



CONSERVATION COMMISSION
AGENDA

Monday, March 16, 2026

4:30 PM

**Keene Recreation Center
Room 22**

Commission Members

Gary Flaherty, Chair
Barbara Richter, Vice Chair
Katie Kinsella
William White
Michele Chalice
Steven Bill

Kenneth Bergman
Bob Milliken, Alternate
Thomas P. Haynes, Alternate
John Therriault, Alternate
Alexander Von Plinsky, Alternate

- 1. Call to Order**
- 2. Approval of Meeting Minutes** – February 17, 2026 (Regular and Workshop)
- 3. Report-outs:**
 - a) Greater Goose Pond Forest Stewardship Subcommittee
 - b) Invasive Plant Species
 - c) Land Conservation / Easement Monitoring
 - d) Pollinator Updates
- 4. Discussion Items**
 - a) Land Protection Criteria – Review of Draft Amendments dated 2/17/2026
 - b) Member Bios for Website
 - c) Invasive Plant Removal Workdays / Map / City Volunteer Program
 - d) Red Pine Scale – Harvesting and Replanting plan
 - e) Bee City Street Sign
- 5. Amendments to the Rules of Procedure**
- 6. Correspondence:**
 - a) NH Association of Conservation Commissions – Annual Dues Request
 - b) Letter to Bretwood Golf Course (sent by certified and first class mail)
- 7. New or Other Business**
- 8. Adjourn** – Next meeting: Monday, April 20, 2026

City of Keene
New Hampshire

CONSERVATION COMMISSION
MEETING MINUTES

Tuesday, February 17, 2026

4:30 PM

2nd Floor Conference Room,
City Hall

Members Present:

Gary Flaherty, Chair
Barbara Richter, Vice Chair
Councilor Michele Chalice
Steven Bill
Ken Bergman (Remote)
Thomas Haynes, Alternate (Voting)
John Therriault, Alternate (Voting)

Staff Present:

Mari Brunner, Senior Planner
Bryan Ruoff, City Engineer (left early)

Members Not Present:

Katie Kinsella
William White
Bob Milliken, Alternate
Alexander Von Plinsky, IV, Alternate

1) Call to Order

Chair Flaherty called the meeting to order at 4:32 PM. Mr. Bergman participated remotely from Sarasota, Florida, for health reasons.

2) Approval of Meeting Minutes – January 20, 2026

A motion by Mr. Bill to adopt the Commission’s January 20, 2026 meeting minutes was duly seconded by Councilor Chalice. The motion carried unanimously on a roll call vote.

3) NHDES Standard Dredge & Fill Wetland Permit Application – Martell Court Pump Station Permanent Bypass Project

Chair Flaherty welcomed City Engineer Bryan Ruoff to explain this City project. Mr. Ruoff said the impetus for this project was in 2023, when the 30-inch discharge knife gate valve within the Martell Court Pump Station failed. It was temporarily repaired at the time, and Mr. Ruoff said the City had been “limping along” with that temporary fix since. In reality, he said it helped the City to identify a needed redundancy within the system. When the knife gate failed, the City could not utilize the existing sewer force main, which the City Engineer showed the Commission on a plan. He demonstrated how they had to essentially run temporary pipes over the Ashuelot River to get back into the system. Under current peak flow conditions, Mr. Ruoff

31 said the Pump Station can go down for roughly one hour. It runs 24/7/365, so he said that it
32 would obviously be an environmental catastrophe if a failure occurred.

33
34 Mr. Ruoff said the City hired Wright-Pierce as the design engineer to develop the bypass pump
35 line. This type of project in a river crossing would almost always be a directional drill to
36 minimize impacts on the stream, the wetlands, etc. However, the City Engineer reported that the
37 test borings of the area found zero-strength clay soil in such poor condition that they could not
38 run a drill rig through it for the high-density polyethylene (HDPE) pipe without it just sloughing
39 into the ground. Because of that, the City must open-cut the Ashuelot River in order to install the
40 force main across the river and connect to the existing force main. That is why the City Engineer
41 was present seeking the Conservation Commission's review for the NHDES Standard Dredge &
42 Fill Wetland Permit Application.

43
44 Mr. Ruoff explained another aspect the City was looking to address as part of this project. There
45 is an existing gravity sewer main where the embankment along the Branch River is eroding so
46 far back that this sewer manhole is essentially floating mid-air to a certain extent. He showed a
47 photo. So, a part of this project would be restoring the banking at both locations, replacing that
48 pipe so it is unexposed, and lowering it because it currently acts like a semi-siphon and is not
49 functional. This project would restore a lowered gravity system, in addition to restoring the
50 stream banks. Mr. Ruoff explained that at one point the approach was more softscape. The
51 thought now is combined with the soil and protecting the City's infrastructure of the pipes and
52 the overall constructability, so he said a hardscaped approach for the banking restoration and
53 protection would be more appropriate for this specific project. Councilor Chalice asked if that
54 referred to the armoring and Mr. Ruoff said yes. He said the City had multiple meetings with
55 New Hampshire Department of Environmental Services (NHDES), which essentially conceded
56 that it is unfortunately probably the best option for this project. The consulting engineer also met
57 with the Ashuelot River Local Advisory Committee (ARLAC), which provided a letter of
58 recommendation for the project based on their review and findings. At this point Mr. Ruoff said
59 the City received NHDES notification of administrative complete tests, so it is within their
60 technical review. At this time, the City Engineer said the City anticipated bidding the project in
61 the May 2026 time frame to construct the project in the lower flow periods and minimize impacts
62 associated with diverting a portion of the Branch River to install the sewer force main.

63
64 Mr. Bill asked when construction would conclude if starting in May: the fall? The work looked
65 pretty extensive to him. Mr. Ruoff thought the fall was unlikely, in reality. He thought the
66 portion crossing the river would have to happen in the dry period, so July until the fall. The work
67 especially associated with re-piping and Martell Court would likely go into the winter. The City
68 Engineer envisioned the project being completely wrapped up by summer 2027. He explained
69 the plan for the wetlands area not being restored as far as the stream bank. Rip rap will have
70 wetlands vegetation seed mix for reestablishing the wetland areas that will be disturbed as a part
71 of the digging and excavation for the project.

72
73 Councilor Chalice asked if any protections were called for the two particular species of frog and
74 one turtle, and what measures might be being taken to address their habitat during this period of
75 disruption. The City Engineer said twofold: (1) a full-time inspector on site at all times, so if
76 those species are identified, the contractor will be asked to stop and New Hampshire Fish and

77 Game will be notified immediately of their presence; (2) the work will be maintained in a
78 manner that is not to potentially disrupt them, and if they are identified, there will be adjustments
79 therein.

80
81 Mr. Bergman said that he had submitted reports to the State of New Hampshire about both wood
82 turtles and northern leopard frogs along the Ashuelot River not too far from this project location.
83 He said it is clearly not prime wood turtle landscape, and the leopard frogs prefer grassy
84 meadows in the woods, which is true a little bit slightly further south from there (e.g., near the
85 athletic fields and down into Swanzey). As long as they keep watch, Mr. Bergman doubted there
86 would be too much difficulty, adding that they are easy species to notice and keep track of. Mr.
87 Bergman asked if dewatering the Branch River would be complete with cofferdams (i.e.,
88 completely dry area for trenching and piping) or just a diversion, such as the one on the Ashuelot
89 River near West Street. The City Engineer replied that it would be both. To install the piping and
90 install a concrete encasement, they will need to dewater a portion of the river. He said what
91 would likely happen, depending on the contractor's submitted dewatering and bypass program, is
92 that construction of a cofferdams would likely be established for a portion that allows enough
93 flow without backing up or flooding. Then, they would essentially switch the cofferdam to the
94 other side and construct the other half of the pipe. Mr. Ruoff said he envisioned that, but it would
95 be the contractor's means and methods to design and propose.

96
97 Mr. Therriault asked if the wetland mix used to restore the wetlands would have any
98 pollinator-friendly seeds in it. The City Engineer said that it could certainly be included and Mr.
99 Therriault was appreciative.

100
101 Mr. Bergman asked if there would be heavy equipment on the eastern downstream receiving end
102 of the new force main; he thought there would obviously need to be equipment there unless
103 cranes were used from the west side. He wondered about the type of substrate on the east side to
104 prevent heavy equipment damage. The City Engineer explained that as part of the investigation
105 work and doing test pits for the existing force main, the contractor laid down gravel and timber
106 matting, which was removed at the end of the work and the area was restored nicely. He said that
107 it is almost impossible to access the area using equipment without creating some kind of
108 construction entrance and matting. Councilor Chalice asked if the matting is on bottom and
109 gravel on top, so both are removed at the end. Mr. Ruoff replied in the affirmative.

110
111 Mr. Bill wondered about the flooding potential. He lives in that neighborhood, which tends to
112 flood when the Ashuelot River gets too high; it backs up the Branch River and Beaver Brook to
113 the point where they can even flood Baker Street. Mr. Bill thought it would probably be pretty
114 catastrophic if that happened during the middle of this construction process. He said there had
115 been dry years and wet years. Mr. Bill asked how the City would plan for that. Mr. Ruoff replied
116 that the contractors will submit a proposal on their means and methods to construct this. He said
117 that if the contractor thinks they have a dry week to cross the river and accomplish it, then that
118 would make sense; if they think it will take closer to one month, then more allowances will be
119 needed for how to free up the river in the event of a high intensity storm. Mr. Ruoff said a part of
120 the benefit for the City hiring a third-party consulting contractor to watch the contractor doing
121 the work is that there is always oversight for these aspects. However, Councilor Chalice said the
122 project would not be happening in the spring, but in starting in July. Mr. Bill said the City has

123 had powerful thunderstorms in the middle of summer too. Mr. Therriault said Keene historically
124 has a dearth—a lack of rain—from July 15 to August 15, which he had observed for just over 10
125 years as a beekeeper (all but one year). Mr. Ruoff said that could be something to aim at.

126
127 Mr. Bill asked if there are any invasive species in the area, mentioning that it was unclear what
128 the strategy would be (i.e., where the contractor’s part will end and City will take over). The City
129 Engineer said it was a great point. Typically for a New Hampshire Department of Transportation
130 project, the contractor develops an invasive species plan to show how they will manage invasives
131 during a construction cycle; the City confirms that it is acceptable and has an engineer on site to
132 monitor because of past lessons learned (i.e., an invasive species becomes the full focal point of
133 the project afterward). Mr. Bill said that if spraying invasives is an option in the plan for this
134 specific project, that it could be problematic for the nearby aquatic bodies. Councilor Chalice
135 said that plan would ensure no invasive species are brought onto the site via the contractor’s
136 equipment during construction and Mr. Bill agreed, stating that there are already species of
137 concern that exist in this area. The City Engineer agreed.

138
139 Mr. Bergman noticed that one of the documents said the project would occur in the summer of
140 2025 and that there was an expiration date, maybe for a permit, of October 2026. He asked
141 whether the City Engineer’s proposed timeline reflected an updated schedule officially approved
142 for the permit. Mr. Ruoff said it would and he thought that what Mr. Bergman read was a typo
143 because the project is anticipated to occur in summer of 2026. Mr. Bergman asked if the October
144 2026 expiration would still leave enough time to complete the project as described. Mr. Ruoff
145 said ideally. The necessary work in the wetlands must be completed before fall 2026, so he
146 anticipated that deadline, depending on how the permit and bidding would progress. He said that
147 if an extension is necessary, that would be the case, but in a perfect world the project would be
148 completed by October 2026. Councilor Chalice saw an aspect of the project that would extend to
149 a subsequent year. Mr. Ruoff agreed, stating that part was somewhat confusing because there are
150 different parts of the project. For the aspect directly associated with this permit, the City
151 Engineer believed that in a perfect world, construction would start in June 2026 to mobilize and
152 install the pipe in July (low flows), and site work and restoration would be complete by October
153 2026 before bad weather.

154
155 Vice Chair Richter pointed out the areas of temporary impacts that would be restored and asked
156 if there would be any permanent impacts to the wetland. Mr. Ruoff replied that the permanent
157 wetland impacts are essentially the areas where the vertical face slopes will be replaced 1:1 with
158 riprap slopes. Councilor Chalice asked if the riprap would be mesh containers of large rock that
159 are dropped into place. Mr. Ruoff replied that at this time, the plan was for 12-inch diameter
160 stone on fabric layered back at 1:1, which is acceptable for that size rock; so, no mesh. The
161 riprap stone diameter size may change based on the hydraulic modeling to ensure that there is no
162 rise in the floodplain. Mr. Ruoff said there would not be a rise due to the creation of more
163 storage, so it will just be adjustment of what the floodplain elevation is for the water surface.

164
165 Mr. Bill asked why this spot was chosen for the pump station and whether this might be a good
166 time to move it given climate change and the difficulties of working; had the City considered
167 moving the Pump Station south at all? The City Engineer said it was definitely a conversation in
168 the air. He potentially thought a reason for this location might be an elevation standpoint and

169 gravity getting everything to flow there and then pump to the Treatment Plant, which is at a
170 higher elevation. He said the City cannot get all of its water to flow by gravity to the Treatment
171 Plant. Every year, Mr. Ruoff said City staff were talking more about why the Martell Court
172 Pump Station is located here and that there is a good opportunity to move it. Unfortunately, he
173 said the cost for pump station is upward of \$20–\$50 million. Mr. Bill asked the cost of this force
174 main project and Mr. Ruoff said approximately \$3.5 million for construction but it would depend
175 on the bidding climate. It is not an easy project.

176

177 Mr. Bergman asked, once the sewage has passed across the river, does it head over to the berm
178 along Airport Road and follow that course to the Wastewater Treatment Plant or go elsewhere.
179 Mr. Ruoff said it follows the path along Airport Road to the Treatment Plant.

180

181 Mr. Bill mentioned the illustrations provided and a scale listed on a map, which he said would
182 not be accurate once digitized and changed. He suggested that the contractor create a bar scale so
183 that when it changes or moves onto a new map, it would still be relevant and work. The City
184 Engineer said there was no reason they could not create a new map.

185

186 Councilor Chalice asked how many times the City had done this type of project at this location.
187 The City Engineer said this would be the first of its kind. It basically operated the way it was
188 constructed until this knife gate valve failure. The City did not recognize this critical lack of
189 redundancy until this Station was out of operation. Mr. Bill asked how long this Station had been
190 operating. Mr. Ruoff thought since 1963. Ms. Brunner thought the Martell Court Pump Station
191 was built in 1985, based on the online property card.

192

193 Mr. Bergman recalled a few years prior, when the City had to replace a pump or filter at the
194 Pump Station because it was jammed with debris. He said that it was a very expensive operation
195 but that was not the pipe across the river. Mr. Ruoff said that it is not usually mentioned because
196 that was expected to be a maintenance issue, whereas the knife gate valve failure was not. Mr.
197 Haynes asked what a knife gate valve is. Mr. Ruoff explained that, as opposed to a typical valve,
198 a knife gate flips, so it has the ability to close and when it is open everything flows well. As a
199 part of the project, he said they would remove the knife gate entirely because they are not used
200 much anymore.

201

202 The following motion by Mr. Therriault was duly seconded by Councilor Chalice. On a roll call
203 vote of 7 to 0, the Conservation Commission recommends writing a letter to the NHDES,
204 favorably recommending the Standard Dredge & Fill Wetland Permit Application for the Martell
205 Court Pump Station Permanent Bypass Project, with the addition of **native** pollinator seed mix
206 for the wetland restoration.

207

208 The Commission thanked the City Engineer for his presentation.

209

210 **4) Report-Outs:**

211 **A) Greater Goose Pond Forest Stewardship Subcommittee**

212

213 Mr. Haynes said the Subcommittee had not met the prior month and he had nothing to report.

214

215 Vice Chair Richter asked for an update on the spillway bridge. Mr. Haynes said the conversation
216 was ongoing about how to build a ramp on the one side but there was no update. People can get
217 across the bridge, with a landing and steps, it is just missing the sloped landing they still hope
218 for. City Engineer Bryan Ruoff reported that he had been meeting with the Public Works
219 Department, who plan to install gravel, extending the trail up to the bridge (ADA compliant). In
220 addition, they plan to put in more waste blocks to protect the bridge where it sits on the
221 abutments. Both of those are planned for Public Works to complete in spring (into summer)
222 2026, weather dependent. Mr. Haynes mentioned the goal of integrating a ramp with the steps.
223 Mr. Ruoff said the Public Works Department and Engineering had already estimated the tonnage
224 the Director of Parks and Recreation was on the same page. Closer to April, Mr. Ruoff said he
225 said he would coordinate with Mr. Haynes about a timeline. The Commission appreciated the
226 good news. Mr. Ruoff left the meeting at approximately 5:05 PM.

227 228 **B) Invasive Plant Species**

229
230 Councilor Chalice explained that there was not yet a local volunteer to lead the Invasive Plant
231 Species Program following Bobby Williams' departure from the Commission. Councilor Chalice
232 said she would be willing to work with another Commissioner but was not yet ready to commit.
233 This would involve planning the workdays, communicating, and organizing volunteers—
234 everything. Mr. Bill noted that if/when the City hires an invasive species staff person, they could
235 be in that position. Councilor Chalice said that would be great and Mr. Haynes agreed that it was
236 still the dream. Ms. Brunner said that it could be a long-term goal. She reminded the
237 Commission about the new [Landing Page for Volunteer Opportunities](#) that soft launched on the
238 City of Keene website, which could have a specific call for volunteers to run the Invasive Plant
239 Species Program. Ms. Brunner added that some of the new Commissioners who were not in
240 attendance might be interested as well. Councilor Chalice wanted to be careful to ensure that a
241 leader is chosen who knows what they are doing; it is a really easy thing to do poorly. Mr.
242 Haynes said it sounded like one Commissioner would be needed to oversee a group of
243 volunteers, who would do most of the legwork. Mr. Bill mentioned that the University of New
244 Hampshire Cooperative Extension offers invasive species courses that the person(s) could attend.
245 Councilor Chalice agreed, mentioning the Cooperative Extension's Natural Resources Stewards
246 Program and NH Invasives Academy. She wondered if a Commissioner should contact the
247 Cooperative Extension and express interest in having someone attend the NH Invasives
248 Academy, not necessarily a Commissioner. Councilor Chalice hoped that the attendee would
249 report back to the Commission regularly. Vice Chair Richter offered to contact the NH Invasives
250 Academy and request a list of Keene graduates.

251 252 **C) Land Conservation / Easement Monitoring**

253
254 Vice Chair Richter noted that she missed the Land Protection Criteria Workshop that
255 immediately preceded this regular meeting. Chair Flaherty, Councilor Chalice, Mr. Bill, and Mr.
256 Haynes were in attendance for a productive workshop with support from Senior Planner, Mari
257 Brunner. The group decided to focus on the Criteria first for now before moving on to Vice Chair
258 Richter's proposed Conservation Priorities Checklist, because the ultimate intent is for line items
259 to better correlate between them. Councilor Chalice said all of the same Land Protection Criteria

260 categories were maintained and there were no substantive changes overall (i.e., wording
261 changes).

262
263 Ms. Brunner summarized the high-level changes. All edits were emailed to the Commission for
264 review in detail and are captured in full within the Commission’s February 17, 2026 Workshop
265 minutes. Summary:

- 266 • Separated the “Protect Water Resources” criterion into two criteria: “1. Protect Surface
267 Water Resources” and “2. Protect Groundwater Resources,” each of which includes a
268 sub-item to “Protect drinking water.”
- 269 • The most changes were made to “3. Protect Forest Ecology,” to focus more on ecological
270 aspects of the forests.
- 271 • There were very few changes to “4. Protect Agricultural Resources.”
- 272 • For “5. Protect Wildlife and Natural Areas,” the group added a new sub-item, “Unique
273 geologic features.”
- 274 • Only a minor word change for “6. Protect Cultural, Recreational, and Scenic Value.”
- 275 • The group agreed to keep “7. Collaboration and Leverage” as a criterion.

276
277 Councilor Chalice mentioned that the group talked about less emphasis on harvesting and more
278 focus on the ecological aspects. They agreed that these edits were not meant to be final.

279
280 Mr. Bergman mentioned that discussion should ensue between motions and votes. He recalled
281 asking whether these Criteria would apply only to parcels within the City of Keene, because the
282 City owns land in Swanzey and Roxbury that were purchased at some point. He wondered if the
283 same could be possible for lands outside of Keene in the future. While he knew the focus of the
284 Land Protection Criteria was on Keene, Mr. Bergman wondered about legal entitlement. Chair
285 Flaherty and Councilor Chalice agreed that this would be covered under the seventh criterion “7.
286 Collaboration and Leverage” with adjacent communities. Ms. Brunner added that she was pretty
287 certain the New Hampshire statute allows municipalities to enable conservation commissions to
288 acquire land outside their municipalities. Vice Chair Richter said a municipality would have to
289 pass “optional powers.” Ms. Brunner said she would check.

290
291 Chair Flaherty made the following motion, which was duly seconded by Councilor Chalice.

292
293 On a roll call vote of 7 to 0, the Conservation Commission recommends an agenda item at the
294 March 2026 regular Commission meeting to vote on the draft Land Protection Criteria (Adopted
295 April 2018; Updated February 2026). If approved, then the Commission will schedule another
296 workshop on the draft “Keene Conservation Priorities Checklist” at 3:30 PM on April 20, 2026
297 immediately before the Commission’s regular meeting.

298
299 **D) Pollinator Updates**

300
301 Mr. Therriault said there were not many updates at the national level. Mr. Therriault would meet
302 with Councilor Chalice and Ms. Brunner to create the City’s 2025 Bee City USA Annual Report
303 on February 18, 2026. It is mostly question/answer and submitting photos that Mr. Therriault had
304 collected. Two to three months after submitting the Annual Report, the City will be notified that
305 it is approved.

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Mr. Therriault also shared that the Monadnock Beekeepers, which basically covers all of Cheshire County, had just finished its new Beekeeper School on February 7 and 14, 2026, at Stonewall Farm, with an all-time high of 39 new beekeepers (normally mid-20s). Everyone agreed this was good news. Councilor Chalice asked if they would be fostering honeybees, thinking about native bees as well. Mr. Therriault said usually all honeybees. He occasionally gets questions about native bees, or from people who want to pollinate their two/three fruit trees, in which case he steers them away from honeybees to mason bees or leaf cutter bees (i.e., more solitary and active primarily during fruit tree blossom season). Each new beekeeper was able to bring a “bee buddy,” so Mr. Therriault said it was more like 60 people, and now his task was to find 20 willing mentors to guide them through the season.

Mr. Bill asked how this winter had been for bees. Mr. Therriault said it was not bad. He agreed with Mr. Bill that there had been cold stretches, Mr. Therriault said it is worse to have a really warm thaw in January, which makes the bees think it is spring, so they come out and then there is another deep freeze. He would be checking one of his hives later this same week to see their status. Mr. Therriault guessed the queens would probably be starting to lay little, tiny patches of brood right now, and it would just get warmer into February and March.

5) Discussion Items:
A) Member Bios for Website

Ms. Brunner recalled discussing potentially adding member bios to the [Conservation Commission webpage on the City of Keene website](#). She asked willing Commissioners to email her two to three sentences, so that someone looking at the website and is curious about the Conservation Commission would have a little more background information about the members. All of the members have good backgrounds to share. She would create a draft with all the bios for Commissioners to review before the next meeting.

B) Invasive Plant Removal Workdays / Map / City Volunteer Program

Ms. Brunner said this was an item to see if anybody was willing to take on the invasive plant removal workdays. She also wanted to capture that Mr. Milliken mentioned that having a map showing the locations of invasive plant species on public lands might be useful. Mr. Bill thought Mr. Milliken could be a good person to try talking to about taking over Mr. Williams’ role overseeing the Invasive Plant Species Program. Councilor Chalice mentioned that the State of New Hampshire Department of Agriculture was going to start mapping invasives. She said there is a data layer on GRANITView that she had looked up for clients and Vice Chair Richter agreed. Councilor Chalice said she would try to look at it again but was unsure she was still capable with GRANITView. She suggested offering a class on GRANITView to the public. Vice Chair Richter thought that it was a great idea and added there are many pre-programmed tutorials, which Councilor Chalice said the Commission could gather and provide via a link.

C) Red Pine Scale – Harvesting and Replanting Plan

351 Ms. Brunner reported that she reached out to the Director of Parks and Recreation, Carrah
352 Fisk-Hennessey, who was not available to attend this meeting. Ms. Fisk-Hennessey would be at
353 the next Municipal Services, Facilities and Infrastructure (MSFI) Committee meeting to provide
354 an update on the harvesting and replanting plan. Ms. Brunner referred to further correspondence
355 in the Commission’s Agenda packet, in which Ms. Fisk-Hennessey confirmed that the removal
356 of the trees for disease management is allowable under the conservation easements for those
357 three parcels. Councilor Chalice said the activity is allowed and she hoped the update to the
358 MSFI Committee would provide details on follow up after removal. Chair Flaherty agreed. Ms.
359 Brunner referred to the harvesting and replanting plan, which lays out where there will be
360 cutting, focusing more on monocultures where there is less understory to replace them. She said
361 there is a replanting plan, including a variety of species, which would also be presented to MSFI.
362 Chair Flaherty said there had already been some replanting in Wheelock Park and so far, it
363 seemed pretty good. He explained that they are using logs that are not too diseased for other
364 purposes in the park (e.g., structures).

365
366 **D) Grant Opportunities (T-Mobile and AARP)**
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368 Ms. Brunner emailed all City boards and committees about some upcoming grant opportunities
369 that may be of interest. She specifically thought about the Goose Pond Forest Stewardship
370 Subcommittee because AARP has grant opportunities for increasing accessibility, such as the
371 ramp and trail to the spillway bridge. She also shared the T-Mobile Hometown Grant that
372 seemed pretty flexible to her. The AARP Grant is one application per year, and she reported a
373 deadline of March 4. T-Mobile seemed more flexible, with four opportunities to apply
374 throughout the year.

375
376 Councilor Chalice asked if both grant opportunities require shovel-ready projects. Ms. Brunner
377 said yes. Councilor Chalice said that is the catch. Mr. Haynes replied to a point, noting that some
378 work for the spillway bridge was being finished in-house and the Subcommittee had raised
379 enough to cover our current expenses. Mr. Bill mentioned that there was also a discussion about
380 fixing/changing the Jonathan Daniels Trail at Ashuelot River Park a few years prior but for
381 whatever reason it fell through. Councilor Chalice said there would have to be a construction
382 drawing to be “shovel-ready.” Ms. Brunner was unsure whether that project was shovel-ready.
383 The Commission discussed consulting with the Ashuelot River Park Advisory Board, although
384 Ms. Brunner was unsure whether that Board only covered the Ashuelot River Park Arboretum,
385 which does not include the Jonathan Daniels Trail. It might be the Parks Department’s
386 responsibility. Vice Chair Richter thought that Pathways for Keene funded part of the trail
387 restoration along the Ashuelot River, so they might have access to plans.

388
389 The Commission discussed both options—Goose Pond and the Jonathan Daniels Trail—and
390 noted the need to confirm if anything with the Jonathan Daniels Trail would be shovel-ready for
391 the tight March 4 grant application deadline. Ms. Brunner reported that the AARP application
392 did not seem too laborious. Mr. Haynes said he would try to work on the AARP application soon
393 for the ramp to the spillway bridge at at Goose Pond, which involves putting up blocks and
394 filling them with gravel. Mr. Bill recalled the other idea for an “All Persons” accessible trail at
395 Goose Pond, which this grant could be good for. The Commission agreed there would be an
396 opportunity for projects in future years. There is plenty of work, it is just a matter of time,

397 energy, and money. Ms. Brunner noted that City Planner Megan Fortson would be working on a
398 micro grant application for the walk and bike audits for the City’s Bicycle/Pedestrian Master
399 Plan update, which last occurred in 1999. Ms. Brunner thought it was a pretty similar application
400 and would report back to the Commission about the process. Mr. Bill clarified whether “micro”
401 referred to small amounts of money. Ms. Brunner said yes and there are predetermined activities
402 you must choose from, so in this case they were considering walk audits or bike audits, which
403 are very useful ways to determine how to improve walkability and/or bikeability. Councilor
404 Chalice thought the City did that in the past. Ms. Brunner agreed.

405
406 **6) Correspondence:**

407 **A) Ashuelot River Local Advisory Committee – Bretwood Golf Course Pesticide**
408 **Application**

409
410 Ms. Brunner said that this was mostly informational because the Conservation Commission, to
411 her knowledge, did not technically have any role in this. She explained that the Ashuelot River
412 Local Advisory Committee (ARLAC) was kind enough to copy the City of Keene and the
413 Conservation Commission so they would be aware that there was a pesticide application at
414 Bretwood Golf Course. Ms. Brunner reached out to the Public Works Department, which was
415 very concerned. Ms. Brunner was unsure whether Public Works Director Don Lussier called the
416 golf course and shared their concerns. However, Ms. Brunner knew the Pesticide Control
417 Division at the State New Hampshire was concerned about and interested in this application
418 because this is one of the areas where Keene gets its drinking water.

419
420 Mr. Bill said he personally agreed with everything in ARLAC’S letter and thought it covered the
421 Conservation Commission’s concerns. He added that he had students working on that stretch of
422 river that goes to the golf course and it is unique because that is the only part of the bed that is
423 gravel, and those mussels need gravel for nesting grounds; further south it is fine sand and
424 further north it is all boulders. So, he said this is really a unique habitat for the mussels. Vice
425 Chair Richter agreed it is not the best location for pesticides.

426
427 Mr. Bergman said this is where Cliff Lerner did a lot of work for years out on the river with the
428 dwarf wedge mussels. Mr. Bergman added that there is a Pesticide Control Board of citizen
429 advisors to NHDES on this issue. He wondered if the letter reached the Board as well. He
430 recalled that a former Keene Conservation Commissioner, Susan Whittemore, was on the
431 Pesticide Control Board, which met at least monthly. Mr. Bill said Ms. Whittemore is no longer
432 active with the NHDES. Councilor Chalice offered to look up the Pesticide Control Board and
433 find out if they saw ARLAC’s letter; she also hoped for the Commission to establish a
434 relationship with the Board. Chair Flaherty asked her to report back to the Commission. Mr.
435 Bergman thought the Pesticide Control Board was Governor-appointed.

436
437 Discussion ensued about next steps following ARLAC’s letter and the Public Works
438 Departments outreach on this issue. Vice Chair Richter asked if the Conservation Commission
439 could request that the City write a letter to the Golf Course, following up with concerns. Ms.
440 Brunner thought that it was already handled and she was unsure how much they could take into
441 account what the City would say. Certain public bodies can intervene in certain things, like
442 conservation commissions are the only ones for wetland permits. Ms. Brunner believed ARLAC

443 oversaw this pesticide application. She asked ARLAC to keep the Public Works Director, Chair
444 Flaherty, and herself informed about any updates. Chair Flaherty said this would be on the next
445 meeting for more discussion.

446
447 Vice Chair Richter said the City could provide more information to the landowner on best
448 management practices and alternatives; providing information is not directing a requirement. She
449 noted that NHDES would probably provide best practices as well and Chair Flaherty agreed. Mr.
450 Haynes thought the Pesticide Review Board could deny this application. Ms. Brunner said she
451 could follow up to see if there would be a benefit to the City formally taking a stance on this.
452 Councilor Chalice thought everyone could ask.

453
454 Mr. Bergman mentioned the federally endangered species and that the Fish and Wildlife Service,
455 to the extent that the present administration has allowed them to operate at all, would historically
456 have had some input on whether such things would be allowed to degrade the habitat. He cited a
457 past instance of the Army Corps of Engineers drying out the bed of the river below Surry Dam
458 for the rubber duck races and it caused a lot of concern about the dwarf wedge mussels. He
459 wondered whether the US Fish and Wildlife Service had already submitted a response or been
460 consulted and recommended Steven Marchand in Concord.

461
462 Mr. Therriault said that Matt Barrett, who owns the Bretwood Golf Course, is a very nice guy
463 and very amenable to discussing anything regarding the environment. So, Mr. Therriault said that
464 if the Commission wanted to reach out to him, they certainly could. Vice Chair Richter said she
465 has some great informational shoreland brochures to share with landowners that they could send
466 to him. Councilor Chalice asked whether it would be appropriate to send that material to Mr.
467 Barrett and Mr. Therriault thought so. The Commission decided it would be better to send it
468 informationally to the Golf Course as a Commission.

469
470 The following motion by Councilor Chalice was duly seconded by Vice Chair Richter. On a roll
471 call vote of 7 to 0, the Conservation Commission authorized Chair Flaherty to work with Ms.
472 Brunner to create a letter based on the information provided by Mr. Bill and the links to NHDES
473 brochures, and signed by the Chair to be sent to the Bretwood Golf Course.

474
475 **B) Society for the Protection of NH Forests – Response to Easement Monitoring**
476 **Inquiry**

477
478 Ms. Brunner provided an update, stating that the responses to the City’s inquiry were in the
479 meeting packet and the Society for the Protection of NH Forests followed up with maps, showing
480 the actual boundaries of the lands they monitor: the properties along Maple Avenue and the
481 Greater Goose Pond Forest. Discussion ensued about what properties along Maple Avenue are
482 conservation land deeded to the Society for the Protection of NH Forests Dinsmoor Wood. Ms.
483 Brunner showed a map and called it a small but beautiful stretch: the “Dinsmoor Shifting
484 Executory Interest” and the Faulkner and colony Manufacturing Shifting Executory Interest.”
485 Vice Chair Richter said there are red pines there too and Ms. Brunner said yes. The
486 “tree removal” observed there was from the July 2024 microburst storm that caused all the
487 damage at Tanglewood Park Cooperative. Ms. Brunner showed the Greater Goose Pond Forest

488 easement, which Mr. Haynes said the Society for the Protection of NH Forests used area aerial
489 reconnaissance to monitor. Ms. Brunner showed the City of Keene easement boundary.

490
491 Mr. Haynes asked about integrating the parcel the City acquired about a year prior and other
492 small surrounding lots into the current easement, so should they have their own. Ms. Brunner
493 said she did not know the answer to that, but they are immediately adjacent it would seem most
494 efficient to integrate them, but she did not know how that works. Vice Chair Richter said it
495 would require amending the current easement in a sense, so there would be legal fees involved,
496 the new survey, and the deeds updated. She recommends that whenever the City purchases land
497 using conservation funds that the conservation status be put in the deed when it is purchased.
498 She said it helps future generations selling off the land.

499
500 Councilor Chalice asked if future **land purchases** could have agreements, specifying in the
501 transaction that some of the money be used for future surveys. Vice Chair Richter thought it
502 might be able to be more formalized that way. Mr. Haynes noted the funds are dedicated for
503 specific purposes. Mr. Bill asked if those easements are a part of the Cheshire County record.
504 Ms. Brunner said you can search them at the County Registry of Deeds online or in person. Vice
505 Chair Richter mentioned sharing language with Ms. Brunner that she shared with the new City
506 Attorney, who Councilor Chalice said is very open to suggestions.

507
508 Discussion ensued briefly about the properties off Old Gilsum Road, which are landlocked and
509 with access off a Class VI Road.

510
511 **7) New or Other Business**

512 **A) Rules of Procedures Update**

513
514 Ms. Brunner reported that she started looking into the Greater Goose Pond Forest Stewardship
515 Subcommittee membership and would like to have a discussion about updating the
516 Commission's Rules of Procedure to specifically address how subcommittees are supposed to
517 run and other aspects like remote participation that changed since Covid. Ms. Brunner would set
518 up a meeting with Greater Goose Pond Forest Stewardship Subcommittee Chair, Mr. Haynes, to
519 debrief on what she learned. Chair Flaherty said that the Commission's Rules of Procedure
520 seemed due for a potential update too.

521
522 **8) Adjournment – Next meeting: Monday, March 16, 2026**

523
524 There being no further business, Chair Flaherty adjourned the meeting at 5:49 PM.

525
526 Respectfully submitted by,
527 Katryna Kibler, Minute Taker

528
529 Reviewed and edited by,
530
531 Mari Brunner, Senior Planner

City of Keene
New Hampshire

CONSERVATION COMMISSION
WORKSHOP MINUTES

Tuesday, February 17, 2026

3:30 PM

2nd Floor Conference Room,
City Hall

Members Present:

Gary Flaherty, Chair
Councilor Michele Chalice
Steven Bill
Thomas Haynes, Alternate (Voting)

Staff Present:

Mari Brunner, Senior Planner

Members Not Present:

Barbara Richter, Vice Chair
Katie Kinsella
William White
Ken Bergman
Bob Milliken, Alternate
John Therriault, Alternate
Alexander Von Plinsky, IV, Alternate

1) Call to Order

Chair Flaherty called the workshop to order at 3:38 PM.

2) Workshop:

- A) Conservation Land Protection Criteria – The Keene Conservation Commission will hold a workshop to discuss priorities for acquiring conservation land, guidelines for acquiring legal interest in conservation land, and potential updates to the Commission’s adopted Land Protection Criteria.

Commissioners discussed how the results of this workshop would be presented to the whole Commission. This workshop was called to differentiate it from the regular meeting, provide an hour to discuss the Land Protection Criteria, and come up with ideas to share with a larger group—whether at the Conservation Commission meeting immediately following this workshop or a discussion again at the March 2026 meeting. The ultimate goal would be for the Commission to approve the updated Criteria. The 2018 Land Protection Criteria were included in the [Commission’s February 17, 2026 Workshop Agenda](#) packet, in addition to the draft 2026 Guideline for Acquiring Legal Interest in Conservation Land and Keene Conservation Priorities Checklist provided by Vice Chair Richter.

Discussion continued, as Commissioners began reviewing the 2018 Land Protection Criteria that were updated in December 2025 (shown in the [Commission’s 01/20/2026 agenda packet](#)). Mr. Bill thought the numbering system for the criteria and Vice Chair Richter’s proposed “Keene

33 Conservation Priorities Checklist” should be synchronized. Mr. Haynes thought the Land
34 Protection Criteria should be as user-friendly as possible. Ms. Brunner pointed out the difference
35 between the two documents: Land Protection Criteria and Conservation Priorities Checklist. She
36 suggested that the Commission should determine changes needed to the Criteria, which would
37 inform the changes needed to the Checklist (that is supposed to support the Criteria).

38
39 Discussion diverted briefly as the Commission confirmed that it wanted to keep Vice Chair
40 Richter’s addition of “urban forests” under the existing #2 “Protect Forest Resources” (later
41 renamed #3 “Protect Forest Ecology”).

42
43 The Commission agreed that Land Protection Criterion #1 “Protect Water Resources” was
44 oversimplified and created two items: #1 “Protect Surface Water Resources” and #2 “Protect
45 Groundwater Resources.”

46
47 Mr. Haynes questioned whether the Commission needs the two documents it was presented with.
48 Mr. Bill said the checklist probably makes sense and could be useful when trying to score a piece
49 of land and deciding whether it meets a threshold for whether the Commission should do
50 something. Mr. Haynes wondered about combining the two documents to reduce paperwork. Ms.
51 Brunner thought that would be an option but explained her understanding from Vice Chair Richter
52 than the Land Protection Criteria are intended as the official policy adopted by the Commission
53 and the Checklist is intended as a tool to aid the Commission when it has a specific request to
54 consider. Councilor Chalice asked which document the public would see and Ms. Brunner thought
55 both. Councilor Chalice hoped that would be the case and if so, she suggested that under each
56 “Potential Benefit” on the Checklist, there could be a hyperlink to the relevant Land Protection
57 Criteria. Ms. Brunner suggested focusing on the Land Protection Criteria because the
58 Conservation Priorities Checklist would be based on the adopted Criteria.

59
60 The Commission proposed revisions to the 2018 Land Protection Criteria (updated December
61 2025). “Protect drinking water,” was added as both #1.a and #2.a. under #1 “Protect Surface Water
62 Resources” and #2 “Protect Groundwater Resources.” Ms. Brunner asked about the difference
63 between drinking water and groundwater. Mr. Bill and Chair Flaherty agreed that drinking water
64 would be from reservoirs, well water, and potable water that has been purified. Surface waters
65 would be those like rivers and streams that are untreated.

66
67 The Commission finalized revisions for the first two Land Protection Criteria on water resources:

- 68 1. Protect Surface Water Resources
69 a. Protect drinking water.
70 b. Maintain natural frontage on rivers, streams, lakes, ponds, and reservoirs.
71 c. Maintain or enhance wetlands, vernal pools, floodplains, buffer areas, and riparian
72 zones.
73
74 2. Protect Groundwater Water Resources
75 a. Protect drinking water.
76 b. Protect land overlying aquifers and aquifer recharge areas.
77

78 The Commission discussed the new #3 “Protect Forest Resources” in the 2018 Land Protection
79 Criteria (updated December 2025). For #3.a., “Tracts of woodland with sufficient size, appropriate
80 soils, and other attributes that support responsible forest management, including the production of

81 timber and other forest products,” Mr. Bill asked what “*Tracts of woodland with sufficient size,*”
82 means. Mr. Haynes said it means whatever he wants it to mean. Mr. Bill noted that the
83 Commission was coming up with a checklist for people to determine whether something qualifies.
84 Chair Flaherty agreed that they could come up with a size. Councilor Chalice suggested
85 eliminating the phrase “*with sufficient size,*” and the other Commissioners agreed.
86

87 The Commission discussed the definition of an “*urban forest.*” Mr. Bill wondered if trees on a
88 lawn would qualify. Chair Flaherty said his research showed that an urban forest is basically any
89 tree; the entire City of Keene would be the urban forest.
90

91 Councilor Chalice was concerned that she did not see any mention of “ecosystem” related to #3
92 “Protect Forest Resources.” Mr. Bill thought it was captured under #5 “Protect Wildlife and
93 Nature Areas.” Councilor Chalice wondered if a term could be added to #3, addressing that the
94 Commission wants to see the components of a whole ecosystem within a forest, and how many
95 components a particular tract of land may have when considering a healthy or whole forest. The
96 Commission agreed to change the title of #3 to “Protect Forest Ecology.” Chair Flaherty found
97 this narrower but still general enough and Mr. Haynes thought it was a great suggestion.
98

99 The Commission continued discussing revisions to refine #3.a. Mr. Haynes suggested: “Maintain
100 or enhance woodlands in association with other ecological attributes,” which the other
101 Commissioners liked. Councilor Chalice asked if there would be a reason that the Conservation
102 Commission would recommend buying a parcel of land to timber it. Ms. Brunner said yes, the
103 City has some forestry management plans (e.g., the Greater Goose Pond Forest) and in the
104 Conservation Commission’s enabling legislation, one duty is managing land. For example, there
105 could be a town forest. Mr. Bill mentioned that the City would be harvesting a lot of red pine due
106 to red pine scale and Councilor Chalice asked if the Conservation Commission would be
107 reviewing permits for that work. Ms. Brunner said there would be no permits associated with it,
108 but City Council would receive updates on it because everything is approved through City
109 Council; the Council’s Municipal Services, Facilities and Infrastructure (MSFI) Committee would
110 be receiving an update on it within the upcoming month. Councilor Chalice asked if she could
111 request the Conservation Commission have advanced access to that update and provide comments
112 for the MSFI meeting. Ms. Brunner said she could pass that request to the Director of Parks and
113 Recreation, Carrah Fisk-Hennessey, but in general City staff like to give that information to
114 Council first, so they are not contacted by residents or Committee members with questions about
115 things they have not seen yet. Discussion ensued about whether this would go directly to the MSFI
116 Committee or to the City Council first. The Commission agreed that this conversation could
117 continue during the regular Conservation Commission meeting.
118

119 Chair Flaherty reminded the Commission that these edits were not final. The Commission agreed
120 on the edit to #3.a., “Maintain or enhance woodlands in association with other ecological
121 attributes,” and did not think examples were needed at this time. For #3.b., the Commission agreed
122 to strike, “*steep slopes.*” The Commission agreed to add #3.c., regarding urban forests, and
123 discussed the best phrasing. Mr. Bill questioned the difference between a “forest” and a
124 “woodland.” Chair Flaherty called a *forest* a large area by definition and a *woodland* smaller, such
125 as a wood lot or park. Councilor Chalice suggested #3.c., “Protect the integrity, biodiversity and
126 health of Keene’s urban forests,” and the Commission agreed. Mr. Bill asked if that would include
127 the forested areas around the Wastewater Treatment Plant. Chair Flaherty said that by definition
128 even one tree in someone’s yard in Keene is a part of the urban forest. Councilor Chalice clarified

129 that these are Land Protection Criteria, so if someone asked the Commission to look at a forested
130 area, these are what would be used to say whether that area is valuable enough to expend funds.
131 Mr. Bill thought so.

132
133 Discussion ensued about #3.d. Commissioners thought “*Build upon*” was awkward or unclear. Ms.
134 Brunner explained Vice Chair Richter’s rationale for this sub-item: she was thinking of tiny
135 parcels of land (i.e., 1/4-acre to 3/4-acre) that the Commission had recently acquired, which
136 directly abut large, undeveloped tracts of forested land. So, Ms. Brunner thought the intent of this
137 statement was about building upon or adding to those larger fragments. Mr. Haynes suggested
138 changing “*build upon*” to “*expand*” and the Commission agreed. Discussion ensued briefly as Mr.
139 Haynes also suggested adding a #3.e. about responsible forest management in terms of timber
140 production (e.g., the Goose Pond Forest) and the Commission agreed.

141
142 The Commission finalized revisions for the third Land Protection Criterion on forest ecology:

- 143 3. Protect Forest Ecology
- 144 a. Maintain or enhance woodlands in association with other ecological attributes.
 - 145 b. Protect slopes with grades greater than 15%.
 - 146 c. Protect the integrity, biodiversity and health of Keene’s urban forests.
 - 147 d. Expand large unfragmented blocks of forests.
 - 148 e. Support responsible forest husbandry.
- 149

150 The Commission discussed what became #4 “Protect Agricultural Resources.” Councilor Chalice
151 felt like the three sub-items covered a lot of ground. She wondered if there was a place for
152 community gardens and the Commission assessing land that could be uniquely appropriate in
153 terms of its proximity to residences. Chair Flaherty and Councilor Chalice agreed that it would fall
154 under #4.c., which they revised slightly to read, “Land that is suitable for urban agriculture, such
155 as community gardens.” The edit was intended to help the public understand the Commission’s
156 meaning of “*urban agriculture*.” These could include raised beds, bee-friendly gardens, the
157 roundabouts, and more. Councilor Chalice wanted something included to remind people that this
158 is not only about farming and there are smaller uses of land to produce food that can have a
159 beneficial impact on the community.

160
161 Mr. Haynes wondered if #4.a. should just be about farmlands and #4.b. should focus on soil. Ms.
162 Brunner explained Vice Chair Richter’s rationale, wanting to rephrase it from the 2018 version
163 that said, “Land well suitable for agriculture *that do not have prime soils*,” to “*open fields with*
164 *prime soils*,” Phrasing it more in the positive. Councilor Chalice liked “*open fields*” because there
165 are pieces of land that have prime agricultural soils that are not currently farmland. Chair Flaherty
166 agreed, noting land in fallow. Mr. Bill said the Monadnock Conservancy directs a lot of energy
167 toward such land.

168
169 The Commission finalized revisions for the fourth Land Protection Criterion on agriculture:

- 170 4. Protect Agricultural Resources
- 171 a. Support existing farmlands and open fields with prime soils and other attributes
172 that support agriculture or have the potential to support agriculture.
 - 173 b. Land well suitable for agriculture that has state or locally important soils.
 - 174 c. Land that is suitable for urban agriculture, such as community gardens.
- 175

176 The Commission discussed #5 “Protect Wildlife and Natural Areas.” For #5.a, “Property with
177 large tracts of undeveloped habitat and corridors important for wildlife,” Chair Flaherty said he
178 was unsure the City of Keene has “*large tracts*.” Mr. Haynes said it does, depending on the
179 definition. He referred to the Greater Goose Pond Forest, for example, which is large compared to
180 most tracts of land in the state. Chair Flaherty also mentioned the property along Old Gilsum
181 Road. The Commission agreed that the City has “*significant tracts*,” which Councilor Chalice said
182 would not be qualifying them small or large. She wondered if these Criteria would cover any
183 species showing up on a particular piece of land (e.g., wolves). The Commission agreed that it
184 would be covered by “*corridors*” and “*maintain ecologically significant*,” and that all critters were
185 covered. The Commission agreed to keep #5.b. through #5.d. as they were written. Mr. Bill
186 requested the addition of #5.e., “Unique geologic features,” and the Commission agreed.
187

188 The Commission finalized revisions for the fifth Land Protection Criterion:

189 5. Protect Wildlife and Natural Areas

- 190 a. Property with significant tracts of undeveloped habitat and corridors important for
191 wildlife.
- 192 b. Maintain or enhance land containing ecologically significant or rare natural
193 communities or species.
- 194 c. Priority land that is identified in the New Hampshire Wildlife Action Plan, Natural
195 Resource Inventories, or existing Land Management Plans.
- 196 d. Other lands which increase the diversity and viability of wildlife populations,
197 including fields, riparian areas, land contiguous to existing protected natural areas,
198 and land that can serve as a buffer to developed areas.
- 199 e. Unique geologic features.
200

201 Discussion ensued about the new #6 “Protect Cultural, Recreational, and Scenic Value.” In #6.a.,
202 “Land that offers opportunities for appropriate outdoor recreation by the public,” Mr. Haynes
203 wondered how the Commission would define “*appropriate*.” The Commission agreed to strike the
204 word “*appropriate*” from #6.a. Mr. Haynes said the policies or plans for those lands would guide
205 the appropriateness of those activities. The Commission agreed to keep the rest of criterion #6 as it
206 was written:
207

208 6. Protect Cultural, Recreational, and Scenic Value

- 209 a. Land that offers opportunities for outdoor recreation by the public.
- 210 b. Scenic views, ridgelines, and other aesthetic areas.
- 211 c. Landscapes that preserve the region’s cultural and historic heritage.
- 212 d. Land that promotes connectivity of recreational networks.
213

214 The Commission discussed the final criterion #7, “Collaboration and Leverage.” Ms. Brunner
215 asked if this was about prioritizing lands so that the burden on the City would be less. There was
216 agreement. Mr. Bill added, for example, if Gilsum and Keene wanted to cooperate on preserving
217 land, that it would be a priority. The Commission discussed #7.b. as it was written, noting that
218 nearly everything in Keene is vulnerable to development pressure, so they agreed to revise it as,
219 “Land with ecological value that is vulnerable to development pressure.” The *ecological value* is
220 the distinguishing feature to qualify, and the Commission agreed that it was broad enough.
221

222 Ms. Brunner wondered whether there should be something about prioritizing land that is not in a
223 developed area, following Master Plan comments on infill development. Councilor Chalice

224 mentioned Greenfield development and Mr. Bill mentioned flood storage at the Kingsbury site.
225 Ms. Brunner thought that would be covered by other things. Councilor Chalice agreed, stating that
226 it is not a Land Protection Criterion and the City is not trying to protect ecological value within
227 Kingsbury. Mr. Bill asked if a developer wanted to turn that whole site into housing, with no
228 criteria for preserving any pieces of it. Ms. Brunner said they would have to comply with the
229 floodplain, the Surface Water Protection Buffer, and take care of the contamination. Discussion
230 continued about the pros and cons of allowing housing on tracts such as that vs. pushing it away,
231 with Mr. Bill mentioning concerns for some of the newer high-density tracts, but Councilor
232 Chalice stating that they do not take up a lot of undeveloped land.
233

234 Mr. Haynes asked to revise #7.a. to be less wordy and the Commission agreed on, “To protect land
235 with willing collaborators.” Ms. Brunner pointed out that Vice Chair Richter left a note that #7
236 “Collaboration and Leverage” could be moved to the Conservation Priorities Checklist instead of
237 the Land Protection Criteria. Commissioners agreed to keep it as a Criterion.
238

239 The Commission finalized revisions for the seventh Land Protection Criterion:

- 240 7. Collaboration and Leverage
- 241 a. To protect land with willing collaborators.
 - 242 b. Land with ecological value that is vulnerable to development pressure.
 - 243 c. Land where there are landowners willing to support conservation and protection.
244

245 Ms. Brunner would send both the red-lined and final versions to the Commission for their review.
246 Then, the group could compare it to the Conservation Priorities Checklist categories, some of
247 which might be able to be more consolidated as well.
248

249 The Commission reviewed language that was highlighted in yellow at the top of the 2018 Land
250 Protection Criteria (updated December 2025), which Vice Chair Richter added regarding abutting
251 conservation land: “*Land directly abutting existing conservation land is a high priority for
252 protection. Expanding existing conservation areas is an efficient use of City resources and makes
253 it easier to steward and manage land. In addition to abutting lands, the Conservation Commission
254 will review potential land purchases that score high on the Priority Checklist.*” The Commission
255 agreed to keep the language because to date, most land that it had encouraged the City to purchase
256 abutted conservation land. It makes sense as a high priority to protect from development.
257 Councilor Chalice noted that the Council was getting pressured about land that does not pay taxes,
258 so spelling out why these particular parcels are valuable is helpful when talking about more
259 conservation dollars for less tax dollars.
260

261 3) **Adjournment**

262

263 There being no further business, Chair Flaherty adjourned the meeting at 4:22 PM.
264

265 Respectfully submitted by,
266 Katryna Kibler, Minute Taker
267

268 Reviewed and edited by,
269

270 Mari Brunner, Senior Planner

CITY OF KEENE CONSERVATION COMMISSION LAND PROTECTION CRITERIA

**ADOPTED APRIL 2018
UPDATED FEBRUARY 2026**

Land that supports or enhances the following resources/features should be a priority for the City of Keene Conservation Commission as it makes recommendations to the City Council on land protection and conservation. Land directly abutting existing conservation land is a high priority for protection. Expanding existing conservation areas is an efficient use of City resources and makes it easier to steward and manage land. In addition to abutting lands, the Conservation Commission will review potential land purchases that score high on the Priority Checklist.

The following criteria are a tool for the Conservation Commission and City Council to use when evaluating a project. Any project brought forward for City Council consideration shall meet at least two of these criteria:

1. Protect Surface Water Resources
 - a. Protect drinking water
 - b. Maintain natural frontage on rivers, streams, lakes, ponds, and reservoirs
 - c. Maintain or enhance wetlands, vernal pools, floodplains, buffer areas, and riparian zones
2. Protect Groundwater Water Resources
 - a. Protect drinking water
 - b. Protect land overlying aquifers and aquifer recharge areas
3. Protect Forest Ecology
 - a. Maintain or enhance woodlands in association with other ecological attributesProtect slopes with grades greater than 15%
 - b. Protect the integrity, biodiversity and health of Keene's urban forests
 - c. Expand large unfragmented blocks of forests
 - d. Support responsible forest husbandry.
4. Protect Agricultural Resources
 - a. Support existing farmlands and open fields with prime soils and other attributes that support agriculture or have the potential to support agriculture.
 - b. Land well suitable for agriculture that has state or locally important soils.
 - c. Land that is suitable for urban agriculture, such as community gardens.
5. Protect Wildlife and Natural Areas
 - a. Property with significant tracts of undeveloped habitat and corridors important for wildlife
 - b. Maintain or enhance land containing ecologically significant or rare natural communities or species

- c. Priority land that is identified in the New Hampshire Wildlife Action Plan, Natural Resource Inventories, or existing Land Management Plans
 - d. Other lands which increase the diversity and viability of wildlife populations, including fields, riparian areas, land contiguous to existing protected natural areas, and land that can serve as a buffer to developed areas
 - e. Unique geologic features
6. Protect Cultural, Recreational, and Scenic Value
- a. Land that offers opportunities for outdoor recreation by the public
 - b. Scenic views, ridgelines, and other aesthetic areas
 - c. Landscapes that preserve the region's cultural and historic heritage
 - d. Land that promotes connectivity of recreational networks
7. Collaboration and Leverage
- a. To protect land with willing collaborators
 - b. Land with ecological value that is vulnerable to development pressure
 - c. Land where there are landowners willing to support conservation and protection

Further Directions and Considerations

The Conservation Commission and City Council will determine whether the proposed project by itself fully protects the intended resource. If the resource cannot be fully protected without the conservation of additional nearby land, be it a wildlife habitat or a scenic vista, the likelihood of protecting the other properties should be weighed before moving forward with the project.

When reviewing proposed projects, the Conservation Commission and City Council shall give special attention and consideration to proposed projects that attract other funds for the purchase and/or maintenance of the land in question.

All costs associated with preparing a proposal initiated by the Conservation Commission for City Council consideration, whether initiated by the City Government or by a private person or group, will be borne by the City unless a third party, including the landowner, is willing to fund all or part of these costs.

The recommendation put forward by the City Administrator shall weigh the benefits of the proposed acquisition against the broader tax implications and municipal priorities that currently exist in the community.

CITY OF KEENE CONSERVATION COMMISSION LAND PROTECTION CRITERIA

ADOPTED APRIL 2018
UPDATED FEBRUARY 2026

Land that supports or enhances the following resources/features should be a priority for the City of Keene Conservation Commission as it makes recommendations to the City Council on land protection and conservation. Land directly abutting existing conservation land is a high priority for protection. Expanding existing conservation areas is an efficient use of City resources and makes it easier to steward and manage land. In addition to abutting lands, the Conservation Commission will review potential land purchases that score high on the Priority Checklist.

The following criteria are a tool for the Conservation Commission and City Council to use when evaluating a project. Any project brought forward for City Council consideration shall meet at least two of these criteria:

1. Protect Surface Water Resources

a. Protect drinking water

~~a. Land overlying aquifers and aquifer recharge areas~~

b. Maintain natural frontage on rivers, streams, lakes, ponds, and reservoirs

c. ~~W~~Maintain or enhance wetlands, vernal pools, floodplains, buffer areas, and riparian zones

2. Protect Groundwater Water Resources

a. Protect drinking water

b. Protect land overlying aquifers and aquifer recharge areas

~~2.3.~~ Protect Forest Ecology

~~3.~~ Maintain or enhance woodlands in association with appropriate soils and other ecological attributes that support responsible forest management, including the production of timber and other forest products.

a. Protect Steep slopes (slopes with grades greater than 15%)

b. Protect the integrity, biodiversity and health of Keene's Urban forests (~~workshop group would like to add~~)

c. Expand~~Build upon~~ large ~~un-fragmented~~unfragmented blocks of forests

~~e.d.~~ Support responsible forest husbandry.

4. Protect Agricultural Resources

a. Support existing farmlands and open fields with prime soils and other attributes that support agriculture or have the potential to support agriculture.

b. Land well suitable for agriculture that ~~do not have~~ has state or locally important soils.

c. Land that is suitable for urban agriculture, such as ~~or~~ community gardens.

5. Protect Wildlife and Natural Areas

a. Property with significant~~large~~ tracts of undeveloped habitat and corridors important for wildlife

- b. Maintain or enhance land containing ecologically significant or rare natural communities or species
 - c. Priority land that is identified in the New Hampshire Wildlife Action Plan, Natural Resource Inventories, or existing Land Management Plans
 - d. Other lands which increase the diversity and viability of wildlife populations, including fields, riparian areas, land contiguous to existing protected natural areas, and land that can serve as a buffer to developed areas
- d.e. Unique geologic features
- 6. Protect Cultural, Recreational, and Scenic Value
 - a. Land that offers opportunities for ~~appropriate~~ outdoor recreation by the public
 - b. Scenic views, ridgelines, and other aesthetic areas
 - c. Landscapes that preserve the region's cultural and historic heritage
 - d. Land that promotes connectivity of recreational networks
 - 7. Collaboration and Leverage
 - a. ~~To protect land with willing collaborators Land where there are multiple entities (e.g. surrounding towns or local organizations) willing to collaborate on protection/conservation efforts~~
 - b. Land with ecological value that is vulnerable ~~to development~~ to development pressure
 - c. Land where there are landowners willing to support conservation and protection

Further Directions and Considerations

The Conservation Commission and City Council will determine whether the proposed project by itself fully protects the intended resource. If the resource cannot be fully protected without the conservation of additional nearby land, be it a wildlife habitat or a scenic vista, the likelihood of protecting the other properties should be weighed before moving forward with the project.

When reviewing proposed projects, the Conservation Commission and City Council shall give special attention and consideration to proposed projects that attract other funds for the purchase and/or maintenance of the land in question.

All costs associated with preparing a proposal initiated by the Conservation Commission for City Council consideration, whether initiated by the City Government or by a private person or group, will be borne by the City unless a third party, including the landowner, is willing to fund all or part of these costs.

The recommendation put forward by the City Administrator shall weigh the benefits of the proposed acquisition against the broader tax implications and municipal priorities that currently exist in the community.

From: [Donald Lussier](#)
To: [Mari Brunner](#)
Cc: [Carrah FiskHennessey](#); [Mason Belawske](#)
Subject: RE: Bee City
Date: Tuesday, February 24, 2026 10:00:56 AM

\$150.

Take your time... Just let Mason know once you decide. If its going to go on a roadway, Mason knows the rules. If you decide to put it in the park, Carrah will tell us what she wants.

Thanks,
Don

Donald R. Lussier, P.E.
Public Works Director

City of Keene
350 Marlboro Street
Keene, NH 03431
(603) 352-6550 | [KeeneNH.gov](#)
Report Issues: [SeeClickFix/Keene](#)

From: Mari Brunner <mbrunner@keenenh.gov>
Sent: Tuesday, February 24, 2026 9:56 AM
To: Donald Lussier <dlussier@keenenh.gov>
Cc: Carrah FiskHennessey <cfiskhennessey@keenenh.gov>; Mason Belawske <mbelawske@keenenh.gov>
Subject: RE: Bee City

Awesome, thank you!

The Bee City Program does not have a budget; I can ask the Conservation Commission if they are willing to cover the cost out of their budget. Was the total cost \$250?

The program requirement states the following: "Each Bee City USA Affiliate is required to install at least one Bee City street sign in a prominent location in their community." It makes sense to me to install at Ashuelot Park, however, since we have time can I run this by the Commission for their thoughts?

Thank you again!
Mari

Mari Brunner, AICP
Senior Planner - Community Development Dept.
(603) 352-5440 | [KeeneNH.gov](#)

FRAUD ALERT: Be aware!!! Invoice scams are on the rise! If you receive an e-mail or any other communication that appears to be generated from the City of Keene that contains wire instructions, consider it suspect and call our office at a number you trust.

From: Donald Lussier <dlussier@keeneh.gov>
Sent: Tuesday, February 24, 2026 9:49 AM
To: Mari Brunner <mbrunner@keeneh.gov>
Cc: Carrah FiskHennessey <cfiskhennessey@keeneh.gov>; Mason Belawske <mbelawske@keeneh.gov>
Subject: Bee City

Mari,

Sign has been ordered. Please send me a billing code when you get a chance.

Also, Carrah suggested placing the sign in the Ashuelot River Park, since that is the home of “Pollinator-Palooza” and the pollinator garden. Makes sense to me, but not sure that the program requirements are.

Please let us know where you want it installed. It will most like not go in until spring, since the frost line is >3 feet deep!

Thanks,
Don

Donald R. Lussier, P.E.
Public Works Director

City of Keene
350 Marlboro Street
Keene, NH 03431
(603) 352-6550 | KeeneNH.gov
Report Issues: [SeeClickFix/Keene](#)



DATE:
2-23-26

BIN #

Donald R. Lussier, P.E.
Public Works Director

City of Keene
350 Marlboro Street
Keene, NH 03431
(603) 352-6550
dlussier@keenenh.gov

JOB INFO:

3mm MaxMetal
with Cast Vinyl & Laminate Print
with Radius Corners

1 Sided

Qty: 1

Size: 24x24

\$150.00

FILE

Bee City USA 24x24 Sign

GemGraphics
Your image is ...everything

Tammy Pelland
415 Marlboro Street
Keene, New Hampshire 03431
Page 26 of 52
tammy@gemgraphicsnh.com

City of Keene
NEW HAMPSHIRE

CONSERVATION COMMISSION

Rules of Procedure

1. **Meetings:** All meetings described in this section shall be considered a public meeting subject to the provisions of RSA 91-A. All meetings must be open to, and accessible by, the public. Meeting times and locations shall be posted at least 24 hours before the time of the meeting in two public places, one of which may include the City's website.
 - A. **Regular Meetings:** Regular meetings shall be held at least once a month unless there are no items of business to discuss. Regular Meeting times and dates shall be determined by members of the Commission.
 - B. **Special Meetings:** Special meetings may be held at the discretion of the Chair, or in their absence, the Vice Chair to address matters that require a timely response. Discussion at a special meeting shall be restricted to the item(s) listed on the agenda for that meeting.
 - C. **Workshop Sessions:** Workshop sessions may be held at the discretion of the Chair to allow in-depth discussions and evaluations of specified topics.
 - D. **Site Visits:** Site visits may be scheduled periodically at the discretion of the Chair. Site visits may be scheduled when, in the Chair's discretion, it is warranted to gather relevant information related to an application before the Commission.

2. **Public Hearings:**
 - A. The Conservation Commission shall hold a public hearing with notice, and obtain City Council approval, prior to using money from the conservation land acquisition fund to acquire any interest in real property.
 - B. The Commission may conduct public or informational hearings when it determines such hearings will be in the public's best interest.
 - C. Notification of public hearings shall be posted in accordance with RSA 675:7.

3. **Minutes:** Minutes of all meetings shall be kept and shall include: the name of the Commission; the date, time, and location of the meeting; the members present or absent; motions or other actions taken including who made the motion and who seconded, who recused and the reason for recusal, and whether the action passed or failed; the names of persons appearing before the Commission; the subject matter discussed; the time the meeting adjourned; and the name of the minute taker. If there is no minute taker specifically assigned to the Commission, the Chair shall designate an appropriate individual for this purpose.

Within 5 days of the close of the meeting, the minute taker shall submit the draft minutes to the Staff Liaison. The Staff Liaison shall review the draft minutes and may make such corrections as are necessary to ensure that information required to be included in the minutes of such meetings is accurate. Examples of appropriate corrections include spelling of names, grammar, citations, and technical jargon. In no case shall a correction alter what was said or discussed at the meeting, or the result of any action taken. All corrections shall be made with “track changes” or a similar feature turned on. Once approved, meeting minutes shall be immediately filed with the City Clerk.

4. **Quorum:** A quorum shall consist of four members. Commission business shall not be conducted in the absence of a quorum. An available alternate member shall be appointed by the Chair in the absence of a regular member. Unless the appointed alternate member becomes unable to continue to participate, the alternate member so appointed should continue to serve in the place of the absent regular member if a matter under consideration by the Commission extends over multiple meetings, and/or until that matter has been completed.

A quorum of the Commission shall always be physically present at the location specified in the public notice, and no Commission business shall be conducted through email or other electronic communication that does not allow the public to hear, read or otherwise discern the meeting discussion.

5. **Remote Participation:** A member may participate by telephone or other electronic communication (“remotely”) with the approval of the Chair when the member’s attendance is not reasonably practical, the reason for absence is stated in the minutes, the remote member states where they are physically located, and who is present in that location with them. Any member participating remotely may vote but shall not count toward quorum. When any voting member is participating remotely, all votes must be taken by roll call. The Presiding Officer shall be physically present at the meeting location specified in the meeting notice.
6. **Elections:** At the first meeting of the new calendar year the Conservation Commission shall elect, by simple majority, a Chair and a Vice Chair.
7. **Presiding Officer:**
 - A. The Chair of the Conservation Commission shall preside over the meeting and call the members to order.
 - B. In case of absence of the presiding officer, if a quorum is found to be present, the Commission shall proceed with the Vice Chair acting as the presiding officer.
 - C. In the event of absence of the Chair and Vice Chair, if a quorum is found to be present, the Commission shall proceed to elect a Commission member, by majority vote of those present, as Chair of the meeting until the presiding officer appears.
8. **Right of Floor:** The Chair shall control the meeting. When recognized by the Chair, a

member of the Commission or general public shall respectfully address the members of the Commission and shall confine themselves to the question under debate, avoid personal comments, and refrain from impugning the motives of any other member's argument or vote. Individuals attending meetings to present to the Committee may participate remotely with prior approval from the Chair. The Chair shall act on all proper motions for which there is a second. A motion to call the question shall require two-thirds (2/3) vote and is not debatable.

9. **Order of Business:** The business of all regular meetings shall be transacted in the following order:
 - A. Call to order.
 - B. Roll call of attendance.
 - C. Acceptance of minutes of preceding meeting.
 - D. Commission business on meeting agenda.
 - E. New Business
 - F. Adjournment

The presiding officer may permit any item of business to be taken up out of the regular order as set by the agenda unless there is an objection by a Commission member in which case a majority of the Commission may vote to take the item out of order.

10. **Meeting Agenda:** The meeting agenda shall be prepared by the Staff Liaison on consultation with the Chair, or in the absence of a Staff Liaison, by the Chair. Items to be placed on the meeting agenda must be received a minimum of five (5) business days prior to the scheduled meeting. No subject matter that is not on the agenda shall be discussed at the meeting but shall be referenced under New Business and shall be placed on the agenda for discussion at the next regular meeting.
11. **Communication:** Communications to be introduced to the Commission must be signed by the person introducing the same and must give his or her residential address, mailing address, if different, at which he or she can be reached to be notified of meetings, and telephone number, if available. Communications not containing all of the above will not be accepted by the Staff Liaison and will not be placed on the agenda of the Commission. Communications addressed to a Commission member of a personal or argumentative nature shall not be introduced in the Commission. Any email communication directly to a member of the Commission relating to a matter before the Commission must be provided to the Staff Liaison, or to the Chair, for compliance with this paragraph and for inclusion in the record.
12. **Reports to City Council:** When required, the Conservation Commission shall issue a Majority Report as Informational or as a Recommendation to the City Council based on the findings of the Commission. A simple majority shall constitute a majority.
13. **Tie Vote:** In the case of a tie vote on any motion or recommendation, said motion or recommendation shall be deemed defeated.
14. **Reconsideration:** After the decision of any question, any member who voted with the

prevailing side may move for reconsideration for that action at the next regular meeting of the Commission. For the purposes of this Rule, the next regular meeting of the Commission shall be the next regularly scheduled meeting of the Conservation Commission which is at least ten days after the meeting of the Commission at which the decision to be reconsidered occurred. The Commission member shall submit a written notice and the question shall be placed on the agenda in accordance with these rules. A motion to reconsider shall require a majority vote of the Commission members present. After a motion for reconsideration has been acted on, no other motion for reconsideration thereof shall be made. If the original vote is sustained at the next regular meeting as defined here, the Commission shall have no further right of reconsideration on the question.

15. **Creation of Subcommittees:** The Commission may create subcommittees as necessary to assist in its operations, which shall be advisory to the Commission. Subcommittees shall be created by vote of the Commission for a stated purpose, identifying the specific Commission members appointed, with the purpose and membership included in the minutes of the Commission. Non-Commission members shall not be appointed to subcommittees; however, non-commission members may participate in subcommittee discussions at the discretion of the subcommittee chair. Subcommittees are public bodies under RSA 91-A and are subject to all the requirements applicable to the Commission under these Rules of Procedure.

16. **Conflict of Interest:**

- A. Every member present when a question is placed before the Commission shall vote thereon, except when the member has a conflict of interest in the matter as defined by Article VI, Conflict of Interest and Section 25, Communications, of the Charter of the City of Keene.
- B. A conflict may exist when a member of a Commission member's immediate family has a conflict. A conflict exists when a business or individual has a matter before the Commission and the Commission member is employed by the business, or is otherwise a party in interest.
- C. If the conflict becomes known prior to a Commission meeting, the Commission member shall notify the Staff Liaison and provide the written particulars of the conflict of interest. If the conflict becomes known to the Commission member during a meeting, the Commission member should immediately disclose the particulars of the conflict of interest. The question of whether or not a conflict exists will then be decided by a majority vote of Commission members present. The Commission member claimed to have the conflict shall not vote.
- D. When such a conflict exists, the member having the conflict shall be recused and shall be prohibited from participating in the discussion and shall not vote on the matter. No Commission member having a conflict of interest may discuss the issue in which they have a conflict with any other Commission member in any other place or any other time.
- E. Any Commission member having reasonable grounds to believe that another member has a conflict of interest may raise the issue on their own motion.

The question will then be decided as set forth above.

17. **Non-Public Session:** The Commission shall not enter a non-public session without the presence of City Staff at the meeting. In the event of a requirement to enter into non-public session, the Commission may, by roll-call, vote to go into non-public session. All persons who are not Commission members shall leave the meeting, unless specifically requested to remain. No action or decision with respect to the matter shall be taken in non-public session. Minutes of the non-public sessions shall be taken and shall be publicly disclosed within seventy-two hours unless, by recorded vote of two-thirds of the members present, the minutes are sealed in accordance with RSA 91-A:3. The minutes of any non-public meeting shall be designated as such and shall be filed with the City Clerk no more than seventy-two hours after the meeting.
18. **To Amend Rules:** These Rules may be amended or new rules adopted by a two-thirds vote of all members appointed. The public meeting notice shall state that a proposal to amend the Rules is included on the meeting agenda. Proposed amendments shall be submitted in writing at a regular Commission meeting, but shall not be acted upon until the next regular meeting of the Commission. Changes shall become effective upon passage.
19. **Rules of Order:** "Roberts Rules of Order" shall govern points of order not covered herein.

Adopted by the Conservation Commission of the City of Keene this _____ day of April 2026.

Gary Flaherty, Chair

City of Keene
NEW HAMPSHIRE

CONSERVATION COMMISSION

Conservation Commission Rules of Order Procedure

1. **Meetings:** All meetings described in this section shall be considered a public meeting subject to the provisions of RSA 91-A. All meetings must be open to, and accessible by, the public. Meeting times and locations shall be posted at least 24 hours before the time of the meeting in two public places, one of which may include the City's website.
 - A. Regular Meetings: Regular meetings shall be held at least once a month unless there are no items of business to discuss. Regular Meeting times and dates shall be determined by members of the Commission. All meetings are open to the public and meeting times will be posted at least 24 hours before the time of the meeting.
 - B. Special Meetings: Special meetings may be held at the discretion of the Chair, or in their absence, the Vice Chair to address matters that require a timely response. Discussion at a special meeting shall be restricted to the item(s) listed on the agenda for that meeting.
 - C. Workshop Sessions: Workshop sessions may be held at the discretion of the Chair to allow in-depth discussions and evaluations of specified topics.
 - D. Site Visits: Site visits may be scheduled periodically at the discretion of the Chair. Site visits may be scheduled when, in the Chair's discretion, it is warranted to gather relevant information related to an application before the Commission.
2. **Public Hearings:**
 - A. The Conservation Commission shall hold a public hearing with notice, and obtain City Council approval, prior to using money from the conservation land acquisition fund to acquire any interest in real property.
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 - C. Notification of public hearings shall be posted in accordance with RSA 675:7.
3. **Minutes:** Minutes of all meetings shall be kept and shall include: the name of the Commission; the date, time, and location of the meeting; the members present or absent; motions or other actions taken including who made the motion and who seconded, who recused and the reason for recusal, and whether the action passed or failed; the names of persons appearing before the Commission; the subject matter discussed; the time the meeting adjourned; and the name of the minute taker. If there

is no minute taker specifically assigned to the Commission, the Chair shall designate an appropriate individual for this purpose.

Within 5 days of the close of the meeting, the minute taker shall submit the draft minutes to the Staff Liaison. The Staff Liaison shall review the draft minutes and may make such corrections as are necessary to ensure that information required to be included in the minutes of such meetings is accurate. Examples of appropriate corrections include spelling of names, grammar, citations, and technical jargon. In no case shall a correction alter what was said or discussed at the meeting, or the result of any action taken. All corrections shall be made with "track changes" or a similar feature turned on. Once approved, meeting minutes shall be immediately filed with the City Clerk.

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A quorum of the Commission shall always be physically present at the location specified in the public notice, and no Commission business shall be conducted through email or other electronic communication that does not allow the public to hear, read or otherwise discern the meeting discussion. The majority of the Conservation Commission members

~~appointed shall constitute a quorum.~~

5. **Remote Participation:** A member may participate by telephone or other electronic communication ("remotely") with the approval of the Chair when the member's attendance is not reasonably practical, the reason for absence is stated in the minutes, the remote member states where they are physically located, and who is present in that location with them. Any member participating remotely may vote but shall not count toward quorum. When any voting member is participating remotely, all votes must be taken by roll call. The Presiding Officer shall be physically present at the meeting location specified in the meeting notice.

~~Section 2: Elections:~~ At the first meeting of the new calendar year the

6. Conservation Commission shall elect, by simple majority, a Chair~~person~~ and a Vice Chair~~person~~.

7. **Section 4: Presiding Officer:**

- a. The Chair of the Conservation Commission shall preside over the meeting and

call the members to order. ~~The presiding officer shall vote on Conservation Commission matters unless otherwise disqualified pursuant to Section 15 of these Rules of Order.~~

A.

~~b. Section 5: Vice Chair~~ In case of absence of the presiding officer, if a quorum is found to be present, the Commission shall proceed with the Vice Chair acting as the presiding officer. ~~The Vice Chair, unless acting as presiding officer, shall vote on Conservation Commission matters.~~

B.

~~C. Section 6: Temporary Chair~~ In the event of absence of the Chair ~~person~~ and Vice Chair ~~person absence~~, if a quorum is found to be present, the Commission shall proceed to elect a Commission member, by majority vote of those present, as Chair of the meeting until the presiding officer appears.

8. Section 7: Right of Floor: ~~The Chair shall control the meeting.~~ When recognized by the Chair, a member of the Commission or general public shall respectfully address the members of the Commission and shall confine themselves to the question under debate, avoid personal comments, and refrain from impugning the motives of any other member's argument or vote. Individuals attending meetings to present to the Committee may participate remotely with prior approval from the Chair. The Chair shall act on all proper motions for which there is a second. A motion to call the question shall require two-thirds (2/3) vote and is not debatable.

9. Section 8: Order of Business: The business of all regular meetings shall be transacted in the following order:

~~A.~~ Call to order.

A.

~~B.~~ Roll call of attendance.

B.

~~C.~~ Acceptance of minutes of preceding meeting.

C.

~~D.~~ Commission business on meeting agenda.

D.

E. New Business

F. Adjournment

~~4. The presiding office may permit any item of business to be taken up out of the regular order as set by the agenda unless there is an objection by a Commission member in which case a majority of the Commission may vote to take the item out of order.~~

10. Section 9: Meeting Agenda: The meeting agenda shall be prepared by the Staff Liaison on consultation with the Chair, or in the absence of a Staff Liaison, by the Chair. Items to be placed on the meeting agenda must be received a minimum of five (5) business days prior to the scheduled meeting. No subject matter that is not on the agenda shall be discussed at the meeting but shall be referenced under New Business and shall be placed on the agenda for discussion at the next regular meeting.

11. ~~Section 10: Communication:~~ Communications to be introduced to the Commission must be signed by the person introducing the same and must give his or her residential address, mailing address, if different, at which he or she can be reached to be notified of meetings, ~~ete~~and telephone number, if available. Communications not containing all of the above will not be accepted by the Staff Liaison and will not be placed on the agenda of the Commission. Communications addressed to a Commission member of a personal or argumentative nature shall not be introduced in the Commission. Any email communication directly to a member of the Commission relating to a matter before the Commission must be provided to the Staff Liaison, or to the Chair, for compliance with this paragraph and for inclusion in the record.

~~Section 11: Order of business-Out of Order The presiding officer may permit any item of business to be taken up out of the regular order as set by the agenda unless there is an objection by a Commission member in which case a majority of the Commission may vote to take the item out of order.~~

12. ~~Section 12: Conservation Commission Reports to City Council:~~ When required, the Conservation Commission shall issue a Majority Report as Informational or as a Recommendation to the City Council based on the findings of the Commission. A simple majority shall constitute a majority.

13. ~~Section 13: Tie Vote:~~ In the case of a tie vote on any motion or recommendation, said motion or recommendation shall be deemed defeated.

14. ~~Section 14: Reconsideration:~~ After the decision of any question, any member who voted with the prevailing side may move for reconsideration for that action at the next regular meeting of the Commission. For the purposes of this Rule, the next regular meeting of the Commission shall be the next regularly scheduled meeting of the Conservation Commission which is at least ten ~~(10)~~ days after the meeting of the Commission at which the decision to be reconsidered occurred. The Commission member shall submit a written notice and the question shall be placed on the agenda in accordance with these rules. A motion to reconsider shall require a majority vote of the Commission members present. After a motion for reconsideration has ~~one~~ been acted on, no other motion for reconsideration thereof shall be made. If the original vote is sustained at the next regular meeting as defined here, the Commission shall have no further right of reconsideration on the question.

15. Creation of Subcommittees: The Commission may create subcommittees as necessary to assist in its operations, which shall be advisory to the Commission. Subcommittees shall be created by vote of the Commission for a stated purpose, identifying the specific Commission members appointed, with the purpose and membership included in the minutes of the Commission. Non-Commission members shall not be appointed to subcommittees; however, non-commission members may participate in subcommittee discussions at the discretion of the subcommittee chair. Subcommittees are public bodies under RSA 91-A and are subject to all the requirements applicable to the Commission under these Rules of Procedure.

~~Section 17: Suspension of Rules~~ Any provision of these rules not governed by the Charter, Statute, Or Ordinance, may be temporarily suspended at any meeting of the Commission, by a two-thirds (2/3) vote of all members present. The vote on any such suspension shall be taken by roll call and entered upon the records.

18. ~~Section 18: To Amend Rules:~~ These Rules may be amended or new rules adopted by a two-thirds (2/3) vote of all members appointed. The public meeting notice shall state that a proposal to amend the Rules is included on the meeting agenda. Proposed amendments shall be submitted in writing at a regular Commission meeting, but shall not be acted upon until the next regular meeting of the Commission. Any such alterations or amendments shall be submitted in writing at the preceding regular meeting and shall be referred to a sub-committee to be appointed by the Chair. This requirement shall be waived only by unanimous consent, with a recorded vote of all members appointed. Changes shall become effective upon passage.

19. ~~Section 19: Rules of Order:~~ "Roberts Rules of Order" shall govern points of order not covered herein.

Adopted by the Conservation Commission of the City of Keene this _____ day of April 2026.

Gary Flaherty, Chair

INVOICE

New Hampshire Association of
Conservation Commissions
54 Portsmouth St
Concord, NH 03301

admin@nhacc.org
+1 (603) 224-7867
www.nhacc.org



Bill to
Keene Conservation Commission
3 Washington St
Keene, NH 03431-3124

Invoice details

Invoice no.: 3467
Invoice date: 10/10/2025
Due date: 03/31/2026

#	Date	Product or service	Description	Qty	Rate	Amount
1.		2026 Membership Dues	NHACC Membership	1	\$950.00	\$950.00

Total **\$950.00**

Note to customer

Thank you for your loyal membership. We look forward to working with you in 2026.



March 2, 2026

Bretwood Golf Course
c/o Tom Barrett
365 East Surry Road
Keene, NH 03431

Sent via certified mail and first-class mail

Mr. Barrett:

The Keene Conservation Commission is writing to express concerns about proposed pesticide use at Bretwood Golf Course and to request that you consider safer alternatives. Bretwood Golf Course is a treasured recreational asset in Keene, and we believe that it is possible to both protect the river and achieve healthy turf for the continued success of your business.

The stretch of the Ashuelot River adjacent to the golf course provides unique habitat for freshwater mussels, including the endangered dwarf wedgemussel. Unlike other sections of the river immediately to the north and south, this reach contains stable gravel and coarse sand—conditions that support mussel survival and reproduction. In a long-term field study conducted at Keene State College, this was the only area where significant numbers of freshwater mussels were observed. Because of this rare habitat, the area warrants special protection.

In addition, the golf course sits over a stratified drift aquifer that supplies Keene's drinking water. City staff have already reported low-level pesticide detections in monitoring wells between the golf course and the Court Street supply wells. This raises concern about potential impacts to public drinking water.

Rather than using chemical pesticides, we recommend adopting Integrated Pest Management (IPM) and organic turf management practices, which reduce or eliminate reliance on chemical pesticides while maintaining course quality. The Vineyard Golf Course provides a successful example of this approach. We have included several resources as links or attachments to this letter that may be helpful for this purpose.

Please do not hesitate to reach out to me or the Conservation Commission with any follow-up questions. We look forward to working with you to ensure the continued success of Bretwood Golf Course while protecting Keene's river habitat and drinking water resources.

Sincerely,

Gary Flaherty, Chair
Keene Conservation Commission

Copy:

- Mari Brunner, Senior Planner, City of Keene Community Development Department
- Don Lussier, City of Keene Public Works Director

Resources:

1. Fact Sheet. "Lawn Care within the Protected Shoreland." New Hampshire Department of Environmental Services. Attached.
2. Fact Sheet. "New Hampshire's Turf Fertilizer Law - What You Should Know." UNH Cooperative Extension. Attached.
3. Document. "Organic Insect Management at the Vineyard Golf Club," by Jeff Carlson, CGCS. Attached.
4. Book. *Landscaping at the Water's Edge: An Ecological Approach*. University of New Hampshire Cooperative Extension. (See Chapter 6: Environmentally Friendly Lawn Care). Available online at <https://extension.unh.edu>
5. Article. "The Vineyard Golf Club: A new sheriff in town." Golf Course Superintendents Association of America, January 2018. Available online at <https://www.gcmonline.com/course/environment/news/vineyard-golf-club>

ENVIRONMENTAL Fact Sheet



29 Hazen Drive, Concord, New Hampshire 03301 • (603) 271-3503 • www.des.nh.gov

SP-2

2026

Lawn Care within the Protected Shoreland

How you care for your lawn impacts the ecosystem in and around your waterbody. This fact sheet describes the restrictions on lawn care and fertilizer imposed by the Shoreland Water Quality Protection Act (SWQPA). It also includes many tips on how to maintain a healthy and yet low-impact, and low-maintenance, lawn.

Expanding the size of existing lawns

Stormwater runoff is water from rain or melting snow that does not soak into the ground. Plants help remove the oils, salt, heavy metals, fertilizers, and other contaminants from stormwater runoff before they enter our lakes and rivers. Native plants slow down, absorb and purify much more stormwater than plants with shallow roots typically found in lawns. The SWQPA restricts the removal of native plants in proximity to the water in order to preserve this natural benefit. This restriction includes the conversion of native vegetation into lawn, especially within 50 feet of the shoreline.

Within 50 feet of the reference line of public waterbodies, vegetation composed of trees, shrubs or native ground cover may not be converted to lawn. Between 50 and 150 feet from the reference line, at least 25% of the area must be managed as "natural woodland," where all existing native ground cover, shrubs and trees are allowed to grow. Before expanding existing lawns or creating new lawns, ensure that you meet these requirements. Consult the "Vegetation Management for Water Quality" fact sheet for more information.

Fertilizers and the shoreland water quality protection act

Phosphorus and nitrogen are used in fertilizers because they promote plant growth. Unfortunately, when these nutrients leach into waterbodies, they continue to promote growth and may trigger algal blooms (Figure 1). In turn, algal blooms **have a negative impact to water quality by reducing water clarity, reducing water oxygen levels, and ultimately threatening the survival of fish and other aquatic life.** The proper use and application of a fertilizer is therefore extremely important.

The SWQPA prohibits the use of fertilizers within 25 feet of the reference line of public waters. This includes organic products.

Between 25 and 250 feet from the reference line, ***only slow or controlled release fertilizer may be used.*** Slow or controlled release fertilizer means fertilizer that is guaranteed, as indicated on the package label, to contain:

- At most 2% phosphorous.
- A nitrogen component which contains at least 50% slow release nitrogen.

No Chemicals, including organic pesticides, can be applied within 50 feet of the reference line, except by a professional licensed for pesticide application by the State of New Hampshire.



Figure 1 - Phosphate and nitrogen leaching into waterbodies trigger algal bloom.

Proper lawn care within the protected shoreland

Landowners can take several measures to reduce the impacts of their lawn care on the environment:

- **Grass Variety:** Choose grass varieties well-adapted for your area. Contact the [University of New Hampshire \(UNH\) Cooperative Extension](#) or another horticultural professional for recommendations.
- **Water:** Grass does need water, but improper watering can cause problems for lawns, such as diseases and shallow roots. Moreover, lawns with shallower roots are more susceptible to drought and erosion. Overwatering may also lead to nutrients leaching into waterbodies. A healthy lawn typically requires one good soaking of up to an inch of water per week.
- **Fertilizer:** Quick release fertilizers and pesticides can produce a green lawn in a short time. However, they may also disturb the natural chemical and biological balance of your lawn. The SWQPA only allows for the use of slow release, low phosphate fertilizer within the protected shoreland. Fertilizer may be applied no closer than 25 feet from the reference line. A single application of slow release, low phosphate **fertilizer** at the beginning of fall is adequate in most cases. To help protect the environment and reduce fertilization costs, it is recommended to have your soil tested to determine if fertilization is necessary for your lawn. You can have your soil tested by UNH labs or at several local garden centers.
- **Soil aeration:** Soil can naturally contain clay or be packed down. In these circumstances it is difficult for water and air to penetrate the soil. The best method for aerating your soil is to use a machine that removes small cylindrical cores of soil from the lawn, allowing it to receive proper amounts of water and nutrients.
- **Mowing:** Leaving grass three inches or higher will encourage deeper roots and reduce fertilizer needs. Deeper roots enable the grass to tap into large volumes of nutrients and moisture. Longer grass will also shade and discourage weeds and helps a lawn survive heat and drought. Never cut more than one third of the height of the grass. If after mowing, the tips of grass blades are jagged or uneven, the lawn mower blades are dull and should be sharpened. Well sharpened blades reduce the fuel used by a mower.
- **Grass clippings:** Mulch your grass as you mow your lawn. This is the best and most efficient way to fertilize your lawn as it naturally adds nutrients like nitrogen and potassium. Moreover, it will cut your mowing time by an average of 38% and will reduce the amount of solid waste in landfills. Thatch is a layer of undecomposed stems

and roots that accumulates near the soil surface. Grass clippings on lawn that is not overwatered or over fertilized typically does not contribute to thatch accumulation.

- *Surround with trees:* A shaded lawn requires less watering because grass is shielded from the sun's heat and will resist drying during the summer. Keeping a healthy, well distributed stand of trees will therefore benefit your lawn and the environment. Grass seed mixes are available that are tolerant of lower light conditions.
- *Consider alternatives:* Use native ground cover, like Partridge-berry (*Mitchella repens*), as an alternative to grass. Ground cover can be hardier than grass, usually has a longer root system, and often stays healthier without the use of fertilizers.

For more information

For more information, please visit www.des.nh.gov. You may also contact the Wetlands Bureau by phone at [\(603\) 271-2147](tel:6032712147), via email at shoreland@des.nh.gov, or by mail at 29 Hazen Drive; P.O. Box 95 Concord, NH 03302-0095.



New Hampshire's Turf Fertilizer Law - What You Should Know

Introduction

Nitrogen and phosphorus are nutrients essential for the growth of plants. However, an overabundance of these nutrients can cause pollution in waterways. In New Hampshire, more than half of the nitrogen pollution to Great Bay can be traced back to urban and suburban nonpoint source pollution, including fertilizer runoff. Nonpoint source (NPS) pollution, unlike pollution from industrial and sewage treatment plants, comes from many different sources. NPS pollution is caused by rainfall or snowmelt moving over and through the ground. As the runoff moves, it picks up and transports natural and human-made pollutants, finally depositing them into lakes, rivers, wetlands, coastal waters and ground waters.

Once in our waterways, fertilizers designed to make our lawns lush and green may cause harmful algae blooms and degrade aquatic ecosystems. As algae grow and then decompose, they block sunlight from reaching aquatic plants, rob the water of oxygen, and threaten underwater life. Algae blooms also reduce water clarity which can lead to fewer opportunities for fishing and swimming.

When fertilizers, either synthetic or organic, are applied in the proper amounts at appropriate times during the growing season, lawns will thrive and the risk of fertilizer nutrients entering our waterways will be reduced. Because of concerns over lawn fertilizer runoff, the New Hampshire legislature passed a bill in 2013 regulating the use of nitrogen and phosphorus in turf fertilizers that are sold at retail.¹ The goal is to help homeowners maintain healthy lawns without applying unnecessary fertilizer. Golf courses, parks, athletic fields and sod farms are exempt from the restrictions.

All fertilizers sold in New Hampshire are labeled with a guaranteed analysis consisting of three numbers such as 22-0-3. These numbers stand for the percent, on a dry weight basis, of nitrogen, phosphorus (as phosphate), and potassium (as potash) contained in that fertilizer. These three nutrients are not available in sufficient quantities in many existing soils so we add them to the soil in the form of fertilizer. Nitrogen is associated with leafy green growth,

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Nitrogen Summary¹

When applied according to the label, no turf fertilizer sold at retail shall

- exceed 0.7 pounds per 1,000 square feet of *soluble* nitrogen per application
- exceed 0.9 pounds per 1,000 square feet of *total* nitrogen per application
- exceed an annual application of 3.25 pounds per 1,000 square feet of total nitrogen

phosphorus is essential for root growth, and potassium helps regulate water movement within the plant as well as increasing the grass plant's ability to withstand stress.

Did You Know?

Most NH soils provide all the phosphorus that a home lawn needs. Phosphorus fertilizers should be used only on newly established or repaired lawns, or on lawns testing deficient in phosphorus. Annual applications may not exceed a rate of 1 pound per 1,000 square feet of available phosphate.

Nitrogen Applications

The amount of nitrogen a lawn needs can depend on many factors. The age of the lawn, its intended use, grass species, soil properties, and local conditions can all affect your nitrogen needs. If an unfertilized lawn has been acceptable, then there may be no need to fertilize. Many lawns however, need at least a yearly application of nitrogen because few soils can supply enough nitrogen throughout the growing season to produce a healthy, dense lawn capable of resisting weed invasion. To reduce the amount of nitrogen fertilizer needed, return clippings from mowing to the lawn. If clippings from mowing are returned to the lawn, the amount of nitrogen fertilizer needed can be reduced by 50%.² This means that only half of the amount recommended on the fertilizer bag need be applied. New lawns or lawns less than ten years old may need the full amount of recommended nitrogen.

New Hampshire State Statute¹ (RSA: 431) as modified in 2013 states that no turf (lawn) fertilizer sold at retail shall exceed 0.9 pounds per 1,000 square feet of total nitrogen per application when applied according to the instructions on the label. Furthermore, no turf fertilizers sold at retail shall exceed 0.7 pounds per 1,000 square feet of soluble nitrogen per application when applied according to the label. This new law applies to synthetic (manufactured) fertilizers, natural inorganic fertilizers (from a mineral nutrient source), and natural organic fertilizers (derived from either plant or animal products).



The guaranteed analysis of a lawn fertilizer is listed on the product label. Nitrogen sources and their solubility are listed individually. Water-soluble nitrogen (WSN) is quickly and readily available to the plant. Slow-release nitrogen (SRN) sources become available to the plant over a period of approximately 8 to 12 weeks. Slow release nitrogen sources include water-insoluble nitrogen (WIN) and various engineered sources of nitrogen called controlled release nitrogen (CRN). Most turf fertilizers are manufactured with a combination of WSN and SRN so that a percentage of the nitrogen is readily available to the plant and the rest is available slowly over time. A minimum of twenty percent of the nitrogen should be in slow-release form, but some experts suggest fifty percent or even more be provided in slow-release form.³

The law also states that no turf fertilizer sold at retail shall exceed an annual application rate of 3.25 pounds per 1,000 square feet of total nitrogen when applied according to the instructions on the label. Look on the bag for the amount of fertilizer recommended for the area of your lawn. When purchasing fertilizer, try to buy only enough fertilizer for the size of your lawn.⁴

You also need to know about additional local and state laws related to fertilizer application. For example, under the Shoreland Water Quality Protection Act⁵, it is illegal to apply any fertilizer within 25 feet of the reference or high water line of many water bodies in New Hampshire. Only lime can be applied within 25 feet of the reference line. Beyond 25 feet but within 50 feet, only low phosphorus and slow release nitrogen (SRN) fertilizers may be used. Also check local ordinances as some cities and towns have additional restrictions.

Phosphorus Applications

Established lawns do not have a high phosphorus requirement; simply leaving grass clippings on the lawn will often supply sufficient phosphorus. Most lawn fertilizers for sale now contain little or no phosphorus because phosphorus run-off into New Hampshire's lakes, streams and ponds has had a negative impact on water quality. Phosphorus concentration is naturally low in our waterways, and even the addition of small amounts can stimulate the growth of algae and undesirable aquatic plants. Phosphorus contamination in fresh waters results in lakes and ponds that are unsuitable for swimming, fishing and other recreational activities.

New Hampshire law (RSA:431) states that no fertilizer sold at retail that is intended for use on turf (lawn) shall exceed a content level of 0.67% available phosphate unless specifically labeled for establishing new lawns, for repairing a lawn, for seeding, or for use when a soil test indicates a phosphorus deficiency. In addition, no fertilizer sold at retail that is intended for use on newly established or repaired lawns, or for lawns testing deficient in phosphorus shall exceed an application rate of 1 pound per 1,000 square feet annually of available phosphate.

For those who want to maintain a lawn using natural organic lawn fertilizers there are several blended organic fertilizers available that do not contain phosphorus. When using organic lawn fertilizers you need to be vigilant, because it is easy to over-apply phosphorus. Many organic turf fertilizers tend to contain lower nitrogen concentrations than synthetics. This means that the total fertilizer amount needed to meet the nitrogen requirement can result in over-application of phosphorus. Get a soil test to determine what is needed in these situations. All lawn fertilizers registered and sold at retail for use in New Hampshire have product labels that are reviewed by the New Hampshire Department of Agriculture, Markets, and Food for compliance with the law.

The amounts of nitrogen and phosphorus in retail turf fertilizers under the new law are the suggested maximum amounts to maintain healthy lawns while considering water quality impacts from fertilizer run-off. As stated above, lower amounts or even no lawn fertilizer may be needed, depending on the individual situation.

Soil Testing

Get a soil test before seeding a new lawn and at least once every three years following establishment. The University of New Hampshire Cooperative Extension provides soil analysis and nutrient recommendations for home lawns that are in compliance with the new law. You can submit a soil sample for analysis by downloading the Home Grounds and Garden or the Commercial Landscape soil test forms and following the directions.⁶ The UNHCE soil test will measure the soil pH (acidity), as well as phosphorus, potassium, calcium, magnesium and lead levels in order to provide you with the best fertilizer and lime recommendations for your soil.

UNHCE does not test for nitrogen. Nitrogen can be very mobile in the soil environment, making the use of

a soil test impractical as a basis for application due to the lag time between sample collection and test result delivery. Nitrogen recommendations are based on turfgrass needs and the client's desired maintenance level.

Timing fertilizer applications properly can help reduce the potential for fertilizer runoff. Don't apply turf fertilizer if heavy rains (1 inch or more in 24 hours) or thunderstorms are predicted, especially if the lawn is on a slope. The late August/early September (approximately Labor Day) fertilization period is the most important for cool season grasses. Fall lawn fertilizer applications should be complete before September 15 in northern New Hampshire and by October 1 in southern New Hampshire.

Unused lawn fertilizer should be returned to its original container and stored in a safe place for future application. Weighing the bag and recording the weight prior to storage will aid in determining how much area the remaining fertilizer will cover. Applying the right fertilizer at the right rate at the right time in the right place will help preserve the health of our waterways for future generations.

References

- ¹ [NH Fertilizer Law](#), RSA 431, 2013.
- ² Rutgers Cooperative Research Extension Fact Sheet 633, [Fertilizing the Home Lawn](#), 2003.
- ³ New England Interstate Water Pollution Control Commission (NEIWPCC): [Regional Clean Water Guidelines for Fertilization of Urban Turf](#). Final Report to the New England and New York State Environmental Agency Commissioners, 2014.
- ⁴ UNH Cooperative Extension Fact Sheet, [Calculating Lawn Fertilizer Rates](#), 2018.
- ⁵ [Shoreland Water Quality Protection Act](#), RSA 483-B, 2008.
- ⁶ [UNH Extension Soil Testing Services](#), 2018.

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ORGANIC INSECT MANAGEMENT AT THE VINEYARD GOLF CLUB



Jeff Carlson, CGCS
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The Vineyard Golf Club, a private 18-hole Donald Steel designed course, opened for play during May 2002. The golf course's construction on Martha's Vineyard was subject to agreements and conditions required primarily by The

Martha's Vineyard Commission, an authority established by the state to protect the land and waters on the island. The course's developers also worked with the Sheriff's Meadow Foundation to obtain additional approvals for the golf club focusing on the agreements to protect the environment.

One of the conditions of approval for the course was that it be managed organically, which was defined as "... derived from plant materials or biological organisms or mined from natural deposits". While it is important to keep in mind that the course was required to use organic maintenance practices, the club's members have enthusiastically embraced the organic mandate even through times when playing conditions are not visually perfect.

Communication between the golf course superintendent and the membership is critical at an organic golf course, because golfers' expectations seem to include a preference for "Augusta-like" or visually appealing playing conditions; regardless of the course's budget, location or environmental restrictions. Communications with members at the Vineyard Golf Club include:

- publishing an article from the maintenance department within every club newsletter that includes project updates and conditions on the course
- playing golf with members throughout the season
- hosting an annual "open meeting" at the club during August
- initiating impromptu visits with members on the course
- encouraging feedback at all times
- seeking out members who may have voiced concerns about the course

These communication efforts are very important when dealing with pests, any corresponding turfgrass damage, and the specific organic maintenance practices we use on the golf course. Specifically, during the fourth and fifth years of operation, the maintenance department has dealt with grubs and predators that feed upon the grubs, including crows and skunks.

We first noticed grub damage during the fall of 2004 and we contacted the Entomology Department at the University of Massachusetts (UMASS) for assistance. We continued our only organic treatment using *bacillus popilliae* (Milky Spore) and repaired the damaged areas every morning before play.

This organic treatment was a time consuming task that started in late August, occurred weekly until the middle of October, and accounted for more than 120 man-hours per week. This work made a difference to our players and minimized their concerns. A smooth, tamped out and seeded portion of a tee, collar or fairway does not affect play and greatly reduces the visual shock of predator damage. If damage was excessive and in a high profile area (ex. #1 white tee), we would sod the area immediately. The grubs rarely went after the new sod probably because they (the grubs) were feeding below the sod's root system.

During the peak of disease damage, grubs had attacked significant portions of tees, fairways and roughs. In an effort to quantify the extent of the damage, we measured the total areas of damage and compared that to the total unaffected areas of the tees, fairways or rough. We found that less than 1% of the managed turf areas were damaged and yet it was clear that the overall turfgrass "look" was unacceptable.



Each year during the height of grub damage, we have had little or no damage to any of our greens. In some cases the damage would occur up to the edge of the green. We think this phenomenon may be related to the construction of the greens. Each green is lined with a plastic liner that is located between the greens mix and the sub soil. During the winter of 2003, we had a severe cold spell, freezing the ground to a depth of 2-feet in the open areas. The severity of the

frost was confirmed by the extensive irrigation breaks we had to repair the following spring. Since the total greens mix and stone above the liners totals 18-inches, it is conceivable that the grubs simply froze to death during this winter event. Liners might

provide interesting control in areas of the country where the frost routinely goes to 2-feet or deeper.



Keeping the members informed of these pest issues and our “organic” approach helped to establish a better understanding of the situation. Their level of understanding and support was demonstrated when the “grub” foraging predators appeared on the course. Immediately members came forward and suggested the club hire a retired “local fisherman” who specialized

in skunk removal at their summer homes.

Walter, the fisherman, arrived the next day and for the past three years has removed skunks, crows and raccoons from the course. He set dozens of traps baited with white bread that had barbeque sauce slathered on, cheese crackers, or unshelled peanuts. He displayed dead crow decoys in an effort to discourage their return. The members were now participants in the management program; waving me down to call attention to trapped skunks, point out new areas for Walter set traps, or to regale me with the latest tales of their own backyard battles with skunks.

Mother Nature also got involved during the time of peak beetle activity with the arrival of a dozen or more seagulls that camped out on the fairways and devoured adult beetles by the hour. They (the seagulls) disappeared as suddenly as they appeared when the Beetles began burrowing underground.

In addition to trapping the predators and using scare tactics, a more scientific approach was required to attack the food source for these predators, the Oriental Beetle Grub. As soon as we identified the grub and isolated the infected areas, we initiated the nematode research and mating disruption programs on the course with Pat Vittum Ph.D. from UMASS to identify the best system of organic control. We kept the membership informed of our plan.

The beetle mating disruption program was implemented by Pat Vittum, Ph.D., who worked with Albrecht Koppenhofer, Ph.D. from Rutgers University on the project. In our geographic area, the beetles’ mating cycle occurs during the summer beginning just after the 4th of July and continuing for two weeks through the third week in July. During year one, pheromone traps were scattered throughout the course to determine areas of intense grub activity. Our staff would empty the traps and then count, bag, date and freeze the captured beetles. After the areas of intense activity were located; a special

scent was placed in the traps and they were positioned within one acre square plots. Again beetle activity was monitored in the traps by counting the samples.

Mating disruption scents are placed throughout the course in pheromone traps to confuse the male beetles so that everything including plants, twigs, and grass appear as female beetles. The hope is that these exhausted males will not successfully mate. This research is on-going and the results will be reported through UMASS and Rutgers. Our staff was very involved in this research, taking samples from the traps and counting beetles by the hundreds.



In addition to the beetle mating disruption research, we chose a nematode (Hb2) and treated all 69 acres of managed turf during the summer 2007. It is difficult to obtain enough nematodes to treat large turf areas for two reasons:

- The law of supply and demand; because of the availability of effective insecticides there is very little demand for beneficial

nematodes. Therefore, there is limited nematode production, especially in the quantities that golf courses demand.

- The second reason is the difficulty of transporting “live” products.

It appears that the researchers are ahead of the manufacturers at this time, but hopefully that will change soon because, as well as the nematode Hb2, there is a bacteria named “buibui” that has done very well at eliminating Oriental Beetle.

Nematode applications are similar to synthetic insecticide applications in that it is important to understand the life cycle of the target and equally important to thoroughly water in at the proper time. Nematodes are live organisms that require refrigeration and have a storage limit of 30 days. We lost one shipment of nematodes that sat on a terminal in the August sun too long awaiting delivery to the Island.

Once the nematode is on site, an application should be made during a rain storm and two weeks after the beetles have pupated to larvae (early August for us). This application is made after 90% of the rain has fallen (pre-wet is key) and watered in with the remaining 10%. Imagine, for a minute, being able to predict not only when it rains but when 90% of the rain has fallen. We also have to consider the effect of soaking the turf in mid-August; our peak fungus disease time. Because we deal with live organisms that have finite life spans, organic management is often this kind of a balancing act: peak disease time coincides with optimum pesticide management application.

The organic insect management program has demonstrated four important aspects of our management program: member participation; non-traditional turf management programs; utilization of research; and measurable progress. While the initial insect damage was discouraging, it was not surprising; it just occurred a year or two earlier than expected. The members were not only supportive, but helpful in the early stages. They were the ones who encouraged us to hire Walter (the skunk man) and vouched for his effectiveness. Walter's approach to controlling insect damage was unique and "in your face", but without question mitigated damage in the early years. Our program has been the recipient of extensive research (on the golf course) with beneficial nematodes and bacterium and has provided test sites for studies in mating disruption of adult beetles. Following-up this research, we were able to acquire sufficient quantities of live nematodes to treat the entire area of managed turf this season and have observed a drop-off in damage this fall. That progress is very encouraging and has given us hope that we have a program in place to address insect damage without the benefit of traditional synthetic pesticides.