



TOWN OF HUDSON

Conservation Commission



William Collins, Chairman Dave Morin, Selectmen Liaison
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CONSERVATION COMMISSION MEETING AGENDA December 12, 2022

The Town of Hudson Conservation Commission will meet on **December 12, 2022** at 7:00 p.m. in the Buxton Meeting Room, located in Town Hall 12 School Street, Hudson, NH.

- ✓ Call to Order
- ✓ Pledge of Allegiance
- ✓ Roll Call
- ✓ Alternates
- ✓ Public Input Related to Non-Agenda Items

I. New Business:

- a. Conditional Use Permit 69 Burns Hill Road Map#217, Lot #36
Pool and Shed in wetland setback
- b. Andrew L. Morin, Executive Director, ReGenerative Roots Association
- c. Proposed 2023 Warrant articles

II. Old Business:

- a. Map Products – NRPC Presentation

III. Other Business

- a. Rangers Town Forest Timber Harvest – Rumbaugh
- b. Draft Robinson Pond BMP report
- c. Schedule a Work Day- Dickinson

IV. Financial Status:

Current Numbers

V. Correspondence:

VI. Approval of Minutes:

- a. November 14, 2022 Meeting Minutes
- b. November 12, 2022 Meeting Minutes (Site walk)

VII. Commissioner's Comments:

VIII. Non Public Session - RSA 91-A:3 II (I) Consideration of legal advice provided by legal counsel, either in writing or orally, to one or more members of the public body, even where legal counsel is not present.

Next Regular Meeting: Monday, January 9, 2023 at 7:00 p.m.

William Collins

William Collins, Chairman

Conservation Commission Warrant Article Proposals FY2023

The Hudson Conservation Commission is currently tasked with maintaining and improving three town forests. Monies for the maintenance and upkeep of forest properties should come from the Forestry Maintenance fund not the Conservation Fund.

Colburn Town Forest Established by town vote Location: 20 Musquash Road Size: 51.95 Acres

Rangers Town Forest Established by town vote Location: 70 Rangers Drive Size: 56.64 Acres

Hudson Town Forest* Established by town vote Location: 142 Kimball Hill road Size: 52.26 Acres

*At some point another 26.32 acres of adjoining property will be added to the forest acreage. Currently this property is considered conservation property.

First Article proposed

Article XXXX (to be determined)

Shall the Town vote to appoint the Hudson Conservation Commission as agents to expend, as authorized by RSA 31:19-a, 1, from the Forest Maintenance Fund, previously established in 2018? No money to be raised by taxation.

Explanation: With this Article we are asking the voters to allow the Conservation Commission to manage and expend funds from the Forestry Maintenance Account without the need to seek approval by the voters at the annual town meeting. As noted, the RSA below allows for this type of arrangement. Typically it would be the Forestry Committee making the request but Hudson does not have such a committee and the Conservation Commission is tasked with oversight of all town forest land.

31:19-a Trust Funds Created by Towns. –

I. A town may at any annual or special meeting grant and vote such sums of money as it deems necessary to create trust funds for the maintenance and operation of the town; and any other public purpose that is not foreign to the town's institution or incompatible with the objects of its organization. The town may appoint agents to expend any funds in the trust for the purposes of the trust. An annual accounting and report of the activities of the trust shall be presented to the selectmen and published in the annual report.

Second Article Proposed, It might have to be petitioned

Article XXXX (to be determined)

Shall the Town vote to raise and appropriate the sum of \$_____ for the purpose of forest management (signage, trail building, maps, parking, etc.) and other costs associated with the maintenance and care of Town forest land? Said funds to come from the Forest Maintenance Fund, which is funded from revenues produced by timber harvesting in connection with forest management. No amount to be raised through taxation. This is a Special Warrant Article and is a non-lapsing appropriation per RSA 32:7 and shall not lapse until 12/31/2027 or until project is completed. No money to be raised by taxation.

Explanation: With this Article we are asking the voters for their approval to spend a set dollar amount from the Forestry Maintenance Fund for the purpose of maintaining town forest land and for purchasing materials for trail marking and informational kiosks at our three town forest properties. The goal would be to purchase the items needed and have everything completed by the end of 2023. As these project can take a considerable amount of time to complete the warrant article is written to address the amount of time required to “complete the project”

Universal Citation: NH Rev Stat § 32:7 (2013)

32:7 Lapse of Appropriations. – Annual meeting appropriations shall cover anticipated expenditures for one fiscal year. All appropriations shall lapse at the end of the fiscal year and any unexpended portion thereof shall not be expended without further appropriation, unless:

I. The amount has, prior to the end of that fiscal year, become encumbered by a legally-enforceable obligation, created by contract or otherwise, to any person for the expenditure of that amount; or

II. The amount is legally placed in any nonlapsing fund properly created pursuant to statute, including but not limited to a capital reserve fund under RSA 35, or a town-created trust fund under RSA 31:19-a; or

III. The amount is to be raised, in whole or in part, through the issuance of bonds or notes pursuant to RSA 33, in which case the appropriation, unless rescinded, shall not lapse until the fulfillment of the purpose or completion of the project being financed by the bonds or notes; or

IV. The amount is appropriated from moneys anticipated to be received from a state, federal or other governmental or private grant, in which case the appropriation shall remain nonlapsing for as long as the money remains available under the rules or practice of the granting entity; or

V. The amount is appropriated under a special warrant article, in which case the local governing body may, at any properly noticed meeting held prior to the end of the fiscal year for which the appropriation is made, vote to treat that appropriation as encumbered for a maximum of one additional fiscal year; or

VI. The amount is appropriated under a special warrant article and is explicitly

designated in the article and by vote of the meeting as nonlapsing, in which case the meeting shall designate the time at which the appropriation shall lapse, which in no case shall be later than 5 years after the end of the fiscal year for which the appropriation is made.

A couple of Q&A from the New Hampshire Municipal Association

Q: Can the selectmen decide to harvest the timber in the town forest or decide that no hunting will be allowed in the town forest?

A. No. **RSA 41:11-a** specifically excludes town forests from the selectmen's authority to regulate and manage. Thus, the selectmen have no authority with regard to management of the town forest—that authority is delegated to either a forestry committee or the conservation commission by the legislative body when it establishes the town forest. By voting to establish a town forest, the voters are bypassing selectmen and placing the authority to manage a specific piece of town property with another town committee. However, the selectman can, and should, communicate with the forestry committee about ideas and concerns they may have about the town forest.

Q: Does the forestry committee get a budget to carry out its duties?

A. The legislative body can raise and appropriate the funds it deems necessary to establish or maintain a town forest. **RSA 31:113**. Maintenance expenses might include such things as preparing a forestry plan, purchasing and planting trees and other activities related to the maintenance of the town forest. The authority to spend such appropriations lapses at the end of the town's fiscal year as required by **RSA 32:7**.

In addition to funds that may be appropriated by the legislative body, any proceeds from the town forest, for example, money received from a timber harvest, must be deposited into a special forest maintenance fund. This fund is allowed to accumulate from year to year and does not lapse, unless the legislative body votes otherwise.

To: Nashua Regional Planning Commission
Emma Rearick, Project Manager

Date: November 8, 2022

Project #: 52868.00

From: Bill Arcieri & Garrison Beck, VHB

Re: 60% DRAFT Robinson Pond BMP Matrix and
Technical Memorandum of Recommendations

Purpose & Introduction

This technical memo is being provided to the Nashua Regional Planning Commission (NRPC) to support the development of a Water Quality Protection Plan (WQPP) for Robinson Pond in Hudson, New Hampshire. Robinson Pond has a history of poor water quality and cyanobacteria blooms. Cyanobacteria blooms are an indication of excessive nutrients in the water column, primarily phosphorus, and blooms were most recently detected for most of this past September, making the pond essentially unusable for swimming and other recreational uses. The state 2022 303(d) list identifies Robinson Pond as being impaired for Primary Contact Recreation due to elevated levels of chlorophyll-a (Chl-a), cyanobacteria, and *E. Coli*. The Pond is also listed as impaired for Aquatic Life Integrity due to Chl-a, dissolved oxygen saturation, non-native aquatic plants, pH, and total phosphorus. The Robinson Pond Town Beach (AUID: NHLAK700061203-06-02) is also listed due to elevated levels of cyanobacteria, and *E. Coli* bacteria. The New Hampshire Department of Environmental Services (NHDES) monitors cyanobacteria levels at Robinson Pond to advise recreationists to refrain from wading, swimming, or drinking the water at elevated concentrations, and in 2022 NHDES issued a cyanobacteria advisory beginning on September 20 which is still active pending resampling in November. At its peak, cyanobacteria density counts reached 3.5 million cells/mL on October 3, exceeding the state water quality limit of 70,000 cells/mL.

Water Quality Improvement Goals

The 2011 Robinson Pond Total Maximum Daily Load (TMDL) study recommended that the average annual total phosphorous (TP) watershed load be reduced by 40% to lower the average in-lake phosphorus concentration to 12 µg/L.¹ In 2021 the average TP concentration was 18-20 µg/L in the epilimnion with even higher concentrations in the deeper water. The suggested 12 µg/L represents a typical median TP concentration for less productive, mesotrophic lakes in New Hampshire and is expected to improve Robinson Pond's water quality to support its designated beneficial uses and reduce the likelihood of cyanobacteria blooms. This 40% reduction means that estimated TP load of 115.2 kg/yr. (254 lbs./yr.) developed by the TMDL would need to be reduced by approximately 46.0 kg/yr. (102.0 lbs./yr.). However, for sources that can be managed from the watershed area, the suggested load reduction would be 48%. A wide range of source control measures or BMPs will be needed to achieve the suggested nutrient load reduction.

The 2017 NH MS4 Permit requires regulated municipalities like the Town of Hudson to develop a Phosphorus Control Plan (PCP) for lakes and ponds that are nutrient impaired and have a phosphorous TMDL. The PCP should outline an approach to achieve certain load reduction targets over a 15-year time frame extending out to 2033. The 2017 MS4 Permit requires the Town to adopt measures to achieve an interim 30% load reduction target by Permit Year 8 or fiscal

¹ Total Maximum Daily Load for Robinson Pond, Hudson, Prepared by AECOM for NH. EPA Region 1, Boston, MA. January 2011. <https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/2020-01/final-phosphorous-tmdl-report-robinson-pond.pdf>

Year 2026. The Town has developed an interim PCP that describes existing conditions, potential funding sources and will be updated in 2023 to include a list of BMPs consistent with the pending WQPP to be developed by NRPC.

Best Management Practices to Achieve Water Quality Goals

Best Management Practices (BMPs) to reduce phosphorus loads to Robinson Pond will require a multi-faceted approach as no single effort is likely to reduce the current loading to levels that will result in meaningful water quality improvements. Recommended BMPs described below include both structural and nonstructural measures and are summarized in the attached BMP matrix. The matrix provides an estimate of the potential treated area, expected removal efficiency and the estimated average annual phosphorus load reduction for each BMP, particularly for structural BMPs where existing data allows for potential load reductions to be more easily quantified. Estimated load reductions for nonstructural measures such as more stringent regulation updates are more difficult to quantify as their effect will depend on how much of the regulated activity occurs in the future and the degree of compliance.

Structural BMPs

Road Runoff

Through field investigations, review of stormwater infrastructure, aerial imagery, and drainage patterns, VHB identified seven locations within the Robinson Pond watershed where structural BMPs may be the most plausible to treat runoff from roads and residential development. Much of the treatment potential is limited to the Town owned right of way and shoulders along municipal roadways. However, these roads are narrow, often highly vegetated and may contain wetland areas, which are both physical and regulatory constraints that limit feasibility. Depending on the drainage area size and sizing criteria, certain structural BMPs may require a larger footprint that would extend beyond the right-of-way limits and thus would require permission property owners to establish maintenance easements to allow access to inspect and maintain any constructed BMPs.

The Town's boat launch and the Robinson Pond beach parking lots present opportunities for structural BMPs to manage and treat stormwater before it drains to the pond. Channelized scour areas were observed at both locations indicating runoff flows directly to the pond with minimal attenuation or treatment. Since both areas are Town owned, no additional property or drainage easements are needed, and modifications can be done in the off-season with minimal disruptions. Within the beach parking lot, VHB recommends re-grading the parking lot to slope away from the pond and into detention basin or rain garden located along the access drive into the beach. The parking area could also be stabilized by permeable, honeycomb-shaped, grided concrete block specifically made for parking areas.

For the boat launch parcel, VHB recommends reconfiguring and perhaps raising the grade of the parking lot area to allow installation of subsurface storage/infiltration chambers and create more defined parking spaces for trailers and vehicles. If the depth above the water table is limited to allow subsurface chambers, porous pavement or pavers may also be a feasible alternative. Some test pits may be necessary to ascertain subsurface conditions. In addition, the boat launch ramp itself should be improved with a connected concrete block grid to minimize sediment disturbances during boat launch and retrieval activity. These improvements will require some engineering design and perhaps state wetland/ shoreland permit approvals, which would be done as part of a future phase of this project.

VHB also observed several areas along road shoulders where gravel was being eroded due to excessive runoff mainly along steeper sections of roadway with no curbing and drainage infrastructure. VHB would recommend that DPW

closely monitor these areas and stabilize these eroded shoulders that have obvious gullies by adding rap stone and/or redirecting flow by reestablishing the roadside ditches with turnouts, where appropriate. Shoulder stabilization and regrading may require annual or biannual maintenance activity to reduce sediment and pollutant loads to the Pond.

Non-Structural BMPs

Land Development Regulation

Existing and future development activity can often be a major source of pollution for downstream receiving water bodies. The extent of water quality degradation depends on proximity and flow path to the water body (or its tributaries) as well as the measures used to limit sediment disturbances and stormwater runoff generation during construction and post-construction periods. Land use zoning, site development regulations and other natural resource protection provisions are just some of the non-structural BMPs that Towns can use to minimize stormwater pollution from development and other land disturbance activity.

The state Shoreland Water Quality Protection Act (RSA 483-B) established statewide shoreland protection standards administered by NHDES Regulations Env-Wq 1400. These SWQA regulations establish at minimum building setbacks and limits on the amount of vegetation clearing and impervious area that can be created within a 250-foot-wide protected shoreline adjacent to water bodies of the state. Shoreland development permits are required prior to any construction, excavation, or filling activities within a protected shoreland area. These regulations prohibit any **new** construction within 50 feet of a water body's reference line, and between 50 and 150 feet, require a minimum 25% of the land area be maintained as native woodland. Additionally, the regulations prohibit the application of fertilizer, pesticides, and herbicides within 25 feet of public waters except by licensed applicators. Pursuant to RSA 483-B:9 (v), shoreland development permits limit the amount of vegetation clearing as quantified by a point system. Impervious surfaces are limited to no more than 30% of the protected shoreland area unless a stormwater management system, designed and certified by a professional engineer, is implemented. If impervious surfaces within the protected shoreline exceed 20% but are less than 30%, a stormwater management system shall be implemented under NHDES Alteration of Terrain rules. Within the protected shoreline, the setback requirements for the leach field (disposal area) of new septic systems varies based on the receiving soils and the adjacent waterbody. On properties adjacent to ponds, lakes, estuaries, and the ocean, well-drained soils require a setback of 125 feet from the reference line. If soils have a restrictive layer within 18 inches of the soil surface, the setback is 100 feet, and all other soil conditions require a setback of 75 feet. According to data from the USDA Natural Resource Conservation Service, most soils around Robinson Pond are well drained soils or Hydrologic Soils Group B soils. The setback requirements for leach fields of replacement septic systems are the same as those for new systems, but only "to the maximum extent feasible." Neither the statute nor NHDES rules Env-Wq 1000 for individual sewage disposal systems define criteria by which the maximum extent feasible shall be judged.

For redevelopment of existing properties, RSA 483-B:11 allows the expansion of nonconforming structures within the 50-foot waterfront buffer so long as the existing structure or property conditions are made "more nearly conforming.". Greater conformity may be achieved through a reduction of the structural footprint, improved stormwater management or enhanced wastewater treatment, or improvements of wildlife habitat. However, no explicit thresholds are provided in determining when these objective standards for "more conforming" redevelopment are met.

The Town's Wetland Conservation Overlay District, Article IX of the Zoning Regulations, includes a 50-foot buffer setback for structures from surface waters and wetlands "of any size." However, nonconforming uses or structures may also be expanded if allowed by the Zoning Board of Adjustment "provided that the encroachment upon the wetland is

not increased, and review by the Conservation Commission finds that any potential increased impact upon wetland functions will be mitigated.² Similar to state regulations for redevelopment within the protected shoreline, the Town Code provides no clear guidance or thresholds for determining whether a proposed redevelopment of nonconforming properties or structures will be made more conforming or have minimal impact to wetlands and surface waters.

Within a 250-foot buffer around Robinson Pond, there are approximately 50 unique parcels. Nearly all the privately owned parcels with Robinson Pond shoreline frontage are currently developed with one or more primary structures including an estimated 38 residential homes. The Town owns several large, undeveloped parcels around the pond that represents approximately 30% of the shoreline frontage. With most of the available shorefront parcels already developed or owned by the Town, any proposed changes or revisions to Town regulations should focus on limiting land disturbances and maintain vegetated buffers with respect to proposed redevelopment of existing properties especially nonconforming properties or structures for the added water quality protection of surface waters. Proposed changes focused on new development of shoreland properties are likely to have limited effect.

VHB conducted a one-day visual survey of shoreline areas around the pond via a boat. Shoreland properties were rated with respect to their relative extent of woody vegetation, lawn area, and sediment exposure/erosion along the shoreline using a relative scoring system. Properties scored lower if they had more woody vegetation, limited lawn area and less exposed sediment whereas those with no or limited vegetation or extensive lawn area and exposed sediment along the shoreland scored higher. The state SWQA regulations promote more woody vegetation, limited lawn, less impervious areas and limited amount of beach or soil exposed to wave action. Based on this survey, approximately 25% of the parcels had relatively low scores and were considered in good condition, 50% were considered in relatively fair or moderate condition and a 25% had high scores and were considered to have limited or no woody vegetation and/or extensive lawn area across width of the property and are in need of improvement. Extensive lawn areas not only promote greater runoff volumes but allow higher nutrient loads to enter the pond as grass clippings, pet waste and even residual fertilizer may get washed directly in the pond. Woody vegetation also provides slope stabilization benefits and protects shorelines from erosion due to wave action.

Several New Hampshire Towns have adopted more restrictive minimum setback requirements for water bodies or wetlands in their local regulations. In Amherst, a Wetland and Watershed Conservation District is established within 100 feet of lakes and ponds, which is effectively the setback for new construction of primary structures. The expansion of a nonconforming structure within this Wetlands and Watershed Conservation District is allowed as long as the expansion is located as far from the water body as possible and any decrease in wetland function is mitigated on site.³

As discussed further below, we recommend that the Hudson's current zoning regulations be evaluated to identify opportunities for greater water quality protection provisions, perhaps as Robinson Pond Watershed Overlay District. At a minimum, the Town should include provisions as protective as those in the state SWQA regulations, which limit additional impervious area and clearing of mature vegetation as part of any future alteration or expansion of nonconforming properties and clarify the definitions of encroachment and mitigation measures or structures needed to minimize impacts to adjacent water bodies and wetlands. Additional regulations or incentives could be used to

² Code of the Town of Hudson, New Hampshire. Part II: General Legislation, Article IX Wetland Conservation District § 334-36D(1). <https://ecode360.com/35972700>

³ Ordinances, Laws, and Regulations for the Town of Amherst, New Hampshire. Article IV Zoning Regulations, Section 4.11 Wetland and Watershed Conservation District, Part H.(4). March 2022. https://www.amherstnh.gov/sites/g/files/vyhlf4116/f/uploads/sec_a_zoning_ord_2022.pdf

encourage establishment or retain existing vegetation within the protected shoreline. Shoreline vegetation, especially dense groundcover and tree canopies are critical to minimizing and treating stormwater runoff and stabilizing soils.

As a separate but equally important issue, we recommend that the Town regulations add additional erosion control inspection and reporting requirements for land disturbance activities within the watershed. The inspections would be paid for by the project proponent, but the 3rd party inspector would report directly to the Town Engineer or Code Enforcement Officer. The inspection frequency and reporting format could follow the EPA Construction General Permit (CGP) provision but would be triggered by land disturbance activities that involve 15,000 s.f. or more instead of the 40,000 s.f. threshold used in the EPA CGP.

Septic Systems

Individual Sewage Disposal Systems (ISDS, aka septic systems) are regulated by RSA 485-A Water Pollution and Waste Disposal statutes as well as NHDES rules Env-Wq 1000. In Hudson, the public wastewater collection ends near the intersection of Rangers Drive and Barretts Hill Road. Within the Robinson Pond watershed, all wastewater disposal is the responsibility of the property owner.

Septic systems that meet current design standards and are properly sized and installed typically are not considered major sources of nutrient loading. The 2011 TMDL study estimated that the average annual phosphorus load from 21 homes utilizing septic systems within 125 feet of the Robinson Pond was approximately 8.4 lbs./year. This accounted for approximately 2% of the total phosphorus load to the pond and translates to approximately 0.4 lbs./yr. per home. Many New Hampshire communities have adopted larger setback or separation distances of 125 feet for septic systems from the reference line of sensitive surface waters.

However, older systems that are not up to current design standards or are not fully functioning because of failed or clogged tank or leach field, or are undersized, not maintained and/or are exposed to high groundwater levels pose a greater risk of contributing excessive nutrients and bacteria. These systems can go largely unnoticed especially if used intermittently and if not maintained by property owners. In some cases, property owners may not be aware of their septic system location or maintenance needs. A failing septic system may go unnoticed until there is catastrophic failure, such as the clogging or backup of indoor plumbing. It generally would only take one or two failed systems where the effluent more or less drains directly to the pond to become a major source of nutrients.

The State RSA 485-A:39 requires the seller of a developed waterfront property to have a septic system site assessment conducted by a licensed subsurface sewer or waste disposal system designer. This inspection determines whether the system meets current design standards for subsurface wastewater disposal. An inspection form is completed and included in the purchase and sale agreement of the property. Although this inspection is beneficial to buyers and the lenders, neither the form nor the site assessment results are required to be submitted to NHDES or the local municipality. Therefore, there is no comprehensive understanding of septic system conditions surrounding a sensitive waterbody such as Robinson Pond. Often, the cost of a potential system upgrade or replacement is negotiated as part of the selling price but the improvement may not necessarily be done by the buyer after the fact as there is no specific requirement to bring the system up to code.

The Town should consider adding language into local regulations that would require the Town be copied on any inspection resulting from any real estate transaction and any system found to be deficient be brought into compliance for purposes of protecting public health and welfare as well as maintaining the water quality of Robinson Pond.

Street Sweeping & Catch Basin Cleaning

Within the Robinson Pond watershed, the Town maintains approximately 11 miles of locally owned roads. Data provided by the Department of Public Works indicated that a total of 281 miles of municipal roads were swept last year from July 2021 to June 2022, removing an estimated 974 cubic yards of material. With 11 miles of roadway in the Robinson Pond watershed, accounted for 4% of the total miles swept, this would suggest that approximately 39 cubic yards of material was removed from the watershed.

Based on pollutant load reduction credit methodology included in Attachment 2 of Appendix F of the 2017 New Hampshire Small MS4 General Permit, sweeping the 11 municipal road miles within the Robinson Pond watershed at least once per year would result in approximately 0.10 pounds per year of phosphorus removal.⁴ More frequent and use of more efficient street sweeping equipment could achieve greater phosphorus removal. If the Town were to increase the level of effort in the Robinson Pond watershed to monthly sweeping from March through November, phosphorus removal could improve to 1.3 pounds per year.⁵ Sweeping early in the Spring and twice per month in the fall (Sept.-Nov.) with a high efficiency regenerative air-vacuum sweeper could improve removal to approximately 3.4 pounds per year based on recent nutrient removal credit data published by the UNH Stormwater Center.⁶

With respect to catch basins, according to the Town's GIS records, there are approximately 219 storm drain inlets within the Robinson Pond watershed. However, this may be an overestimate as the database does not differentiate between inlets, culverts and catch basins. Using methods described in Attachment 2 to Appendix F of the 2017 NH Small MS4 General Permit and assuming the 11 miles of municipal road impervious area is collected by catch basins, approximately 1.14 pounds per year of phosphorus would be removed. The EPA calculation methods assume catch basins are maintained at no more than 50% capacity. It is understood that the Town's catch basin cleaning program rotates between the north and south sections of the Town and in any given. If possible, it may be best if the catch basins in the Robinson Pond watershed could be prioritized for early season cleaning on an annual basis.

In-Lake Sediments

Internal phosphorus loading from pond bottom sediments can also have a major role in the nutrient balance in a water body. Bottom sediments contain phosphorus and other nutrients from organic matter that accumulates over time. Phosphorus is typically bound to the sediments through chemical reactions with iron and aluminum oxides, rendering it unavailable for algal growth within the water column. However, when a lake thermally stratifies during summer months, the water at the bottom of the pond (the hypolimnion) often becomes oxygen depleted or anoxic due to the decomposition of organic matter and the lack of circulation with the more oxygenated surface waters. This anoxic water can breakdown the chemical bonds between phosphorus and sediment, thereby releasing phosphorus into the water column and making it available for algal growth. The release often occurs in early fall when the surface waters cool during the colder nights and the lake turns over causing the water column to fully mix.

The 2011 TMDL Study estimated that approximately 5.1 lbs. per year or 2% of the average annual phosphorus load was contributed from internal loading in the pond. This estimate was based on an average in-lake phosphorus concentration differential between the deeper and upper waters of 0.039 mg/L based on VLAP data collected from

4 (29 acres IA) x (1.96 DCIA PLER Med-Density Residential) x (0.01 Mechanical Broom PRF) x (2/12 months/year)

5 (29 acres IA) x (1.96 DCIA PLER Med-Density Residential) x (0.03 Mechanical Broom PRF) x (9/12 months/year)

6 Clean Sweep Recommendations for New and Updates Steet Cleaning Credits; <https://scholars.unh.edu/prep/458>

2001 to 2006. More recent VLAP data collected from 2015 to 2021 indicates a larger average concentration difference of approximately 0.091 mg/L between the surface and deeper waters. This represents more than a 2.5-fold increase and may suggest that internal loading is more relevant today than it was more than 10 years ago. Thermal stratification and anoxic conditions in deeper waters raises the risk of internal loading mostly during August and September, a critical period when water temperatures are at their warmest. Even a small to moderate boost in phosphorus levels from internal loading can have a meaningful effect on algal growth. The prevailing cyanobacteria blooms recently observed during August and September could be an indication of a possible internal loading issue.

Internal loading can create a self-fulfilling feedback loop that can perpetuate the problem. As anoxic water facilitates a greater release of nutrients from bottom sediments, those nutrients fuel more algae growth, which creates more organic biomass when the algae die and sink to the bottom and thus adds to the decomposition process and oxygen depletion. This can create a larger anoxic zone in the summer, which may expose even more sediments to anoxia and release even more nutrients as part of the internal loading process.

To help determine the extent and duration of the anoxic zone, VHB recommends that additional data be collected in Robinson Pond consisting of monthly temperature/dissolved oxygen profiles, which in combination with the monthly phosphorus concentration data collected by VLAP can be used to calculate a mass balance exchange of nutrients between surface and deeper waters. This would help confirm whether internal loading is a larger component of the overall pollutant loading to the pond. The profile data should start in May and be continued into mid-October to bracket the period where lake turnover may occur in the fall. This data would be used to quantify how much of the pond's volume is anoxic and how it changes during summer months. Additionally, we recommend that a limited amount of sediment samples be collected in select locations to analyze the phosphorus content as well as measure the depth of sediment and the iron to aluminum ratio within the pond's sediments, which will help to assess the ability for sediment to bind (or release) phosphorus.

Potential solutions to reduce internal loading can involve widely varying in-lake strategies in terms of level of effectiveness, potential costs, regulatory approvals and longevity. Depending on the additional data potentially collected, use of alum treatment may be considered, but NHDES generally considers this approach as a last resort and only when all other alternatives have been fully vetted and conclusive evidence suggests that internal loading is a primary source of nutrients and water quality impairments, including persistent blooms of cyanobacteria. The effectiveness of alum treatment can be temporary, and its effect will depend on how well sediment and nutrient loads from the watershed are controlled. The beneficial effects diminish as the treated bottom sediments become covered with new sediment deposits or additional organic matter. Again, whether or not alum treatment should be considered as a viable solution will depend on the results of additional data collected and future discussions with NHDES personnel. In response to more persistent cyanobacteria blooms being observed and reported in various lakes and ponds across the state, NHDES has recently established a Technical Advisory Committee to explore the potential causes and solutions to reducing cyanobacteria bloom occurrences. The findings of this committee which may be available over the course of the next 12 to 18 months, may shed light on the potential use of alum treatment as well as other in-lake and watershed-based solutions for controlling cyanobacteria blooms.

Public Education Programs

In a developed watershed such as Robinson Pond, public education and outreach programs can be an effective tool for achieving pollutant reductions. As the majority of land in the watershed and along the waterfront of Robinson Pond is privately owned, a key consideration should be encouraging behavioral change to promote water quality

improvement. This could include best practices for residential landscaping, such as establishing a waterfront buffer, building rain gardens, appropriate use of fertilizers, or proper disposal of leaf and lawn debris. Public education programs can also build community support for watershed restoration efforts, encouraging participation in volunteer water quality programs and developing greater awareness of the Town and local organizations' role in watershed restoration. Many resources for public education programs are already publicly and are discussed further below.

Recommendations

Land Development Regulations

As discussed previously, state and local regulations for redevelopment of existing nonconforming properties and structures are not well enough defined to be protective of water quality. The town code of ordinances in Hudson should be revised to improve protections for water quality of Robinson Pond. This could be achieved through revisions to the existing Wetlands Conservation Overlay District (Article IX).

Recommended amendments to improve the Wetlands Conservation Overlay District for water quality may include:

- › Extend the district boundaries to 250 feet of a wetland or surface water to match the NHDES 250-foot protected shoreline, and:
 - Establish a new primary structure setback of 100 feet and 75 feet for new septic systems from a surface water
 - Prohibit or limit vegetation removal within 75 feet of surface waters and/or require a certain amount of existing woody vegetation be retained based on a point system similar to the state shoreland protection regulations.
 - Limit the amount of impervious area within intermediate shoreland zone (50 to 150 feet) to no more than 30% of the total parcel areas.
 - Within the 250-foot protected shoreline, prohibit opening in the tree canopy greater than 250 square feet
 - Require septic system site assessments to be completed prior to the sale of properties of which any portion is within the 250-foot protected shoreline
- › For construction or development activities which require an EPA Stormwater Pollution Prevention Plan (SWPPP), the Town should consider requiring the contractor to pay for a 3rd party erosion control inspector that reports directly to Town officials for activities disturbing more than 15,000 sf of area, the Town would receive copies of weekly inspections within 2 business days of inspection

Septic Systems

As mentioned above, as part of a new Shoreland Protection Ordinance or modifying an existing ordinance, the Town should consider requiring septic system assessments be conducted as part of any real estate transaction for property located within 250-feet of a Robinson Pond or its tributaries (Otternick Pond could be included). NHDES regulations currently require assessments only if a property only directly abuts a water body. The Town could expand this requirement to include all properties partially or wholly within the 250-foot protected shoreline of surface waters. This not only helps ensure septic systems are designed and function in accordance with current state rules, but also provides additional assurance to the buyers purchasing properties. This has become more common requirement by mortgage lending institutions. A copy of the inspection results should be provided to the Town Engineering and

Planning Departments. Property owners should also provide copies of any state permit approvals for any new system upgrades or replacements for systems on properties within the 250-foot shoreland buffer.

It is also recommended that the Friends of Robinson Pond, shoreland property owners and perhaps other stakeholders develop or update an inventory of the current status of septic system within 250 feet of Robinson Pond. This inventory could be developed through a voluntary survey questionnaire, review of recent NHDES and Town records or other information generated from the inspections conducted during property sale. The voluntary participation from landowners could be incentivized by nominal septic system pump-out coupon or free inspection. Such a survey would provide a baseline of the homeowner knowledge of their systems and maintenance needs.

Street Sweeping & Catch Basin Cleaning

Hudson Department of Public Works staff currently rotate the schedule for street sweeping and catch basin cleaning to begin in either the north or south sides of the Town. DPW should consider scheduling street sweeping as early as possible in the spring to remove winter sand and repeat sweeping in October for lawn debris pickup. To achieve the maximum benefit, the Town should either lease equipment or hire a contractor with regenerative air vacuum sweeper to perform street sweeping on Robinson Pond watershed roads. Per recent street sweeping credit updates published by UNH Stormwater Center, sweeping every other week from Sept to Nov. (~ 6 events) in the fall with vacuum sweeper could increase phosphorus removal efficiency from 2% to 15% per year or more than a 10-fold increase in removal efficiency. The added cost to perform this level of service should be investigated.

Beginning catch basin cleaning within the Robinson Pond watershed as early as possible in the spring would significantly reduce the potential for accumulated winter sand to fill catch basin sumps and transport pollutants downstream into the pond. Cleaning and maintaining catch basin sump capacity early in the season also restores the stormwater volume reduction and pollutant removal capacity within the closed drainage system.

In-Lake Sediments

As a potentially major contributor of pollutants to Robinson Pond, the role of sediments and internal loading should be further investigated. This investigation may be relatively low-cost relative to other pollutant reduction alternatives, as there is an existing monitoring program in place for the pond. As an initial step to further assess the extent of stratification and low dissolved oxygen issues in the lake, we recommend that more frequent dissolved oxygen profiles be conducted in the pond during the 2023 summer. Preferably these profiles would be collected twice monthly from May through October. Weekly dissolved oxygen profiles during the late summer and early fall just prior to and during lake turnover would further clarify the true extent of anoxia within the pond.

Public Education Workshops of Shoreland Buffers and Lake Stewardship

Perhaps the Town Conservation Commission, the Friends of Robinson Pond, VLAP volunteers and other stakeholders can reestablish some targeted education events/ workshops focusing on best practices for shoreland and stormwater management by hosting one or two NHDES "Soak up the Rain" workshops and/or other landscaping for stormwater management workshop. In addition, other events/workshops could focus on proper fertilizer usage and best practices for lawn and septic system maintenance. Perhaps the Town could provide some limited funding assistance through the recreation impact fees or current use assessments or stormwater funds as these activities could be applied to the MS4 Permit public education requirements.



Table 1 Robinson Pond BMP Matrix – Structural BMPs

Source	Location/ Area to be treated (ac)	Est. Annual Phosphorus Load (lbs./yr.) ¹	Treatment Volume (ft ³)	Preliminary Assumed Treatment Measures ²	Design Storage Volume ³	Est. TP Removal Efficiency	Est. TP Load Reduction (lbs./yr.)	Order of Magnitude Estimated Cost ⁴	Cost per Pound Reduced	Constraints	Priority	Implementation
East												
	Town Boat Launch / 0.6 ac	0.66	1,200	Biofiltration Infiltration gallery with filter media	0.20" / 0.60"	25% / 44%	0.16 / 0.40	\$40k - \$50K	\$100-\$270k	GW table	High	
	Town Beach / 2.7 ac	0.42	4,900	Permeable pavement with underdrain Infiltration basin Soil stabilization	12" / 24" Filter depth 0.20" / 0.60"	62% / 75%	0.26 / 0.31	\$150k-\$220k	\$700 - \$800K	GW table /space	High	
Road Runoff	David Drive / 7.5 ac	1.25	13,200	Biofiltration / Rain Garden	0.20" / 0.60"	25% / 44%	0.31 / 0.55	\$50k - \$500k	\$900k - \$1M	ROW space	Mod	
	Kienia Rd @ Edgewood / 2.3 ac	0.46	4,200	Biofiltration / Rain Garden	0.20" / 0.60"	25% / 44%	0.11 / 0.20	\$50k - \$150k	\$800k - \$1.5M	ROW Space	Low	
	Boulder Dr @ Beechwood / 1.9 ac	1.1	3,500	Biofiltration / Rain Garden	0.20" / 0.60"	25% / 44%	0.27 / 0.66	\$50k - \$130k	\$200k - \$500	ROW space	High	
	Stoney Lane / 44.8 ac	2.2	78,500	Biofiltration / Rain Garden	0.20" / 0.60"	25% / 44%	0.55 / 0.97	\$50k - \$1.0M	\$3.0 - \$5.3M	ROW space	Mod	
	Hazelwood Road / 15.7ac	1.0	22,300	Biofiltration / Rain Garden	0.20" / 0.60"	25% / 44%	0.25 / 0.44	\$50k-\$500K	\$1.9 - \$3.3M	ROW space	Mod	
	Total	7.12 lbs/yr				Low / High	~ 2.5 / 4.5					

Notes: 1 Estimated phosphorus loads are based on the pollutant load methodology included in Attachment 2 of Appendix F of the 2017 MS4 Permit. Estimated load reduction assumes the entire IC area is treated by the proposed BMP which is likely not feasible in most cases given the limited ROW space for BMP implementation.

2 Preliminary assumed treatment BMPs assume either infiltration where possible or bioretention with filter media – final selection of BMP will depend on site constraints

3 Preliminary sizing assumes BMP sizing with a low estimate of 0.2" and high estimate of 0.60" of runoff from the treated area. The limiting factor to how much road area can be treated will be available ROW area for BMP implementation which will likely be 0.10 to 0.25 acres

4 BMP costs estimated by UNH in 2019 and adjusted for inflation by VHB to September 2022 and assumes perhaps as much as 1.0 to 2.0 acres of roadway area could be treated

Engineers | Scientists | Planners | Designers

2 Bedford Farms Drive, Suite 200, Bedford, New Hampshire 03110

P 603.391.3900 **F** 603.518.7495 www.vhb.com

Expenditure Report - Including Carry Forward Activity
Conservation Committee
Town of Hudson, NH
As Of: November 2022, GL Year 2023

Account Number	Budget	Prior Year Encumbered	Budget & PY Adjustments	Net Budget	MTD Exp	YTD Exp	Encumbered	Balance Available	%Used
Conservation Fund									
06-4619-5586-202-000	Conserv Comm, Sm. Equipment Mice 2,300.00	0.00	0.00	2,300.00	0.00	131.00	0.00	2,169.00	5.696
06-4619-5586-214-000	Conserv Comm, Notices, News Ads 0.00	0.00	0.00	0.00	29.10	29.10	0.00	-29.10	0.000
06-4619-5586-217-000	Conserv Comm, Assoc Dues/Fees 1,327.00	0.00	0.00	1,327.00	0.00	1,050.00	0.00	277.00	79.126
06-4619-5586-235-000	Conserv Comm, Registration Fees 500.00	0.00	0.00	500.00	120.00	180.00	0.00	320.00	36.000
06-4619-5586-252-000	Conserv Comm, Prof Services 48,626.00	39,155.00	0.00	87,781.00	3,200.00	24,480.20	16,111.00	47,189.80	46.241
Total Conservation Fund									
Selected Year	52,753.00	0.00	0.00	52,753.00	149.10	2,826.30	0.00	49,926.70	5.358
Prior Year	0.00	39,155.00	0.00	39,155.00	3,200.00	23,044.00	16,111.00	0.00	100.000
Sort Total	52,753.00	39,155.00	0.00	91,908.00	3,349.10	25,870.30	16,111.00	49,926.70	45.678

Expenditure Report - Including Carry Forward Activity
Conservation Committee
Town of Hudson, NH
As Of: November 2022, GL Year 2023

Account Number	Budget & PY			Net Budget	MTD Exp	YTD Exp	Encumbered	Balance	
	Budget	Prior Year Encumbered	Adjustments					Available	%Used
Selected Year	52,753.00	0.00	0.00	52,753.00	149.10	2,826.30	0.00	49,926.70	5.358
Prior Year	0.00	39,155.00	0.00	39,155.00	3,200.00	23,044.00	16,111.00	0.00	100.000
Grand Total	52,753.00	39,155.00	0.00	91,908.00	3,349.10	25,870.30	16,111.00	49,926.70	45.678

**Town of Hudson, NH
Conservation Cash Flow
Fiscal Year 2023**

	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
Conservation Beginning Bal.	749,266.97	749,737.67	750,390.25	751,037.85	751,973.46	-	-	-	-	-	-	-
Income												
Deposits	-	-	-	-	-	-	-	-	-	-	-	-
Interest	470.70	652.58	647.60	935.61	1,152.68	-	-	-	-	-	-	-
Total Income	470.70	652.58	647.60	935.61	1,152.68	-	-	-	-	-	-	-
Expenditures												
Expenditures	-	-	-	-	-	-	-	-	-	-	-	-
Bank Charges	-	-	-	-	-	-	-	-	-	-	-	-
Total Expend.	-	-	-	-	-	-	-	-	-	-	-	-
Ending Balance	749,737.67	750,390.25	751,037.85	751,973.46	753,126.14	-	-	-	-	-	-	-



TOWN OF HUDSON

Conservation Commission



William Collins, Chairman

Dave Morin, Selectmen Liaison

12 School Street · Hudson, New Hampshire 03051 · Tel: 603-886-6008 · Fax: 603-816-1291

DATE: November 12, 2022

MEETING MINUTES: Below is a listing of minutes for the Hudson Conservation Commission. Minutes are not a verbatim record of each meeting, but rather represent a summary of the discussion and actions taken at the meeting. All Conservation Commission meetings are televised live and repeated during the following week on HCTV, cable television channel 22. Official copies of the minutes are available to read and copy at the Town Engineer's Office during regular business hours (Monday through Friday, 8:00 A.M. to 4:30 P.M.).

Should you have any questions concerning these minutes or wish to see the original recording, please contact the Town Engineer's Office at 603-886-6008.

In attendance = X Alternates Seated = S Partial Attendance = P Excused Absence = E

William Collins
Chairman X

Ken Dickinson
Vice-Chair X

Sandra Rumbaugh
Member E

William Kallgren
Member E

Brain Pinsonneault
Member X

Carl Murphy
Alternate X

Linda Krisciunas
Alternate E

David Morin
Select. Rep. X

Elvis Dhima
Town Engineer X

-
- I. CALL TO ORDER BY CHAIRPERSON AT 8:00 A.M.
 - II. PLEDGE OF ALLEGIANCE
 - III. ROLL CALL
 - IV. SEATING OF ALTERNATES Mr. Murphy seated for Mr. Kallgren

In attendance and representing the Applicant were Brendan Quigley, Gove Environmental Services and Achan Sookying, Langan Engineering

V. Site Walk proposed Hudson Logistics Center

- A. Conditional Use Application, Lowell Road and Steele Road, Tax Map #234, Lots 5, 34 and 35; Map # 228, Lot4; Map# 239, Lot 1

The purpose of the site walk was to evaluate wetland and wetland buffer impacts requested by the applicant as part of future redevelopment of the Green Meadows Golf Course. The plan presented calls for construction of two access roads to reach the upland portion of the property where the applicant plans to construct a 1.4 million SF warehouse. Note: This is an amended Site plan and CUP application to a prior plan approved by the PB and with recommendations by the Conservation Commission back in 2021.

Permanent wetland buffer impact of approximately 152,729 SF and permanent wetland impacts of 50,332 SF are being requested for construction of the roadways and other features of the site.

No members of public where in attendance.

The site walk conclude at 9:25 a.m. with no decision or motions made.

Mr. Dickinson moved to adjourn form the site walk at 9:25 a.m. Seconded by Mr. Pinsonneault. Motion Carried 5/0/0

William Collins

William Collins, Chairman

Next scheduled meeting is set for Monday, November 14, 2022 at 7:00 p.m.



TOWN OF HUDSON

Conservation Commission



William Collins, Chairman

Dave Morin, Selectmen Liaison

12 School Street • Hudson, New Hampshire 03051 • Tel: 603-886-6008 • Fax: 603-816-1291

DATE: November 14, 2022

MEETING MINUTES: Below is a listing of minutes for the Hudson Conservation Commission. Minutes are not a verbatim record of each meeting, but rather represent a summary of the discussion and actions taken at the meeting. All Conservation Commission meetings are televised live and repeated during the following week on HCTV, cable television channel 22. Official copies of the minutes are available to read and copy at the Town Engineer's Office during regular business hours (Monday through Friday, 8:00 A.M. to 4:30 P.M.).

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In attendance = X Alternates Seated = S Partial Attendance = P Excused Absence = E

William Collins
Chairman X

Ken Dickinson
Vice-Chair X

Bill Kallgren
Member E

Brian Pinsonneault
Member X

Sandra Rumbaugh
Member X

Carl Murphy
Alternate X

Linda Krisciunas
Alternate E

David Morin
Selectman Rep X

Elvis Dhima
Town Rep X

.....
CALL TO ORDER BY CHAIRPERSON AT 07:01 P.M.

PLEDGE OF ALLEGIANCE

ROLL CALL

SEATING OF ALTERNATES: Mrs. Krisciunas seated for Mr. Kallgren

Public Input Related to Non-Agenda Items: None

I. Old Business

a. Hudson Logistics Center Amended Site Plan & Conditional Use Application, Lowell Road and Steele Road, Tax Map #234, Lots 5, 34 and 35; Map # 228, Lot4; Map# 239, Lot 1

Continued from October 24, 2022

Mr. Justin Pasay, DTC, PLLC, Brendan Quigley, Gove Environmental Services and Frank Holmes all representing the applicant reviewed various aspects of the project and addressed outstanding concerns and question posed by commission members.

Five minute recess taken

Mr. Dickinson moved to recommend a favorable acceptance of the Conditional Use Permit application by the Hudson Planning Board for the application filed by representatives of Hillwood Logistic Center reference Tax Map 234, Lots 5, 34 & 35; Map 228, Lot 4 and Map 239, Lot 1 dated September 12, 2022, After application review the Hudson Conservation Commission finds that the uses presented by the applicant for access to the upland portion of the property and for storm water management comply with Town of Hudson Zoning Ordinance 334, Article IX- Wetland Conservation Overlay District, paragraphs 334-36(C) 2, through 4 and 334-37. This favorable acceptance is contingent upon Planning Board approval of the proposed plan and with the recommended actions listed below.

1. Construction and restoration shall comply with NHDES Best Management Practices set forth in New Hampshire Storm Water Manual Volume 3: Erosion and Sediment Control for construction and restoration, and erosion control measures that meet the Town Engineer's approval.
2. During construction and restoration, erosion control barriers shall be installed in accordance with the approved plans and maintained to the satisfaction of the Town Engineer and Conservation Commission.
3. The Town Engineer, or the Town's Civil Engineer, shall inspect the boundaries of the wetland and wetland buffer areas during construction and report any issues or violations to the applicant and the Conservation Commission for immediate remediation.
4. Installation Monitoring and Reporting: Installation of plantings within the 40.04-acre restoration area, as identified on the approved Amended Project Plans within the proposed conservation easement areas (the "Restoration Plantings" or "Restoration Area"), shall be inspected by an independent third-party monitor (i.e., Professional Landscape Architect and/or Professional Wetland Scientist), at the expense of the Applicant and in accordance with the construction and planting sequencing schedule, and the independent third-party monitor shall submit their findings to the Town Engineer and the

Conservation Commission. Post-installation monitoring of the Restoration Plantings shall take place in accordance with Stipulation #5.

5. Post-Installation Monitoring and Reporting: Under the supervision of an independent third party monitor (i.e., Professional Landscape Architect and/or Professional Wetland Scientist), at the expense of the Applicant, the Restoration Plantings shall be monitored for five (5) years post installation (during the height of the growing season) and reports shall be submitted to the Town Engineer no later than November 18th of each year. At minimum, the annual reports shall address the 75% cover success standard, the presence, species and relative cover of invasive species anywhere in the Restoration Area, and include photographs from predetermined photo stations. If necessary, the reports shall also detail any recommended remedial actions, such as replanting underperforming areas in order to meet success standards, invasive species control, and stabilization of soils. Any such remedial actions shall be performed by the Applicant, at their expense.
6. Any vegetation associated with post-construction BMP's shall be suitably established to withstand erosion.
7. Any proposed landscaping within jurisdictional resource areas shall consist of species native to northeastern USA region.
8. The final landscaping plan shall be adjusted as may be required by the NHDES under the Alteration of Terrain or Wetlands Permits for the project. Prior to implementation, a final landscaping plan with plant schedule shall be submitted to the Town Planner and the Town Engineer.
9. Invoices for the purchase of native New England seed mixes/plantings shall be provided to the Town Engineer upon availability and before installation.
10. Prior to final seeding, an invasive species inventory shall be performed by the Applicant, at their expense, and shall be delivered to the Town Engineer to provide baseline documentation of invasive species that are either within the Restoration Areas or adjacent thereto.
11. If necessary, during the monitoring timeline discussed in Stipulations 4, 5 and 10, methods for more involved management of invasive species within the Restoration Area (such as root barriers for Phragmites or herbicide application) shall be discussed with the Engineering Department. Implementation of any proposed non-manual methods shall be reviewed and approved by the Town Engineer and implemented, if at all, by the Town of Hudson.
12. Upon beginning work in resource areas, the applicant shall submit written progress reports to the Town Engineer every month detailing work performed in or near resource areas, and work

that is anticipated to be done over the next period. To the extent applicable, these reports shall update the construction sequence and be incorporated into the weekly erosion control reports.

13. Fertilizers utilized for landscaping and lawn care shall be slow release, low-nitrogen types (<5%), and shall not be used within 25 feet of a wetland resource area. Pesticides and herbicides shall not be used within 25 feet of a wetland resource area, and between 25 and 50 feet from a wetland resource area, a state-approved aquatic-friendly herbicide can be used to remove invasive species. A list of the products to be used shall be provided to the Town Engineer prior to application
14. In addition to the existing landscaping and restoration plans showing planting and restorations in the upland and easement areas additional shrub and tree varieties should be planted with the planned meadow mix grasses along the two proposed roadways to aide in slope stabilization along these roadways.

Motion second Mr. Pinsonneault

This motion is based on the plan(s) submitted by the applicant. It is recommended that if additional impacts are made the plan be returned to the Conservation Commission for further review.

Roll Call Vote: Mrs. Kriscuinas Yes , Mr. Dickinson Yes Mr. Pinsonneault Yes
Mr. Collins Yes Mrs. Rumbaugh Yes

Motion carried 5/0/0

b. Land Access Hudson Town Forest

Town Engineer Dhima said he forwarded a copy of the “Access and Abutter Notifications for Hudson Town Forest Land” document to the towns legal department. He added that he would inquire as to the status and forward any response to the commission members when recieved.

II. New Business –

None

III. Other Business

a. Trail names for two trails located in the Hudson Town Forest

Mr. Collins said he conducted a poll of town residents as directed by commission to get a consensus for two possible trail names at the Hudson Town Forest located on Kimball Hill Road. He stated that “White Tail Way” and “Squirrel Run” were chosen with approximately 360 votes cast.

b. Rangers Town Forest Timber Harvest

Mrs. Rumbaugh said she’d been in contact with Forester Eric Radlof about the possibility of a spring timber harvest at Rangers Town Forest. Mrs. Rumbaugh added that monies made from such a harvest could be used to address the invasive plant species plaguing certain parts of the property. She suggested that Mr. Radlof could be asked to participate in a discussion of the topic at a future meeting. Mr. Dickinson stated that there could be a cost associated for another presentation to the commission and said if the commission wanted to proceed with a harvest it would be better if Mr. Radlof generated a summary or estimate of cost then forward this document to the commission for consideration.

Mrs. Rumbaugh moved to seek a proposal of costs from Eric Radlof for a potential timber harvest at Rangers Town Forest in 2023. Motion seconded by Mr. Dickinson.

Mrs. Krisciunas asked for clarification on the motion and the process of the proposal. Mrs. Rumbaugh said that Mr. Radlof created the forestry plan for the parcel and would be responsible for collecting bids and other information regarding a harvest.

Mrs. Krisciunas asked if the commission would have any input on the bids proposed. Mr. Dhima said that the commission can reject any offers and added that roll of the forester is to provide oversight of the project. With no further discussion the chairman polled the commission on the motion.

Motion carried 5/0/0

Mr. Dhima asked that he and Doreena Stickney (engineering administrative assistant) be included in all correspondence on the matter.

c. Renaming of the Pelham Road Conservation Area

A short discussion was made on the possibility of renaming the conservation area located at 68 Pelham Road. Commission members were receptive to the idea and said Selectman Morin suggested that an inquiry be sent to the Historical Society as to whether or not there might be a name or two of persons living in the area that could be considered. Mr. Collins said he would take this suggestion and reach out to them. The matter will be discussed further at the December meeting.

d. Annual Property Inspections of the Leslie Bockes Tri-Town Forest (Hudson Portion) and the Musquash Conservation Area

Mr. Collins thanked the town's engineering department for taking on the responsibility of doing the annual monitoring of the Tri Town Forest and the Musquash Conservation Area. He added that if any commission member would like to participate that they should contact the engineering department as to their schedule for the task.

IV. Financial Status

No Outstanding issues, conservation fund is currently \$751, 973.46

V. Correspondence

The Chairman reviewed the correspondence which includes the following.

A brochure from the "The New Hampshire Association of Natural Resource Scientists" seeking donations in support of its ongoing efforts in the state of New Hampshire.

A short notification from Solitude Lake Management notifying the town of Hudson and its conservation commission that their final report has been filed with the NHDES

A notification from the Lower Merrimack River Local Advisory Committee stating that their group is looking for representation from the Town of Hudson.

Email correspondence from Mrs. Nardoni, a local resident and abutter to Merrill Park which expressed concerns about the conservation commission's efforts to rehabilitate the existing canoe/kayak launch within the park.

A correspondence from Andrew L. Morin, Executive Director, ReGenerative Roots Association. Mr. Morin is looking to meet with the conservation commission to discuss his organization and whether or not there would be any interest within the commission to partner on projects within the community.

VI. Approval of Minutes

Mr. Dickinson moved to approve the meeting minutes for October 17, 2022, October 22, 2022 and October 24, 2022 (amended). Mr. Pinsonneault seconded the motion. Motion Carried 5/0/0

VII. Commissioner's Comments

Both Mr. Collins and Mr. Dickinson remarked that they enjoyed this year's NHACC
Be time for

Mr. Dhima mentioned that the NRPC study taking place around Robinson Pond and the committee's advisor VHB had presented some ideas as to treating water quality conditions at the pond. Mr. Dhima said he would provide a link to the meeting content and added that it might be time for the commission to make recommendations to the Planning Board for changes to Hudson Zoning Ordinance 334 as they pertain to wetlands and wetland buffer areas.

Motion to adjourn:

Mr. Dickinson moved to adjourn the meeting at 9:09 PM; seconded by Mrs. Krisciunas.

Motion Carried 5-0-0

William Collins

William Collins, HCC Chairman