



## CONSERVATION COMMISSION

### AGENDA

**Monday, June 17, 2024**

**4:30 PM**

**Room 22, Recreation Center**

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#### Commission Members

Alexander Von Plinsky, IV, Chair  
Councilor Andrew Madison, Vice Chair  
Art Walker  
Councilor Robert Williams, Ex-Officio  
Steven Bill  
Kenneth Bergman  
Barbara Richter

Deborah LeBlanc, Alternate  
Thomas P. Haynes, Alternate  
John Therriault, Alternate  
Lee Stanish, Alternate  
Eloise Clark, Alternate

1. Call to Order
2. Approval of Meeting Minutes – May 20, 2024
3. Public Hearing:  
**Acquisition of property located at 0 Washington St. Extension for Conservation Purposes – TMP #229-006-000:** In accordance with the requirements of RSA 36-A:5 the Keene Conservation Commission will conduct a public hearing to evaluate whether to expend funds from the Conservation Land Acquisition Fund for the purpose of purchasing 30 acres of forested uplands located adjacent to Beaver Brook Falls.
4. Report-outs:
  - a) Greater Goose Pond Forest Stewardship Subcommittee
  - b) Invasive Species
  - c) Land Conservation
  - d) Pollinator Updates
5. Discussion Items:
  - a) Airport proposed wildlife control fence
  - b) Keene Meadow Solar Station project update
  - c) NHDOT Route 101 Project
  - d) Master Plan Steering Committee
  - e) Outreach:
  - f) Budget
6. New or Other Business
7. Adjourn – Next meeting date: **Monday, July 15, 2024**

1 **City of Keene**  
2 **New Hampshire**

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5 **CONSERVATION COMMISSION**  
6 **MEETING MINUTES**  
7

**Monday, May 20, 2024**

**4:30 PM**

**Room 22,  
Recreation Center**

**Members Present:**

Alexander Von Plinsky, IV, Chair  
Councilor Andrew Madison, Vice Chair (5:28 PM)  
Councilor Robert Williams  
Art Walker  
Ken Bergman  
Steven Bill  
Eloise Clark, Alternate (Voting)  
Thomas Haynes, Alternate  
John Therriault, Alternate  
Lee Stanish, Alternate (Voting)

**Staff Present:**

Mari Brunner, Senior Planner  
Corinne Marcou, Administrative Assistant  
David Hickling, Airport Director  
Brett Rusnock, Civil Engineer

**Members Not Present:**

Barbara Richter  
Deborah LeBlanc, Alternate

8  
9  
10 **1) Call to Order**

11  
12 Chair Von Plinsky called the meeting to order at 4:32 PM.

13  
14 **2) Approval of Meeting Minutes – April 15, 2024**

15  
16 A motion by Mr. Bergman to adopt the April 15, 2024 meeting minutes was duly seconded by  
17 Mr. Walker. The motion carried unanimously.

18  
19 **3) Report-Outs:**

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

21  
22 Mr. Haynes reported that the Greater Goose Pond Forest Stewardship Subcommittee met on May  
23 10, and discussions of signage and maps were ongoing. June 24–28 were planned as trail days—  
24 hopefully with SnowHawk LLC—including work on the Lower Drummer Trail where there are  
25 multiple ongoing projects; it could be a training week opportunity for anyone who wants to  
26 volunteer and learn how to do various parts of the trail work. The Subcommittee was waiting to  
27 learn whether there would be funding available through the Department of Parks and Recreation

28 for additional trail work this summer, which would be mostly allocated to work on the Mattson  
29 Trail. A workday was planned for June 1 on the Wild Things Trail for National Trails Day,  
30 focusing on some short reroutes. This summer, the Subcommittee would continue its tradition of  
31 workdays at the Park on the 2<sup>nd</sup> Friday of each month—June 14, July 12, and August 9—to  
32 continue work on the Mattson Trail and anything else that arises. Mr. Haynes also reported that  
33 Steven Lamonde led a bird walk on May 18 with fewer participants than in the past, but he said it  
34 was great because it was a more intimate learning environment. Lastly, Mr. Haynes reported that  
35 the plans for a spillway bridge were likely on hold for this year; the pieces had not all come  
36 together yet.

37

38 Ms. Stanish asked if the Subcommittee’s schedule was posted somewhere. Mr. Haynes replied  
39 that he was working on getting it on the Commission’s webpage. He was also creating an email  
40 notification list for interested volunteers via Parks and Recreation. Anyone interested in being on  
41 the list can call Parks and Recreation (603-357-9829) and ask to be on the Volunteer Trails Crew  
42 List.

43

#### 44 **B) Invasive Species**

45

46 Councilor Williams reported on this year’s first invasive species removal event at the stone arch  
47 bridge south of town with a few regular volunteers. They accomplished a lot on this bridge,  
48 which he said was ignored compared to the beautiful stone arch bridge north of town. Despite  
49 this, he said it is a special place. The crew worked to remove a very tall and mature buckthorn  
50 tree growing from the middle of the bridge; it was the third year in a row that volunteers  
51 managed to cut it back, so he hoped its roots were weakening. If there was low water in the  
52 future, he hoped to cut it from the bottom. There was a layer of Japanese barberry under the tree  
53 and the crew cut and removed as much as possible, but it would need repeat attention. The crew  
54 also cleared some invasives closer to the river. Councilor Williams said it was frustrating that  
55 such a nice area near the river, which could have canoe access, was so overgrown. He hoped it  
56 could have the same attention as the northern stone arch bridge because he thought it would do a  
57 lot of good to transform this special place. He noted that other parks have dedicated Advisory  
58 Committees, such as the “Ashuelot River Park Advisory Committee,” and said this park could  
59 benefit from a similar committee or volunteer group solely dedicated to its upkeep.

60

61 Ms. Clark advised contacting Peter Hansel of the Elm City Rotary, as their members were  
62 seeking volunteer opportunities. For example, the Rotary adopted maintenance of the pocket  
63 park on Church Street. Councilor Williams agreed, noting that he had recently spoken with Mr.  
64 Hansel about work at Ellis-Harrison Park, which is another location that is overgrown with  
65 invasives, including a wall of Japanese knotweed along Beaver Brook.

66

67 Tentatively, the next invasives event was planned for Monday, June 24 from 6:00 PM–8:00 PM,  
68 clearing knotweed at Ellis-Harrison Park with the Elm City Rotary.

69

70

71                   **C) Land Conservation**

72  
73 Chair Von Plinsky reported that Ms. Richter was working on some ideas and Ms. Marcou had  
74 helped to provide details on land already conserved in Keene and to what level.

75  
76                   **D) Neighborhood Pollinator Garden**

77  
78 Mr. Therriault reported that the Edgewood neighbors planned to start working sometime in late  
79 June, which is when Parks and Recreation would have the ability to support the effort. Part of the  
80 grant money the neighbors received for this effort would allow the City to rent a sod cutter to  
81 kick-off the project.

82  
83 As Keene is a Bee City, Mr. Therriault reported that the date of this meeting was World Bee  
84 Day. May 20 was the birthday of Anton Janša, beekeeper to the Austro-Hungarian Empire, who  
85 wrote the first beekeeping book in German. Mr. Therriault received confirmation from Xerces  
86 Society that they received the City's 2024 Bee City USA dues, and they shared an information  
87 packet for No Mow May to promote not mowing lawns during the month of May to support  
88 early season pollinators.

89  
90           **4) Discussion Items:**

91                   **A) Airport Proposed Wildlife Control Fence Update – Visit from David**  
92                   **Hickling, Airport Director**

93  
94 Chair Von Plinsky welcomed the Airport Director, David Hickling, who described work with  
95 engineering consultants, McFarland Johnson, on the preliminary design and environmental  
96 assessment for the proposed wildlife control fence at the Dillant Hopkins Airport.

97  
98 Mr. Hickling displayed an aerial view of the airport runways. He reported that the consultants  
99 had finished the wetland delineation update on May 16–17. He explained that this project was  
100 funded by the Federal Aviation Administration (FAA) Airport Improvement Program (AIP). It  
101 could take up to one year to receive funds after executing a grant offer, delaying the project. In  
102 2023, the City did not receive the funding in time to issue the notice to proceed to McFarland  
103 Johnson before it was too late to complete wetland delineations that year. They anticipated  
104 completing the environmental assessment by February 2025. However, Mr. Hickling could not  
105 apply for grant funding for construction—also due around February 2025—until that  
106 environmental assessment was complete. So, there was a risk of pushing the project one more  
107 year, which was frustrating. Regardless, Mr. Hickling would remain persistent in working toward  
108 the end goal.

109  
110 Next, Mr. Hickling shared some takeaways from the wetland delineation that McFarland Johnson  
111 shared:

- 112           ▪ There are expansive emergent, scrub-shrub, and forested wetlands located throughout the  
113           proposed fence project.

- 114       ▪ The wetlands are associated with the floodplain of the Ashuelot River and the South  
115       Branch Ashuelot River, as well as an unnamed tributary of the South Branch Ashuelot  
116       River.
- 117       ▪ FEMA-mapped 100-year floodplain in the northwestern and western edge of the project  
118       area.
- 119       ▪ Wetlands within the 100-year floodplain boundary are NH Department of Environmental  
120       Services Priority Resource Areas.
- 121       ▪ McFarland Johnson was evaluating alignment alternatives to minimize wetland impacts  
122       to the maximum extent practicable. It was understood that the preference of the Keene  
123       Conservation Commission and public was to avoid siting the fence along Airport Road.
- 124       ▪ An unnamed perennial stream originates at the outlet of Wilson Pond. Ditched along the  
125       eastern edge of the Airport property, flows under Runway 2-20. Tributary to South  
126       Branch Ashuelot River. Confluence located west of the study area.

127

128 McFarland Johnson would be presenting these details to the Swanzey Conservation Commission  
129 on June 3. The Keene Commission was welcome to attend. Mr. Hickling would verify the time  
130 and share it with Ms. Brunner and the Commission.

131

132 Mr. Hickling showed the aerial view of the Airport runways with the updated wetlands  
133 delineation. He showed the outflow from Wilson Pond that flows under the runway.

134 Mr. Hickling noted that the wetland delineation was closer to the proposed fence line than  
135 originally anticipated (from the Airport Master Plan), which would increase the wetland impacts  
136 of the project. Because the wetland impacts would be primarily during fence installation, he did  
137 not think those impacts would continue after construction. McFarland Johnson was looking at  
138 ways to adjust the fence's final layout, and the City's preference was to move the fence further  
139 from the wetlands and closer to the runway, for which the FAA will sometimes approve a  
140 variance. He said that the FAA would likely push the City to move the fence closer to Airport  
141 Road, which would block the wildlife viewing area frequented by the public. However, he  
142 thought that topography around the runways would help with the FAA request.

143

144 Mr. Hickling said that whenever there is an environmental assessment, there has to be a Plan B.  
145 In this case, the backup plan was to revert to the original fence layout along Airport Road that  
146 was proposed as the preferred alternative in the Airport Master Plan because it would have  
147 almost no environmental impacts. Mr. Hickling did not prefer that alternative because it would  
148 essentially trap all the wildlife within the fence, when the goal is to keep wildlife out for airport  
149 safety. So, he would fight against that alternative.

150

151 Mr. Bergman reiterated that siting the fence along Airport Road would be extremely unpopular  
152 as people travel from all over to view wildlife there.

153

154 Mr. Bill asked how tall the fence would be. Mr. Hickling said 8' with three strands of solid wire.  
155 He said that standard works well to keep white-tailed deer out at other Airports. Mr. Bergman

156 noted that at the end of the shorter runway there is a marsh and the substrate there would not lend  
157 itself to deer jumping there either.

158  
159 Mr. Hickling said that McFarland Johnson understood the City’s goal. While the FAA would  
160 likely favor the cheapest alternative, he would argue that from a wildlife management  
161 perspective, it would make no sense to run the fence along Airport Road. So, he felt there was an  
162 80%–90% chance of the fence being installed along the runway. If the fence moves closer to the  
163 end of the short runway and away from Airport Road, he thought it could be possible to avoid  
164 the wetlands entirely due to the slope and topography at the end of that runway; he explained  
165 some nuances of runway visibility zones. Mr. Bergman said that would make a major difference  
166 for recreation along Airport Road, and he asked when Mr. Hickling might have an answer from  
167 the FAA about moving the fence closer to the short runway. Mr. Hickling said not until the  
168 environmental assessment is complete at the end of this year. Mr. Bergman asked if the Swanzey  
169 natural resource inventory team would be working at the airport, which was his understanding.  
170 Mr. Hickling was unaware.

171  
172 Commissioners could send questions to Mr. Hickling that he would share with McFarland  
173 Johnson to include during their June 3 presentation to the Swanzey Conservation Commission.

174  
175 Mr. Haynes asked if the environmental assessment included a cultural resource inventory, which  
176 is typical. Mr. Hickling said that was all in the project scope, which he would share with the  
177 Commission. Mr. Haynes said that with sandy soils, there was prime potential for finding  
178 artifacts.

179  
180 Mr. Bergman recalled a previous question about whether all the construction could be completed  
181 during one season. Mr. Hickling agreed that the challenge remained to get permission to  
182 complete the work in one season, because there was a chance that the total funds would not be  
183 released at once, but over four years, which would also result in trapping the wildlife inside the  
184 fence that is meant to keep it out. Mr. Hickling would push to have the project funded in one  
185 year. First, the design had to be completed so he could seek funding, but he might also have  
186 some bipartisan infrastructure funds available.

187  
188 Ms. Brunner/Ms. Marcou would send an email reminder of the June 3 presentation. At some  
189 point, there could be a joint meeting of the Keene and Swanzey Conservation Commissions.

190  
191 Mr. Walker recalled a past request from the Commission to visit City properties in Roxbury.  
192 Chair Von Plinsky said he would inquire. It was noted that if a quorum of the Commission was  
193 present, it would have to be open to the public.

194  
195 **B) Keene Meadow Solar Station Project Update**

196  
197 There was no update, but Ms. Brunner would keep checking.

198

199 Mr. Bergman recalled the presentation about a solar station at the Monadnock View Cemetery.  
200 Ms. Marcou said it was proposed toward the back of the cemetery. Chair Von Plinsky said a site  
201 visit would be scheduled when the project is more formalized.

202

203 **C) NH DOT Route 101 Project**

204

205 No update.

206

207 **D) Master Plan Steering Committee**

208

209 Chair Von Plinsky reminded the Commission of the City’s Master Plan update. Members of the  
210 public (not just Keene residents) were welcome to learn more, complete a survey, and/or sign-up  
211 for “think tanks” at [www.KeeneMasterPlan.com](http://www.KeeneMasterPlan.com); please share widely. Ms. Brunner explained  
212 that invites were sent out to members of the community who were recommended for the think  
213 tanks, but they would be open to members of the public, who were asked to register on the  
214 website, because a meal will be offered during each half-day session: Thursday, May 30 from  
215 5:00 PM–8:30 PM and Friday, May 31 from 9:00 AM–12:00 PM, at Keene State College  
216 Alumni Center. Ideally, registrants will be able to attend both sessions for continuity.

217

218 Ms. Clark noted that the 2010 Master Plan included a natural resource inventory and asked if that  
219 would be the same this time. Ms. Brunner did not think that was a part of the scope of updating  
220 the Master Plan, but the Plan could recommend creating a new one.

221

222 Chair Von Plinsky said that at some point, the Commission could consider hiring a consultant to  
223 create a Conservation Master Plan using the Land Use Change Tax Fund (LUCTF), which had  
224 \$134,289.79 remaining on this date and \$25,000 is added at the end of each year; expenditures  
225 must be approved by the City Council. Mr. Haynes recalled that the Commission tried to create a  
226 Conservation Master Plan many years ago, but Commissioners were stretched too thin at that  
227 time and did not realize the LUCTF was available for this purpose. Ms. Brunner said she would  
228 double check that the Fund could be used for this purpose and report back to the Commission.

229

230 **E) Outreach:**

231 **i) *Chronolog Update – Cheshire County Conservation District***

232

233 Chair Von Plinsky would be meeting with the Cheshire County Conservation District on May 23  
234 and would explore the possibility of financially partnering with the Commission on a bulk rate  
235 for the Chronolog monitoring tool.

236

237

238 **F) Potential Land Purchase Update (Rt 9/Washington St. Ext. Properties)**

239

240 Ms. Clark stated that in the Keene Sentinel on May 3, 2024, it was reported that Hull Forest  
241 Products sold the Rt. 9 property (0 Gilsum Road, tax map #218 042 000) on the other side of Old

242 Concord Road from Beaver Brook Falls, to M. E. & T. L. Austin-Whippie & Mark. E. Whippie  
243 on April 30, 2024 for \$68,000. Ms. Brunner confirmed that this parcel had frontage on Route 9  
244 and seems to have road access and was therefore developable; Mr. Haynes said it was prime  
245 development land.

246  
247 Discussion ensued about whether the Commission wanted to recommend making an offer on the  
248 other parcel. Ms. Clark thought it was worth it to keep that area forested due to the steep slopes  
249 and mitigating flood issues downstream, in addition to being contiguous with Beaver Brook. Mr.  
250 Haynes agreed.

251  
252 Ms. Brunner recalled that there was already a public hearing on the two initial properties, and the  
253 City Council authorized buying them for up to their assessed values (~\$75,000 for both parcels  
254 together) before they were logged. So, she said the City might be willing to offer up to the  
255 assessed value—which the City Assessor could determine—for the remaining property. She  
256 thought this would be covered by the original motion, but if not, there would need to be another  
257 public hearing.

258  
259 Chair Von Plinsky recalled that the Commission authorized the purchase of an Old Gilsum Road  
260 property for \$65,000 from the LUCTF, which had \$134,289.79 remaining. He said that while the  
261 Commission had debated which of the two properties (Rt 9/Washington St. Ext. Properties) to  
262 protect, but now that was moot, and he thought that purchasing the remaining property would be  
263 an important buffer between Beaver Brook and Route 9, in addition to protecting the steep  
264 slopes. Ms. Brunner said she would consult the Community Development Director.

265  
266 Councilor Williams asked if there was City water and sewer on the lot. Ms. Brunner thought it  
267 was likely, but said the property was not developable. Councilor Williams wondered whether  
268 that would still be the case with passage of the Cottage Court Overlay District. Ms. Clark and  
269 Ms. Brunner thought slopes on the property were too steep, and Ms. Brunner was unsure if  
270 access would be possible from that section of the highway. Councilor Williams said his  
271 colleagues on the City Council would like to build everywhere. Ms. Brunner said she would be  
272 surprised to find a developer to develop it because of the steep slopes.

273  
274 Mr. Bergman asked how the lot that was sold could be used; was access an issue or was more  
275 logging permitted? Ms. Brunner said the property was zoned Rural, with frontage on the  
276 highway (Rt. 9) and it looks like it could potentially have access from Timberlane Drive. Mr.  
277 Haynes thought it was likely already logged to the greatest extent. Mr. Bergman asked about  
278 solar and quarrying. Ms. Brunner said that up to 20 acres of solar is allowed in the Rural District.  
279 She added the possibility of a development that would require a Building Permit, like a  
280 Conservation Subdivision.

281 **5) Budget**

282



283 June 30 is the end of the fiscal year. Each fiscal year, the Commission is allocated \$2,000 by the  
284 City Council, and the money returns to the General Fund if not used by the end of the fiscal year.  
285 To date in FY24, the Commission had approved expending:

- 286     ▪ \$950 for NH Association of Conservation Commission (NHACC) dues
- 287     ▪ \$240 for four Commissioners to attend the NHACC Annual Meeting and Conference
- 288     ▪ \$200 donation to the Wantastiquet-Monadnock Coalition for installation of a privy at the  
289         tent site on West Hill, near the Horatio Colony Nature Preserve
- 290     ▪ \$150 honorarium for Steven Lamonde’s bird walk at Goose Pond
- 291     ▪ \$200 Bee City USA dues

292

293 There was \$260 remaining to be allocated before June 30.

294

295           **A) Memberships:**

296                   **i) Ashuelot River Local Advisory Committee Membership**

297

298 The Ashuelot River Local Advisory Committee (ARLAC) submitted its annual request for \$125  
299 to support annual E. coli testing, and if spent, would leave \$135 remaining in the Commission’s  
300 budget. In the past, the Commission had exceeded ARLAC’s \$125 request and Mr. Haynes  
301 asked how additional funds could be used. Ms. Clark—ARLAC member—replied that they  
302 consistently face challenges with broken equipment, so funds could support replacement costs.  
303 Otherwise, ARLAC has no expenses because volunteers run it.

304

305 The Commission agreed to make its typical ARLAC contribution, to review a proposal from  
306 Councilor Williams at the next meeting for how the extra funds could be used for invasive  
307 species removal, and to consider making an additional donation to ARLAC with anything  
308 remaining.

309

310 A motion by Mr. Walker to approve the Conservation Commission’s \$125 annual donation to the  
311 Ashuelot River Local Advisory Committee was duly seconded by Mr. Bergman. The motion  
312 carried unanimously.

313

314 Vice Chair Madison arrived.

315

316           **6) New or Other Business**

317                   **A) NHDES Standard Dredge & Fill Application: George St. Bridge**  
318                   **Replacement Project**

319

320 Chair Von Plinsky welcomed the George Street Bridge replacement project consultant from  
321 McFarland Johnson, Samuel I. White (via Teams), who began by showing maps of the bridge  
322 location, with People’s Linen to the north and the next upstream crossing at Giffin Street. The  
323 existing bridge is a 14’ reinforced concrete deck slab founded on concrete abutments built in  
324 1923. Per National Bridge Inspection Standards, the bridge deck and the superstructure were in  
325 poor condition (rating 4 of 9), the substructure was in serious condition (rating 3 of 9). The State

326 of NH considers replacing a bridge when either the superstructure, substructure, or deck is rated  
327 4 of 9. After functioning for the City for 100 years, Mr. White said it made sense that the bridge  
328 had these ratings, which indicated that it was time to replace the bridge.

329

330 Ms. Clark asked if the 14' shown was the span over the river or the overall width. Mr. White  
331 replied that it was 14' from face of vertical abutment to face of vertical abutment.

332

333 Mr. White continued his presentation on the bridge's existing conditions, with more details about  
334 Beaver Brook, which is a perennial third order stream in the 7.51 square mile watershed. This is  
335 a Tier 3 stream crossing. McFarland Johnson completed the stream assessment and wetland  
336 delineation in October 2022 and at that time, the average measured bankfull width was 17.7'. He  
337 showed photos of a gabion wall running along the steep bank that exists today, with some  
338 vegetation on it, most of which is invasive Japanese knotweed. He also showed the existing walls  
339 on the downstream face of the bridge, with stacked masonry on both sides.

340

341 Mr. Bill asked what material the banks were, besides the gabions. Mr. White replied that where  
342 the banks were not armored by an existing vertical wall structure, they were mostly a sandy  
343 muddy silt, with some cobbles in the stream.

344

345 Mr. White showed more photos of the existing bridge. Upstream, approaching the bridge, the  
346 stream was deeply incised with vertical faces that were either man made or a result of erosion  
347 over time. The upstream wing walls approaching the bridge on the northwest side were an  
348 erosion measure to help stabilize the banks. To Mr. White's knowledge, the southeast wall on the  
349 downstream side had not been replaced over time. He showed the existing concrete footing  
350 sticking out the face of the abutment, where the stream bed is eroded off—or scoured off—of it.  
351 There was a natural channel between the two faces of the footing on the abutment. Other parts of  
352 the footing were exposed too. Looking downstream from the face of the bridge, there was a  
353 healthy Japanese knotweed stand that was starting to encroach on the stream. He showed the  
354 FEMA-Mapped 100-year floodplain and regulatory floodway.

355

356 Next, Mr. White explained that when evaluating alternatives, an important factor to keep in mind  
357 is the base flood elevation (BFE). The bridge replacement should not raise the BFE upstream of  
358 the bridge, which must be considered when sizing the new bridge opening. Currently, if there  
359 were a big storm event, Beaver Brook would theoretically overtop the George Street bridge base  
360 based off the hydraulics. Raising the profile of the road would demand a wider bridge opening.

361

362 Mr. White shared some metrics from the stream assessment that influenced the new bridge span,  
363 based on current stream crossing rules:

- 364     ▪ Average bankfull width (Wbf): 17.7
- 365     ▪ Average bankfull depth (Dbf): 1.8
- 366     ▪ Average floodprone width (Wfpa): 21.3
  - 367         ○ 2 \* water depth at Wbf
- 368     ▪ Entrenchment ratio: 1.21

369                   ○ Wfpa / Wbf

370

371 The proposed replacement bridge would have a 22' clear span and 3-sided precast concrete rigid  
372 frame: Fully compliant span (21.4') = Wbf (17.7') \* Entrenchment ratio (1.21).

373

374 Chair Von Plinsky asked about the increase from 14' to 22' and whether the extra width would  
375 be on either side or offset. Mr. White said it would be centered on the existing thread of the  
376 stream.

377

378 Mr. White continued, showing a high-level plan view of the proposed bridge. The 22' bridge  
379 would have a 33' out-to-out width along the stream. He showed proposed improvements on the  
380 upstream and downstream ends. Widening the structure would require tapering the channel into  
381 the structure. The existing gabion wall would be relocated to meet into the new bridge face. On  
382 the other three corners, the existing vertical walls would be removed and replaced with a graded  
383 slope; to balance the limits of the grading work, there would have to be a steep slope, 1.5:1. Still,  
384 it would be an overall improvement for terrestrial wildlife and access to the stream overall, while  
385 still providing a stable bank. Additionally, over top the rip rap there would be a simulated  
386 streambed material up to the ordinary high-water level to provide a better surface for a fish  
387 passage and terrestrial wildlife. He showed the view of the three-sided rigid frame with a precast  
388 shape met by the cast in place footings.

389

390 Mr. Bill asked the relative size of the footings. Mr. White said approximately 9'. The footings  
391 follow the limit of bridge and wing walls, the latter of which are narrower; wing walls gain  
392 stability through the type of wing wall that it is, with a soil anchor.

393

394 Next, Mr. White concluded by summarizing the impacts from the wetland application. He  
395 showed bridge plans depicting temporary impacts (hatched pattern) and permanent impacts (in  
396 grey). He showed other aspects of the proposed bridge plans with wetland impacts:

- 397       ▪ There will be permanent impacts to allow for working around the sewer manhole and  
398       connecting to the new sewer line down the road.
- 399       ▪ There will be temporary impacts to provide a sandbag dam for a bypass pipe to manage  
400       the river during construction, with a turbidity curtain (to protect the stream against  
401       sediment coming out from excavating the slopes) to limit turbidity entering the stream  
402       and provide space to build new slopes. Grading out the new slope would provide the new,  
403       permanent gabion wall, strengthening the new bridge.

404

405 Chair Von Plinsky asked how long the dams would be in place. Mr. White said a few months.  
406 Realistically, he expected construction to take 4–6 months in total. McFarland Johnson was  
407 aware of the cold-water fisheries and native brook trout in the area, so they would institute a  
408 restriction for fish spotting so there will not be work in the water during that time frame.

409

410 Ms. Clark asked what material would be used to stabilize the steep slopes and Mr. While replied  
411 that it would be rip rap (with a simulated material over top) around the bridge that will tie into  
412 the existing slope, sort of following the area of ordinary high water.

413

414 Mr. Bergman asked whether the terrestrial wildlife shelf would be the simulated stream bed  
415 material or if it would be more permanent. Mr. White understood Mr. Bergman's concern about  
416 erosion over time. Mr. White said that the surface above the rip rap would be washed in with  
417 stone first (in the contract documents); the rip rap would be sized so that it will not move under  
418 flow. Mr. White felt confident that this material would not mobilize over time, but the theory, if  
419 this material were to mobilize, there would be more material from upstream that would come  
420 down during that flow and replace it as a part of normal sediment transport. Mr. Bergman asked  
421 whether Mr. White knew to what extent Beaver Brook was regulated by the dam created a few  
422 decades ago at the north end of Keene toward Sullivan; the dam was needed because of  
423 downtown floods from Beaver Brook. Ms. Clark said it was called 10-Mile Swamp and Mr.  
424 White said that it was well upstream of this bridge site.

425

426 Ms. Stanish asked whether the added bridge width would account for the wildlife corridor or  
427 whether it was just intended to maintain flow during flood events. Mr. White said that when  
428 determining a bridge span, it is a balancing act between hydraulics and geomorphic  
429 compatibility. Ideally, the bridge would provide flood storage and some space for the stream to  
430 meander over time and accommodate the upstream channel. While the wildlife bench would not  
431 exist on the upstream or downstream limits of the stream, it would still be an important aspect,  
432 providing space for both storage and movement of the river. Ms. Stanish said it was clear that the  
433 stream wants move. Mr. White agreed and said the intent of the armoring would be to limit that  
434 movement and to ensure the footings remain stable. He explained that, in theory, the scour depth  
435 would be at approximately the top of the footing. To ensure the bridge is secure, the consultants  
436 took a two-pronged approach by placing the footing below the scour depth and providing the  
437 armoring to ensure it all stays in place over time. Ultimately, the goal for this bridge to last 100  
438 years or more, similar to the existing one.

439

440 Commissioners are welcome to email Mr. White with any further questions.

441

442 Chair Von Plinsky said the next step was for the Commission to make any recommendations, if  
443 needed. One of his main concerns is always accommodating a wildlife corridor, and these plans  
444 seemed to do so.

445

446 Mr. Rusnock arrived.

447

448 Councilor Williams asked how the Japanese knotweed would be managed as a part of  
449 construction. Mr. Rusnock replied that the contract would include Type 1 or Type 2 Invasive  
450 Species Management and Removal according the NH Department of Transportation (DOT)  
451 specifications; requires that the contractor—per the bid documents—develops their own invasive  
452 species management plan and submits it to NH DOT for review and approval. Historically, the

453 City had tried to eradicate knotweed through various projects but had not been very successful.  
454 Mr. Rusnock and City staff were willing to accept recommendations from the Conservation  
455 Commission about how to manage knotweed more effectively.  
456

457 Mr. Therriault recalled that when he contacted the NH Department about knotweed, he was told  
458 that in Keene, there was a test site using a certain size wire on top of knotweed that would girdle  
459 the new shoots as they come up to keep them from regenerating over a series of 3–4 years. He  
460 was unsure where that existed in Keene. Mr. Bill thought it was along the Jonathan Daniels Trail  
461 at Ashuelot River Park, where he said the knotweed was already popping through the wire. Mr.  
462 Haynes did not think wire mesh was used at that location, rather a fabric tarp covered with wood  
463 chips. The site was being monitored to continue trying to control the knotweed. Councilor  
464 Williams said that method (i.e., tarp and wood chips) was a traditional knotweed treatment, but  
465 he thought a complication at this bridge site would be the 45-degree slope. Brief discussion  
466 ensued about the roots of knotweed, which are large balls, many inches thick, and all the roots  
467 must be removed to prevent regrowth. Mr. Bill wondered if it was prudent to excavate the whole  
468 bed of knotweed and start over. Councilor Williams thought it was possible with the amount of  
469 soil being moved for this project.  
470

471 Mr. Rusnock said that on past bridge projects (e.g., Rt-12 bridge over Beaver Brook in 2018),  
472 there were associated knotweed management plans to excavate at least 5' deep in areas and all  
473 the roots, but that effort was not effective. Mr. Rusnock was not aware of any successful  
474 knotweed mitigation on City projects. Councilor Williams mentioned the attempts at knotweed  
475 mitigation at Pat Russell Park. He said multi-year plans are needed because it takes repeat efforts  
476 to eliminate the invasive enough so that native species can prosper. Mr. Rusnock agreed and  
477 noted that one of the permit requirements for Pat Russell Park prohibited the use of herbicides  
478 for knotweed removal. In 2022 and 2023, the contractor visited the site 10 times and removed  
479 knotweed manually, which is a continuing permitting requirement until 2027. Hopefully, the  
480 repeat effort over 5 years will be enough to deplete the knotweed's energy. Still, he was skeptical  
481 that it would be a permanent solution. Councilor Williams said part of the challenge is giving  
482 another species the opportunity to grow before the knotweed gets there. Mr. Therriault noted that  
483 knotweed releases chemicals that discourage other plants from growing in the area.  
484

485 Mr. Bill asked for more details on the present-day beds of knotweed along this area of Beaver  
486 Brook and how it would change. Mr. Rusnock was not completely up to date on the geotechnical  
487 borings recovered there, but he thought it was pretty typical of other areas of Keene with layers  
488 of sand and gravel underlaying a silty clay material. Mr. Rusnock noted that George Street is  
489 unique because the bedrock is much higher than at other sites: 26' below ground surface  
490 compared to lower lying 80'–100' areas in Keene.  
491

492 Mr. Bill asked for details on the project timeframe. Mr. Rusnock said the goal was to finish  
493 property negotiations and permitting by fall 2024, and to put the project to bid in October–  
494 November 2024, for construction to begin summer 2025.  
495

496 Mr. Bergman asked whether temporary easements would be needed to access the surrounding  
497 properties. Mr. Rusnock replied that there would be a combination of areas that need to be  
498 permanently incorporated for the bridge and drainage/utility features with permanent easements.  
499 There would also be a temporary stage and access agreement, which is negotiable. Many  
500 property owners also donate property and some request that their legal fees be paid for; it  
501 depends on each individual property owner. He said the goal is always to avoid eminent domain  
502 and takings, but it is not always possible.

503  
504 Mr. Bergman asked whether there had ever been issues of releasing materials into the stream by  
505 People's Linen, a direct abutter. Mr. Rusnock replied that the business had not released anything  
506 problematic in recent decades. There is an active Groundwater Management Permit for the  
507 People's Linen site. As a part of this bridge project, he anticipated managing soil and  
508 groundwater from the western side of the bridge.

509  
510 If Commissioners think of any other recommendations, they could submit them directly to the  
511 NH Wetlands Bureau.

512

513 **7) New Business**

514

515 Mr. Bill mentioned concern that a typo (100 vs. 10) in the February 20, 2024 minutes attributed  
516 to him about the septic system in the draft Conservation Commission minutes was provided to  
517 and accepted as fact by the Planning Board when reviewing the Gunn Road application. His  
518 point was that the conservation effort should be long term. It was confirmed that the typo was  
519 corrected in the adopted minutes. Chair Von Plinsky did not think there were negative  
520 consequences of the Planning Board considering that typo, noting that many members of the  
521 Planning Board were grateful for the Commission's expertise and input.

522

523 **8) Adjournment**

524

525 There being no further business, Chair Von Plinsky adjourned the meeting at 6:04 PM.

526

527 Respectfully submitted by,  
528 Katryna Kibler, Minute Taker  
529 May 27, 2024

530

531 Reviewed and edited by,  
532 Mari Brunner, Senior Planner  
533 Corinne Marcou, Administrative Assistant