



City of Keene, New Hampshire

CONSERVATION COMMISSION

Monday, May 16, 2022

4:30 PM

ROOM 22, Parks & Recreation
Center

Commission Members

Alexander Von Plinsky, IV, Chair
Councilor Andrew Madison, Vice Chair
Kenneth Bergman
Art Walker
Eloise Clark

Councilor Robert Williams
Brian Reilly, Alternate
Thomas P. Haynes, Alternate
Steven Bill, Alternate
John Therriault, Alternate

1. Call to Order
2. Approval of Meeting Minutes – April 18, 2022
3. Introduction of Mari Brunner, Senior Planner
4. Guest Speaker:
Chris Casadei, Procurement Forester, Hull Forest Products, Bennington, NH
5. Informational:
 - a. Subcommittee reports
 - Outreach Subcommittee
 - Arm Fund Subcommittee
 - Greater Goose Pond Forest Stewardship
 - Invasive Species
6. Discussion Items:
 - a. Conservation Commission speaking events
 - b. Budget Discussion
 - c. Joint Council Meeting - Eversource scenic roads
 - d. Instream Flow Program – Ashuelot River, May 17, 2022 in Surry; May 18, 2022 in Swanzey
 - e. Land Conservation Investment Program (LCIP) Property Field Visit, May 25, 2022
7. New or Other Business
8. Adjournment – Next meeting date **Monday, June 20, 2022**

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1 City of Keene
2 New Hampshire

3
4
5 CONSERVATION COMMISSION
6 MEETING MINUTES
7

Monday, April 18, 2022

4:30 PM

Council Chambers,
City Hall

Members Present:

Alexander Von Plinsky, IV, Chair
Eloise Clark
Councilor Robert Williams
Ken Bergman
Thomas Haynes, Alternate
Brian Reilly, Alternate
Steven Bill, Alternate (Arrived at 4:38 PM
via Zoom)

Staff Present:

Corinne Marcou, Administrative Assistant

Members Not Present:

Councilor Andrew Madison, Vice Chair
Art Walker
John Therriault, Alternate

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

11
12 Chair Von Plinsky called the meeting to order at 4:30 PM.

13
14 **2) Approval of Meeting Minutes – March 21, 2022**

15
16 A motion by Mr. Haynes to approve the March 21, 2022 minutes was duly seconded by Ms.
17 Clark and the motion carried unanimously.

18
19 **3) Guest Speakers**

20 **A) Keene State Students: Josh Koehler & Cooper Cioffi Analysis on Human**
21 **Impact on Monadnock Region Wetlands Ability to Maintain & Perform**

22
23 Chair Von Plinsky welcomed the guest speakers, seniors at Keene State College, Cooper Cioffi
24 and Josh Koehler.

25
26 Mr. Cioffi began the presentation by introducing the project that began in August 2021: An
27 Analysis of Constructed and Pristine Wetlands in the Monadnock Region. He said they are in a
28 seminar made up of environmental studies and geography majors. Last semester they had to

29 develop a project and they both had the idea of wetlands conservation. They chose this topic
30 because wetlands can store massive amounts of flood and stormwater, recycle nutrients, filter
31 pollutants, and provide habitat for numerous plant and animal species. They decided on a
32 scientific investigation of these habitats, mainly based on water quality sampling and analysis of
33 plants and macroinvertebrates, with the first few months focused strictly on research and gaining
34 knowledge about wetlands. They learned about pristine versus constructed wetlands and
35 developed the following hypothesis: “Through a variety of metrics, pristine wetlands will show
36 to be higher quality habitats than constructed wetlands.”

37

38 Mr. Cioffi continued describing the two research sites: (1) impacted/constructed wetland in
39 Keene, located between RT-12 and the Target shopping plaza, and (2) pristine wetland in Surry,
40 located a half-mile from Village Road, alongside the Ashuelot River.

41

42 Next, Mr. Koehler discussed the methods of the year-long investigation:

- 43 • Day one at each site:
 - 44 ○ Filled-out the University of NH (UNH) Freshwater Wetland Evaluation Forms,
45 courtesy of the UNH Cooperative Extension, which focuses on agricultural and
46 environmental conservation.
 - 47 ■ Filling out the forms provided a general “score” of the wetlands in
48 question on ecological integrity and presence of difference species. This
49 helped them conceptualize the two sites.
 - 50 • Six randomly chosen days throughout February–March 2022 (data collected from both
51 sites on the same day):
 - 52 ○ Collected water data on pH, dissolved oxygen, and conductivity using the YSI
53 Pro30 Conductivity Meter. This allowed visualizing smaller patterns in how these
54 variables were impacted over the two months.
 - 55 • Conducted a plant species and macroinvertebrate inventory:
 - 56 ○ Kick net sampling for macroinvertebrates and iSeek for plant identification.

57

58 Mr. Koehler continued describing the results. He said the water quality data showed statistical
59 significance. They found a higher quantity and diverse array of macroinvertebrates at the Surry
60 site, but none were discovered in Keene. Additionally, they found that the number of plant
61 species differed greatly between sites. Mr. Cioffi continued on the results, noting that zero
62 macroinvertebrates were found at the Keene site. They found mainly native plant species in
63 Keene, but there was less variety than the Surry site. In Keene, they found build-up of algae and
64 foam, and noticed that the bottom of the wetland was muddy with finer sediment, compared to
65 the larger sediment in Surry. Mr. Koehler continued discussing the pH results. He demonstrated
66 that the pH in Surry was initially less (6.72) than they expected (7–8). There was a difference in
67 pH, dissolved oxygen, and conductivity between the two sites. There was an extremely
68 significant difference ($p < 0.001$) between the two sites, supporting that there is something going
69 on between the two sites; it could be human pollution or the ability for the habitats to perform
70 their natural functions. In general, the data showed a significant difference, which they believe
71 could warrant further investigation.

72 Mr. Koehler shared their conclusions from this study. Their numbers show a clear difference in
73 water quality between the two sites, with Keene's wetland much more polluted. He said there
74 could be several contributing factors: road salts that could correlate to the higher conductivity
75 levels, deposits of small sediment like mud and dirt does not allow macroinvertebrates to thrive;
76 they wonder if these factors like road salts effect soil health (nitrogen/phosphorous) and possible
77 eutrophication in the water. Although the environmental and economic value remains in both
78 wetland habitats, they believe it is detrimental to alter those ecosystems. They believe more
79 studies are needed to determine the level of effect that these variables have. They concluded that
80 it may very well be more efficient to leave wetlands as they are instead of altering landscapes
81 and trying to mitigate the effects by creating constructed wetlands. It could be better to plan
82 around wetlands, recognizing the importance of the habitats so they can function to the highest of
83 their capabilities. The students thanked Professors Traviss and Burchsted, Scott Bailey of the
84 USFS, and this Commission.

85
86 The Chairman thanked the presenters, stating that he hopes they stay in the field of conservation.
87 He asked whether the students considered solutions to improving manufactured wetlands, such
88 as the one near Target. Mr. Koehler said it is important to recognize that no matter how impacted
89 wetlands have been, they have the capability to provide environmental and economic benefits.
90 During their analysis and trying to determine possible impacts like road salts and sediment
91 deposits, they realized the limitation that what they recommend may not be complete, as they are
92 students. However, they did realize that in these constructed habitats like the one in Keene, that
93 where they can limit human impact, it is important to. He thought a lot comes in the pre-planning
94 stage when it is possible to protect the integrity of these environments.

95
96 Mr. Bill asked whether the students measured turbidity at the two sites and if they knew the age
97 of the artificial wetland. The students said they did not test turbidity and were unsure on the age.
98 Mr. Cioffi thought that over time the wetlands help to filter what goes in and out of them, so if
99 people become aware of the impacts over time and begin treating them appropriately, they could
100 be more productive ecosystems. Mr. Koehler said turbidity would have been a good metric to
101 consider as an indicator of sediment suspension and the ability for plants and creatures to live.
102 He said the site photos do show the presence of algae, muck, and foam that could indicate the
103 negative effects of eutrophication. Mr. Bill wondered partly because if the wetland is not very
104 old then perhaps the creatures had not found their way there yet and could in future years. Mr.
105 Bergman and Ms. Clark agreed that the manufactured wetland was approximately 20 years old.
106 Mr. Bergman recalled it begin built to great controversy when the entire site was developed,
107 which consisted of wet agricultural fields. The area had changed considerably since, with plants
108 growing in.

109
110 Mr. Bergman commended the students, knowing it is challenging to focus on a single project
111 with a competing full course load. He asked whether the students measured water depth and
112 temperature; he added that water in the drainage ditches throughout the mall area are full of trash
113 and therefore not pristine water. Mr. Cioffi said they did not have the tools to measure depth
114 from the bank but said temperature would likely have shown some interesting differences, given

115 that they could notice differences by hand. Mr. Cioffi mentioned that even just around the shore
116 of the manufactured wetland you can see trash build-up along. Mr. Bergman noted that a few
117 years ago, someone clear cut a strip of trees (full of insects and animals) on the border between
118 the wetland and the highway. Now, he said there was no shade cast over the manufactured
119 wetland.

120

121 Mr. Reilly asked whether the students conducted a literature search on similar research. Mr.
122 Koehler said that the first semester of this year was dedicated to searching literature for sources
123 on wetland comparisons, particularly in New England, with comparable climates and soils. There
124 was one source specifically on NH wetlands, but it was focused more on soils.

125

126 With no further questions, the Commission thanked Mr. Koehler and Mr. Cioffi for their
127 presentation.

128

129 **B) Dane D’Arcangelo, Arborist, Eversource, Tree Trimming**

130

131 The Chairman recalled that several Commissioners attended the City Council meeting on this
132 topic and heard the representatives from Eversource and Asplund Tree Expert. Mr.
133 D’Arcangelo, the Eversource Arborist, reiterated what he stated at the City Council meeting. He
134 explained the request to perform maintenance trimming of trees along scenic roads: Concord
135 Road, Concord Hill Drive, Moore Farm Road, and Nims Road. He said that this consists of
136 trimming around the primary power wire, which is the wire located on the top of poles. The
137 trimming will be 15 feet above that pole, eight feet to the left and right of that wire, and 10 feet
138 below that wire. In addition to this trimming, he said there was a short list of 12 trees along the
139 scenic roads in Keene that are either diseased, dying, or otherwise defective, which Eversource
140 also wants to remove. Eversource not only required permission from the City to do this work,
141 but also from the property owners.

142

143 The Chairman said he traveled to visit all the trees and the Eversource’s notes were very accurate
144 about the poor condition of these trees. He recalled a question at City Council about what is done
145 with the tree after it comes down. The Chair understood that the limbs would be shredded and
146 removed. Mr. D’Arcangelo said the limbs would be chipped; in a wooded lot they would be
147 distributed evenly, but if in front a house they chip into the truck and remove it. The logs would
148 typically be cut up and left on site. Mr. D’Arcangelo recalled the question about leaving stumps
149 for wildlife habitat, which Eversource is willing to do, depending on the abutting landowner’s
150 permission and proximity to roadways; they have no issue leaving the tall stump that will not hit
151 any wires. The Chair asked whether Eversource had issue with taking the dead tree and leaving it
152 there to decay, if the landowner agreed. Mr. D’Arcangelo said that was not a problem; only tree
153 cuttings and logs are left on site because Eversource does not haul them away.

154

155 Ms. Clark reiterated the value of the dead snags and her suggestion that City Council reconsider
156 cutting them down to that one-foot-tall. She said the trees on Moore Farm Road seem quite set
157 back from the driveways and roads. They are soft woods like aspen and black locust, which

158 already have good excavations for woodpecker holes; the variety of wildlife working on those
159 dead snags and cavities are very important. This was her encouragement, with the understanding
160 of proximity to roads. Councilor Williams had the same thought about snags, noting that locust
161 in particular is very valuable for woodpeckers and insects. Mr. Haynes supported leaving the
162 snags too.

163

164 Councilor Williams noted that there were two trees listed for Moore Farm Road, but upon
165 visiting, he saw three trees marked with ribbons; they all looked dead, so he did not see a
166 problem. He noticed a lot of dead spruce in the Nims Road area, which looked like an explosion
167 of a spruce disease that they should keep an eye on. Mr. D’Arcangelo said that third marked tree
168 on Moore Farm Road is not within the scenic road right-of-way and therefore is not subject to
169 Council permission, only that of the landowner.

170

171 A motion by Mr. Bergman to draft a letter to City Council recommending leaving the tree snags
172 for habitat was duly seconded by Mr. Haynes. The motion carried unanimously.

173

174 That letter would first go to the Municipal Services, Facilities, and Infrastructure (MSFI)
175 Committee before the City Council.

176

177 Mr. Bergman said that this should be a general Commission policy for future tree clearing or
178 thinning. The Chairman was fine setting that precedent for the Commission, but the
179 recommendation would need to be made to Council in each individual case. Ms. Clark noted that
180 at the Council hearing, Councilor Jones wondered if this could become a part of City policy. On
181 that note, Councilor Williams thought there would be a spirited discussion at the MSFI meeting
182 the third Wednesday of May at 6:00 PM; he encouraged all to attend. Mr. D’Arcangelo would be
183 there.

184

185 **4) Informational**

186 **A) Subcommittee Reports**

187 **i) *Outreach Subcommittee***

188

189 Mr. Haynes reported that the Subcommittee had not met and there was nothing new to report.
190 Mr. Reilly mentioned the birding event on May 21, which would be announced soon in a press
191 release that Mr. Haynes was writing. Ms. Clark noted that Mr. Bill had been trekking through
192 Robin Hood Park in search of geological features. Mr. Bill was anticipating an event this fall.

193

194 **ii) *ARM Fund Subcommittee***

195

196 Chair Von Plinksy said there had been no meeting but that he had grand plans moving forward.
197 Ms. Clark found something for the Subcommittee: a Wildlines Magazine from the University of
198 NH about identifying and creating critical access to wildlife corridors. She would share contact
199 information via Ms. Marcou.

200

201 **iii) Greater Goose Pond Forest Stewardship**

202
203 Mr. Haynes said there was a recent meeting and they continue working on the project list, with
204 workshops and signage. In response to the Chairman, Mr. Haynes did not think there was
205 anything the group needed from the full Commission at this time; they are working well with the
206 Director of Parks, Recreation, and Facilities, Andy Bohannon's, guidance. Mr. Haynes knows
207 the Commission is ready to help.

208
209 **B) Invasive Species**

210
211 Councilor Williams noted that he acquired some trash bags. The first event of the season will be
212 the Garlic Mustard Challenge the second Saturday in May, which the Commission needed to
213 start promoting. Like last year, they would include flyers in the Green Up Keene event materials,
214 which Ms. Marcou would assist in printing and distributing. Councilor Williams wanted to
215 advertise more than just the Garlic Mustard Challenge, but also the rest of the invasive schedule.
216 He also wanted people to report garlic mustard in their neighborhoods so he can plan events
217 outside his Ward.

218
219 **5) Discussion Items**

- 220 **A) Joint Council Meeting – Eversource Scenic Roads**
221 **B) NH Association of Conservation Commission Dues**

222
223 Chair Von Plinsky felt that the NH Association of Conservation Commissions (NHACC) had
224 changed their due date, which was April. The dues requested were \$774.45. He hoped for
225 discussion on whether they should pay the full amount. The Chair noted that the budget needed
226 to be expended by June 30. He added that the NHACC is a good non-partisan voice representing
227 Keene in Concord and he recommended paying the dues but was open to questions or concerns.
228 Ms. Clark noted that they conduct lunchtime workshops that are available to the Commissioners
229 and she hoped everyone received the NHACC emails.

230
231 Ms. Marcou confirmed that the Commission had not yet spent any of the \$1,500 budget; she also
232 confirmed that no fee was due to Bee City USA during this fiscal year. Discussion ensued about
233 the other matters that the Commission sought funding for as well: honorarium for the bird walk,
234 the usual annual support for the Ashuelot River Local Advisory Committee (ARLAC), trail
235 maintenance workshop, speaking events, and invasive species.

236
237 The commission agreed to divide the budget at the May meeting.

238
239 **C) Radically Rural: No Mow May**

240
241 The Chairman received this information on No Mow May, which aims to encourage people to
242 hold off cutting their grass until the end of May to foster essential pollinator habitat during a
243 tough time at the beginning of the season. Ms. Marcou read the associated email:

244 *We would like to propose bringing “No Mow May” to the city of Keene. Essentially, community*
245 *members refrain from mowing their lawns for a month. We spoke with the Mayor, and he*
246 *recommended we reach out to you to help move our proposal forward.*

247
248 *If enacted, this would be effective in helping our pollinators. By allowing plants and ‘weeds’ to*
249 *flower in yards, we are supporting bees, providing them with an ideal habitat and spring food*
250 *that will sustain them as they come out of hibernation. This support is essential as so many of*
251 *our pollinators are going extinct. This initiative has been successful in increasing the bee*
252 *population to five times that of its previous population in several suburban communities in*
253 *Wisconsin. It is also a great way to bring community members together and feel connected in a*
254 *time when we are all still adjusting to life during and after Covid.*

255
256 *Radically Rural in particular is invested in finding the most successful and innovative ideas to*
257 *improve our community and enacting them in an accessible way. One of the tracks at our annual*
258 *summit is Land & Community and we see this proposal as an important step in taking care of*
259 *our rural ecosystems.*

260
261 At minimum, the Chair thought the event could be advertised on the Community Development
262 Department social media and the Conservation Commission webpage. He said they could also
263 recommend that the Council spread the word. Councilor Williams noted that the Council could
264 pass a resolution encouraging no mowing in May. The Commission could send a letter to the
265 MSFI Committee for it to appear before the Council the first week of May. He also suggested an
266 article in the Sentinel. Mr. Bill suggested asking Mr. Bohannon to hold moving throughout the
267 City as a good example. The Chair though Mr. Bohannon could likely identify some locations,
268 but it would not be possible City-wide. The Chair would also reach out to the Public Works
269 Director, Kürt Blomquist, about mowing since they oversee the Highway Division.

270
271 Mr. Haynes really thought this was an educational opportunity for the Commission to share this
272 radical rule about pollinators with the community. It was unfortunate that Mr. Therriault was not
273 present for this discussion.

274
275 Mr. Bergman was in favor and sympathetic to the goals and purposes but knew that his yard
276 would require heavy equipment to mow if he did not attend to it in May. He said he could
277 commit to his back yard but not front. The Chair suggested strength in numbers with everyone
278 dedicating at least a strip of their lawns.

279
280 A motion by Mr. Haynes to recommend to the City Council that the City encourage residents to
281 observe No Mow May and to also encourage City Staff to identify places where not mowing
282 throughout May is possible was duly seconded by Mr. Reilly. The motion carried unanimously.

283
284 Mr. Bill also suggested an advertisement in the Monadnock Shopper News.

285

286 **D) Beaver Brook to Cemetery**

287 There was nothing new to report since the visit to the cemetery last month. There would be more
288 discussion in May.

289

290 **E) Conservation Commission Speaking Events**

291

292 Vice Chair Madison was not present to discuss this matter, but the Chair knew he had a number
293 of potential speakers for an event in early June. He knew Vice Chair Madison had also spoken
294 with the Monadnock Food Co-op about using the amphitheater, but that was still in discussion.

295

296 **6) New or Other Business**

297

A) Instream Flow Program – Ashuelot River, May 17 & 18, 2022

298

299 This is about outreach sessions on the Ashuelot River. People can attend and observe as
300 measurements and scientific investigations occur. The Chair encouraged all to attend the event
301 near Surrey Mountain and the Sawyer Crossing Bridge in Swanzey.

302

303 Ms. Clark provided some background. She said ARLAC had been working on a new
304 management plan but concurrently the State also was hoping to evolve a management plan for
305 the flow to maximize habitat, principally for fish. They hope to develop a series of
306 recommendations about flow to make the best possible habitat for fish. The Chair thought this
307 was fantastic.

308

309 Mr. Bergman asked Ms. Clark whether data loggers would be deployed and left in place. Ms.
310 Clark said that they were deployed last year at many sites and ARLAC is helping to identify
311 additional places for the study, like near the Airport. ARLAC hopes to incorporate some of these
312 findings into their management plan.

313

314 **B) Land Conservation Investment Program Property Fields Visits, May 24, 25,
315 26, 2022**

316

317 The Chairman said that the Land Conservation Investment Program (LCIP) is different than the
318 Land and Community Heritage Investment Program (LCHIP). This would be on the
319 Commission's May agenda. He said it sounded like this had to do with easement monitoring.
320 They encourage City government to join them when they visit. The Chair will learn and share
321 more at the next meeting. Mr. Haynes wondered if there were specific sites. The Chairman read
322 the associated email from Jocelyn Duffy, Seasonal Steward for the Conservation Land
323 Stewardship Program:

324

325 *We are planning a Field Visit to your LCIP conservation properties during one of the following*
326 *dates: **May 24, 25, 26***

327

328 Ms. Clark said it sounded like LCHIP without the historical piece. She said that when people
329 apply for LCHIP funding, there are site visits to various parts of the property to determine
330 eligibility; she wondered if these visits were similar.

331

332 The Chairman said there were a lot of unknowns, and he would have more details next month.
333 Ms. Marcou noted that the email requested that the Commission notify them of two days that
334 they are most available during those dates. Mr. Haynes said that it would be nice to know the
335 sites and terrain so people can decide whether they could attend.

336

337 Mr. Bergman noted that it is a State agency with their own website. He did not see a list of
338 properties but said it talks about their activities, functions, obligations, and opportunities.

339

340 The Chair would stop by the agency's office to seek some answers to questions. He had never
341 heard of them during his time in land conservation.

342

343 7) **Adjournment**

344

345 **Next Meeting: Monday, May 16, 2022 Keene Parks & Recreation Center, 312 Washington**
346 **St., Room 22.**

347

348 There being no further business, Chair Von Plinsky adjourned the meeting at 5:39 PM.

349

350 Respectfully submitted by,
351 Katryna Kibler, Minute Taker
352 April 25, 2022

353

354 Reviewed and edited by,
355 Corinne Marcou, Administrative Assistant

356

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**BEAVER BROOK CANYON
PRIVATE FOREST LANDOWNER COMPOSITE
KEENE, SURRY, GILSUM & SULLIVAN
MARCH 2022**



LEGEND

- TOWN LINE
- PARCEL BOUNDARY
- HFLP PROPERTY BOUND
- TOWN ROAD
- CLASS VI ROAD
- WOODS ROAD
- BEAVER BROOK



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Instream Flow Program to Hold Outreach Sessions on the Designated Ashuelot River

The New Hampshire Department of Environmental Services (NHDES) Instream Flow Program determines, through scientific investigation, the seasonal flows necessary to support habitat for fish and river-side vegetation as well as human uses in the state's Designated Rivers, *establishing* protected instream flow values based on these scientific investigations, and maintaining these protective flows during periods of low flow, such as the recent drought.

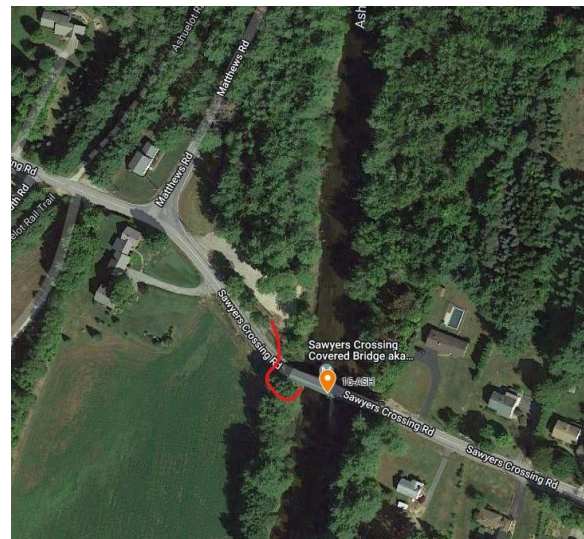
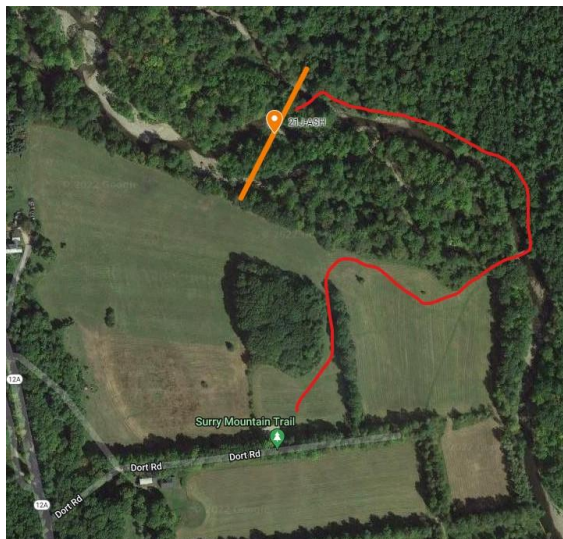
The Instream Flow Program is currently contracting a Protected Instream Flow Study of the Ashuelot River, in order to determine its appropriate instream flows. Concurrent with this study, baseline temperature, conductivity, and water level data are being collected along the 65-mile designated reach to document "baseline" conditions.

On May 17 and 18, 2022, Instream Flow Staff will be deploying a total of 22 dataloggers in the Ashuelot River, from Lempster to Hinsdale. On each of these days, the staff will be setting aside an hour (1:00-2:00 PM, rain or shine) to meet with people interested in the Ashuelot River, the program, and the ongoing study to join us during our deployment activities. We'll show you the equipment we use to collect the environmental data, some of the data collected during last year's work, and describe the program's approach to designated river protection. If you wish, you'll be able to follow the staff to a deployment location and observe the process.

We think that students, teachers, environmentalists, river enthusiasts, and just about anyone else may enjoy learning how the scientific data required to develop plans to protect our state's rivers is collected. ***Please join us!***

Tuesday, May 17 at 1:00 PM: On the upper Ashuelot River at the USACoE Surry Mountain Trailhead parking area off Dort Road in Surry, NH. [Google Maps link.](#)

Wednesday, May 18 at 1:00 PM: On the lower Ashuelot River at the parking area on the west side of the Sawyer Crossing Road bridge in Swanzev, NH. [Google Maps Link.](#)



For more information, contact Joe Schmidl at [\(603\) 271-3280](tel:6032713280) or Joseph.Schmidl@des.nh.gov. Visit our [Instream Flow webpage](#) for further information.