuary. She talked to the reporter about the town's bee-friendly practices.

Education Sub-Group Report

Vice-Chair Hale gave a brief update on the activities of the Education Sub-Group. She thanked volunteers who came out for Durham Day and said the sub-group is meeting monthly. They will host three themed walks in the fall in collaboration with Parks and Rec and Land Stewardship. Alternate Jacob Cragg gave a quick update on Durham Day and said response was positive.

Ms. Hale put out a call for volunteers to staff a table at LaRoche Farm for Durham Farm Day on August 17th from 10:00 a.m. to 4:00 pm.; even one hour is helpful.

Ms. Callaghan updated the commission about plans to bring in Vermont Extension speaker Ali Kosiba this fall. Ms. Kosiba has extensive knowledge on the effects of climate change on northern forests; carbon storage; sequestration and forest resiliency.

Ms. Callaghan said she hopes to come back with a funding request and more details about the program next month.

VII. Climate Action Plan. Discussion with Sophie Goodwin, Durham Sustainability Fellow, about Durham’s Climate Action Plan.

Sophie Goodwin (attending via zoom) doesn’t have a formal presentation this evening but is here primarily to introduce herself.

Vice-Chair Hale asked her to provide brief information about how she’s planning to update the town’s 2022 Climate Action Plan.

Ms. Goodwin said the new plan will be for 2025-2030. In 2022, the town set an ambitious goal of 42.8% reduction in emissions from the 2019 data. In her view, it’s a “highly aspirational” goal and is unlikely to be achieved.

She said the Climate Action Plan was set by the Energy Committee and the Town Administrator’s Office, in collaboration with other boards and commissions. She’s met with involved parties to see if they want to continue with the current emissions-reduction goal or revise it.

Chair Trueblood said the numbers in the Climate Action Plan and the Greenhouse Gas Emissions Inventory seem to lack context. He asked how Durham compares with other towns of the same size, for example.

Ms. Goodwin replied the 2019 inventory was per capita, but it’s difficult to conceptualize the data. As of 2019, the NH average is 10 tons of carbon dioxide per capita and Durham is half that at 5 tons of carbon dioxide per person. For reference, Portsmouth is at 20.

Vice Chair Hale asked if Durham’s positive numbers are being driven by the large amount of conservation land that contributes to sequestration. Ms. Goodwin replied the main drivers seem to be a combination of UNH facilities, the Co-Gen Plant and green buildings.

Based on the two reports, Mr. Kelley said it looks like the numbers are going in the wrong direction to meet the goal of zero emissions by 2050. Ms. Goodwin explained emissions were lower in 2021 due to Covid, but went back up in 2022. (In 2019, the town was at 104,000 metric tons of carbon dioxide; In 2021, it was 83,000 and in 2022, it was 97,000.)

She noted that Durham is still in a good place but reiterated that trying to reduce emissions by 40 percent by 2030 isn’t realistic. She hopes to work with town groups to re-frame the goals.

Vice-Chair Hale said the Conservation Commission has resources available to help with the natural resources section of the plan, particularly pertaining to carbon reforestation.

Chair Trueblood asked what residents can do to reduce their carbon footprint since in his view the town needs help from the community to reach its goals. Ms. Goodwin agreed the plan lacks information about what residents can do and said she hopes to work on that aspect.

Ann Lightbody noted the 2022 plan references the 2017 Hazard Mitigation Plan – which introduces local resilience to climate-related challenges such as water quality, sea level rise; and storm water management, etc. She asked if the town is considering broadening the scope of the [Climate Action] plan or if it will focus exclusively on greenhouse gas emissions.

Ms. Goodwin said there's climate action mitigation in the Climate Action Plan and there's adaptation, which is the main focus of the Hazard Mitigation Plan. The two plans work hand-in-hand.

Mr. Kelley expressed his view that it's going to take a combination of carrots and sticks, i.e., incentives and requirements, to reach the goals. He briefly suggested the town could require solar panels on all new construction; maybe offer a waiver or credits for registration of electric vehicles and possibly enact a carbon tax. In his view, the town needs to think bigger to reach its goals; education is critical to success.

In answer to a question from the Chair, Ms. Goodwin said she expects to finish her work in the fall. She'll continue to meet with commissions and boards and then send proposed updates to Town Council. The Conservation Commission should send any supporting information to her no later than early September. The Chair thanked her for attending this evening.

VIII. Wagon Hill Farm – Shoreland Restoration Phase II. Discussion with Mark West, West Environmental, on Town of Durham's plan to stabilize 1,800 feet of shoreline, restore 4,057 square feet of salt marsh habitat, restore 2,805 square feet of tidal buffer habitat, and relocate portions of the trail, extending efforts completed in 2019. The Town has applied to NHDES for a wetland permit for the project.

Rich Reine, Durham's Director of Public Works, came forward to introduce project team members in attendance this evening: Professor Tom Ballestero from UNH and Streamworks; Joel Ballestero from Streamworks and Mark West from West Environmental.

Joel Ballestero gave a quick project overview. He said the town completed 350 feet in Phase I in 2019; Phase II involves completing the remaining 1,850 feet. He showed a long list of team members and agencies involved at all levels – local, state and federal.

Summary of Phase I: Built 300-feet of the marsh into the mudflats and installed a fence to help protect it. Identified seven potential sources of impairment, with humans and animals among the biggest sources. Installed a boardwalk to protect the area.

Status of Phase II: The town received \$2.2 million from NIFWIF [National Fish & Wildlife Foundation]. He showed aerial photos of conditions from 1992 and then more recent conditions as of 2016-17; The salt marsh has been retreating at a fast rate of one foot per year on average. There was twenty feet of shoreline erosion from 1992 to 2015. Mr. Ballestero noted a 2023 survey of the banks found very similar rates of retreat.

He showed photos of erosion and described some of the damage and the plan for Phase II, including:

- Limbing of trees that are shading the shoreline; removal of susceptible trees.
- About 15% of saltmarsh is missing and continuing to erode
- 75% of existing salt marsh shows an erosional face over three feet high; armor will be needed to protect it.
- Restoration work will mimic good reference locations on site that have flatter slopes.

The goals of the Restoration project:

- Restore salt marsh
- Stop erosion
- Protect efforts with fencing
- Provide outreach and education
- Perform maintenance and five-years of long-term monitoring

Mr. Ballestero described stabilization efforts, including installation of a bridge; rock ramp toe protection on the south and west sides and soil pillows (wrapped with coir) to be backfilled with loam for the steep upland banks.

Funding Sources and Bid/Work Process: Mr. Reine said a \$257,000 grant from the National Fish & Wildlife Foundation in 2020 allowed the town to take the design to 50 percent and to begin work with other partners in the region to adopt the Living Shorelines Project. From 2020 to 2022, the town was successful in getting about \$1.9 Million in funding from NIFWIF. He's been given the go ahead to bid out Phase II and expects work to take place in 2025.

Overview of Coastal Functional Assessment: Mark West from West Environmental showed an extensive list of information needed for a Coastal Functional Assessment. The town needs to consult with NH Fish & Game before DES will issue a permit. In addition,

it's recommended that the Conservation Commission express its support for the project to the State.

Mr. West gave an overview of what's involved in a Functional Assessment. He said the salt marsh provides shoreline anchoring, as well as flood flow protection, finfish and Shellfish habitat and other important functions.

He noted that recreation and education are important at Wagon Hill. The site also has high ecological integrity because there's minimal development across the tidal river and Wagon Hill is an intact forest, shrub and field habitat. He showed a number of photos and said many functions are being lost by wave action and erosion.

Mr. West said trees are falling rapidly and a lot of trails will need to be re-located. Permits have already been obtained for the shoreland; tidal wetland buffer and work to take place directly in the saltwater wetlands.

Question and Answer Period

Mr. Nachilly asked how many trees would be cut and Mr. Reine estimated about 50 to 100, some of them to allow access for equipment to do the work. Mr. West added that most of them are smaller trees on the access road; many large trees will remain.

Mr. Nachilly asked about mitigation to restore the land after the work is done and Mr. Reine confirmed this is scheduled to take place. Mr. Burton, a caretaker at Wagon Hill, said the team has done a really good job using the existing trail to complete work so far.

He pointed out the original money came from Eversource when they wanted to do a project on Great Bay. Opposition from people on Durham Point led to a few court battles and resulted in Eversource paying \$600,000 for mitigation. In his view, it was a much safer project because of citizen involvement.

Mr. Reine said some of the mitigation funds were able to count as matching funds and were used to construct two new bridge crossings that were desperately needed.

Mr. Behrendt asked if there were any lessons learned from Phase I that could be applied to Phase II. Joel Ballesteros said Phase I worked out well overall. One plant, grown specifically for the site, had the wrong salinity and ended up dying. They were able to organize about 40 volunteers, many from UNH, to re-plant the site with a different plant.

Also due to a number of factors, the contractor failed to install geo-textile on the back of large boulders, allowing small wave action to cause erosion. It needs to be fixed during Phase II.

He said outreach has proven beneficial to public support, especially in a town like Durham where the community is well-educated and passionate about the project. He spends a considerable amount of time talking on site with residents and believes it's worthwhile.

Mr. Reine said Durham is very lucky to have volunteers to help with annual maintenance. Every winter, volunteers clean up storm debris and students from Oyster River Middle School also help with the Service Palooza Project.

A question was asked about whether the \$1.9M will be enough to complete the project. Mr. Reine said in the current bidding climate, there's twenty-five percent escalation on every project, partly due to materials cost and partly to contractor availability.

He believes the current funding will allow the town to get an additional 1,800 feet completed, but the bidding process will confirm if that's the case or if additional funding will be needed.

For reference, Tom Ballestero said Phase I was about \$300/per linear foot and Phase II has been bid out at about \$1K/per linear foot. He added enthusiasm for the project is high and additional monies are available from DES and other sources, if needed.

In answer to a question from Mr. Burton, Joel Ballestero confirmed there's potential for the restoration project to be a model for addressing sea level rise. He added the goal isn't only to protect what's already there, but also to make the shoreline resilient, self-sustaining and adaptable. It should not require constant human intervention to manage sea level rise.

It was noted a few times in discussion that this project is unique in New Hampshire, with Phase I being the first of its type.

Mr. Burton asked about a potential docent program at Wagon Hill and talked about the history of the quarry. Mr. Reine replied there are funds for outreach within the budget and Strafford Regional Planning Commission will work with the town on this.

Additional questions and discussion centered around the timeline for the project; the selection and re-use of materials and potential for invasives to be introduced in the fill; whether reduced boating speeds on the river would help with wave action causing erosion; and about the vendor that supplied the plants that failed (specifically, would the town use this vendor again).

Mr. Reine said the permit application has been submitted and deemed complete by DES, which now has 50 days to review it. The town will then receive a Request for Information (which is likely) or an Approval. It would be helpful for the Conservation Commission to send a letter of support.

Mr. Kelley asked if DES set any provisional requirements in Phase I that would impact Phase II. Tom Ballestero shared that because of the uniqueness of the project, the team (town, state, and federal) met monthly for three years in order to arrive at the design for Phase I. There were few surprises as all groups were involved from the outset.

He noted the town provided a lot of its own materials including stone from the Packers' Falls pit. They also used fill from cleanout of Durham's swales. After the fact, DES questioned if the fill could potentially be hazardous waste. It was tested and fortunately found not to be hazardous.

In response to a question from Mr. Kelley, it was noted that pedestrian access to the restoration site will be limited during 2025. Mr. Reine said it's possible the work could extend into 2026.

Regarding the Maine vendor who supplied plants with the wrong salinity, Tom Ballestero explained in detail what happened and Joel Ballestero said the company was great to work with and they wouldn't rule out working with them again.

There were questions about monitoring and maintenance of the site, with Mr. Reine noting the town is required by grant funders to conduct specific monitoring for five years and after that, the town will continue to do so on its own.

The Chair thanked the team for a very informative discussion.

Mr. Kelley MOVED to send a letter of support for the project to NHDES, SECONDED by Mr. Lanzer, APPROVED unanimously, 7-0, Motion carries.

IX. 2025 Budget for Conservation Commission. Development of proposed budget for calendar year 2025.

Mr. Behrendt said discussion will likely focus on discretionary categories and asked about any anticipated expenses for 2025.

Vice-Chair Hale asked about potential funding for speakers and the Chair asked for clarification on contracted services. Mr. Behrendt said most of the contracted services are for the Land Stewardship Coordinator's position.

Ms. Callaghan said field and trail mowing and land surveys are all supported by the Land Stewardship Committee. A total of \$15K has been requested to complete field surveys, with some properties having encroachment issues and other properties taking priority because they've never been surveyed.

Mr. Behrendt suggested budgeting \$1500 for miscellaneous expenses, which could cover the cost of educational speakers. He added if costs exceed that, additional funds can usually be found from the Land Stewardship Committee or Town Administrator's Office.

In answer to a question from Mr. Lanzer, Mr. Behrendt said no motion is needed to pass the budget.

X. Wetland and Shoreland Overlay District – Zoning Amendment. Discussion with Neil Slepian and Dwight Trueblood about proposed new Wetland and Shoreland Overlay District (WSOD) to replace the current Wetland Conservation Overlay District (WCOD) and Shoreland Protection Overlay District (SPOD). A committee appointed by the Conservation Commission has been working for over a year to rewrite the WCOD and SPOD. The committee now has a draft to present to the Commission. **TABLED**

Due to the late hour, Chair Trueblood asked if members wanted to table this discussion or extend the meeting. A consensus was reached to table it so that quality time can be spent on the topic.

To inform future discussion, the Chair said he had sent an email about a more dynamic way to think about shoreland buffers. He encouraged members to look at a newly-released database from the state called the Salt Marsh Mapper. Among other features, the tool identifies all 29 salt marshes in Durham and assigns a resilience score to each one; it also shows where state officials believe the town should “limit investment” in restoration.

XI. Review of Minutes: June 10, 2024 – Tabled

There were a number of changes to be made. Some had been submitted to the minute taker or town staff and some had not.

In light of numerous changes to be made, Mr. Kelley MOVED to delay review of the minutes; SECONDED by Ms. Hale, APPROVED unanimously, Motion carries, 7-0.

XII. Other Business

Ms. Hale said she, Sara Callaghan and Roanne Robbins will staff the table for Durham Farm Day on August 17th for part of the day and asked if other Commission members would be willing to volunteer. She also invited any interested members to join the informal sub-committee at their monthly meetings.

In other business, the Chair said the topic of the invasive species list in the town's site plan regulations has been raised. There are some new invasive species in the area and the question is whether the Conservation Commission should provide an updated list to the Planning Board as a resource for the site plan ordinance.

Mr. Lanzer did a quick online search and said the NH Department of Agriculture has a comprehensive list of invasive species that's eleven pages long. Durham's current site plan regulations have a much shorter list. Ms. Callaghan clarified the state has a long list because it includes plants that landscapers are prohibited from selling; an Early Detection Rapid Response List and also an Invasive Species List.

After discussion, it was determined that Mr. Behrendt will send out the current site plan regulations showing recommended practices and plants to avoid so this can be discussed at a future meeting.

Ms. Callaghan said the NH Department of Agriculture should be the "go to" list since it's updated annually by professionals. She also raised the idea of providing resources on best practices to prevent the spread of invasives. She emphasized that removal of invasives isn't recommended in all cases. Best practices vary by species.

On another topic, Mr. Behrendt said the Housing Task Force has requested 30 to 40 minutes at the next Conservation meeting in order to have a conversation about housing. They're seeking commission members' thoughts primarily as Durham residents.

The Chair expressed that time may be limited for this due to the wetland and shoreland regulations discussion that needs to take place. Mr. Behrendt suggested the Housing Task Force be limited to 45 minutes.

XIII. Roundtable

Chair Trueblood reported when he gave an update to Town Council on the Conservation Commission's activities recently, he was asked how the Commission is using Town Council goals to guide their activities. He was able to point out two general areas where this took place, but going forward he recommends the Commission think more strategically about this.

Vice-Chair Hale recalled a recent discussion and some emails about aligning their goals with those of Town Council. She will send them out.

XIV. Adjournment

Mr. Kelley MOVED to adjourn at 9:35 p.m.; SECONDED by Ms. Hale, APPROVED unanimously, 7-0, Motion carries.

Respectfully submitted,
Lucie Bryar, Minutes Taker
Durham Conservation Commission