



CONSERVATION COMMISSION

AGENDA

Tuesday, February 20, 2024

4:30 PM

Room 22, Recreation Center

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 – January 16, 2024
3. Planning Board Referral: Surface Water Conditional Use Permit Application, 186 Gunn Road – Applicants/owners Ashley & Peter Greene request a reduction in the Surface Water Protection buffer from 75' to 30' to allow for the future subdivision and development of the parcel at 186 Gunn Rd (TMP #205-013-000). The parcel is 11 ac and is located in the Rural District.

Downtown Infrastructure Project: Tree Assessment & Recommendations

- 1) Review letter of support
 - 2) Review list of trees
 - 3) Provide comment to invasive/disease prone species
 - 4) March 6, 2024 Streetscape Workshop, Parks & Rec Center, 3:00pm – 4:30 pm & 5:30 pm – 7:00 pm
4. Report-outs
 - 1) Greater Goose Pond Forest Stewardship Subcommittee
 - 2) Invasive Species
 - 3) Land Conservation
 - 4) Neighborhood Pollinator Garden
 5. Discussion Items:
 - b) Letter to City Council re: recommendations for urban forest management
 - c) Keene Meadow Solar Station project update.
 - a) Potential Land Purchase update (Rt 9/Washington St. Ext. properties).
 - b) Airport proposed wildlife control fence update.
 - c) NHDOT Route 101 Project: February 8, 2024, 6:00 pm Heberton Hall, 60 Winter St.
 - d) Outreach
 6. New or Other Business
 7. Adjourn – Next meeting date: **Monday, March 18, 2024**

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

3
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5 **CONSERVATION COMMISSION**
6 **MEETING MINUTES**
7

Monday, January 16, 2024

4:30 PM

**2nd Floor Conference Room,
City Hall**

Members Present:

Alexander Von Plinsky, IV, Chair
Councilor Robert Williams
Eloise Clark (left at 5:41 PM)
Ken Bergman
Thomas Haynes, Alternate (Voting)
John Therriault, Alternate (Voting)
Lee Stanish, Alternate (Voting)
Deborah LeBlanc, Alternate (Voting)

Staff Present:

Mari Brunner, Senior Planner
Corinne Marcou, Administrative Assistant

Members Not Present:

Councilor Andrew Madison, Vice Chair
Art Walker
Steven Bill
Brian Reilly, Alternate

Mayor Jay V. Kahn (arrived at 4:47 PM &
left early)

8 **1) Call to Order**
9

10 Chair Von Plinsky called the meeting to order at 4:30 PM. The Chair welcomed Barbara Richter,
11 Executive Director of the NH Association of Conservation Commissions. By the date of the
12 February meeting, Ms. Richter would be confirmed by the City Council as a new regular
13 member of the Keene Conservation Commission. Ms. Clark would also be confirmed as an
14 alternate member as of the February meeting.
15

16 **2) Election of Chair & Vice Chair**
17

18 A motion by Mr. Haynes to nominate Sparky Von Plinsky and Councilor Andrew Madison as
19 the 2024 Conservation Commission Chair and Vice Chair, respectively, was duly seconded by
20 Mr. Therriault. The motion carried unanimously.
21

22 **3) Approval of Meeting Minutes – December 18, 2023**
23

24 Revision: line 155–156, strike the following: “*which had not progressed because of Covid.*”
25

26 A motion by Mr. Bergman to approve the December 18, 2023 meeting minutes as amended was
27 duly seconded by Mr. Haynes. The motion carried unanimously.
28

29 **4) Planning Board Referral: Surface Water Conditional Use Permit Application, 186**
30 **Gunn Road – Applicants/owners Ashley & Peter Greene request a reduction in the**
31 **Surface Water Protection buffer from 75’ to 30’ to allow for the future subdivision**
32 **and development of the parcel at 186 Gunn Rd (TMP #205-013-000). The parcel is**
33 **11 ac and is located in the Rural District.**
34

35 Chair Von Plinsky welcomed the applicant/property owner, Peter Greene, as well as the
36 Greene’s representative from Meridian Land Services, Inc., Jason Bolduc. Ms. Brunner noted
37 that this application was a bit unusual because typically, a subdivision request would usually
38 come forward concurrently with a Planning Board Surface Water Protection Conditional Use
39 Permit (CUP). However, in this case, the applicant was requesting the CUP on its own; if
40 approved, they would follow through with everything needed for the subdivision. Exhibit plans
41 (*not* actual subdivision plans that would be recorded) were included in the meeting agenda
42 packet.
43

44 Mr. Bolduc, a wetland scientist, explained that the Greenes were hoping to have a future
45 subdivision of the eastern corner of their property at 186 Gunn Road. Mr. Bolduc was the first on
46 site to delineate the wetlands over the entirety of this property. His survey was focused on the
47 eastern corner of the lot. He said that due to the wetlands on site, he pursued the option to reduce
48 the wetland buffer from 75’ to 30’. Mr. Bolduc showed the exhibit plans, which demonstrated
49 the intent for a driveway coming off Gunn Road that would access a four-bedroom house with a
50 septic system and well on the property; to the best of his knowledge, this would meet NH State
51 regulations for stormwater management. Infiltration trenches were proposed along the front and
52 rear of the proposed house, and Mr. Bolduc recommended spruce trees along the actual buffer
53 for soil stability and to delineate the building lot. Mr. Bolduc said he also assessed wetlands
54 functions on site. There is a stream over 400’ downslope of the proposed site that would remain
55 forested. Mr. Bolduc said this stream that runs across the back of the property is a higher value
56 wetland. He welcomed questions and a lengthy discussion ensued.
57

58 Mr. Bergman asked if the map Mr. Bolduc showed depicted the entire property or only the part
59 intended for subdivision. Mr. Bolduc did not answer the question directly, but said that the goal
60 was a subdivision, and he was trying to help the Greenes to avoid a full property survey by
61 determining if a CUP would be awarded for the subdivision first. Thus, he focused his initial
62 survey on the portion the owners want to subdivide and if it was a condition of approval, Mr.
63 Bolduc would complete the remaining survey work to locate the lot improvements and the
64 remainder of the wetlands on the property. Mr. Bergman questioned whether this location on the
65 property was the easiest and safest to develop a subdivision without impacts to wetland buffers.
66 Mr. Bolduc replied that he would have to do further assessments on the western side of the

67 property; the owners' goal was to subdivide a frontage lot. This eastern corner of the property
68 was surveyed by Mr. Bolduc first to determine whether it was possible without surveying the
69 whole 9 acres.

70

71 Ms. Clark noted that she is a member of the Ashuelot River Local Advisory Commission
72 (ARLAC), which reviews wetland and shoreland CUPs. During those reviews, ARLAC asks
73 about the impermeable surface ratio in relation to the rest of the lot (there is a permissible
74 amount of impervious surface). Mr. Bolduc said there are 20% and 30% thresholds that require a
75 certain level of stormwater management (he did not provide the specific calculations). Ms. Clark
76 noticed that in the report, approximately 10,000 square feet of added impermeable surface was
77 proposed. Mr. Bolduc thought those 10,000 square feet were the entirety of the impact (house,
78 driveway, and front entryway), not just the impervious areas. Ms. Clark asked, if the applicant
79 begins with a gravel driveway (i.e., permeable) and decides later to pave it (i.e., impermeable),
80 whether the City would have any control over that. Mr. Bolduc thought that control could be a
81 condition of the subdivision approval. Ms. Clark noted that Mr. Bolduc did well accounting for
82 drainage from the eaves of the house, but she did not see any provisions for driveway drainage.
83 Mr. Bolduc said he could look into drainage (e.g., swales on both sides) along the driveway and
84 add that to the plans.

85

86 Chair Von Plinsky expressed concern that this plan would impose on the wetland buffer, without
87 knowing whether there is a more apt location on the applicant's property that would not impact a
88 wetland buffer. Mr. Bolduc said he would need to conduct further assessments and delineations
89 to apply offsets and see building envelopes. Chair Von Plinsky questioned if Mr. Bolduc or the
90 applicants knew whether there is another 2-acre section of the property that would have zero
91 impact on the wetland buffer. Mr. Bolduc agreed that he did not know that at this time. While no
92 one wanted the Greenes to spend more money than needed, Chair Von Plinsky was concerned
93 that there could be a better spot on this property to subdivide without impacting the wetland
94 buffer.

95

96 Mr. Therriault said it appeared—based on the elevation lines—that there would be a 24' drop
97 from the road to the front of the house, as well as a 17' drop from the back of the house to the
98 border of the first wetland. Mr. Bolduc confirmed those numbers. Thus, Mr. Therriault said it
99 was clear that any water would flow toward the back wetland, which Mr. Bolduc said was
100 correct, noting that water flows toward that wetland currently. The existing home is on a high
101 spot that drops off in all directions, so the water runs in both directions from that point. In
102 response to Mr. Therriault, Mr. Bolduc said the entirety of the proposed subdivision would be
103 within the wetland buffer. Ms. Brunner added that with a 75' buffer, the whole development
104 would be in the buffer. Conversely, if the 30' buffer was approved, only 10,000 square feet of
105 the development would impact the buffer.

106

107 Mr. Bergman noted that a septic system was proposed behind/downslope of the house but above
108 the wetlands; was there a straightforward way to protect the wetlands from septic leeching into
109 surface or groundwater? Mr. Bolduc replied that NH has a 50' setback to poorly drained

110 wetlands, which is what the wetlands in question were. There needs to be 2.5' above either the
111 seasonal highwater table or ledge. Thus, Mr. Bolduc used the 50% rule to ensure the septic
112 system would be at least 2' above the water table. Ms. Brunner added that the City of Keene
113 prohibits septic systems within the surface water buffer. So, if the buffer was reduced to 30', the
114 applicant could place the septic system where proposed. Ms. Brunner reminded the Commission
115 that they were reviewing exhibit plans (i.e., proof of concept) and not the actual development
116 proposed. This was a way to see how the site *could* be developed and still meet NH requirements
117 and setbacks between the well and septic system. Any design in the future would still have the
118 same quality of being entirely within the 75' buffer, which Mr. Bolduc confirmed. Mr. Bolduc
119 said his intent in asking for the buffer reduction to 30' in the exhibit plans was to show a
120 "glorified septic design," proving that the necessary utilities for a house were possible. Anyone
121 who builds a house there would not be able to build a much larger house than what was in the
122 exhibit plan because of the buffer restrictions.

123
124 Ms. Clark said the primary issue was whether the Commission should set a precedent of granting
125 a clear exception to the 75' buffer. The Chair and Mr. Haynes agreed. Chair Von Plinsky was
126 still concerned that there could be a perfectly acceptable place on the property that would have
127 zero impact on the wetland buffers.

128
129 Mr. Bergman wondered if there was a recent example in the City of the buffer restrictions being
130 waived for development. Ms. Brunner said this exception to the 75' buffer was just added as an
131 option in the City in 2021. Granting the buffer reduction is allowed when: "*In specific cases, the*
132 *Surface Water Protection District buffer area may be reduced to 30 feet in zoning districts*
133 *requiring a 75 foot buffer and to 10 feet in zoning districts requiring a 30 foot buffer at the*
134 *discretion of the Planning Board and if the applicant provides extraordinary mitigation,*
135 *replication, or restoration of surface waters and wetlands and/or open space preservation*
136 *measures."* Ms. Brunner was not positive, but she thought this might be the first application for
137 this exception.

138
139 Councilor Williams questioned what counts as "*extraordinary measures.*" Were there any
140 criteria the Commission was supposed to evaluate? Ms. Brunner replied that the Planning Board
141 ultimately makes the decision, and they would likely rely heavily on the Conservation
142 Commission's recommendations for mitigation measures (e.g., surface water management along
143 the driveway) when deciding what conditions to impose on the plan. Ms. Brunner thought this
144 was a tricky situation with a subdivision that would create a lot for developing a single-family
145 home. Historically, the Planning Board had approved subdivisions with conditions like
146 submitting a stormwater management plan to receive the permit. Otherwise, the building permit
147 review would be strictly focused on whether the plan meets the Building Code.

148
149 Chair Von Plinsky was struggling to consider mitigation measures. He wondered if the
150 Commission had ever faced a plan for developing a building that would essentially be an island
151 in the middle of the wetland buffer. Councilor Williams wondered what harm the Commission
152 was trying to mitigate; to stay away from the wetland entirely? The Chair thought the goal was to

153 keep development effects out of wetlands, which is why the buffers exist. If carving out a whole
154 section of the buffer, Chair Von Plinsky was unsure how to keep the house from impacting the
155 wetland 30' away. Councilor Williams agreed and said another impact is from runoff, which can
156 be mitigated, but he was unsure how. Mr. Bolduc said that infiltration trenches were proposed for
157 runoff from the house. He said there were no more impervious areas proposed. He said he could
158 put together a stormwater plan for the driveway runoff, whether impervious or pervious. Mr.
159 Bolduc recently had a project in Hillsboro, NH, which was approved with stormwater
160 management plans (e.g., detention basins) submitted with the building applications.

161
162 Councilor Williams was also concerned with this whole parcel being turned into lawn, which
163 would increase the runoff impacts. He wondered if there was a way to prevent that. Chair Von
164 Plinsky agreed that lawns can have negative impacts, especially this close to a wetland. Mr.
165 Bolduc said his goal was siltation control on site, which would also manage the people on site;
166 silt fences, for example, could keep construction workers contained on the site as well as the silt.
167 His intent was also for the red spruces to act as a sort of natural buffer along the fence line. Once
168 the site is completed, Mr. Bolduc would also create a landscaping plan to guide new owners on
169 what/where lawns could be. Proving that required plantings are completed is a condition of
170 receiving a Certificate of Occupancy. Ms. Brunner added that the Planning Board could require a
171 no-cut buffer for a portion of the site, which she thought the Commission had recommended for
172 the 30' wetland buffer in the past, but tracking and enforcement is challenging. If listed on the
173 plans, future owners would have access to those requirements. Chair Von Plinsky was still
174 concerned that any lawn in this plan would be within the buffer, including any lawn care
175 materials/products. The City chose a 75' buffer for many important reasons.

176
177 Mr. Bergman asked if there were any obvious deterrents to subdividing a different part of this
178 property; was there anything like soil ledges or slope issues preventing a different location? Mr.
179 Bolduc replied that he would need to complete the wetland delineation for the rest of the
180 property. Mr. Greene said the location was chosen based on how his family uses the property,
181 and he thought this plan would have the least impact on how his family uses the land now.

182
183 Ms. Clark asked whether there was a way for the Commission to reject this plan. Ms. Brunner
184 said the Commission could recommend that the Planning Board deny this application, but it
185 would ultimately be at their discretion.

186
187 As a homeowner and with experience buying/selling homes, Mr. Therriault did not see why this
188 application should be rejected if it is allowed by law and there is proper mitigation. He
189 recommended approving the application with mitigation, especially around the driveway and the
190 area closest to the wetland. He was comfortable approving the 30' buffer if properly mitigated.
191 He thought the proposed driveway was very close to the wetland boundary and would need to be
192 well mitigated. Ms. LeBlanc suggested that the driveway could possibly be moved to a different
193 location.

194

195 Mr. Haynes asked if the Planning Board would decide on the mitigation measures. Ms. Brunner
196 said yes, but the Planning Board would rely heavily on the Commission's advice.

197
198 Mr. Bergman was struggling with this because he wanted to be flexible where it is useful in the
199 community, but he wondered how the Commission and Planning Board should maintain the 75'
200 buffer if there are no guidelines for deviating. The concern remained about setting a precedent.
201 Mr. Therriault thought that if the mitigation was sufficient, then the law allows for a 30' buffer in
202 the City of Keene. He did not think that approving mitigation would hurt the environment. Chair
203 Von Plinsky respectfully disagreed, noting that in his experience, changing an area that is all
204 wetland/buffer into a development was different than a house encroaching on the buffer by a few
205 hundred feet.

206
207 The Commission discussed possible mitigation measures, especially given that this would be an
208 unprecedented situation with an island of development within the wetland buffer. Mr. Therriault
209 recommended a drainage trench off the base of the driveway that carries the runoff into the lower
210 portion of the wetland approximately 20'–50' downhill. Further concerns were mentioned about
211 nutrients, erosion, settlement, and road salt. Councilor Williams was concerned that there would
212 be a pulse of water runoff that would not normally happen in this area, where it is naturally
213 mitigated by the forest. Mr. Therriault thought detention basins would solve that problem.
214 Councilor Williams also suggested an engineered marsh area or something else that would
215 enhance the wildlife on site; still, no development at all would be the best way to preserve
216 wildlife on the property. Mr. Greene showed on the exhibit plans where a few detention basins
217 existed on the property already. Mr. Bolduc said he could explore a detention pond that collects
218 suspended solids. Mr. Therriault provided an example of his home in Amherst, MA, which is
219 bordered by wetlands on 3 sides and the detention pond became a favorite place for wildlife.

220
221 Ms. Richter echoed concerns about setting a precedent. She thought it was worth the
222 Commission's time to do a site visit and look at the slopes and how close the wetlands are to the
223 proposed building site to make a well-informed recommendation, as there would likely be more
224 of these applications. She and Chair Von Plinsky agreed it was worth avoiding this pressure and
225 rush to not delay the application. There was time to do this right.

226
227 Ms. LeBlanc asked if Mr. Bolduc had investigated alternatives for the site yet. Mr. Bolduc said
228 he had not. However, he had flagged all the wetlands on the property. Ultimately though, he
229 pursued the owners' intent for this eastern corner. He said there were wetlands throughout the
230 property, but he had not surveyed the whole property because of winter weather.

231
232 Discussion ensued on if and when the Commission should reschedule the site visit to this
233 property. Given that the Planning Board hearing would be on January 22, the Commission
234 weighed rescheduling the site visit and holding a special meeting to vote on a recommendation
235 before the Planning Board hearing. Ultimately, the Commission decided not to reschedule the
236 site visit during this time frame and to instead recommend that the Planning Board continue the
237 application for another month to allow the Commission the time needed to sufficiently review

238 this application. The Planning Board could still decide to act on this application in the absence of
239 a Conservation Commission recommendation.

240

241 Mr. Therriault motioned that the Conservation Commission recommends continuing this hearing
242 until the February Planning Board meeting so that a Conservation Commission site visit can be
243 accomplished and recommendations can be determined. Mr. Bergman seconded the motion,
244 which carried unanimously.

245

246 **5) Report-Outs**

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

248

249 Mr. Haynes reported that the Subcommittee met on January 5 and mostly focused on the
250 American Trails grant for trail maintenance, volunteerism, and collecting data. The grant
251 application was submitted on January 15. The focus was on the Mattson and Lower Drummer
252 Hill woods roads. The Subcommittee discussed how to improve volunteer recruitment for trail
253 maintenance and construction. The Subcommittee was also progressing with plans for Goose
254 Pond Through the Seasons walks, with the Cheshire County Forester, Matt Kelley, willing to
255 lead a winter walk at the end of February or early March.

256

257 The Subcommittee continued discussing the Greater Goose Pond Forest Stewardship Plan. While
258 the focus had primarily been on trail maintenance, the plan also focused on education, outreach,
259 forestry, and wildlife.

260

261 Regarding volunteers, Ms. Brunner reported on the possibility the Commission discussed for
262 volunteer email lists through the City website. She talked with the Communications & Marketing
263 Director, Rebecca Landry, and the City Clerk, Patty Little. The Clerk's preference was to not
264 create large, general volunteer lists. Rather, she recommended one specific to Conservation
265 Commission volunteers, since the general option could be confused with volunteers for different
266 efforts, like City elections. Chair Von Plinsky and Ms. Brunner would work together to get this
267 list up and running soon. Ms. Stanish wanted to be a part of that conversation as she has
268 experience in web design and research. There was a reminder that if 4 members of the
269 Commission convene as the Subcommittee, there would be a quorum, which requires public
270 notice 24 hours in advance and public minutes.

271

272 **B) Invasive Species**

273

274 No activity due to winter. Councilor Williams was meeting with Peter Hansel from the Keene
275 Rotary on January 18 about volunteers for this effort.

276

277 **C) Land Conservation**

278

279 Chair Von Plinsky reported that he and Mr. Bergman had a meeting scheduled with Anne
280 McBride from the Monadnock Conservancy on January 19 about how the Conservancy would

281 approach prioritizing the properties owned by Hull Forest Products. Commissioners were asked
282 to forward any questions for Ms. McBride to Ms. Brunner in advance of the meeting. Part of the
283 discussion would be about how the Conservancy could contribute to and help the City take
284 action on these properties; would they only advise or be interested in administrative involvement
285 or funding?
286

287 **6) Discussion Items**

288 **A) Letter to City Council re: Recommendations for Urban Forest Management**
289

290 Chair Von Plinsky reported on a great presentation at the City Council's Finance, Organization,
291 & Personnel Committee in response to the letter from the Commission. The Chair, Councilor
292 Williams, Councilor Madison, and members of the public spoke in support of this effort. The
293 Assistant Public Works Director, Duncan Watson, led the presentation. There was a lot of
294 interest in doing better by the City's trees. Mr. Watson presented an already ongoing inventory
295 of street trees from a natural infrastructure asset perspective. This is a critical advancement.
296 Councilor Bryan Lake also contacted Chair Von Plinsky about cost sharing measures between
297 the City and homeowners, like programs in Nashua and Manchester, NH.
298

299 Ms. Clark left the meeting.
300

301 Councilor Williams was excited that trees would be managed through a strategic asset
302 management plan that would track the trees just like all other City infrastructure/assets. There
303 was also exciting progress on a tree index. During budget time, Councilor Williams would be
304 focused on allotting more than \$3,000 per year for street trees. In the Commission's letter, the
305 Council was also informed of an initiative from the Director of Parks, Recreation, & Facilities,
306 Andy Bohannon, to manage monocultures in Dinsmoor Woods, Robin Hood Park, and Ladies'
307 Wildwood Park. The Council would continue relying on the Commission as this develops
308 further.
309

310 **B) Keene Meadow Solar Station Project Update**
311

312 There was no update, but this should remain on the agenda.
313

314 **C) Potential Land Purchase Update (Rt-9/Washington St. Ext. Properties)**
315

316 Discussed earlier in the meeting under agenda item 5.C.
317

318 **D) Airport Proposed Wildlife Control Fence Update**
319

320 The only update was that the attempt to have the fence construction approved within 1 fiscal year
321 was unsuccessful. Thus, the fence would be constructed over a period of a few years, which
322 unfortunately means longer term construction impacts on the wetlands and wildlife there.
323

324 **E) Neighborhood Pollinator Garden Update**

325

326 Mr. Therriault met with the Edgewood neighbors, Mr. Bohannon, and a new Cemeteries
327 Division employee responsible for mowing/upkeep of parks and cemeteries. The neighbors
328 initially suggested a diamond shaped garden but that would have been too hard to mow around.
329 Thus, the decision was to create a circular garden around the flagpole (15'–20' radius) that
330 would be easier to mow around. The plan for 2024 was site preparation only; after spring, City
331 Staff would cut the circle and the residents would prepare the bed for wildflower seeding in the
332 fall (New England pollinator mix of approximately 30 different annuals and perennials). Over
333 the first few years, the character of the garden will change as the perennials (taller plants) take
334 over from the annuals (shorter plants). Existing invasive shrubs around the flagpole would be
335 removed.

336

337 **F) Antioch University CSI Proposal**

338

339 Ms. Brunner officially received notice that the Commission's proposal was not chosen by the
340 students. This could be pursued again next year if a project aligns.

341

342 **G) NH DOT Rt-101 Project**

343

344 Chair Von Plinsky shared an update on changes to the intersection where Swanzey Factory Road
345 meets Rt-101. There was supposed to be a NH Department of Transportation
346 meeting/presentation on January 23, but that is Election Day, so it was canceled, and a
347 rescheduled date had not yet been announced. When it is rescheduled, the Chair urged
348 Commissioners to share it with their networks so there is enough public participation, which
349 could make a difference in the final project. Ms. Brunner would notify Commissioners of the
350 rescheduled date.

351

352 **H) Outreach**

353

354 Chair Von Plinsky mentioned NH House Bill 1484 on "current use" properties. The Bill would
355 tax properties in current use, but also in a carbon sequestration market. The first hearing was
356 January 17. On the NH House website, you can register positions on this Bill and any others.

357

358 The Ashuelot River Local Advisory Committee's annual report was sent to Commissioner's via
359 email.

360

361 Ms. Richter also mentioned NH House Bill 1302, which would have towns elect Conservation
362 Commission members. Past bills had focused on electing Conservation Commissioners when
363 volunteers were hard to find. The NH Association of Conservation Commissions (NHACC)
364 would be opposing this Bill based on the belief that Commissioners should be appointed to these
365 advisory roles that should not be elected; it is unfair. The Bill would disallow any use of State,
366 Federal, or local funds for lobbying efforts; much of the NHACC's work is lobbying and keeping

367 members informed of upcoming bills that impact Conservation Commissions. She also
368 mentioned House Bill 1121, which would exempt Wetlands Permits from any natural disaster
369 emergency declaration. This is problematic as the Department of Environmental Services (DES)
370 already has an emergency authorization process. If HB 1121 is approved, it could jeopardize
371 Federal Emergency Management Agency (FEMA) funds.
372

373 Mr. Bergman questioned the reasoning for HB 1302. Ms. Richter thought some towns felt that
374 there should be more public involvement in who is appointed to Conservation Commissions.
375 While there could be merit to that perspective, Ms. Richter thought this was not a popularity
376 contest and that there should be emphasis on Commissioners with expertise or interest. It could
377 be hard to keep Conservation Commissions running in some towns if members must be elected.
378

379 Mr. Therriault provided an update on the bees at the Keene Public Library. The Staff from Parks,
380 Recreation, & Facilities chose to leave the hive alone and let the bees live there until a future
381 spring when there is no more bee activity, at which time the area would be sealed off. No active
382 mitigation was planned. Bees usually live in the same location for 3–4 years in nature. Councilor
383 Williams heard at the Library Board of Trustees meeting that part of the hive had fallen off and
384 there had not been much bee activity since. The situation would be evaluated again in the spring.
385

386 **7) New or Other Business**
387

388 Ms. Brunner would be on leave for 12 weeks, during which time Commissioners should contact
389 Corinne Marcou (cmarcou@keenenh.gov), the Commission's temporary Staff Liaison.
390

391 **8) Adjournment – Next Meeting Date: Tuesday, February 20, 2024**
392

393 There being no further business, Chair Von Plinsky adjourned the meeting at 5:58 PM.
394

395 Respectfully submitted by,
396 Katryna Kibler, Minute Taker
397 January 23, 2024
398

399 Reviewed and edited by,
400 Corinne Marcou, Staff

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Commission Members,

I've attempted to gather as much history on the Surface Water Protection Ordinance pre-adoption by the City Council on August 1, 2013. There is a gap where minutes couldn't be found, this is from the Planning, License & Development Committee. These minutes are in chronological order, and only the sections where the ordinance was discussed is added to the packet.

PUBLIC WORKSHOP

3. Ordinance – O-2012-07 – Relating to the establishment of a Surface Water Protection Overlay District. This ordinance would amend the City Code by creating an overlay district in Keene to protect the water quality of surface waters and wetlands and the buffers associated with these resources.

Planning Director, Rhett Lamb addressed the Committee. Mr. Lamb stated that this Ordinance is something that the City has been working on for a while and this is the workshop that will introduce the discussion. He stated that the goal of this Ordinance is to address water quality and surface waters as part of a larger strategy. The City has taken steps in the past to look at floodplain and floodplain management, has extensive experience in dealing with water quality issues and surface waters and more recently through the Hillside Ordinance have taken steps to look at the implications of developing land on the hillsides and how it affects surface water and flood plains on the valley floor. He indicated that it has been at least 16 years since the time consideration has been given as to whether a Surface Water Ordinance ought to be considered for the City.

Mr. Lamb stated that the Surface Water Ordinance Committee has not met since December 11, 2011 and have wrapped up their work since that time. The intent of this Ordinance is to protect the functions and values of wetlands and surface waters as recommended in the 2010 Comprehensive Master Plan.

The functions and values of surface waters and wetlands are as follows: water quality, retention of storm water, flood storage, aquifer recharge (much of the aquifer recharges at the foot of the hills in the valley), wildlife habitat, aesthetic, tourism, education, fishery, greenway, noise reduction, carbon sequestration, and wetland ecosystems. Mr. Lamb went on to say that the values and functions are those that the City does not recognize everyday until it is missed such as storm water retention, floodplain impact. He indicated that as land is developed and if these values are lost they can be very costly to replace and maintain with man-made systems, such as storm drains, flood storage, or management of water on the valley floor.

Mr. Lamb then went over a few slides regarding water temperature and the effects on aquatic species. Cooler water holds more dissolved oxygen making better ecosystems settings. As water moves downstream there will be an increase to water temperature. He noted to four locations where temperature readings were taken between July through September on Beaver Brook and indicated that the highest reading (72 degrees) is in and around the Water Street area where there is more sunlight exposure to the stream. Lethal temperature for brook trout is 78 degrees and their preferred temperature is between 55 degrees and 65 degrees. Juvenile trout stop feeding at 72½ degrees.

He also referred to a chart which refers to the long stretch of the Ashuelot River running from Washington, NH to Hinsdale, and in Keene the four locations are the Stone Arch Bridge, Route 101, and the Waste Water Treatment Facility and of the locations indicated the highest temperature measured on the Ashuelot River is in Keene.

Mr. Lamb then talked about nutrients including phosphorous and nitrogen, which are measured by ARLAC. Phosphorous is the major issue locally but nitrogen is an issue in locations such as in the Connecticut River in New Haven. Locally phosphorous causes algae blooms. Phosphorous is not just a source that runs across the ground and into the stream but there are also other direct discharges of phosphorous as well.

Sediment deposited in the stream bed is a habitat issue and can get to the point of choking the filter feeders and can be a contributor to dissolved oxygen issues. This can be caused by many things but mostly developed land with its pavements, concentrated discharge of stormwater into the collection systems tends to rise rapidly in the Ashuelot River. Mr. Lamb added that this also could be a function the soils associated with the glacial valley floor not just coming directly from development.

Mr. Lamb then talked about current surface water standards. As it relates to State law we deal with the Shoreland Protection Act, which creates setbacks from certain streams (fourth order streams, larger streams and lakes of ten acres or more). Stormwater rules through EPA indicate that if someone is going to alter a large area of land there are practices that need to be followed, the New Hampshire DES Alteration of Terrain Permit with a threshold of 100,000 square feet of construction, the Planning Board's rules regarding sedimentation and erosion control relying on Best Management Practices to limit erosion and sedimentation from construction sites.

Under the Shoreland Protection Act there is a Standard that indicates that within proximity to wetland or surface water the first 50 feet will be left in an undeveloped state. There are 2 other buffer distances as well. He noted that there was a lot of discussion at the Committee level which prepared this Ordinance whether this type of segmented setback should be applied in Keene. However, the Committee did not go with this concept even though the buffer concepts are similar.

With respect to wetlands, at the State level there is the Wetlands Law for the permitting of dredging and filling of wetlands. There are three different standards that are applied: Minimum impact of less than 3,000 square feet, Minor impact 3,000 to 20,000 square feet, and Major impact is for anything over 20,000 square feet. A permit from the Army Corp of Engineers might be needed for the larger fills but also could be managed through a permit from DES. Keene Site Plan rules include a 30 foot setback from wetlands for all structures, parking and paving. Mr. Lamb reviewed the Site Plan threshold. 111 NH communities regulate development in wetlands though local standards.

Under the Shoreland Protection Act, the following bodies of water that are regulated: Ashuelot River from the beginning to end in Keene; Branch River from the Minniwawa; Otter Brook in Marlborough; All of Otter Brook for its stretch in Keene; Ash Swamp Brook up to its juncture with Black Brook; Small section Minniwawa in Keene; Goose Pond, three mile reservoir (dam on Route 10); Wilson Pond. Other city wetlands and water bodies are not subject to CSPA.

CSPA allows local rules to be more restrictive. 77 NH towns have done so.

Mr. Lamb then went over the Ordinance itself. Surface Waters are any body of water (lakes, streams etc.), as well as wetlands. The Ordinance provides oversight for the location of structures. There are some exemptions that have been included in the Ordinance, man-made ditches and swales, retention ponds, irrigation ponds, fire ponds and cisterns, agricultural lagoons. Exemptions to these are: Man-made ditches and swales, sedimentation retention and detention ponds, things that are designed to capture runoff for new development, irrigation ponds for agriculture, fire ponds and cisterns, silage pits, ditches, streams and waterways.

Mr. Lamb then talked about the Ordinance specifically. This process started in 2006. The model that was used came from the 2008 NH DES Handbook referred to as the NH Innovative Landuse Planning Technique. The Committee also reviewed some surrounding towns (Swanzy, Dublin

and Milford); the Committee did a lot of work to revise this model to fit Keene's specific circumstances. In finalizing the document, the development community was invited to provide comments.

Mr. Lamb then explained buffers and stated that some provide better infiltration or filtration than others. Their functions are to capture and store rainfall, filtering runoff for better quality when it enters the stream, managing the edge of the shoreline, minimizing erosion, recreation greenway, shade for water temperature issues, and aesthetic appeal.

In 2006 the Ashuelot River Local Advisory Committee updated their plan and called for maintaining forested riparian buffers where possible and then preserving those buffers. He indicated that 100 feet is the basic recommendation but if it is for habitat value the buffer should be greater than 100 feet. In zoning district where there is less development; medium, low, industrial, commerce a 30 foot setback is proposed which is the same setback used at the Planning Board level. However, this level can be lowered based on the development at the discretion of the Board.

Definition of a buffer is an area that is intended to be undisturbed and left in its natural condition and capable of providing the functions and values to minimize the adverse impacts from surface water that is running through the ground into the water body. Some provide better infiltration than others. Their functions are to capture and retain rainfall, filtering capacity to provide better water quality, management and reduction of flood, managing the edge of the shoreline, minimizing erosion, providing shade for water temperature issues, habitat and aesthetic appeal.

He then referred to the area in red and stated that these areas are exempt from the Shoreland Protection Act; the State gave cities and towns an opportunity to create an urban exemption. Mr. Lamb showed the Board a depiction of wetlands and their buffers and the colors indicate those wetlands that are subject to the various buffer widths. Red is the ten foot buffer area, yellow is the 30 foot buffer area, and the orange is the 100 foot buffer area. However, it is not an accurate depiction of where all the wetlands are.

In the City, it has already been recognized where there are areas which are densely developed and where development could still occur. The primary growth area according to the Comprehensive Master Plan is the area encompassed by the Bypass, the districts here are central business, central business limited, office, high density, high density 1 and in the proposed the setback here has been reduced from 100 feet to 10 feet which means that the buffer here has lesser value and so does the water quality being discharged into the river. In the medium density, low, low density 1, industrial, and commerce district have a 30 foot setback. However, this amount can be reduced on an ad-hoc basis based on the development itself at the discretion of the Planning Board. For rural, conservation, agricultural, industrial park limited and CRD the 100 feet would apply.

Mr. Lamb reviewed the list of permitted uses – the Committee stressed that forestry be allowed to be continued as a permitted use but that they adhere to Best Management Practices. Other uses, new driveways, maintenance of roadways and utilities, reconstruction of roads, bridges and culverts.

The prohibited list reads a lot like an aquifer protection district. Those activities which create the greatest potential for pollutants, particularly harmful pollutants like road salts, automobile waste petroleum products For certain types of uses a Conditional Use Permit is required which is a Planning Board Conditional Use Permit. He indicated that because the Planning Board is already

working on a regular basis on these types of issues for Site Plan review the Committee felt it was best to let this practice continue and that the Conditional Use Permit process would be a Planning Board process not a ZBA process.

However, if it is subject to a State Permit a Conditional Use Permit is not required. With reference to wetlands, if a project is affecting both the wetlands and the buffer, then an applicant might need a Conditional Use Permit from the City and a Wetlands Permit from the State.

Activities subject to the Conditional Use Permit are, new lots by subdivision, construction of a new structure, new category (for single, and 2-family homes) roadways, driveways and parking lots; stormwater management facilities and structures.

The four criteria for the Planning Board to use are avoidance and minimization, mitigation of adverse impacts, buffer zones be maintained in a natural state, in the granting of the permit 30 feet should be the minimum.

The Committee also felt that there should not be limitations that would cause a pre-existing lots affected by the standard to be undevelopable or prohibitive in terms of their permitting. Single and two family homes will not be prohibited from being built on a piece of property. Mr. Lamb noted that the criteria are similar to those of a Conditional Use Permit such as minimizing impact on the wetland or the buffer, that the structure is setback as further from the buffer or surface water, disturbance of the buffer is fixed as soon as possible after construction, distance from buffer be maintained as much as possible, alteration of storm water be in keeping with all State law, and not increasing the runoff or velocity to adjoining properties.

In closing Mr. Lamb stated that, the question for the Planning Board is when they evaluate a modification or amendment to the Zoning Ordinance, the degree to which the proposal is consistent with the Master Plan. A review done a few months ago brought to light these consistencies: the Comprehensive Plan, the Climate Adaptation Plan, the Community Vision and the Hazard Mitigation Plan where the City has recommended that attempt be taken to protect surface waters or wetlands as important elements of the City's natural infrastructure that plays an important role in water quality, flood storage, storm water retention and habitat value.

Chair Jones asked whether there will be another public forum. Mr. Lamb stated that the process would be entirely up to the Joint Committee. The next step in the process, assuming it leaves this Committee would be a noticed public hearing before the City Council.

Councilor Duffy asked why this process has taken that amount of time (nearly 20 years). Mr. Lamb stated that because of the complexity of the item and testing out the approaches. As well as relying on staff who have had to work on other initiatives such as the Community Vision, Community Master Plan, Hillside Ordinance, and the SEED District. He indicated that competition for time is the best answer he could give. The Councilor stated that it is indicated that in 2011 the community held a stakeholders meeting and invited professional engineers and the site planning community to make comments and asked whether anyone else was invited and what specific comments they provided. Mr. Lamb stated that he remembers that there were comments that ranged from individuals who felt the Ordinance was unnecessary, to specific comments, such as for example should geothermal systems be permitted in the buffer zones and the answer was yes. It was also indicated that this Ordinance will have the tendency to increase sprawl in the City. He added that he would need to review his notes to provide a more concise list but felt the comments were very productive.

Councilor Jacobs asked what can be expected to happen with mitigation. Mr. Lamb stated that it is under the criteria of granting a Conditional Use Permit and the Board can test as to whether the mitigation to the impact in the wetlands or the buffer is adequate. The Councilor stated that he was not sure what exactly mitigation means and at one point it does say a financial donation would suffice. Mr. Lamb stated that the term mitigation does not have a definition and what the Councilor is referring to is the State's practice for mitigation. He added that the Ordinance does not dictate what mitigation would be required under any circumstance. The Councilor stated that he would also like a better definition for the term "pre-existing". Mr. Lamb explained that because this is a Zoning Ordinance, terms such as "pre-existing", "legal non-conforming" will be determined by the Zoning Enforcement Officer. He added that there are no specific definitions for this particular Ordinance. However, the premise of a pre-existing condition is whether it was legal at the time it was installed.

Chair Abrash Walton asked whether neighboring towns such as Swanzey who have similar protections in place have the same Standards as proposed in this. Mr. Lamb deferred to one of the Committee members. The Chair also asked how this Ordinance measures with the Hillside Protection Ordinance recognizing that this Ordinance already creates certain conditions in the way in which people can develop land and asked whether anyone had done a comparison. Mr. Lamb stated that they had not done a comparison.

Chair Abrash Walton further stated that the Planning Board struggles with the issue of infill development and encouraging development in the downtown area and the competing issues that go along with that, such as the flooding problems that seem to get worse. She asked what the benefits of this Ordinance is to the public even though the benefits to wildlife and aquatic organisms are very clear. She also asked what the implications of not moving this Ordinance forward was. Mr. Lamb stated that with respect to stormwater and flood retention; this is natural infrastructure and by protecting the buffers associated with these wetlands, there is an enhanced local stormwater management system on every property. This would lessen the effect of the flooding itself. Without the Ordinance, if land gets developed without these standards the City could end up with an increase of volume and velocity reaching the floodplain. He added that he however, could not quantify this effect without a great degree of review.

Councilor Duffy asked whether Mr. Lamb would know how much the City spends every year to make sure that our drinking water is safe and how does this Ordinance relate to that issue. Mr. Lamb stated that he did not know the answer regarding the cost but will find the information for the Councilor. He further stated that the premise of this Ordinance is to provide protection for wetlands and buffers which is primarily related to the recharge of the aquifers where a basic amount of filtration and cleansing takes place. If these areas are paved and we prevent the water from recharging the aquifers something else will need to be done, such as a change to the manner in which we draw water out of the lower aquifer or some form of treatment. He indicated that he however, cannot say that if this Ordinance is not approved the groundwater quality will degrade. It is however, an important component of the recharge of the lower aquifer where the City draws a portion of its water supply from. A large portion of the City's water supply is also generated in surface water reservoirs in the Town of Roxbury.

Mayor Lane asked if this Ordinance is not passed how much development would be restricted and what the real impact of this Ordinance was. Mr. Lamb explained that what is happening today is that land that is not subject to site plan review and has only the review of the building permit process. Without this Ordinance, that process will continue unless a development includes a filling or dredging of a wetland where no permit is necessary to establish a setback distance away from that wetland or that surface water. The Mayor clarified that this Ordinance does not

say that there cannot be development in the central part of the City but what it says is that there are going to be setback requirements and that a review of same will take place. Mr. Lamb agreed.

Chair Jones asked whether there was a way to add incentives to this Ordinance; for instance the setback would not need to be as far if you have a driveway that was made of impervious surface. Mr. Lamb stated that the Committee did not look at this but it is something that could be looked at.

Mr. Crowell stated that he would support the incentives suggestion but added that the City could also provide incentives for people to move further away from the buffer zone.

With that, Mr. Lamb introduced Del Meyer, Chair of this Ordinance Committee. Mr. Meyer addressed the Committee next and thanked the many people who worked on this Ordinance over the years. He stated that the Committee tried to make this Ordinance as simple as possible and easy to use. They were also careful about existing uses "grandfathering" was carefully protected. The Committee also recognized that there is no Ordinance that could cover every possible situation. He indicated that this Ordinance is an attempt to have growth with minimum destruction to the things that make the City attractive in the first place. Mr. Meyer stated that as a City gets congested it is often difficult to recognize the rights of everyone and also recognize the rights of the individual person.

Chair Jones asked for public comment next.

Mr. Jim Phippard of Brickstone Landuse Consultants addressed the Committee first. Mr. Phippard stated that he was one of those people who was invited to the stakeholders meeting. He noted that some of his comments have been included in this Ordinance, such as the issue with geothermal. He indicated that the regulatory world is a difficult one to deal with especially with reference to surface waters and wetlands. He indicated that he is one of those people who felt this Ordinance was not necessary and indicated that there are already six layers of regulations from local, state and federal, governing wetlands and wetland buffers. He noted that the Town of Swanzey which was mentioned earlier does not require a wetland buffer which is a major difference between Keene and Swanzey. However, if you impact the wetlands directly you are required to get a variance from the Zoning Board before an application can be submitted to the Planning Board.

Mr. Phippard referred to the Hillside Ordinance and added that when that Ordinance was proposed he had similar questions as the Chair and the Mayor had as to what the impact this Ordinance would have. He noted that he was glad to see through the GIS system what the Director had referred to, the easily defined wetland areas and surface areas and the buffers surrounding them if the Ordinance was adopted.

He went on to say that the economic impact of the Hillside Ordinance on a landowner is very significant. The same would be true with this Ordinance as well. He felt that the criteria list was difficult to meet and add that in his opinion similar to the Hillside Ordinance, this Ordinance also takes away property rights. Mr. Phippard stated that this is why he feels some effort should be made by staff to establish how much property is being affected and how much property rights are being taken away and then the value can be placed on it. He added that he had many discussions with the City Assessor about the Hill property which was not a property under Current Use and once the Hillside Ordinance was adopted he attempted to determine the land area that was lost. However, the Assessor could not determine this amount and stated that he has a hard time with that and this same process is going to be undertaken again with wetlands and surface waters. He

explained that if someone owns 100 acres of land of which 20 acres are wetlands, for zoning density purposes you only have 80 acres. Mr. Phippard stated that other municipalities have similar ordinances and he has applied for variances to get around this provision, which have been granted but added that this is a timely and expensive process. Mr. Phippard went on to say that with the technology that is available, there is a possibility to put a value on it and the Council at that point can decide whether this is worth it. He did not feel it was worth it.

Mr. Phippard stated that part of this Ordinance confused him. He referred to the slide Mr. Lamb had shown the Committee regarding water temperatures and the effects of water quality through the developed area. He indicated that it is the developed area that is causing the most impact to wetlands and water quality not the rural areas. He noted that the proposal is to reduce the wetland buffer in the developed area to as low as ten feet but in the rural area where there is the least threat it is 100 feet. He indicated that he agrees with the 30-foot buffer the City currently has and felt that should continue.

In dealing with surface waters or stormwaters and if it's an application that has to go before the Planning Board, one of the things that has to be completed is a drainage analysis. He explained that the first thing an applicant has to do is to collect the surface water, treat it and in most cases infiltrate it on site. Applicants are not permitted to discharge untreated water off site and the City of Keene no longer permits applicants to tie into the storm drain going by the property. He stated that he does not agree with the representation that if an area is altered it is going to increase flooding, and hence did not feel this Ordinance was necessary.

He went on to say that he was the one who stated that this Ordinance contributes to sprawl. It is because of that provision where land is subtracted for wetlands and surface waters; you are losing those 20 acres (4 lots) and this now has to go somewhere else if one needs that housing and felt this contributes to sprawl. Mr. Phippard noted that this Ordinance creates another impact inadvertently; it creates non-conforming lots. He noted that financial institutions today are very specific about addressing non-conformity which adds another expense to the homeowner. This Ordinance also requires another level of review by the Conservation Commission where abutters are permitted to speak at the hearing and the Conservation Commission can alter the plans. This process has to be completed before the application can be presented to the Planning Board. He noted that because of the schedule of these meetings, applicants often run into a month's delay and additional expense.

He stated that he would like the opportunity to address some of these issues with the staff to discuss some of his concerns.

Chair Abrash Walton referred to what Mr. Phippard said about the developed areas having the greatest impact on surface waters and asked what more can be done to mitigate in these areas. Mr. Phippard stated that when development happens in urban areas, infiltration under the parking lots are used. Other things that can be done are large systems that filter storm water. Pavement surfaces can be changed to be pervious concrete as well as permeable paving systems in areas that don't have a lot of vehicular traffic. Chair Abrash Walton asked given all these options asked whether the City and the developers are doing all they can. Mr. Phippard stated that it is always more that can be done. For developers it always comes down to economics; what can I do to get my permit. However, was not sure whether this Ordinance was the answer, perhaps a version of it might be.

Councilor Jacobs clarified that Mr. Phippard feels that the benefits this Ordinance brings are already in place in the City. Mr. Phippard agreed.

Councilor Duffy asked whether Mr. Phippard knows of any other communities that have done this type of cost analysis that he is referring to. Mr. Phippard stated that he was not aware of any other community that has taken on such a task but added that other communities he has worked in have done it as wetlands overlay and require a developer to go through the variance process. Other communities also require buffer restrictions consistent with the Shoreland Protection Act and rely on State Regulations to do that.

Chair Jones asked whether Mr. Phippard has incentive based Ordinances in any other community. Mr. Phippard stated that he had not but added that the only incentive he could think of was if an applicant respects the buffers the City is looking for, maybe the City does not subtract that land area from density calculation.

Councilor Duffy stated that he had read a recent article which talked about where developers were required to do low impact design such as rain gardens and what was found was that this increased the number of building lots.

Mr. Crowell stated that the City has seen the difficulties in the Beaver Brook area and suggested that perhaps a park on either side of Beaver Brook could provide better relief. With respect to the Railroad land, instead of two and three-story properties, perhaps five to six-story properties could be considered and same would be true with Gilbo Avenue. Mr. Crowell felt that the City with this suggestion could achieve appropriate density while lowering density elsewhere.

Ms. Hague referred to Mr. Phippard's comment about the Ordinance being backwards and asked whether the tools Mr. Phippard talked about for urban areas and whether he would suggest anything for the buffering systems as it relates to the high density areas. Mr. Phippard stated that he would talk to staff about this issue.

Ms. Rebecca Lacey of Lincoln, MA spoke on behalf of her father Walter Lacey who lives at 230 Daniels Hill Road. She stated that she is an attorney who practices environmental law and land use law. She felt that in her judgment this ordinance in its current state would be a disservice to the people of Keene and impose high costs with little benefits. In some portions it is unclear; it is too broad in its scope especially for an owner of a single-family home.

She felt that because it is so poorly drafted and is unclear it would be impossible to administer and comply with. She asked that the Committee focus on the definition of the terms "Surface Water" and "Wetlands" and felt that these terms are well defined in state law and is very well known by the development community. She also felt that this ordinance regulates such things as seasonal pools; vernal pools etc. and questioned what happens to someone who has a puddle in their driveway during the spring season and asked whether this is this something that could be regulated by this ordinance.

She went on to say that the Ordinance indicates that agriculture is exempt as long as you don't graze animals, till, build structures, and apply fertilizers, herbicides, fungicides or pesticides. Ms. Lacey added that in addition to the other regulations, for a single or two-family home one also has to maintain a 30-foot buffer as required by the Planning Board Standards. She felt this was misleading in that it is noted that the 30-foot buffer does not apply to existing single and two-family lots.

In comparing this Ordinance to adjoining towns, Ms. Lacey stated that in Swanzey for example although it is restrictive in what it prohibits within the District, the District is confined to just the

wetlands under the State definition with no buffers. This is a much smaller area than what Keene wants to regulate.

In conclusion, felt that this Ordinance is unnecessary as surface water and wetlands are protected under State law. She felt that flooding concerns are best addressed by regulating development in the flood plain not regulating buffers throughout the water shed. However, if the City wanted to enact some kind of surface water ordinance, it should be much more clear and straightforward and much more reasonable in its scope and requirements.

Councilor Duffy referred to page 4 and asked whether as Ms. Lacey had mentioned a puddle in a driveway would be unclear as to whether it is a seasonal pool or not. Ms. Lacey stated that according to the language, she felt it was unclear. She indicated that the drafter of the Ordinance did not mean to regulate a puddle but felt the Ordinance is drafted in such way that there is no distinction. Councilor Duffy asked whether this was a legal opinion and if that was the case he would like to defer to the City Attorney to make sure this is not an issue. Ms. Lacey stated that if she was advising a town that had such an ordinance she would to advise them to not regulate a puddle. However, in denying or granting a permit if they had taken the position that the puddle was a seasonal pool, she would say that they had good support for same in the Ordinance.

Chair Abrash Walton asked whether Ms. Lacey could submit something in detail about a critique of the ordinance.

Mr. Thomas Lacey of 241 Daniels Hill Road addressed the Committee next. Mr. Lacey stated that he was in opposition to this Ordinance. He stated that at first glance the Ordinance gives the appearance of authenticity until you look at it and it is not what it is supposed to be. He indicated that there is no distinction between what typical everyday surface waters and what might be an important wetland area. Mr. Lacey referred to this as the "Tennis Shoes Ordinance" which means that if your feet will get wet or might get wet when you are wearing your tennis shoes the City is taking jurisdiction.

He went on to say that despite the claim that this Ordinance is an Overlay District it is primarily targeted at the rural and agricultural zones. In other areas the distance to wetlands remain the same as it has been, which is 30 feet. In the rural zone the distance is 100 feet from one of the surface waters named on the list. Imposing this Ordinance in the rural zone will unnecessarily impose a hardship on property owners who would have regulatory requirements which property owners in other areas under similar circumstances will not have.

Mr. Lacey stated that under this proposed Ordinance his house which is 200 years old will become non-conforming, his garden which has been around for at least 60 years will become non-conforming, his field which has been around for at least 200 years which has had a variety of agricultural uses will also be become non-conforming. He asked whether this is the kind of control Keene has in mind. He noted that the most concerning part of this Ordinance to him is the restrictions placed on agriculture. Mr. Lacey pointed out that the public notice for this workshop on May 31 in The Keene Sentinel for a first reading before the City Council clearly stated that agriculture was an allowed use, but indicated that it was not so because it says that "*grazing of farm animals and tillage shall not be permitted in the surface water protection overlay district...*" He noted that raising of farm animals is permitted in low density and medium density zones. He felt that this would mean that people in the rural zones will not be allowed to grow a traditional vegetable gardens, raise farm animals or grow flower gardens.

He further stated that Title 64, Chapter 762, which is the Planning Enabling Act from the State, clearly prohibits this type of restriction. He felt that if this Ordinance was adopted the City would take control over such properties like Stonewall Farm, the old Hawthorne Farm and all other such rural properties as casual surface water is quite simply a fact of life and there is no perfect property without it.

He added that if one was unfortunate enough to have a small intermittent stream run through their property, the City would claim jurisdiction over four acres of that land.

He then talked about how this document was crafted. He indicated that there were three distinct versions of this document that came out; during the drafting of the second one the City was also in the process of applying for a municipal exemption to the Shoreland Protection Act and the Committee was trying to apply this very same set of standards to the long list of surface waters. He felt that this was just another attempt for the City to find the greatest number of restrictions.

He then talked about what has happened to the Keene valley since he has lived here, especially when he drives down the bypass on Concord Hill on Route 9 - all the impervious pavement, the many acres of pavement laid out for the shopping plazas, the Keene State College dormitories constructed very close to the river, the widening of Route 9, Krif Road development which tax payers paid to develop only to find out there were wetlands and flood plains, and after all this construction the City is now trying to tell someone in the rural district where to grow a garden.

He agreed that those properties that are getting flooded close to Beaver Brook need to be addressed and added that the City needs to be realistic in that this is an infrastructure problem. He stated that the holistic approach is fine but does have limitations.

Mr. Walter Lacey of 230 Daniels Hill Road addressed the Committee next. He stated that he was the past Chairman of the Conservation Commission and 10 years ago had donated a conservation easement on 153 acres of land on the east side of West Hill.

Mr. Lacey read the following statement into the record:

I find this ordinance to be problematic for many reasons: the need, the science, the process, its neglect of property rights and the impact on conservation easements to name a few. The ordinance apparently began as a response to the flooding of October 2005 and an understandable but simplistic notion that by manipulating land use we can somehow control flooding. Keene has experienced flooding since its earliest days due to its topography and the fact that it is built on an extensive flood plain. Keene's earliest historian Salma Hale, in the Annals of the Town of Keene mentions settlers deepening and clearing out the channels of the Ashuelot River and Beaver Brook in 1750. Beaver Brook flooding at that time caused people to get around by boat or swimming. Flood control only came to the Keene Valley 200 years later with the construction of Surry, Otter Brook and Beaver Brook dams. Riparian buffers have no unique flood control or storage capability except in the case of a flood plain riparian buffer where additional flood storage may be provided an overflowing stream or river. Our neighbors in Vermont, after the terrible flooding of Hurricane Irene last fall, aren't talking about riparian buffers they're talking about the wisdom of building on flood plains. Any claim that this ordinance will prevent flooding is not scientifically correct and is simply "whistling in the dark".

Riparian buffers have potential value where there are water quality issues. If contaminated runoff has the opportunity to travel over and through a vegetated buffer en route to a wetland or water body there can be a cleansing benefit. The need for such remediation is greatest in developed areas on the valley floor not in rural areas where there is no problem. This ordinance

has it absolutely backwards, though, mandating minimum buffer widths 10' or 30' in developed areas and a maximum 100' in pristine rural areas.

This ordinance, as the steep slopes ordinance before it totally disregards conservation easements where only traditional uses of the land such as forestry and agriculture are now permitted. This ordinance purports to allow agriculture but then denies grazing and tillage. Grazing and tillage pretty well define agriculture in my mind. In my case, goats have been used in the past to control brush in the sugar bush up on West Hill. Not that won't be allowed because of the proximity of intermittent streams. The Kingsbury and Hathorne easements are a couple that come to my mind where I imagine there would be significant negative impact. I doubt Stonewall Farm could exist under this ordinance. An operation like the Green Wagon Farm fields next to 12A in Surry couldn't exist if similar restriction were in place there.

I have a huge problem with the process of creating and implementing this ordinance. Based on the public works director's testimony in committee a minimum of 2435 parcels of land will be affected. I am convinced it will be many more than that. I daresay only a handful of those property owners are even aware an ordinance is being discussed that could dramatically affect the use of their property. This lack of landowner notification is apparently legal but at best is an abuse of the democratic process. Even the required legal notice posted in the newspaper is apt to be deceptive. In this case the Keene Sentinel May 31st legal notice states that agriculture is allowed but, as I have pointed out, it really isn't. Other onerous details are obscured by a benign summary. Three years ago, the hillside ordinance was similarly opaquely noticed. Forestry restrictions and prohibitions were hidden in an ordinance that appeared to deal with home, driveway and street construction "on lands with steep hillsides." Every property owner in Keene whose property use is affected by an ordinance such as this is entitled to be notified of that fact, period. This would be consistent with the Master Plan's call on page 104 for city government to provide "transparent and responsible leadership". Further this government should "share useful information with community members to help them participate in decisions that affect their wellbeing". Another less than transparent move in furthering this ordinance was manufacturing a need for the ordinance in 2010 (it was now five years in committee) by writing into the open space section of the Master Plan on page 98 a paragraph alluding to flood mitigation. "More stringent standards for wetlands and surface waters should be pursued", for reasons of flooding, apparently. I can find no mention in the Master Plan of water quality problems that need correcting which is how the ordinance is not being presented.

The six or seven year long history of this ordinance has never been a consistent, focused effort to remedy a specific problem rather it has been a concerted effort to control the most territory and contrive justification for that control. There is absolutely no need for this ordinance. State regulations ensure very adequate protection of our water resources.

The rural cynic in me would say: "Now that you've drained the swamps, paved over the valley and built on the flood plain you are looking to upland regulation as the salvation from the consequences of this behavior". You should, instead be planning for future flooding. It will come, but not because of us!

Lee Dexter of 158 Gunn Road addressed the Committee and began by referring to certain clerical issues; Section 102-1484-b references 102-1491 and felt that it should appropriately be referred to as 102-1490-f in regard to information provided. 102-1488 references 102-1490, when a Conditional Use Permit is required should be appropriately referenced as 102-1489.

Mr. Dexter stated that he owns rural property and stated that he is concerned with the property value and the cost of having to comply with this ordinance. He indicated that all the rooms in his house are in the overlay district and if he is to build a deck on his property he would need to obtain a conditional use permit and explained the costs associated with that. He stated that he respects the 30 foot buffer from the stream and protects it and did not feel he needs an ordinance to do so.

Mr. Dexter stated that he is an Engineering Technician and has appeared before the Planning Board for the last ten years and have had large and small clients in Keene. He indicated that he has experience with wetland issues and in water quality. He felt that the City has very good water quality standards. He also did not feel all the stakeholders have been included in the process and stated that he was not invited. No realtors were invited either and felt that the meeting with the development community was brief and a lengthy discussion might be beneficial.

He went on to say that this Ordinance is going to touch every single rural parcel in town and would affect their property values. He added that not many stakeholders are present today because they don't know what is going on. Mr. Dexter referred to a recent article in the Granite State Installers Septic newsletter regarding how the State has changed the Comprehensive Shoreland Protection Act to the Water Quality Shoreland Protection Act. The article talks about how any particular activity affects surface water quality and shoreland development and its impacts were a concern only if they affected public waters.

Mr. Dexter talked about the recent flooding; the City experienced seven inches of rain in three hours and did not feel an Ordinance could address this. He indicated that this recent flood exceeded what he saw in 2005 in his neighborhood. He noted that most of the City's water quality problems come from its storm drainage and sewer system. He stated that he has seen people changing their oil in parking lots. This Ordinance also does not address the use of pesticides and herbicides. The City also does not have an active policy for dog walkers. He noted that other towns seem to be more flexible, in that they differentiate between wetlands. Such as designated rivers, vernal pools and low value wetlands and most towns set their buffers accordingly. He indicated that no-one can prove that pollutants are leaving his property into the brook that cross it.

Mr. Dexter stated that he appreciates the work that went into this document but felt it happened in a vacuum. He asked that the item be sent back to the Committee for further review and asked that the Joint Committee look at how this affects property owners.

Brett Thelen of 161 Court Street addressed the Committee next. Ms. Thelen stated that she has heard a lot of discussion about puddles, vernal pools and stated that there might be a better way to craft this to avoid ambiguity. She indicated that she is an Ecologist and vernal pools are important for amphibian habitat. She noted that at the State level there is a biological definition for vernal pools and if they can be documented as amphibians living in them they can be referred to as vernal pools and not just as puddles. She indicated that it has been suggested that 100 feet has been suggested as a buffer but felt this is the bare minimum and agreed that you do not need 100% coverage in every direction but there are Best Management Practices that should be followed for areas such as this. She indicated that she supports the 100 foot buffer around these areas but added that the Committee could better define them to eliminate some of these concerns.

Chair Jones stated that it would probably be the intent of the Joint Committee to continue this matter. Councilor Duffy stated that he would like to entertain a motion from the Planning Board.

Mayor Lane stated that he would like to verify the validity of some of this information and then have a better discussion before making any concrete decisions.

Mr. Lamb addressed the Committee to respond to some of the issues that had been raised. With reference to the notice issues, notice is not required because this is not a mapped overlay district. The primary reason for this is the presence of wetlands is delineated on the ground. He indicated that if he was to produce a list of properties that had wetlands on them, it would be wrong and then it would be that the City is not following the rules of notice properly. This workshop is for the public to get involved.

With respect to the stakeholders meeting, the City did have a lengthy list and there were calls made to the real estate community but no-one attended. He added that Mr. Dexter's employer did attend. There was also comment about why single and two-family homes are not regulated, Mr. Lamb stated that it can be done, but State law would need to be changed to do that. The Planning Board rules as it stands today strictly prohibit single-family and duplex properties under site plan review rules.

With reference to whether this Ordinance will solve the flooding issues, stated that it absolutely will not, but will it contribute to lessening the impact of future flooding.

With respect to the timing with respect to the Conservation Commission and the Planning Board, stated that there is 14 day period between the Conservation Commission and the Planning Board meeting date. The Commission is required to take a vote and submit written comments ten days before the Planning Board meeting.

The question as to whether a garden is agricultural use stated that in his opinion it is not and felt it was an accessory use to a residential activity. With respect to vernal pools he stated that the distinction the Committee heard from the last speaker is important. The one aspect that makes a vernal pool distinct from other wetlands is that the complexity of the pool and the surrounding upland area is critical to the wellbeing of the vernal pool. This concluded Mr. Lamb's presentation and stated that the comments received today are very helpful and would be glad to see how they could affect the Ordinance language.

Chair Jones asked whether the Director was looking for direction from the Committee. Mr. Lamb suggested continuing the workshop and coming back for a discussion next month and allowing for more public comment.

Councilor Duffy noted that there is no Staff Report attached in the Committee's packet and asked for clarification. Mr. Lamb explained that the Staff Report is the presentation he made at the beginning of the meeting and stated that he could provide copies of the slides for the Committee's review. The Councilor felt there was good information provided today at the meeting but felt that the charge of the Planning Board is to evaluate the proposed Ordinance as it is and to vote as to whether or not it is consistent with the Master Plan. The Councilor felt it was absolutely consistent with the Master Plan. The next step is a public hearing and then it will go back to Committee to deal with specific issues and the public at that time will have opportunity to participate fully in that process. He agreed that there are problems that have been created on the valley floor for years, which is the cause of some of the issues the City is dealing with today. Hence, felt the City needs to deal with this issue holistically and agreed that this Ordinance will not stop flooding from happening, but it is a first step.

A motion was made by James Duffy that the Planning Board find the proposed Ordinance 0-2012-7 as consistent with the Comprehensive Master Plan.

Chair Jones noted that he had not closed the public workshop yet and could not accept the motion.

Mayor Lane felt that the public workshop should be kept open and explained that the role of the Joint Committee is to work out the details of these Ordinances before they go to a public hearing.

Councilor Richards stated that he agrees with the Mayor and added that there has been a lot of information provided today and stated that he would like the opportunity to review this matter and come back next month for further discussion.

Chair Abrash Walton stated that she would also like to see this matter continued. She indicated that the Committee has been provided with a lot of information and there have been questions posed to staff she would like responses to.

Mr. Thomas Lacey stated that the State statute does define agriculture. He indicated that the gardening issue was specifically discussed at Committee level and felt the factual material should be corrected. As far as holistic not working, indicated that he did not say that but that the magnitudes of these events totally overwhelm holistic approach.

A motion was made by Chair Abrash Walton to continue this public hearing until the next meeting. The motion was seconded by David Curran and was unanimously approved.

Councilor Duffy felt that the Chair interfered with the process he was intending to pursue.

4. Comprehensive Master Plan Update – Planning Director

Item not discussed.

5. Next Meeting Monday, April 9, 2012

6. Adjourn

On a unanimous vote the meeting adjourned at 10 PM.

Respectfully submitted,

Krishni Pahl,
Minute Taker

**CITY OF KEENE
NEW HAMPSHIRE**

**JOINT PUBLIC WORKSHOP
PLANNING BOARD/
PLANNING, LICENSES, AND DEVELOPMENT COMMITTEE
MEETING MINUTES**

Monday, July 9, 2012

7:00 PM

Council Chambers

Planning Board Members Present

Abigail Abrash Walton, Chair
Michael Welsh, Vice-Chair
David Curran
Peter Crowell
Emily Hague
Mayor Kendall Lane
Eleanor Vander Haegen
Councilor James Duffy
Rebecca Landry

Planning Board Members Not Present

Gary Spykman, Alternate

**Planning, Licenses and Development
Committee Members Present**

Councilor David C. Richards
Councilor Carl B. Jacobs
Councilor David R. Meader

**Planning, Licenses and Development
Committee Members Not Present**

Councilor Bettina Chadbourne

Staff Present

Rhett Lamb, Planning Director
Tom Mullins, City Attorney

1. Roll Call

Chair Abrash Walton called the meeting to order at 7 PM and a roll call was taken.

2. June 11, 2012 Meeting Minutes

Eleanor Vander Haegen offered the following correction: Page 8 of 46, second paragraph to add the words “stated that”, to now read as follows: “Mr. Phippard *stated that* other municipalities have similar...”

A motion was made by Peter Crowell to accept the June 11, 2012 meeting minutes as amended. The motion was seconded by James Duffy and was unanimously approved.

Continued Public Workshop

3. Ordinance – O-2012-07 – Relating to the establishment of a Surface Water Protection Overlay District. This ordinance would amend the City Code by creating an overlay district in Keene to protect the water quality of surface waters and wetlands and the buffers associated with these resources.

Chair Abrash Walton asked whether the Planning Director had any comments before the matter is opened to the public. Mr. Lamb stated that he did not but was working on the questions that were raised last month. He stated that he had a few clarifications that might be helpful to the Committee and added that this was a work in progress.

Vice-Chair Welsh stated that one of the questions he had was also raised by members of the public was regarding gardens and operating farms like Stonewall Farm and what effect this ordinance would have on working farms. He also questioned the term “seasonal pool” and asked whether this category is necessary and whether vernal pools were not sufficient. Mr. Lamb stated that the term season pool was used last month in relation to the other term the Committee heard about which is covered in the following bullet:

- *How is “land subject to standing water for extended periods of high water table” defined and applied?*

He indicated that it is a similar category although defined differently in the Ordinance.

Ms. Hague stated that she would like to verification as to whether the procedure for reviewing a Conditional Use application is clear.

Mr. Lamb stated that he also wanted to clarify the issue regarding the permitting delay which was raised last month by Mr. Phippard because of the schedules for the Conservation Commission and the Planning Board. He indicated that at last month’s meeting he had stated that the schedules did not cause a delay. He indicated that he had checked this information again and Mr. Phippard was correct and stated that he would like to look into this issue a little more. He reminded the Board that since creating this Ordinance the Board’s schedule with reference to deadlines for submittals did change and wasn’t sure whether the last draft took that into consideration. He added that it was the intention of the Committee not to create a delay.

Chair Abrash Walton asked to what extent the Joint Committee needs to go through and answer these questions and word-smith the draft ordinance. Mr. Lamb stated that the Surface Water Ordinance Committee is no longer active and has not been re-established. He indicated that if the Joint Committee felt that the questions being posed in the handout are such that corrections can be made, it should probably be done by the Joint Committee. He added that the Joint Committee could probably get some advice from the Surface Water Ordinance Committee and added that Mr. Del Meyer the Chair of the Surface Water Ordinance Committee plans to be part of this process and there are others who would like to be part of it as well.

Mr. Crowell stated that this is an issue that started seven years ago but came before this Committee about a month ago. He stated that his concern is that there are already a list of questions that are detailing with language changes for a document that he does not quite comprehend. He added that he however, does understand the connection to this matter to the Master Plan.

Ms. Hague stated that as someone who served on this Committee for a long time, she could offer some responses to some of the issues raised and added that she also had some suggestion to some changes to the Ordinance in response to what has been discussed so far.

Mayor Lane stated that if there is something new that is not included in the list of questions provided by this Committee last month the public should be given the opportunity to discuss it. He also stated that there are also those who have not gone through the public hearing process and felt that perhaps the City Attorney could provide guidance as to what happens to this document once it leaves this Committee and goes before the Council; what options are available to the public at that time.

City Attorney Mullins stated that this Committee could wordsmith this document and staff will take those comments and merge them into the Ordinance. After which time the suggestion would be to send the document to the City Council which will schedule a statutory public hearing with respect to the Ordinance (the Mayor will set that public hearing). The public will have an opportunity to address the Council and at that point and the Council could either approve or deny the Ordinance and it then comes back before the PLD Committee. If there are changes, staff will incorporate those changes and create a B version of the Ordinance. This version would then go through the process again. He indicated that if the Ordinance was materially changed from where it was first proposed to the public to the time when it goes to the PLD, the process will start over. He stated that this process can happen multiple times until the Council approves or denies the final version.

Mr. Lamb referred to the Zoning Ordinance 102-171, B which talks about the intent of the public workshop which is to prepare changes for the Council; for the public and applicant to discuss the issues on an informal manner; afford an opportunity to make changes. It also indicates that legislative workshops are not intended as due process public hearings and are intended for the City Council and Planning Board to obtain public comment for a changing legislative process and that the Planning Licenses and Development Committee and the Planning Board are free to make changes to this Ordinance without requirement of a public hearing. The procedural due process will be afforded at the time a public hearing which is held by the Council. He stated that the reason for this language is so that there wasn't a "ping pong" game going on between the Planning Board and City Council with reference to changes.

Chair Abrash Walton stated that if the Joint Committee chooses to send this Ordinance forward it should be something they could stand behind. She stated that she recognizes that this process will not be completed this evening but would hope to have something complete by the September meeting.

Councilor Jacobs stated that if staff has not prepared the answers to these questions, he wasn't sure what the Committee would be doing tonight. Chair Abrash Walton stated that she anticipates it will be a very short workshop tonight. She asked staff whether September would give them enough time to have the questions answered. Councilor Jacobs stated that what he would like answered is the purpose of this Ordinance.

Chair Abrash Walton referred to Ms. Hague about her offer to go over some of the concerns that were raised. Ms. Hague in reference to Councilor Jacobs' question specifically about what the drafting Committee talked about how this Ordinance relates to the Comprehensive Shoreland Protection Act, she stated that it was realized that the Shoreland Protection Act only protects fourth order streams as a result smaller wetlands won't be protected. She noted that this Act was slated to have been repealed last year and hence the Committee felt it was important to have some sort of local control and stability.

With reference to the question about the size of the buffer and where the 100 feet came from Ms. Hague stated that the Committee had a lot of the sample ordinances it reviewed. For instance in places like Salem and Hollis they started off with a 100-foot buffer. She added that some of the towns had differing widths of buffers depending on the land uses which the Committee liked but felt it would be burdensome to Code Enforcement.

Councilor Duffy stated that the Purpose section of the Narrative is pretty clear as to the purpose of this Ordinance and what it is meant to do. He read this for the benefit of those present.

Ms. Landry stated that she appreciated the Planning Director's presentation last month where he talked about water temperature and phosphorous in the water. She stated that it would be helpful to her to be able to know where these levels have been in the past few years and hoped that it would be measured going forward so we know how effective something like this Ordinance would be.

Mr. Crowell agreed with what Ms. Landry stated and noted that he would like to know where the phosphorous was coming from or what is causing the increase in water temperature and whether this can be prevented with 100-foot buffers. He stated that what Councilor Duffy read makes a lot of sense to him. He indicated that in town we are allowing people to be nestled right up against the buffers which he felt is not the natural system and is a contradiction to the stated Purpose. Mr. Lamb in response stated that most of the Zoning Districts with a ten-foot buffer requirement are those related to highest development and added that most of these land areas have already been developed. He stated that the Ordinance would have less effect on the in-town land areas than it would on land area where there is still room for development to occur. He suggested that the Committee look at where land is going to be developed in the future and apply a standard buffer so that water quality will be better preserved.

Mr. Crowell stated that he would not disagree with Mr. Lamb but added that if we don't realize that the City is "cramming" Beaver Brook into this very small space then it is a problem. He did note that a ten-foot zone would not be in keeping with the visionary purpose captured in the Master Plan and also trying to restore natural system. He stated that he understands that this area is already developed but it at least needs to be recognized that this is contributing to the problem.

Mayor Lane noted that all areas of Keene are not fully developed and referred to Ashuelot Street and felt that the City is giving away the opportunity to promote natural systems on that property which ultimately will be developed by creating small buffer zones in the more developed areas and restricting large buffer zones only to rural areas. He stated that he was struggling with why the City is creating smaller buffer zones in certain areas if we want to achieve what we ultimately want through this Ordinance. He felt that if this Ordinance is to have credibility it should be expanded to the downtown areas.

Councilor Jacobs felt the ordinance should be consistent and if the City was trying to protect surface water then that is what should be done.

Councilor Duffy noted if there is going to be development happening in the rural areas without significant buffers, the City is going to have to pay for more man-made changes to deal with phosphorous which is an EPA regulation. He felt that this is a cost analysis the City would have to consider as well. He noted that it is unfortunate that the Ashuelot River is so small there is much more phosphorous to deal with which come from human and animal waste. Mr. Lamb stated that phosphorous also could come from lawn fertilizers and agricultural activities. He added that 20% of Keene's residents are not serviced by the Wastewater Treatment Plant and have on-site septic systems. Councilor Duffy clarified that during extreme flooding events sewer backup enter the rivers untreated as well. Mr. Lamb stated that he was not aware of this happening but explained that there is a lot of infiltration of surface waters into the sewage collection system and the City ends up having to treat much more than it usually would.

Chair Abrash Walton asked whether research has been done to determine what the contributors are to pollutants, mainly phosphorous. Mr. Lamb stated that there have been a number of studies done on local water bodies by the Ashuelot River Advisory Committee and the City. Pet waste, bird droppings, leakage of old sewer connections are some of the causes and added that

chloroform bacteria is a major component that has been discovered in Beaver Brook as well. He added that he was not aware of a comprehensive study that would let the City know where the primary sources of the pollutants are coming from.

Ms. Hague referred to the issue with buffers and stated that originally the Committee had suggested a uniform buffer but staff suggested a tiered approach. She indicated that the Committee looked at other Ordinances and the two most common ones other than the one the Committee chose was to differentiate buffers based on land uses or to have differing widths for different types of surface waters and wetlands. The Committee did not go with the second approach because they did not have a wetland inventory and felt that this is another approach that could be taken.

The Board went over the list of questions:

- What changes to the draft ordinance resulted from the August 2011 stakeholders meeting?
- Are there mitigation standards or requirements?
- What is the definition of pre-existing?
- What is the scientific basis for wide buffers?
- What is gained by this ordinance and are wetlands/surface waters adequately protected today?
- How does the ordinance compare to those in other towns?
- How does the ordinance intersect with the Hillside Ordinance
- How much does the City spend each year to make sure drinking water is safe?
- Can incentives be added to the ordinance?
- How much land is affected and can a cost value be determined?
- Will a permitting delay be caused due to Planning Board and Conservation Commission meeting schedules?
- How is “land subject to standing water for extended periods of high water table” defined and applied?
- Can setbacks be based on wetlands functions and values?
- What is proposed in relation to agriculture?
- Do other sections of the Zoning Ordinance have provisions that exclude land area from density calculations?
- Can there be a procedure for written verification of legal non-conformity for land transaction financing?
- Whether the procedure as written in the proposed ordinance for reviewing a conditional use permit application is clear and workable?
- A clarification of the relationship of this ordinance to agriculture and be more specific about its impact on gardens and working farms
- Seasonal pool – land subject to standing water for an extended periods
- Viability of buffer width in the downtown area or developed area
- Data trends of water quality in streams

Mr. Curran asked whether it is too late to invite the individuals who did a study on the Ashuelot River to provide comment. Mr. Lamb stated that this would be up to the Committee. Chair Abrash Walton asked whether staff has already received comment from them and whether it would be redundant to hear from them. Mr. Lamb stated that staff is relying on their data but perhaps a representative from that group could present it more efficiently. Ms. Landry stated that she had reviewed this document and found it to be rather exhaustive. She stated that she would like to hear from them.

Mr. Crowell stated that one of the public comments from last month was that the “downland folks were blaming the “upland” folks for all the flooding and noted that this issue is not outlined. Mr. Lamb in response stated that the difficult part was distinguishing what a comment was versus what a question was and he took what Mr. Crowell just stated as a comment, he stated that the Committee could always add this and get more clarification on this issue. Chair Abrash Walton suggested that if this comment was to be turned into a question then it would say something like, “*is this ordinance as proposed effective in mitigating future storm events and flooding in the downtown areas*”. Mr. Crowell agreed with this question. Councilor Duffy felt that this question could also be interpreted as how this ordinance intersects with the hillside ordinance and felt this would better connect the dots.

Mayor Lane stated that the manner in which that question is phrased is important because as this ordinance is weighed the benefit versus its negative impacts it’s going to have on property owners needs to be looked at.

With that the Chair, asked whether the public has anything new that has not been covered so far.

Dr. Ann Shedd of Greenwood Avenue, Keene addressed the Committee as the Chair of the Conservation Commission. She stated that the Commission endorsed this ordinance by its vote at its October 2011 meeting. She stated that she was heartened to hear that members of the Joint Committee are at the broader application of the setbacks to protect some of the systems the Commission has been charged with protecting. She stated that the Commission is charged with protecting the City’s natural and physical resources while looking at well planned development as well as protection of the water shed. She stated that this ordinance has been crafted in a manner of protecting these goals. She agreed that the proposed ordinance is not flawless but can be crafted to amply meet those goals.

Dr. Shedd agreed that there are State and Federal laws to protect water issues but they are subject to change and stated that during the last few years the Federal Clean Water Act had a proposal to change the class of streams that are protected which would affect many of Keene’s water bodies which are lower class streams (smaller streams). Last year the NH Comprehensive Shoreland Protection Act became the Shoreland Water Protection Act loosening the requirements for vegetative buffers at lakefront and riparian buffers and relaxation of requirements regarding impervious surfaces. She felt that as a result it is important for Keene to enact its own standards for protection of its surface waters, both large and small. She noted that the proposed ordinance also provide protection of the qualities and connectivity for wildlife habitat. In conclusion she stated that the Commission does support the intent and spirit of this proposed ordinance.

Mr. Thomas Lacey started his comments with his concern with the City minutes and the various drafts that he had accessed. He indicated that some of his technical comments did not make the minutes and asked how a member of the public could make corrections. He added that this process is important to him and did make an effort with his presentation. He felt that the minutes reflected other peoples’ corrections but not that of the public. Mr. Lacey did note that when he did look at these minutes it gave him an appreciation for whoever does these minutes because even though he knew what he said he could not keep up with himself.

Mr. Lacey’s stated that the issues that did not make the minutes are as follows:

- In the rural zone the reason there is a high probability of infiltration is because there is an increased lot size and low intensity of allowed uses.
- Referred to the vexing part being the restriction on agriculture.

- He referred to the public notice for this workshop AND also talked about the narrative which accompanied the first reading before the City Council that agriculture is an allowed use.
- Raising of farm animals is an allowed use both in the medium density and low density zones and will continue to be allowed in these zones where the restrictive width will only be 30 feet but will not be allowed in the rural and agricultural zones where the width is 100 feet.
- The City will, with the Ordinance, take control of Stonewall Farm and the old Hawthorne farm which both have *conservation easements* on them.
- The City is interfering with traditional land use that is why traditional land use is protected under state law so that local municipalities cannot strip them away under the guise of another issue.
- After six years of working on this document three different versions over the span of a few months will not be necessary, if there was a real need.
- Keene does not have the ability to control many events except by hard infrastructure. The latest flooding in Keene is a perfect example; the conditions were perfect – end of May, high water table, and storage capacities good but the east side still got flooded. These were severe thunderstorms, not main flooding events that have been building up for a while.
- Over the years there has been a consensus from City Hall that rural land owners are responsible for the flooding in the downtown. The latest flooding is a good example that you cannot blame this event on rural landowners.

Mr. Lacey went on to say that he has seen many zoning ordinances throughout the State and felt that a municipality did not have to force a surface water overlay district when maybe it is not necessary and perhaps a flood hazard overlay district would be more important. He stated that there are already governors on development in the rural zone. One example is the 750-foot rule and stated that there are great expanses of undeveloped land and the 750-foot rule precludes major development from happening in the rural zone and anymore restrictions make it extremely difficult for a landowner.

He also added that he was under the impression that the City was going to convene an Agricultural Commission and felt that tying the hands of any future commissions would not be appropriate and felt that the City would be doing so with this Ordinance.

Councilor Jacobs asked for clarification on what Mr. Lacey had stated about this Ordinance conflicting with easements. Mr. Lacey stated that Stonewall Farm and Hawthorne Farm both have conservation easements on them and both of those farms would be greatly affected by this ordinance. He added that these properties would become non-conforming and the use can continue but as soon as the use stops for a while, the owner would have to come before the City to start the use again. He felt that these properties can overtime be severely restricted as to how they can use these properties.

Ms. Hague asked for clarification on the 750-foot rule. Mr. Lacey explained that there is a standard that indicates that there is a limit to how long one can build a street without connecting to an arterial street. He stated that for example, this affected someone who was trying to construct on Rule Street and George Street in Keene.

Chair Abrash Walton asked the Planning Director whether he would like to comment on the reference to the Flood Hazard Overlay District. Mr. Lamb stated that the City has through Chapter 54 of the Environmental Standards has a Flood Compensatory Storage Ordinance which follows all the requirements of FEMA. Chair Abrash Walton asked whether this Ordinance works. Mr. Lamb agreed that it does and added that this Ordinance has compensatory

requirements which means that if you fill in the flood plain you have to “dig a hole” in some other place so that the total amount of flood plain is balanced.

Lee Dexter of 158 Gunn Road, Keene addressed the Committee next. Mr. Dexter began by commending the Board for all its work on this ordinance. He stated that one other issue to think about is to include someone who is an engineer or a developer to get a different perspective. He stated that he appreciates the mention of the Comprehensive Shoreland Protection Act and that it applies to designated rivers and lakes and not to every vernal pool or ditch. He added that the Shoreland Protection Act typically applies to property that slopes downward to the water.

Mr. Dexter stated that no-one is questioning that the values outlined in the Ordinance is appropriate but the question is whether the Ordinance addresses the problem. He noted that most of the pollution problems are south of the City and asked that the Committee makes sure that this Ordinance is equitable for everyone. He went over some of the State regulations; the Shoreland Protection Act is 50 feet for a house, septic systems require a 75-foot setback from wetlands or surface waters, different setbacks if it is a ditch or culvert and added that a 50-foot setback can be obtained with a waiver if certain technologies are applied to a septic system.

Mr. Dexter added that the biggest issue right now is Beaver Brook and much of the hillside that contributes to Beaver Brook which is City-owned parkland which will never be developed. He added that the difference between his land which is not hydraulically connected and Carpenter Field is that under this ordinance with just a 30-foot buffer, if someone offered the City 50 million dollars for this Carpenter Field and constructed apartments on it and a parking lot – it would be permitted.

He stated if impermeable surface is increased runoff decreases and noted that it gets there faster in town compared to from a hillside. Pollutants move easier in town and felt that these are all problems we all need to shoulder together equitably. He noted that the Master Plan outlines the importance of conservation values specifically areas around wetlands and surface waters but does not differentiate that value depending on zoning or state of the development and must conform to all of its values. He indicated that what the community said in 2003 and reiterated throughout the master plan process was that there are no tradeoffs between the areas; economic growth, environmental growth, development and resource protection and sustainability optimizes all three. He indicated that the Master Plan included a TDR (transfer of development rights) and this Ordinance takes away those rights from property owners.

Mr. Dexter stated that it has also been frustrating trying to obtain information about these meetings. The agenda and minutes have not been available online, the announcement of this meeting has not been online and stated that the City would get more input from the community if better ways could be found to communicate. He noted that the Master Plans calls for collaboration and public participation and felt the City should strive to make sure that decision-making is geographically appropriate (neighborhood or city-wide) and function with transparency and make sure that everyone has equal opportunity to participate before a decision is made. Simplicity and clarity in the process is also important and felt that citizen participation and municipal decision making should be made easy as possible and hoped this ordinance would go through that process. He stated that the proposed ordinance strives to meet the conservation portion of the master plan but does nothing other than to restrict property rights. There is reference to flood storage capacity of a wetland – he questioned what type is being referred to and pointed out that the intermittent stream behind his house has flood storage capacity; he felt many issues have been “lumped” together.

In conclusion Mr. Dexter pointed out that the Ordinance as proposed does not meet the intent of the Master Plan because it does not have the same requirement for all parcels in town.

Ms. Hague in response to the concern raised about development community participation stated that although this ordinance has been drafted over the terms of three Mayors at least one Mayor appointed someone from Brickstone Masons as well as three realtors to serve on the Committee.

Chair Abrash Walton stated that she heard at least one comment come out of Mr. Dexter's comments and that was that this ordinance's effect on TDR which has been contemplated in the Master Plan. Mr. Lamb stated that even though this is a relevant question the City has no TDR at the moment and it would be speculation as to how it would apply. Chair Abrash Walton stated that a broad explanation would be prudent on this issue.

Councilor Jacobs stated his question is the effect of this Ordinance on existing easements. Chair Abrash Walton stated that her understanding is that there are lands that have conservation easements on them but are also currently being used for agricultural purposes, specifically grazing of animals. The question is how this Ordinance would affect such uses. Mr. Lamb pointed out that modern conservation easements make reference to agricultural Best Management Practices (BMP) which includes things like setbacks from wetlands and streams. He stated that in some instances it is entirely consistent with the BMP's built into the conservation easement but in other cases easements don't have that because they are older documents. He indicated that all he is able to do is to generalize an answer like that otherwise every conservation easement in the City would have to be evaluated.

Mr. Walter Lacey of 230 Daniels Hill Road, Keene addressed the Committee next and stated that this Ordinance would affect a minimum of 2,500 to 3,000 parcels and questioned why those individuals are not present today. He stated that he has a major problem with notification and added that this is a public workshop and if the City wants to get the public involved they have to be informed. He stated that he has heard all the excuses and added that if the City was going to be consistent with the Master Plan it calls for governmental leadership and stated that a good leader finds way to accomplish things not excuses as to how not to. Chair Abrash Walton noted that this is an issue Mr. Lacey had raised at the last meeting. Mr. Lacey in response agreed that he had but wanted to emphasize it and noted that it was not a question that was on the list staff put together.

He went on to say that there also seems to be some misunderstanding about who the stakeholders are and added that he looked for minutes of the stakeholders' meeting but could not find them. He stated that his understanding is that the stakeholders were Jim Phippard, Rob Hitchcock, David Bergeron; developmental consultants who he has a high regard for in their expertise. However, felt that stakeholders are the property owners and the tax payers who are going to be affected by this ordinance, which seems to have been missed. Chair Abrash Walton in response stated that what is really being referred to here is that a meeting was held to bring in development experts. Mr. Lacey stressed that stakeholders are the property owners.

Mayor Lane recalled something the Planning Director had referred to earlier about wetland mitigation and stated that the ordinance there is a prohibition against earth excavation and asked whether these two issues relate to each other. Mr. Lamb stated that what he meant was flood plain compensation not wetland compensation. He noted that the City does have a flood plain ordinance as well an earth excavation ordinance and the regulated activities under earth excavation are commercial activities that produce gravel, crushed rock and stone. There is an overlay district associated with this activity as well as areas in the City where this activity is

permitted through the Planning Board process but stated that he did not believe any of those areas intersected with the flood plain.

Chair Abrash Walton stated that the Committee has a lot of questions with respect to this ordinance and stated that she and Councilor Richards had talked prior to today's meeting about taking the month of August off when City Council is officially on break. She asked for the Committee's opinion about waiting until the September meeting to get answers from staff.

Ms. Hague asked when during that time frame the Joint Committee can make revisions to the ordinance.

Mayor Lane stated that to be able to move this process forward staff input is necessary. He stated that if staff input could be received by the September meeting the drafting process can begin at that time, but if the drafting cannot be completed in September, after seven years another 30 days would not make such a big difference. Mr. Lamb stated that he could provide some draft language in the report for the Joint Committee's review.

Councilor Duffy agreed with waiting until September and was grateful for the time staff is going to be spending on this issue but felt that that Committee should do as much as it can to move this process forward. He referred to the standing water provision and stated that he was fine deleting this item and felt vernal pools serves the purpose. Chair Abrash Walton agreed with the Councilor and noted that there are number of questions that are listed which she would consider to be second tier questions as well as some that are first tier questions (should we have an ordinance at all). She stated that it would be important for the Committee to decide tonight if this is an ordinance that is important; what does the Committee need to know to be comfortable in making a decision.

Mr. Crowell stated that some have seen this proposed ordinance for seven years and some have seen it only for two months. He stated that it would be helpful to have the minutes of this meeting by August 13th so that the Committee can spend a little more time reviewing these issues and be ready with answers.

Councilor Jacobs stated that as he understands this issue, the main item this ordinance provides for is protection of smaller than fourth order streams but stated that he did not know what a fourth order stream was and asked whether a map could be produced to show that. Mr. Lamb stated that staff can produce that map for the Joint Committee and added that the map staff referred to last month showed water bodies that were subject to the Surface Water Quality Protection Act. He indicated that he can provide something that would be protected under this ordinance. Chair Abrash Walton stated that in addition to the map the Director had talked about information about how this ordinance provides additional safeguards in addition to what is provided at the State and Federal level would also be helpful to receive. Mr. Lamb stated that minutes in today's packet outline that presentation. He pointed out that this item is built into the fourth or fifth bullet; what is gained by the ordinance and are surface waters and wetlands adequately protected today? He indicated that he could do another summary as a response to that question.

Mayor Lane stated that his question is in reference to the two different setback widths as well as whether setbacks can be based on functions and values of wetlands which he felt was a critical issue for this ordinance.

Chair Abrash Walton reiterated what was just discussed; the August meeting will be continued until September; the minutes from the July meeting will be received by August 13th and also added that the Committee should perhaps be provided with the staff report far in advance of the September meeting.

A motion was made by Michael Welsh that the Joint Committee continue Ordinance O-2012-07 to the September 10th meeting. The motion seconded by James Duffy and was unanimously approved.

Mr. Lamb stated that he would need a few minutes to setup the overhead projector and stated that because of the lateness of the hour would like to have a brief discussion about the Planning Board's recommendation to invite outside parties. Chair Abrash Walton stated that her only concern about waiting is because of the lengthy agenda that the Committee is likely to have at its September meeting.

The session adjourned for a short recess.

4. Presentation - CMP Update – Planning Director

When the session convened it was realized that Councilor Meader had left the session and hence because the lack of quorum the presentation could not move forward.

5. Next Meeting Monday, August 13, 2012

6. Adjourn

The meeting adjourned at 9 PM.

Respectfully submitted,

Krishni Pahl,
Minute Taker

**CITY OF KEENE
NEW HAMPSHIRE**

**JOINT PUBLIC WORKSHOP
PLANNING BOARD/
PLANNING, LICENSES, AND DEVELOPMENT COMMITTEE
MEETING MINUTES**

Monday, September 10, 2012

7:00 PM

Council Chambers

Planning Board Members Present

Abigail Abrash Walton, Chair
Michael Welsh, Vice-Chair
Peter Crowell
Emily Hague
Kendall Lane
Councilor James P. Duffy
Gary Spykman, Alternate

Planning Board Members Not Present

Rebecca Landry
Eleanor Vander Haegen

**Planning, Licenses and Development
Committee Members Present**

David H. Richards, Chairman
Councilor David R. Meader
Councilor David Curran
Councilor Carl Jacobs

**Planning, Licenses and Development
Committee Members Not Present**

Councilor Bettina A Chadbourne

Staff Present

Rhett Lamb, Planning Director

1. Roll Call

Planning Board Chair Abrash Walton called the meeting to order at 7 pm and a roll call was taken.

2. July 9, 2012 Meeting Minutes

Emily Hague offered the following correction:
Page 8, paragraph two, to delete the word “not”

A motion was made by Mayor Kendall Lane that the Joint Committee accept the July 9 minutes as amended. The motion was seconded by James Duffy and was unanimously approved.

Continued Public Workshop

3. Ordinance – O-2012-07 – Relating to the establishment of a Surface Water Protection Overlay District. This ordinance would amend the City Code by creating an overlay district in Keene to protect the water quality of surface waters and wetlands and the buffers associated with these resources.

Planning Director Rhett Lamb addressed the Committee first. He indicated that the Committee had raised questions last month regarding water quality, the trends regarding water quality and the tributaries in Keene. He indicated the Barbara Skuly from the Ashuelot River Local Advisory Committee is present today to address that issue. In October Michael Simpson from Antioch University New England will be present to talk about the science and evidence around buffers and more importantly about storm water management.

Mr. Lamb went on to say that the intent of this ordinance is to protect the functions and values of surface waters and wetlands and how they contribute to the City's water quality, stormwater retention systems, aquifer recharge, floodwaters, wildlife habitat and overall quality of life. The ordinance values and recognizes our reliance on these systems, and the natural infrastructure it provides and attempts to build a relationship between them and the cost it takes to replace them if they are gone. This ordinance relies on the principal buffers, relying on the natural filtering capacity and storage capacity of the vegetative areas around the wetlands and surface waters and indicates that uses like junkyards, salt storage, landfill (high pollutant land uses) are prohibited around surface waters. Other uses, like traditional land uses for residential activity for development associated with use of upland on property near these wetlands may require a conditional use permit; they are not prohibitive but would require a permit.

Mr. Lamb went on to say that the Joint Committee did have a rather lengthy list of questions at the last meeting and staff has managed to obtain answers for most of them except for perhaps one or two. The Board also has a revised ordinance in the packet which is a draft A version and until the Board says it is an A version it is not an A version.

Mr. Lamb stated that he was going to try and cover those questions that relate to the central theme and central issues; are wetlands and surface water adequately protected today? What is the scientific basis for buffers? What is gained by the ordinance?

He then called the Committee's attention to page 27 of the Staff Report – what constitutes seasonal pools and what was this term used in the ordinance referred to as "*land subject to standing water*". Mr. Lamb explained that what the ordinance now does, is that it has eliminated the reference to the term *land are subject to standing water or extended periods of high water table* and combines the terms seasonal pools with vernal pools. This has taken away the idea of standing water.

There is also change made to the reference to the Shoreland Protection Act it is now referred to as the Shoreland Water Quality Act.

The other issue that has changed is in reference to agriculture – agriculture is now an unrestricted activity and asked that when reviewing this document, if there is any reference to agriculture it was intended to be changed.

Mr. Lamb then referred to the issue with buffers and explained that the effectiveness of buffers depends on what you are trying to do. For bank stabilization 10 – 20 feet is adequate, if you are trying to create wildlife along that buffer the buffer needs to be bigger. He referred to page 4 which talks about the scientific literature as it relates to what value you are trying to protect. For sediment control it ranges from 30 feet to 200 feet, for stream temperature the buffer recommendation is 30 feet to 230 feet. He noted that in the ordinance a baseline of 100 feet is established for rural or undeveloped areas, 30 feet for moderately developed residential areas, and 10 feet for the fully developed areas of the City. The basis for 100 feet is that it met a middle ground with respect to buffer widths as suggested in the science but does not go as far as what the scientific community would recommend. He indicated in comparison to other communities the 100 feet falls somewhere in the middle range. He indicated that the Committee will hear more about the scientific explanation next month. The intent is to find a number to protect the highest number of values with a reasonable application on land where the lot sizes can handle the area and be located away from the water body. He indicated that establishing buffers in the downtown of ten feet will not necessarily clean up the water in the tributaries or in the river. If

the goal is to improve water quality in the Ashuelot River and in Beaver Brook, the City would need more than just buffers, it would need stormwater management strategies and treatment strategies.

Mr. Lamb then talked about what is gained by this ordinance and whether wetlands are protected reasonably today. In the State of New Hampshire there are two primary statutory frameworks, they are the Shoreland Water Quality Protection Act and the NHDES Wetlands Bureau permitting of dredge, fill and wetlands. He indicated that the biggest difference between this ordinance and what is currently in place with the Wetlands Bureau is that if you are altering an upland adjacent to a wetland you do not need a wetland permit to do so. This ordinance would create a process where a conditional use permit may be required for activities in the upland buffer adjacent to a wetland even if there weren't impacts to the wetlands. Another difference with the wetlands statute as it exists is that vernal pools are recognized as a primary value in this ordinance but they are not recognized as wetlands and don't have protection under State Law. However, added that even though New Hampshire law does not include reference to vernal pools, it is not unusual that an alteration of vernal pool would require separate review by the Army Corp. of Engineers. The Shoreland Protection Act does include a well-established concept of buffers; if you are altering one of the buffers regulated in the State of NH by the Shoreland Protection Act there are buffers related to 50 feet from the resource. In Keene it is the Ashuelot River, a small portion of Beaver Brook, Branch River and a small portion of Otter Brook as well as any of the large ponds. Just these streams are subject to the permit and by adopting the local ordinance there will be higher regulatory standards for additional streams. This concluded Mr. Lamb's presentation.

Councilor Duffy referred to page 19 of the Staff Report and referred to the question "*can incentives to be added to the ordinance*" and clarified that generally speaking the answer would be yes, and asked whether staff was going to illustrate anything more particular for incentives. Mr. Lamb stated that this would be at the direction of the Joint Committee. Councilor Duffy stated that he would not do that and felt it would be counterproductive to construct incentives with this type of ordinance. Planning Board Chair Abrash Walton asked why the Councilor feels it would be counterproductive. Councilor Duffy felt that it was good to have an ordinance that had a clear baseline that is uniform but certainly with flexibility with things such as buffers. He indicated that we are talking about protecting our natural environment and the Committee has not heard anything specific about incentives from staff and reminded the Committee that this is the third month working on this issue. He felt that trying to come up with incentives will only delay the process even more.

Chair Abrash Walton stated that her intent is not to delay the decision making but stated that she is curious about incentives only because other members of the Planning Board have raised it not only with this ordinance but in other realms the Board is working on. The Chair asked as a compromise whether the speaker in October can speak about incentives but if he is unable to do so she will be comfortable in moving forward.

Councilor Jacobs referred to agriculture not being restricted and asked whether this means anything agricultural can be done next to any body of water. Mr. Lamb stated that he is not an expert with respect to what the statute says about agriculture and stated that the statute with reference to agricultural activities can be found in RSA 21 and stated that these activities have a lot of protection and whether or not these activities need a wetland permit or not he was not sure. What has been done with this ordinance is to rely on the standard that exists today to regulate activities. The basic premise of agricultural activities is that it is a temporary activity and is not likely to get the scrutiny that a permanent use would receive. Hence, by deleting the references

here we are relying on the processes set by the State for oversight and noted that it is also understood that agriculture would be carried out according to the Best Management Practices. The statute talks about creating buffers away from surface water, not grazing animals near streams; if manure is stored it should be done according to some practices etc. Chair Abrash Walton stated that she also wanted to point out that the City now has a new Agricultural Commission and this might be something for them to consider with greater expertise. She indicated that she would also like to hear from Ms. Hague and others who were on the drafting committee of this ordinance as to the extent to which there was intent to go beyond the State statute in dealing with agricultural practices.

Ms. Hague stated that she recalls some discussion as to intensive uses such as grazing; storage of manure, storage of fertilizer and these were the types of uses the Committee members expressed concern about. Hence, the reason the original language was proposed. Mr. Lamb added that there was also some question as to whether a vegetable garden would be considered to be an agricultural use and stated that it was never the intent of anyone drafting this ordinance to regulate household gardens.

Ms. Barbara Skuly Chair of the Ashuelot River Local Advisory Committee (ARLAC) addressed the Joint Committee next. Ms. Skuly stated that the Ashuelot River Water Quality monitoring program has been in existence since 2001 and they are in the 12th season. She indicated that the data she is presenting only goes through 2011 as 2012's data has not been collected yet.

She indicated that ARLAC was formed in 1994; a year after the Ashuelot River was placed in the NH Rivers Management and Protection Program. The Committee is comprised of members from the ten towns along the river corridor and Keene has 2 representatives; Brett Thelen and Jim Holley. Ms. Skuly stated that the slides being presented today were collected collaboratively by Dr. Patrick Eggleston, Dr. Stephen Stepenuck and herself. The data was collected by local volunteers of the ARLAC Monitoring Program and do use the services of NHDES volunteering program.

Ms. Skuly stated that the parameters they monitor are dissolved oxygen (DO), pH, specific conductance, E. coli, total phosphorus, chloride, turbidity, and temperature. She referred to the Stone Arch Bridge and stated that this was their first site and added that the Committee has ten sites along the main stem of the river, starting at Washington and ending in Hinsdale.

She first talked about dissolved oxygen. All animals require oxygen, water can only hold so much DO per volume and is less at higher temperatures. DO is measured in mg/L, and also reported as percent of the saturation value. Coldwater species like trout and salmon require at least 5 or 6 mg/L. Plants produce oxygen by photosynthesis during the day but consume it at night. If there is too much plant growth (eutrophication) it can lead to very low DO levels in the water. There are other substances from iron to fecal matter that react and consume DO. Hence, even though photosynthesis things like sewage will lower available oxygen

In New Hampshire there are regulatory limits for Class A and Class B waters.

Class A water is drinkable after disinfection and Class B is fishable and swimmable waters. For Class A waters the regulatory limits for DO must be greater than 6 mg/L, or 75% saturation minimum daily average.

For Class B water the regulatory limits for DO must be greater than 5 mg/L, or 75% saturation minimum daily average.

Ms. Skuly then referred to a slide which showed the Ashuelot River path from Washington to Hinsdale and the 75% saturation point on it and noted that most of the data points are above the 75% which she indicated was good but what could also be noticed is that there is a “sag” when you come into Keene which could be concluded that there is something happening in this developed area to impact the dissolved oxygen.

The second parameter she talked about was pH which is the measurement of hydrogen and iron concentration. The lower the pH the more acidic the water; and the higher the pH the more basic or alkaline the water with seven being neutral. PH is also an logarithmic function, which means for example you go from seven to six, it means that the water has become 10 times as acidic, and if it is decreased from seven to five means that the water has become 100 times as acidic. Pure water in equilibrium with air has a pH of about 5.5, but clean natural waters are usually *buffered* to a pH higher than that. New Hampshire has measured rain of pH 4. Trout like a pH from about 6 to 9 and New Hampshire Class B standard is 6.5-8.0 unless naturally occurring.

Ms. Skuly then referred to a chart for data collected in the Ashuelot River and referred to the red minimum line and stated that we want the measurements to be above this line and noted that most of the measurements are below the line because of this the Ashuelot River is considered to be impaired because of the low pH. She indicated that as we move towards Hinsdale the pH seems to be going up which means that there are other substances coming into the water column that is making the pH go up which could be things like road salt, detergents etc.

Ms. Skuly then talked about Specific Conductance which measures the electrical conductivity and free iron content of the water at a specific temperature. Polluted waters typically have a higher specific conductance than non-polluted waters and the results are usually expressed in microsiemens per centimeter ($\mu\text{S cm}$) and in New Hampshire the Class B chronic criterion is 835 $\mu\text{S cm}$. Looking at the data for the 11 years the number is well below the 835 but in the head waters it is below 50 or less and as you get to Route 101 the number seems to go up which means that there are substances that are getting into the water column. Ms. Skuly noted that this is not an impairment classification like the pH but it does show what happens when you get into a more developed area.

She next talked about E. coli; this is a bacterium that is found in the gut of animals, especially warm blooded animals. It is an indicator of potential presence of pathogens in fresh water and can be affected by storms, low river flows, presence of wildlife, septic systems along river. It is measured as counts per 100 milliliters (cts/100ml). New Hampshire Standard - Class A waters 153 cts/100 ml is allowable but in Class B it can be as high as 406 cts/100 ml.

Ms. Skuly then referred to a chart that shows the data for e-coli. The red line indicates the measurement of 406 and the lower green line at 126. She pointed out that between 5 and 6 is the wastewater treatment plant. If there was a specific point source that was causing E-coli issues there would be consistently high numbers. She indicated that when there is a heavy downpour anything on the pavement such as dog litter could go into the storm drain and end up in the river; this could be one of the reasons for the high number. Contrary to that if there are low flows, the water is not moving, it warms up and e-coli can built up that way as well. She noted that it would be interesting to see what happens to the e-coli now that the dam in West Swanzey has been removed.

Ms. Skuly went on to talk about phosphorus (P) next. Phosphorous is a major essential plant nutrient and it is usually the limiting nutrient meaning that a small amount can lead to excess algae and weeds. P can indicate the presence of septic systems, sewage, lawn fertilizer, road and construction erosion or other sources of pollution. It is measured in milligrams per liter.

The question is how much phosphorous is too much. New Hampshire currently has no numeric standard. NH-DES used to say that $>0.015\text{mg/L}$ of total phosphorus implied eutrophication and that $0.026\text{--}0.050\text{mg/L}$ is “more than desirable, with 0.051mg/L is “excessive. She added that Vermont and Maine have an amount of $.035$ as a summer maximum.

She then referred to a slide which noted the phosphorous number in the Ashuelot River. In the headwaters the value is less, there is a dip in Gilsum but when you start coming into Keene the number increases. She added that most of this information is when the West Swanzey dam was still around. Ms. Skuly stated that hence was done was to look at the Cresson which is downstream of the wastewater treatment plant. She noted that when Keene received it discharge permit there was a new amount it had to go abide by and had to improve their treatment and stated that the numbers reflect that.

In closing, Ms. Skuly talked about riparian buffers, which is significant in reducing the amount of pollutants that run off into the river. Even eroding soils can bring substances, such as phosphorus, that are detrimental to the health of the river system. Buffers help to filter any contaminants before they can impact water quality. This concluded Ms. Skuly’s presentation.

Mr. Crowell stated that if we know what is causing these issues it would be easier to understand but the other issues that cause the contamination seem to be happening in the dense areas of Keene but buffers are not being proposed for these dense areas. Ms. Skuly agreed that it is hard to predict the increase in measurements for e-coli but there are ways in which to find out what is affecting the increase to numbers for things like phosphorous, conductivity and ph; the developed areas do have an effect and if this is one of Keene’s goals there are things that would need to be done instead of just the ten-foot buffers. However, what is obvious is that when there are more buffers the impact seems to be less in the river.

Councilor Jacobs asked whether Ms. Skuly would be willing to share these slides with the Committee. Ms. Skuly stated that she would need to get permission from Drs. Eggleston and Stephenuck but did not think there should be an issue.

Mr. Curran asked whether the curve of the river indicated on this slide has anything to do with the length of the river or is the water getting better when it leaves Swanzey. Ms. Skuly explained that the river is 60 miles long and there are tributaries coming into the river and this does have an impact. She also noted that the upper reaches of the Ashuelot River does have a smaller water shed and when the water comes into Keene it is draining from the top of the water shed and is getting more of the impact.

Vice-Chair Welsh asked whether the parameters of the discharge permit for phosphorous for the City of Keene is dictated by the river being able to handle the treatment. Ms. Skuly stated that she wasn’t sure but added that the idea is to not affect the river than what the background is.

PLD Chair Richards asked whether Keene being located in the valley cause some of these issues. Ms. Skuly stated that low water and high water could cause e-coli issues and added that it seems like Keene had the most consistent value with e-coli last year when there was a consistent flow. Water that sits behind a dam can impact the water quality. PLD Chair Richards asked Mr. Lamb

whether this ordinance would have an effect on the phosphorous and e-coli level with reference to the wastewater treatment plant. Mr. Lamb stated that it would not change the manner in which the plant works but if it has an effect on the background levels of the river then it may have some change. He added that this ordinance would not fix today's conditions but would change the way development happens in the future. PLD Chair Richards clarified that the levels can still be high but comply with EPA Standards. Ms. Skuly agreed that it could be.

Planning Chair Abrash Walton thanked Ms. Skuly for her presentation.

PLD Chair Richards opened the public hearing next.

Mr. Thomas Lacey of Daniels Hill Road noted that the areas where there has been lower measurement of e-coli found are areas where there are septic systems and asked whether any count was taken as to how many of those systems were close to the river and how this might affect the river. He indicated that rural areas even though are areas that have a septic system and not a public sewer system have lower influence on the river and asked for Ms. Skuly's comment on that issue. Ms. Skuly stated that e-coli in the headwaters are lower in value and these are areas that might have septic systems. However, these systems might be 150 feet – 250 feet away from the river because the houses are not built close to the river. She pointed out that the standard for septic systems in New Hampshire is 75 feet from surface waters. This is the difference between a good buffer and less of a buffer. She added that e-coli can also be for instance from pigeons sitting on a bridge but agreed that the numbers are better in areas where development is away from the river.

Mr. Del Meyer Chair of the Ordinance Committee addressed the Committee next. Mr. Meyer stated that if you look at the patchwork of regulations which impinge upon the City's water resources, such as the Army Corp of Engineers, the State of NH, you can view this ordinance as something that fills in the "pot holes" and makes it a more uniform way to work with the issues. Mr. Meyer stated that this ordinance protects all the existing structures and systems and felt this was a good place to begin. He stated that there will be issues that will come up as more growth and development happens in this City and having an ordinance like this will help address those issues. He talked about a City he had visited recently where there was a notice that indicated that the water in that community was not safe for pregnant women or nursing mothers.

Mr. Meyer felt that these are significant issues and the City is not isolated from them and the time to address these issues are before it affects the City. He indicated that this is a well thought out ordinance.

Councilor Duffy asked Mr. Meyer whether there was any advantage or disadvantage to decreasing the 100-foot buffer which seems to be the controversy throughout this process. Mr. Meyer stated that the Committee's thinking was that to maintain the vitality of the downtown it was justified in having a reduced buffer even though it might not be ideal. However, they felt a 100-foot buffer would be better in undeveloped areas and they felt this was a reasonable compromise. The Councilor asked whether it would make more sense to have wider buffers within the City and narrower buffers in the rural areas. Mr. Meyer agreed that densely populated areas do cause more pollution and having a wider buffer in the downtown would be ideal. He explained that one thing that happens in streams is bio remediation but as long as there is plant life that is metabolizing it will remove pollutants. He noted that one issue that that has not been studied is nitrate which can be a health hazard much more than phosphorous.

Mr. Lee Dexter addressed the Committee next. Mr. Dexter stated that he would like to encourage the things that have already been discussed such as the value of this ordinance, what we are trying to achieve, the value of buffers; and these have not been the source of argument. What has been the source of argument is how this ordinance is going to achieve the goals the City is looking for. He felt that the presentation made today indicates that this is a City problem. By virtue of the downtown already being developed the downtown seems to be getting the smaller buffers. However, by being “undeveloped” in the rural area, there is a 100-foot buffer regardless of whether there is a farm house that has been located on a site for 100 years.

Mr. Dexter stated that his life saving is in his property and he cares deeply about his property and supports the City in this endeavor. He talked about absentee landlords who return to the area in a few years to realize that their properties are no longer in existence because of these new rules that have been passed. He questioned whether this ordinance would be smart enough to distinguish between developed, rural and undeveloped land. He indicated that the requirement for his home was a 30-foot buffer but he voluntarily provided for a 50-foot buffer from the stream. He pointed out that his property is upstream of the Stone Arch Bridge so he receives a good report card for water quality. He added that to construct an eight or twelve foot deck to have to go through the Conditional Use Permit can be burdensome for the average homeowner and stated that this is one of the reasons he is here tonight and is something he would like the Committee to carefully consider.

Ms. Brett Thelen of 161 Court Street, Keene was the next speaker. Ms. Thielen stated that she would like to add her support for including vernal pools and noted that vernal pools are protected in neighboring states; Maine has a buffer of 200 feet for vernal pools they consider of high value, Massachusetts has a 100 foot buffer but New Hampshire has no protective regulations. She noted that vernal pools are very necessary for the functioning of our forests. She commended the Committee for including them and expressed her support for including them as a surface water feature. She felt that a 100 foot buffer is a reasonable middle ground.

Mr. Robert Phillipson of 195 Gunn Road, Keene asked whether this ordinance would just affect development or would it also affect logging. Mr. Lamb stated that it would not affect logging. Mr. Phillipson asked whether this would have any effect on ATV's and other such recreational vehicles. Mr. Lamb indicated that the language states that “...permitted uses within the surface water overlay protection district – trails constructed and maintained in accordance with Best Management Practices...” He indicated that an average activity of driving an ATV is not being regulated but if there are trails constructed for the purpose of driving an ATV then it is being suggested that they follow the Best Management Practices.

Mr. Phillipson stated that his family has owned this property for 100 years. He noted that they have a brook that runs through their property and with the adoption of this ordinance they would lose 200 feet on each side of the property (an acre) of land. He felt that if something is done it should be fair and equitable; if it is applied in the rural area it should also be applied in areas where it is needed more, such as in the developed areas. He felt that he understands that adding a large setback in Keene is going to be difficult but if rural landowners are going to have to deal with this issue the downtown should also have to deal with it.

Mr. Mark Doucette of 164 Gunn Road addressed the Committee next. Mr. Doucette asked whether this ordinance would affect property values because of the restrictions placed on properties, and asked whether taxes would go down as a result. Mr. Lamb stated that it is difficult to determine this; assessment is based on the sale price of property and no analysis has been done in this regard.

With no further comments, PLD Chair Richards closed the public hearing.

A motion was made by Mayor Kendall Lane that the Joint Committee continue this matter to the October meeting. The motion was seconded by Carl Jacobs.

Councilor Duffy clarified that the Committee will talk about buffers next month and asked what questions about buffers have not been answered yet. Mr. Lamb stated that the information that the Committee has been provided is because of research that has been done internally but what staff is trying to do is to find an expert in the field to provide evidence based information and address specifically how buffers could improve water quality characteristics. The Councilor added that it has been mentioned many times that not enough is being done in the City proper and he would like to know LID standards that would be applied to any future development downtown; things like mandating rain gardens, requiring impervious surfaces. He felt this might be something that probably should be included. He indicated that he is however, sympathetic to the dichotomy that has been presented but the intent of this ordinance is to protect our surface water and we are in this together and felt that not everyone is going to be happy with the decisions being made and felt this is an item that should be moved forward.

Mr. Lamb in response stated that next month's speaker is well versed on low impact design and the principles Councilor Duffy is referring to, recognizing this dichotomy and that if water quality is going to be improved downtown; we have to do more than just buffers.

Chair Abrash Walton added that this is not only about water quality but it is also about infiltration. She added that the Planning Board has an ongoing task of having to update its standards to better achieve those outcomes. Hence, what staff has also asked this expert to address is what those tactics the Planning Board can consider to yield those better outcomes in storm water infiltration. Mr. Curran asked for some incentives which can be considered as well.

Vice-Chair Welsh complimented staff for all they have done and the answers the ordinance has already provided.

Ms. Hague asked whether the speaker can address the issue with buffers as it relates to property damage, recognizing that this is not just about water quality.

The motion made by the Mayor carried on a unanimous vote.

4. Discussion – CMP Implementation

Mr. Lamb referred to the letter in the Committee's packet that staff is working on with the Planning Board Chair and Vice-Chair to use to invite presentations on CMP Implementation to the Committee's future meetings. Staff is tentatively scheduling November and December meetings and an invitation will go out to Steve Meceli who is the Chair of the Cities for Climate Protection Committee to talk about the progress they have made regarding the climate adaptation goal. In December it would be arts and culture and staff will be reaching out to Alex Doyle of the Colonial Theater. Mr. Lamb stated that the plan is to invite one speaker to address the topic and invite others who are involved in the field.

Planning Board Chair Abrash Walton pointed out that the topics listed for each month are taken directly from the Master Plan. She noted that the only one she does not see is economic development.

Mr. Curran commended the work that is being done. Mayor Lane stated that when the Master Plan was being worked on there were number of presentations that dealt with innovative landuse techniques that related to these specific areas. He indicated that some of background information that was developed for the Master Plan would be very helpful when looking to rewrite the landuse regulations for the City and felt that this would be something that should be looked at. Mr. Lamb agreed.

5. Next Meeting Tuesday, October 9, 2012

6. Adjourn

On a unanimous vote the meeting adjourned at 8:50 PM.

Respectfully submitted,

Krishni Pahl,
Minute Taker
Edits, L. Langella

**CITY OF KEENE
NEW HAMPSHIRE**

**JOINT PUBLIC WORKSHOP
PLANNING BOARD/
PLANNING, LICENSES, AND DEVELOPMENT COMMITTEE
MEETING MINUTES**

Tuesday, October 9, 2012,

7:00 PM

Council Chambers

Planning Board Members Present

Abigail Abrash Walton, Chair
Michael Welsh, Vice-Chair
Peter Crowell
Emily Hague
Rebecca Landry
Gary Spykman
Councilor James Duffy
Eleanor Vander Haegen

**Planning, Licenses and Development
Committee Members Present**

Councilor David Richards, Chair
Councilor Bettina Chadbourne
Councilor Carl B. Jacobs
Councilor David Meader
Councilor David Curran

Planning Board Members Not Present

Mayor Kendall Lane

Staff Present

Rhett Lamb, Planning Director

1. **Roll Call**

Chair Abrash Walton called the meeting to order at 7 pm and a roll call was taken.

2. **September 10, 2012 Meeting minutes**

Emily Hague offered the following correction: Page 9, paragraph three, correct spelling to name should be "Thelen"

Abigail Abrash Walton Page 3, second to last paragraph, change the word from invectives to incentives.

A motion was made by James Duffy that the Joint Committee approve the meeting minutes as amended. The motion was seconded by Eleanor Vander Haegen and was unanimously approved.

Continued Public Workshop

3. Ordinance – O-2012-07 – Relating to the establishment of a Surface Water Protection Overlay District. This ordinance would amend the City Code by creating an overlay district in Keene to protect the water quality of surface waters and wetlands and the buffers associated with these resources.

Planning Director, Rhett Lamb addressed the Committee and began by introducing today's speaker Michael Simpson who has agreed to fill in some of the blanks for the Committee and the application of the science as it relates to buffers. He indicated that Mr. Simpson is the Chair of

the Environmental Studies Department at Antioch NE University and is a certified Wetlands Scientist in New Hampshire and is working on an EPA and NOAA funded adaptation project in New England and also in Minneapolis.

Mr. Simpson addressed the Committee next and stated that he wanted to give the Committee a context to consider the overlay and then talk about the parameters of buffers and alternatives to buffers for water quality purposes.

Mr. Simpson stated that the Keene basin is very complex and it goes from a high landscaped type of system dominated by bedrock to low landscape positions. He indicated that Keene has four types of soils series. Keene also has two types of bedrock and is located on the east and west of the City and the bedrock framework is very well determined. Because it is bedrock it means shallow soils and there is also something called till (hard pack) which surrounds the City in the uplands. What is important to keep in mind is that the soil here is shallow and anything that happens here will quickly move down to the basin. The important thing to look at in the basin is the last glacial period. When you think about glaciers moving onto landscape you think about two things; what glaciers bring with them as they move and what do they do when they go away. When they come they bring with them a lot of sediment, the sediment is caught up in the ice and when the ice moves the water that runs off also brings with it a lot of sediment. This sediment is not sorted and is also compact. The material that comes when a glacier moves north of us and the water that runs down to us is a sorted material. Hence, the basin we have is a combination of both these materials.

Mr. Simpson then talked about lakes and what happens when you have a lake. Ice located in the north has water coming down from it which gets blocked and as a result creates a lake. There are also rivers and streams coming in from the sides from the highlands and begin to flatten out, when they flatten out the water loses speed and the coarser material drops out, and when it hits the water the finer material disappears and if the lake is removed what can be found is very fine material. Hence, Keene has in its valley a combination of a very coarse materials, finer materials and very fine materials (clays and silts). The clays and silt are important because they get compacted overtime which slows down the movement of water laterally and vertically. What can be noticed in the basin are many layers; some are coarse and some are fine, hence what you have is water at the surface as well as water that is deeper ground water that is in layers.

Mr. Simpson then talked about delta formations. He explained that the water slows down as the glacier gets further north and what is left are sand formations. He showed the Committee different delta formations in the area. He noted that these deltas, drive decisions about landuse – what is viable and what is not. He referred to Wheelock Park which has very sandy delta deposits, highly permeable and great for recreation. Mr. Simpson also referred to the St. Joseph Cemetery which is the highest landscaped position in the lowlands of the basin.

He went on to say that if you go to areas that are not in the deltas you will find things that are outside these sandy deposits. He referred to the area where Antioch University is located and indicated that because of the construction of the different malls there have been many drainage ditches that have been constructed to move the water out. For example, to construct the Sears store because of the amount of water that existed at this site they had to bring in soils to surcharge the water out. These types of soils are very compacted and would hold water well.

Mr. Simpson then talked about buffers. He indicated that the speaker last month spoke about the data regarding the Ashuelot River and its water quality. The material that comes in from many different sources but one thing that is always considered when looking at non-point pollution is where the water is coming from and how fast it is coming, the oxygen content, and how long it stays. There are many parameters that can be looked at but indicated that he would like to focus on phosphorous.

Phosphorous is referred to as a limiting factor; if it was added it would allow for a lot more biological activity to occur (bloom). He said, if this bloom is not addressed it can cause a large ecological problem. Mr. Simpson added that if he was making this presentation on the seacoast he would be talking about nitrogen which is a limiting factor in sea water.

He went on to say that when phosphorous is limited so is algae in water systems. The algae does two things, it not only is the bottom of the food web but also provides oxygen to the system. If there is too much phosphorus it over blooms algae and this cuts out the light and prevents photosynthesis from happening and the whole system starts to collapse. Anthropogenic phosphorous is not only formed by humans but is also caused by humans, including changes the landscape which can erode soils downstream. Mr. Simpson stated that if you look at sediment, phosphorous in phosphate form, it is attached to metal irons, soil particles and organic particles. If this phosphorous gets into the water source and the oxygen gets decreased, it will be released and it will fertilize the water, causing algae growth, cut off the light and oxygen, more decomposition, more phosphorous which is then ultimately referred to as eutrophication.

Mr. Simpson went to say that if you look at empirical studies which look at buffer width and removal of material and sediment as a place holder for phosphorous. These studies show a best fit curve and using that curve a formula can be created which can be used to indicate the percentage removal. Using this study you can predict the degrees of removal that can be obtained using various approaches to buffers.

Along the Beaver Brook, if you look at the buffers there are steeper situations. He went on to say that the Hubbard Brook Experimental Station near Franconia, NH did a number of studies on sediment trapping and what they found was slope does matter and came up with the calculation (2 feet times the percentage of slope) and that if there are more sensitive receptors the calculation needs to be doubled. The Swift Study on the Nantahala National Forest (1986) looked at slopes and buffers and came up with a formula that called for a 43-foot buffer and would add feet based on the percentage of slope using the Swift Study formula. This study also talked about the under story and if there is an abundant under story, the distance can be narrowed by about 25%. He added that this is not just a width issue but also a slope issue. The minimum width of vegetated filter strips required by USDA for a 1-3% slope is 25 feet; 4-7 % is 35 feet; 8-10% is 50 feet.

Mr. Simpson stated that there are also other ways to mitigate in conjunction with buffers. He stated that with his work in Minneapolis he has learned that water sheds are attached by pipes and these are often straight pipes and as a result there is a tremendous amount of impervious surface connected by what is referred to as "pipe sheds". He indicated that in urban developments it is the pipe sheds that are contributing to the pollutants not necessarily the buffer and stated that both of these should be looked at. One way to look at pipe sheds is to look at low impact development design. There are many ways to accomplish this; hydrodynamic generator which can be put in a storm drain which creates a centrifugal force and allows the sediment to be

removed and then pumped out. The others ways are through filter units where water is moved through a sand filter and is cleansed. There is also impervious concrete, porous asphalt, stone swales, retention ponds, gravel wetlands, and bio retention units. He indicated that these are ways to deal with the pipe sheds as opposed to dealing with the setback from riparian corridor and stated that both should be considered.

Mr. Simpson stated that when you think about these sub-surface approaches, there are only so many places you can use them. The places they should be used are in those areas that are above the clay soils, ones that are on the deltaic formations. He gave examples of areas where porous asphalts have been used successfully and added that DOT is looking at this as a standard but the question is its durability for highways versus parking lots.

Mr. Simpson then went over some cost comparison impact by using LID. He referred to a development in Pelham, NH which used LID for a cluster development and this development was built on a 9% grade. This design avoided 1,616 feet of curbing, 785 feet of pipe, 8 catch basins, 2 detention basins, 2 outlet controls and 1.3 acres less of land clearing and the project saved a cost of \$450,000. This concluded Mr. Simpson's presentation.

Chair Abrash Walton thanked Mr. Simpson for taking the time to make this presentation.

Councilor Jacobs clarified that the same buffer distances would also apply in the uplands. Mr. Simpson stated that uplands often have steeper slopes, but there will be better vegetation and probably less built impact along the streams. Hence, the buffers in those areas will try to maintain the resilience of the system that is natural. In the downtown areas on the other hand the buffers are quite impacted. Buffers are important here but restoration efforts should also be looked at. The setbacks in the downtown are flatter with less vegetation and hence wider buffers would be prudent. He noted that however, we are already pushed up against people's built area which does not exist in the uplands. He noted that in either case you are taking away people's use of their property by having a buffer distance.

Councilor Jacobs asked whether this means the buffer distances would be the same. Mr. Simpson stated that there can be a set buffer but it would have a different impact on the water where you locate them. Ten feet, for instance in the downtown where it is flat with not much vegetation, might not do a lot. Ten feet in the uplands with good vegetation might yield better results but added that the slopes in the upland areas are much steeper.

Ms. Landry clarified that Mr. Simpson had stated that the higher impacts come in the 25 – 50 foot buffer ranges but once you go over this 50 feet the impact is much less. Mr. Simpson stated that the marginal removal is very small wherever that curve changes. He indicated that it might increase by a factor of ten feet or 15 feet and increase removal by 4% but after it curves and you increase by ten feet or 15 feet you might only increase removal by .2%. He noted that this is what the empirical data shows and is not his ideas.

Mr. Lamb stated that Mr. Simpson's presentation focused on suspended solids and nutrients but if the Committee is talking about other values in addition to water quality the buffer distance would differ. For stream temperature the buffer distance could be quite a bit less addressing tree height and tree growth right next to the stream probably would not require 50 feet. If you are talking about wildlife habitat a larger buffer might be necessary.

Mr. Crowell asked if there is an area that is pristine today it may have its own kind of problems but would not be the kinds of problems being discussed with phosphorous etc. Mr. Simpson agreed and went on to say that if it is a natural system and the land use has not changed it will have background phosphorous coming into the system but it will not be to the extent that is going to cause a problem. Mr. Crowell asked whether it would be prudent to think that buffers could contain phosphorous in a downtown area which could have many contingencies that could have an effect on them. Mr. Simpson stated that if land use changes and there are no buffers the impact could be great. He added that erosion moves particles and organic matter and is the major cause for moving phosphorous in the water shed.

Ms. Hague with reference to uplands asked whether our water sheds are becoming “flashier” in terms of volume and velocity coming off of slopes and if so are buffers also effective in preventing erosion when you have intense water flows coming onto the landscape. Mr. Simpson stated that if a mitigation strip is installed the closer it is to the point of disturbance the greater impact it can have. He added that he would not call it a buffer to the stream rather mitigating the impact. Ms. Hague stated that in talking about the low density areas, this is where the Committee thought buffers seem like a solution to control runoff. Mr. Simpson agreed that it would control runoff and added that he had recently finished a study on the Sunapee Basin and what was found is that if it was built out with LID the runoff was reduced by 33% but the LID had a one-inch capacity.

Dr. Welsh referred to the best fit curves Mr. Simpson had shown the Committee and asked at which start of the curve the diminishing payoff would be seen. Mr. Simpson stated that it would be seen where it flattens out. Vice-Chair Welsh asked about the effectiveness of the removal of phosphorous – LID techniques, conventional process such as retention basins and according to what he read retention basins were the worst performers and counterproductive to the removal of phosphorous and asked whether he read this information correctly. Mr. Simpson stated that what was realized is that over a long period of time these basins filled up and there wasn't decomposition of material and they overtopped and released phosphorous. Vice-Chair Welsh further noted that he also understood that porous pavement is effective in some places and not effective in other places. In west Keene where there is sand, this might be a place for porous pavement to be used. Mr. Simpson stated that what people don't realize is that there is a sand filtration layer in porous asphalt that has a biological film that is treating material as it goes down.

Councilor Chadbourne noted that at last month's meeting Mr. Meyer had stated that one issue that had not been studied was nitrate and asked whether there is any concern or discussion about nitrate. Mr. Simpson stated that nitrate is regulated by the Federal Water Pollution Control Act as a primary pollutant and has many health hazards related to it. He indicated that he did have a nitrate curve on his presentation and stated that there are not many studies out there. Mr. Lamb stated that total nitrogen was not looked at because they were not dealing with drinking water issues with this ordinance. He stated that Keene would be very concerned if there was a high level of nitrogen or nitrate in its groundwater if that groundwater was being used for drinking water supply. This ordinance did not focus on that.

Mr. Curran stated that the ordinance talks about timber harvesting and Best Management Practices and asked whether they refer to buffer widths for forestry practices. Mr. Simpson stated

that the State has requirements but don't have setbacks per say and added that he showed the Committee the standards for US Forests Services which is more universal and they use 25 feet as a base.

Councilor Duffy clarified that Mr. Simpson stated that riparian buffer of more than 50 feet does not do anything. Mr. Simpson stated that the studies he has looked at call for around 80 to 100 feet and above that the marginal removal efficiency drops dramatically. At 10 and 30 feet the removal is at 70% - 80% depending on the parameters. Councilor Duffy referred to a document entitled Protecting Water Resources and Managing Stormwater, a Bird's Eye View of New Hampshire Communities and in this document page 26 indicates that a buffer width to adequately protect water resources is 100 feet but studies have shown that water quality improvements occur within the first 100 feet of a vegetated buffer. He felt that there seems to be some energy around doing something around this 100 feet and stated that he was trying to figure out what was lost or gained by looking at this distance. Mr. Simpson stated that the author of this document does indicate that with 100 feet you will get a significant removal rate but also does indicate that you will get a removal rate with less feet. He added that he has written regulations both for the State of New Hampshire and Massachusetts and as a regulator he looked at Connecticut and looked at what they have used and what he is trying to bring to the Committee is the science.

Ms. Hague asked what the average widths Mr. Simpson has dealt with. Mr. Simpson stated that as a wetland scientist 100 feet is the average he has dealt with.

Chair Abrash Walton asked for public comment next.

Mr. Thomas Lacey of Daniels Hills Road addressed the Committee. Mr. Lacey referred to the issue with phosphorous and asked whether or not urban areas would be more of an immediate supplier of phosphorous than rural areas. Mr. Simpson stated that they would because there is more impervious surface and pipe sheds which has a direct connection from a very large area to the rivers.

Mr. Walter Lacey of Daniels Hills Road addressed the Committee and stated that Mr. Simpson had indicated that erosion is the major cause of moving phosphorous and the implication is that it is man-made. He stated that the reason he is asking is because in 2005 he saw the scouring of a brook. He noted that dams silt-in because erosion is a natural cause and it is the uplands trying to move down to the valley with the help of water and clarified if erosion is the major cause of moving phosphorous won't that be a natural process to a great extent. Mr. Simpson stated that it is a natural process to a great extent but you often talk about an event that is large that you can see but there is a certain amount of erosion that is happening all the time incrementally.

Dr. Ann Shedd of the Conservation Commission addressed the Committee next. She stated that she appreciates Mr. Simpson's testimony that a 100-foot buffer is an inflection point on the curve and acknowledging that there is substantial removal of particulates and phosphorous at ten feet to a 100 feet recognizing that with dense development in the basin we might not be able to get to that 100 feet. She indicated that the presentation also indicated the benefits to any buffer and that this ordinance would provide a baseline for protection. Dr. Shedd added that the Conservation Commission continues to support this ordinance.

Mr. Jim Phippard of Arch Street stated that the ordinance being referred to here is a surface water protection ordinance and is not limited to rivers and ponds. He stated that the presentation today focused on riparian buffers adjacent to streams and rivers and felt it was very informative. Mr. Phippard stated that he would like Mr. Simpson to talk about buffers around wetland areas. Mr. Simpson in response stated that as a wetland scientist these are all considered to be wetlands; to speak to that, it depends on where it is located in the watershed and how it interacts with water.

He explained that if water sits long enough, two things happen; the water slows down and the particulate matter that holds the phosphorous settles out and if it continues, it gets buried in a "sink" and if it doesn't have a large flood event it would hold that phosphorous in place.

Mr. Simpson said nitrogen, on the other hand, needs a pulsing environment in order to be cleansed. He indicated that to protect a wetland he would view any riparian buffer the same as any wetlands buffer. He stated that he does not support one wetlands buffer over another and added that the State of NH has a Prime Wetlands Ordinance and it is up to a town to consider which wetlands are important and the level of protection is up to the individual towns.

Mr. Thomas Lacey stated that since the last meeting he has done some homework and has a problem framing this ordinance and what it really is. He indicated that what he keeps hearing people say is that there is phosphorous coming off of urban areas but large buffers are going to be added in the rural zone. As a result looked at what exactly happens to stormwater in the City; Mr. Lacey stated that even though he now lives in a rural zone he did live on High Street and on Salisbury Road for a period of time and there were storm drains at the end of each of those driveways. He indicated that he has lived through the issues when these drains don't work and the flooding that can be associated with them because being overwhelmed by a flood event or simply by being plugged up.

Mr. Lacey stated that he had looked at the storm drain map for the City and a storm drain system is really a 24/7 drainage system that handles more than just storms; it handles things like snow melt, people washing their cars in their driveways but for all the talk about buffers there are no buffers systems where there are storm drains. He added that someone had said that the reason the rural zone is being looked at is because this is where the brooks and streams are located but indicated that this is not the real story. There is a parallel brook system miles long underground in the city which has its own watershed. Mr. Lacey also pointed out that all of the City's storm drains go directly into a brook, river, tributary, or wetland, raw and un-buffered. He felt that the buffer system we are talking about is completely pierced and circumvented.

Mr. Lacey stated that he visited a discharge pipe four feet in diameter which discharges all the water from the Maple Acres and Pako Avenue neighborhood directly into a wetland; Tenant Swamp. There were two more discharge pipes in the same vicinity (slightly smaller) doing the same thing. He pointed out that this is where all the runoff is going from this area, un-buffered and dirty. Mr. Lacey noted that this is just one small part of the system.

He went on to say that the Conditional Use Permit prescribed for rural landowners in this ordinance should instead be in effect for any property served by the storm drainage system and felt that any change to footprint, or surface permeability and direct introduction of pesticides and chemicals will have an impact on the volume and quality of water that enters our brooks, streams and wetlands, but not in the rural zone where any impact is going to be profoundly less or non-

existent. Mr. Lacey stated if something needs to be done that the City should go to where the problem is.

Chair Abrash Walton asked Mr. Simpson whether he had any more comments on pipe sheds. Mr. Simpson stated that the concern with pipe sheds is thermal pollution; coming off of hot asphalt into the streams, this is one of the concerns that exist with straight pipe feeding.

Councilor Duffy asked whether there has been any assessment done on the degradation to Tenant Swamp because of the runoff Mr. Lacey just mentioned coming off of Maple Acres. Mr. Simpson stated that this is not an area he has ever studied. The Councilor asked whether what is happening might not be a good thing. Mr. Simpson agreed that it was not but went on to say that Tenant Swamp is a large wetland system and no-one is sure about the groundwater, surface water system that exists here because it is lake bottom. From an ecological point of view it was hard to predict because there has not been an input output analysis that has been done.

Ms. Jamie Contois of 11 Prospect Street was the next speaker. Ms. Contois stated that she was excited to hear that the City was working on buffers. She pointed out that Keene is one of the best planned cities she has ever lived in and appreciates the vision people like this Committee has brought. Ms. Contois talked about the recent flooding event and the impact it had on the neighborhoods. She stated that she wanted to advocate in support of creating buffers and to know that Keene would be among 100 towns in the State that would be addressing this issue is something to be proud of.

Mr. Jim Phippard stated that he is still in opposition to this ordinance the way it is drafted but is not opposed to buffers. The City has a 30-foot buffer rule that apply to most properties unless it is a single-family homeowner who is trying to do some work on his/her property. He stated that he strongly disagrees with a 100-foot buffer for all properties in the rural zone. As a landuse consultant, Mr. Phippard stated that he deals with ordinances differently. The purpose of this ordinance is clear; surface water protection and added that if you have your "blindness" it would appear that the bigger the buffer the better. However, if you look at the effect of this ordinance on property owners, businesses in the community there are other impacts that need to be balanced.

Mr. Phippard stated that he has looked at the city's GIS system and there are 1,589 parcels of land in the rural zone and that is out of 8,140 parcels of land. He felt 1,589 parcels are being singled out to have this larger buffer applied to. Out of these parcels, 1,032 are less than five acres in size and many are less than two acres in size and questioned what effect this ordinance would have on those properties. Is there an economic effect and if there is, this would have an effect on all tax payers.

Mr. Phippard stated that when the Hillside Ordinance was adopted, a new restriction was added in that if you own property that has slopes 25% or greater, they are prohibited from altering that land, with a few exceptions - you are allowed to cross it for a driveway, you are allowed to impact it if it is less than 40 feet. Mr. Phippard stated that he had questioned the City Assessor as to whether she had looked at these steep slopes and the effect this ordinance has on them. The City Assessor at that time had said that she had not reviewed it and there is no effective way to do so. Mr. Phippard stated that he did this evaluation for one of the properties; Hill property – where the jail was constructed, the remaining 80 acres was valued at \$550,000 (not in current use

but is in current use since that time). This information was presented to the City Assessor who agreed to revalue the property using the restrictions in the Hillside Ordinance. The change in value is now close \$200,000 which he felt is considerable. Mr. Phippard stated that he feels there will be additional effects in the rural zone if this ordinance is adopted in its current form.

Mr. Phippard stated that the Committee should look at this number; he felt it was not reasonable to landowners, and indicated that he would not be opposed to a 30-foot buffer on all properties in the City of Keene. He indicated that everyone should be treated fairly. The impact on the tax base would be minimized by sticking to a number like 30 feet. Mr. Phippard stated that he is agreeable to the low impact design features which the Planning Board sees all the time and referred to the YMCA property which used many of these features.

Mr. Spykman asked of the 1,589 properties in the rural zone how many would be affected by this ordinance; how many have surface water on them. Mr. Phippard stated that he did not get that far with this review. Mr. Phippard went on to say that there is a property 43 acres in size but this landowner can't subdivide this property because of the Hillside Ordinance and because of the proposed ordinance before the Committee tonight. He noted that even though this ordinance is pending, it still needs to be complied with until it is acted on.

Ms. Hague stated that she appreciates Mr. Phippard's comments but the Statement of Intent does talk a lot about protecting the quality and connectivity of wildlife habitat and corridors and there are ten purposes to this ordinance and of these ten only two speak directly to water quality, so there were a lot of other factors that were taken into consideration when considering the buffer width.

Mr. Walter Lacey stated that he feels the 100 feet is not for water quality but is for wildlife corridor and suggested that if the City wants to create a park the City should purchase it and not regulate it. He felt that ten foot buffers in town and 100 foot buffers in the rural areas are not in keeping.

Ms. Bonnie Hudspeth of 11 Prospect Street stated that she is surprised that this ordinance has not passed yet. She stated that when she first moved to her property she was evacuated because the first 100-year flood happened and even though these floods are statistically supposed to happen every 100 years, this region saw two within a five-year period. She clarified that as this ordinance is being adopted some of the final points can be changed. Chair Abrash Walton stated that this ordinance is still in draft form. Ms. Hudspeth urged the Committee to move this ordinance forward and felt it was a good start.

Mr. Lamb, in response to something Mr. Phippard had stated as to when this ordinance would go into effect, noted that under the statute the ordinance does not take effect until it is adopted. However, once the public hearing is noticed, new development would have to comply with the ordinance. This ordinance has not had its notice of public hearing and at the present moment it is not affecting anyone's property rights.

Mr. Lamb stated that the Committee has discussed several topics in this series of meetings, such as, stormwater, water quality but have not discussed some of the other values. He noted that the last speaker has noted that this ordinance is all about wildlife and stated that this was not the

case; wildlife is one of ten intents of the ordinance (pages 1 and 2). It is a comprehensive approach and covers everything from flooding to water quality to wildlife habitat, and aesthetics.

He added that the Committee should not feel pressured into taking a vote tonight and stated that staff was willing to work with the Committee on any direction they would choose tonight.

Councilor Chadbourne referred to Mr. Dexter's property discussed last month and noted that Mr. Dexter even though he only needed a 30 foot buffer had volunteered 50 feet and asked whether individuals like Mr. Dexter would now be considered to be grandfathered once the ordinance is adopted. Mr. Lamb stated that a pre-existing developed site will remain in non-conforming status. A new development or subdivision however, will need to comply. He added that in the City of Keene everything other than single and two-family homes currently have a 30-foot buffer requirement through the Planning Board site plan process.

Councilor Chadbourne further questioned if this ordinance was adopted and a developer wanted to request a variance they could before the Zoning Board. Mr. Lamb stated that there are two processes; there is always the option of a variance and there is also the Conditional Use Permit where the Planning Board can grant approval for development at lesser standards. The Councilor indicated that last month's minutes seemed to indicate that there was confusion among landowners in the rural zone that it would affect the buffers they already had.

Mr. Thomas Lacey pointed out that if this ordinance was adopted, someone like Mr. Dexter would have to go through a Conditional Use Permit and hire a Wetlands Scientist if he wanted to change the footprint of his structure. Chair Abrash Walton stated that for someone who has a developed parcel and they wanted to make alterations to that existing parcel and the buffer was affected they would have to go through a conditional use permit.

Chair Abrash Walton stated that she appreciates the level of thought and attention people have put into this discussion and listening to expert testimony. With no further comment, the Chair closed the public hearing.

Councilor Duffy stated that many years have gone into this ordinance and asked whether this was the seventh time this Committee is meeting regarding this matter. Chair Abrash Walton stated that they have probably met about four times. Councilor Duffy indicated that he appreciates all the public input that has been received and felt that the Joint Committee has not given due diligence to discussing the specific merits. He also pointed out that the A version of the ordinance is no longer the proposed ordinance and the Committee has still not seen the newer version and hoped that the Committee could get into the discussion stage of this ordinance at its next meeting.

Ms. Hague stated that she too heard all the comments and felt that as a City there is a lot of work that needs to be done with reference to stormwater; adjusting the buffer widths is also something that needs to be done which seems to be a hindrance to this ordinance moving forward. She indicated that one item that has not been discussed is purpose #8, prevention of unnecessary or excessive expenditures on behalf of the City. She stated that the Committee did hear a lot of discussion about how this ordinance would potentially affect private values. She indicate that she appreciates these concerns, but the Committee did consider the other costs – the cost of not doing

anything and having the built areas encroach on the wetlands and surface waters. This type of encroachment has ecological issues as well as cost to municipal and private properties.

Chair Abrash Walton stated that she shares Councilor Duffy's enthusiasm about looking at the language for the draft ordinance but does appreciate the fact that the Joint Committee has spent time obtaining outside assistance and obtaining public input. She felt that this Committee has a learning curve with this new ordinance if it chooses to enact this ordinance so that it can have the effect that we want it to have. The Chair felt that this was not a simple choice; there are competing interests, competing concerns, a timeframe in which changes are happening around us that impinges in the manner in which the City can deal with the storm events. She indicated that she is comfortable in the time the Joint Committee has taken to discussing this matter but does share the desire to move forward to an in-depth discussion on this matter.

Councilor Duffy stated that the Joint Committee has not allowed themselves the time to discuss this matter and stated that this is his main source of frustration. He pointed out that for instance staff was given 20 questions to answer but not all of them have been answered and felt that some of them don't really need to be answered. He noted that Joint Committee discussion and coming to a consensus is his concern.

Councilor Jacobs stated that the main aspect that he got out of today's discussion was "pipe sheds". The Councilor stated that if we are talking about surface waters, pipe sheds should also be discussed and did not feel the ordinance does that. He also felt that by requiring a smaller buffer the city might not lose that much benefit and might gain some public support and felt that this is something that should be discussed in addition to pipe sheds.

Mr. Crowell stated that he shares his Committee member's frustration but for him each meeting has brought him to a different place and his comprehension of the issues and challenges have risen tonight substantially and feels better about it.

Councilor Curran stated that today's discussion added another layer to his thought process about the ordinance and Mr. Simpson's presentation brought home a lot of facts and felt that the Committee can really dive into the discussion next month.

Chair Abrash Walton stated that the Planning Board is looking to incorporate low impact development options into their development standards and added that there is a parallel process with what the Joint Committee is doing.

Ms. Landry commended today's presentation and indicated that through each of these presentations she has learned that the city needs to do something – the city needs to start somewhere.

Councilor Chadbourne stated that in hearing today's presentation, she has concluded that one size does not fit all and different buffers need to be looked at. She indicated that she also agrees with Councilor Jacobs that the pipe sheds are an important aspect and felt this is all new information the Committee is receiving. The Councilor noted that this is an arduous process and some of the new members need to understand and see the whole picture and stated that she appreciates all the time that went into this issue. When there is new information received, it needs to be reviewed as well. She felt that the input of the public is also important.

Councilor Duffy stated that Mr. Simpson's presentation and Ms. Hague's follow-up comments made him understand why the 100-foot buffer was important. He felt it was obvious why the 100-foot buffer has been cited in many studies and why it makes sense.

Councilor Curran asked staff for the map of the fourth order streams for the next meeting.

PLD Chair Richards agreed that today's presentation was fascinating and asked staff whether there is a presentation being planned for next month and asked whether the public workshop should be left open. Mr. Lamb stated that no presentation is planned and felt that in the interest of transparency and if the Committee wants to make any changes, the public workshop should be left open. He felt that the public has been around for all of the discussion and should be given the opportunity to provide comment before the ordinance goes into final form. Mr. Lamb added that there will still be a noticed statutory hearing at the end of the Joint Committee's process which will be a Council issue.

Mr. Spykman stated that he is looking for more discussion as a new member on this item.

Chair Abrash Walton asked how soon the Joint Committee can see the redraft. Mr. Lamb stated that there are two word changes that were proposed by the attorney's office and indicated that the Committee could be provided with the draft this week. He added that until the Committee says it's an "A" version it is not an "A" version.

A motion was made by Abigail Abrash Walton that the Joint Committee continue the public workshop to the November meeting. The motion was seconded by David Richards and was unanimously approved.

On a unanimous vote, the meeting adjourned at 9:15 PM.

Respectfully submitted by,

Krishni Pahl
Minute Taker
Edits, L. Langella

With reference to Mr. Spykman's question, Mr. Lamb stated that the City is always looking for ways in which it is more efficient for people to use energy. He indicated that the City did apply for a grant to do a Neighborhood Weatherization program where older homes are targeted and money is made available to weatherize homes. The City was not able to receive assistance with this program. He indicated that a program such as this is available through PSNH but it is not used by many. The City hence is proposing a program similar to the woodstove change out program to use grant money to fund at least part of a homeowner's investment to make changes to their homes.

Mr. Crowell felt that the City's goals are far too feeble and stated that he would like to see more aggressive and transformative changes not just feel good changes.

Ms. Hague asked whether it would make sense for the Board to hear back from Mr. Miceli once the 2008 numbers are finalized. She indicated that it was great that there are so many councilors present today to listen to the importance of getting these numbers down.

Continued Public Workshop

4. Ordinance – O-2012-07 – Relating to the establishment of a Surface Water Protection Overlay District. This ordinance would amend the City Code by creating an overlay district in Keene to protect the water quality of surface waters and wetlands and the buffers associated with these resources.

Mr. Lamb stated that the intent of this Ordinance is to protect the broad range of functions and values of surface waters and wetlands as listed in the purpose statement. He indicated that this ordinance has to be seen in the context of other work the city needs to be working on in the long term. The Board heard a presentation from Michael Simpson regarding pipe sheds and during the same presentation heard about how development could be designed so that the amount of stormwater that is generated can be handled more efficiently. Hence, a buffer ordinance is not the only solution but is part of the solution. There is already a developed portion of the city where improvements need to be made in the long term. He added that this ordinance is not going to fix the existing problem; it looks to the future and looks at not making a problem worse by managing stormwater and protecting the functions and values of these wetlands and surface waters and preserve these functions over the long term.

He went on to say that the width of these buffers depend on many factors. He noted that the width issue depends on the steepness of land form, the soil type where this water body is located. He added that another aspect that clearly affects the buffer is the amount of development; the buffer will not eliminate pavement that already exists. That needs to be addressed by other means such as intercepting stormwater as it leaves the pipes or managing it better before it enters the pipe.

Mr. Lamb then talked about the 100-foot width. He stated that the committee at that time decided that the 100 feet covered the most values and supported the most conditions on the ground in Keene. He stated that this is the basis for the 100-foot width. He went on to say that last month the question was raised, at what point does the "law of diminishing returns" begin and where on the buffer width value curve is the right place to make that determination. Is it at the start of the curve or is it when the curve flattens? What Michael Simpson stated was at 80-100 feet is when that line begins to flatten (he was only talking about phosphorous), if you add into that the soils and the steepness it will bring you to a place of conservative decision making (100 feet). He also

indicated that a large amount of the pollutant load is removed in the first 20-30 feet but had said that his most familiar number with his work in New Hampshire is 100 feet.

Mr. Lamb went on to say that if the Board was ready to vote on this matter tonight, the process would move it forward to the City Council. However, if the Board feels it needs to be amended and the amendments are straightforward, staff could make the amendments and move the process along towards a public hearing. If the changes are substantial, such as buffer width, the Board might want to make sure that the public had the opportunity to hear them and make comment on them and therefore continue this workshop to the next meeting.

Mr. Lamb indicated that Del Meyer Chair of the Surface Water Committee was present tonight should the Board wish to hear from him.

Councilor Chadbourne indicated to Mr. Meyer that there was much deliberation over the agricultural section and sees that it has now been deleted and asked what the thought process for doing so was. Mr. Meyer stated that initially when the committee was working on the agricultural section they wanted to place some protection on agricultural land in the city. However, as the discussion moved forward the committee realized that there are Best Management Practices in state regulations for agriculture and felt this should take precedence over what was being proposed in the ordinance. The Councilor then referred to nitrate pollution and asked why the committee felt this was significant with respect to this ordinance. Mr. Meyer stated that there are several aspects of sodium nitrate and nitrate issues; this ordinance might deal with the issue of fertilization and because the City has very small portions of agricultural land, the amount of nitrate that would be used in the City would not be significant enough to really address that issue. He added that there are many sources of nitrate in addition to fertilizer, such as human waste, fossil fuel etc. and this ordinance cannot address such issues.

Councilor Jacobs stated that Mr. Simpson in his presentation had presented a formula for buffers 25 feet plus calculation for the slope, and the steeper the slope the bigger the buffer and asked whether this was something the Committee considered. Mr. Meyer stated that in addition to the slope issue the committee also looked at the entire issue with what the experience in the state has been with other municipalities that have used surface water protection ordinance. The committee also looked at the state regulations and this is where it came up with the 100 foot buffer which would tend to cover most of the situations.

Mr. Curran asked whether the committee took input from the public while the committee was working on this issue. Mr. Meyer said yes, and stated that they had gathered many different ideas and added that at times people tend to expand what should actually be covered under this ordinance.

Chair Abrash Walton noted that in the definition section of this draft ordinance the committee has gone beyond what is defined by the NH Code of Administrative Rules to include vernal pools, fens, sloughs and wetlands complex. She indicated that she understands why vernal pools are included but asked for clarification about the other three. Mr. Meyer stated that some have very specific definitions and some do not. Some are synonyms for the same kind of thing and the committee tried to make it inclusive so that people will understand regardless of what they want to call this, that this is still a wetland. Chair Abrash Walton stated that in listening to the expert testimony and looking at the long term view and the impact of this ordinance over a period of 100 years, asked about the recommendation for the 10 foot setback for central business, central business limited, office, high density, and high density one and why the committee did not go with the same 30 foot buffer knowing that anything that is currently built is unaffected. Mr.

Meyer stated that some of these things the Chair is talking about has been in existence for 100 years and the committee did not want to impinge on that but also recognized that there are many issues in this area that a 30 foot buffer or a 100 foot buffer is not going to work, such as stormwater runoff which is going to require a different approach.

Mayor Lane stated that a significant portion of the flooding takes place along Beaver Brook, Black Brook and Ashuelot River corridors and there are a number of areas along these corridors that are not developed. He stated that it concerns him that when there is an opportunity to address those three corridors, the committee has backed off from a 30-foot standard to a 10-foot standard, even in areas that are totally undeveloped and are used as sponges to soak up floodwater when it does happen. The Mayor stated that after what happened in the spring he was not convinced that a ten foot buffer is sufficient to provide the necessary protection especially in some of these areas. Mr. Meyer in response stated that this ordinance is not designed to prevent flooding and felt this might be a flaw in the ordinance which would address some of these areas that may or may not be impacted but this might require a property by property evaluation. He stated that at the time the committee was working on this ordinance that aspect seemed to be outside the purview of the committee.

The Mayor asked why the calculation of the minimum lot size was included in the ordinance the way it was. He noted that everywhere else in the zoning ordinance the total available space is listed within the calculation but here it is excluded. Mr. Meyer stated that when there is land that is going to be beneficial to the city, it needs to be protected and should be excluded from the calculation (excluded from usable land). Mr. Meyer stated that he was under the impression that there is another ordinance which excludes some areas from being developed.

Mr. Curran asked when this ordinance was being worked on whether there was any discussion about the zoning rewrite. Mr. Meyer stated that there wasn't but there was an understanding that there would be a rewrite and hopefully the work the committee has done would fit into it. Mr. Curran asked when the rewrite does happen, how much of this work would be amended. Mr. Lamb stated that this process has been underway for so long, the committee because of the work they have done brought it forward for consideration. He indicated that this ordinance could be made part of the rewrite but this will also depend on Council and public input.

Councilor Duffy felt this would not cause an issue with the rewrite and felt this would be more of a compliment than the other way around.

Councilor Chadbourne stated that what she has been able to understand is that the 100 feet was an arbitrary number as well as being based on state regulations. She indicated that it is also clear that one size does not fit all. She went on to say that in last month's minutes it is stated by Mr. Simpson that the highest impact come in the 25-50 foot buffer ranges and once you go over the 50-foot mark there is much less impact. The Councilor stated that the 100-feet is what her concern is. Mr. Meyer stated that the logistic curve that this follows has a sharp bend (logistic bend) and the committee wanted to fall within this sharp curve area and after that point the amount of filtration does not increase tremendously but until that point of inflection every foot more that you have is extremely beneficial. As a result, based on other people's experience, 100 feet seemed to be the best number. However, if you fell below 80 feet you start losing a tremendous value in terms of filtration.

In response to the lot size questions, Mr. Lamb referred to III c. 6. in the Planning Board's Subdivision Regulations, which indicate that "...any new parcel created after the adoption of the Hillside Ordinance, except for CRD Ordinance, for all proposed subdivisions and parcels 15

acres in size and land areas meeting the definition of prohibitive slope shall be excluded in the calculation of minimum lot size.

Ms. Hague stated that she was also part of the drafting committee, and the 100 feet was more of a starting point than an arbitrary number and as indicated by the Planning Director the 100 feet covered the most values and accommodated the most conditions that the committee was looking to deal with in this ordinance.

Mr. Spykman stated that he understands that the ordinance was not designed to solve the flooding problems in Keene but asked whether we should not stop it from getting any worse. He indicated that if development was going to happen whether the City should not do everything it can to not make this problem any worse and felt that ten feet was just not enough, especially because it would not affect anything that is already built. He pointed out that there are areas in the City that are undeveloped and should probably be protected.

Abigail Abrash Walton made a motion that the Board amend the draft ordinance (page 27) table 1 which distinguishes two different zones. She indicated that in reviewing last month's minutes she recalls Mr. Phippard's comments suggesting a 30 foot buffer and stated that she agrees with that especially because we are not talking about affecting existing structures and suggested collapsing that table into one; recognizing that ten feet will be allowed at the discretion of the Planning Board. The motion was seconded by Michael Welsh.

PLD Chair Richards clarified that when such a change is made, everything that exists at the present time is grandfathered. Mr. Lamb stated that generally speaking that would be the case and properties that don't meet the standards will then be in a category called non-conforming. However, if there are modifications in the future to these properties some process to address the non-conformity would need to be done; a process before the Zoning Board or a conditional use permit provided by the Planning Board. Attorney Goodwin agreed with this explanation.

Councilor Duffy asked if this amendment was to be approved whether it would change what the Council approved a few years ago, which was to grant a waiver of the Shoreline Protection Act. Attorney Goodwin stated that he did not think this would cause a problem because that waiver was a separate and distinct permitting process. The Shoreland Water Question Protection Act is administered through the Department of Environmental Services and has a separate permitting process. He indicated that there might be a perceived conflict but did not think it would affect this local ordinance. Mr. Lamb added that the local process would be exempt if a state permit was required, if a state permit was required under the Surface Water Quality Protection Act a local permit will not be required.

Councilor Richards asked whether there is a setback under the state regulations. Mr. Lamb stated that there was and they are more stringent. He went on to say that there are many ways to think about the surface water protection and wetland protection, and the 100-foot buffer is the way the Committee chose, even though there were two other methods they considered. One of the other methods is the method the state uses through the Surface Water Quality Protection Act which has a 250 foot buffer- for the first 50 feet no alteration is permitted at all. 50 feet to 100 feet is also protected but through the permitting process you can get approval to do some development if the impact is minimized. 150 feet to 250 feet is where the regulation is much more flexible.

Councilor Jacobs asked for clarification on the motion that was made. Chair Abrash Walton stated that there are two tables on page 29 that currently has two categories of setbacks and the amendment is to collapse this into the lower category and stated that there is a 30-foot setback

for all of those zones that appear in the left column and that ten feet would be allowed at the discretion of the Planning Board.

Mr. Curran asked what the significance of the waiver the city asked for. Mr. Lamb explained that when Shoreland Water Quality Protection Act was updated and standards rewritten the statute allowed cities to apply for urban exemptions. If a water body that is regulated under the Shoreland Water Quality Protection Act ran through a historic development, if the city could prove that this development has been there for a lengthy period of time (at least 50 years) they could apply for an exemption and this would allow downtown areas to continue to grow according to a municipality's Master Plan goals, landuse patterns etc.

Mr. Crowell stated that he was in favor of the amendment. He noted that if Table 1 should be compressed into one statement asked why there are not similar provisions for the 100 feet. Chair Richards stated that this was a separate issue and once this motion is voted on, that matter will be addressed.

The amended motion made by Abigail Abrash Walton passed unanimously.

Mr. Curran asked where the Board could meet common ground between the public comment they have received and the "curve" and asked whether 100 feet fits in for every circumstance. Councilor Duffy stated that the committee has heard public comment and there have been some changes made along the way for things like vernal pools, and the issue with agriculture which was deleted from the ordinance. The Councilor stated that the 100 feet has been discussed and analyzed, public input has been received and felt the 100 feet is the best way to accommodate the intent of the ordinance, which is just not flood control, phosphorous management but many others things such as wildlife and their contributions to water quality. He added that if we were looking at only wildlife the buffers would have to be much bigger.

Chair Abrash Walton referred to page 26 and 29, beginning of Section 102-1493, Reduced Buffer Zone width and indicated that the Board has just amended the draft for a host of different zones and asked whether this now only leaves a 100-foot buffer in the rural and agricultural zones. Mr. Lamb agreed that it would be the rural zone, the agricultural zone but in addition it would also be the CRD zone and the conservation zone. Chair Abrash Walton stated that if this Joint Committee was to go forward with the 100-foot buffer there is a conditional use permit process that property owners in those four zones can impinge upon and hence felt this is not creating an unbreakable line.

Ms. Hague stated that there should probably be a discussion as to whether the Planning Board is comfortable with conditional use criteria. She referred to Section 102-1490, Granting the Condition Use Permit.

Dr. Welsh referred to Section C which provides an opportunity to go less than 100 feet and still accomplish a majority of the objectives of the ordinance.

Ms. Landry stated that all the presentations that the Board has heard as well as the public input has been very compelling and was struggling on how to come up with the correct calculation. She indicated that as has been said by others, everything falls within this 100-foot buffer and as long as the conditions are in place to take in these other variables into consideration and allow perhaps a conditional use permit, felt the Board has covered all the bases.

Mayor Lane stated that if this was a perfect world this 100-foot buffer would be troubling, because it is absolute and felt it was important to look at the values of the wetland areas when making this determination. He further stated that it was important to keep in mind that the zones that would be impacted by the buffer were also subject to the Shoreland Water Quality Protection Act.

Councilor Duffy noted that he can see how applying for a conditional use permit can be troublesome for people; the conservation commission has to be involved and make a site visit, and the applicant has to work with the Planning Department. He asked when the conservation commission is asked for their input whether this could place undue hardship on the applicant.

Chair Abrash Walton asked whether the Conservation Commission has the expertise to advise the Planning Board on a conditional use permit and also as to who pays for this expertise and whether the Conservation Commission has sufficient funds to do this work. Mr. Lamb stated that the Conservation Commission is the body that is assigned by statute and the Council to provide advice on the preservation of natural resources and the expertise comes from those serving on the Commission but this does change overtime. He indicated that support for the Commission is provided by the Planning Department with someone who has expertise in wetland science, site design or planning principles. In terms of funding, they only have a small budget and those funds support their involvement with the state organizations, membership dues and travel to conferences; he did not think there was more than \$1,000 in that budget.

Chair Abrash Walton referred to language on page 19, Verification of Surface Water Boundaries, where it is indicated that all this work needs to be done at the end of six months. She felt that in her mind the reason this ordinance is being pursued is for public good but is troubled that individual property owners might be burdened by it.

Ms. Hague stated that in working on this ordinance the frustrating aspect for her was not having a surface water inventory. The City does not have a wetlands inventory which will help with buffer adjustment and not needing to have this blanket buffers and felt this would be something helpful to have. Ms. Hague asked given the Conservation Commission's involvement and the conditional use permit process, and given the new schedule whether this entire process could be completed in a 60-day timeframe. Mr. Lamb answered in the negative and went on to say that when this was originally drafted the Conservation Commission and Planning Board processes lined up fairly well with respect to dates. In 2008, the Planning Board changed its rules and added another week for its review process and their packet now needs to be ready ten days prior to the meeting. The dates no longer intersect properly and hence at this time it will take another extra month but this could be changed. Ms. Hague asked whether a joint meeting process for this issue was prudent. Mr. Lamb stated that the statute does allow that and it has been written into the Historic District Commission process with the Planning Board.

Mr. Curran stated that he agrees with Chair Abrash Walton's comment about the cost involved for property owners. He indicated that over the years all he has heard while serving on the Planning Board is how onerous this process is and the goal of this ordinance is to make the environment better and asked that the City incentivize this process and make it easier for the property owners.

Councilor Jacobs asked whether a property owner would have to go through two permitting processes. Mr. Lamb explained that if a property owner is subject to a Shoreland Water Quality Protection Act Permit through the State, that property owner is not subject to a permit through the local ordinance. The Councilor stated that what he heard last month from the presenters is

that the source of the problem is downtown (pipe sheds) and stated that it concerns him that this ordinance is silent on this issue.

Chair Abrash Walton stated that she too shares Councilor Jacobs' concern and that there is a responsibility to deal with the pipe sheds and when she read the draft ordinance; she did not see a clear way to deal with this issue.

Councilor Duffy reiterated that this ordinance is not designed to solve some of these issues and added that the City is sometimes for certain issues in a "slow hurry" to deal with them. He added that the EPA has mandated some items that need to be dealt with. He stated that the matter before the Board is a small piece of minimizing the impacts of quality of water, flooding, impact to the eco system and other similar things.

Ms. Hague stated that she too shares Councilor Jacobs' concern but one thing this ordinance could accomplish is Purpose #8 and that is slowing water down, infiltrating water, absorbing water and avoiding property and road damage caused by flood damage and felt it was important to think about water quality implications but felt there were other issues that also need to be looked at that could be gained from this ordinance.

Ms. Landry stated that she sees this as a starting point and agreed that the pipe shed is a new issue for her as well and does not want to stop this issue from moving forward because the issue with the pipe sheds are not addressed. She added that she is concerned about the financial implications of this ordinance on tax payers but is also concerned it will become the City's responsibility financially and felt there needs to be a balance.

PLD Chair Richards asked for public comment next.

Mr. Thomas Lacey of Daniels Hill Road addressed the Board. Mr. Lacey presented to the Board a document entitled EPA Preliminary Data Summary of Urban Storm Water Best Management Practices dated August 1999 which has many practices outlined in it that covers storm water. Mr. Lacey referred to language from the section entitled "*Pollutants in Urban Storm Water*".

"The most comprehensive study of urban runoff was NURP, conducted by EPA between 1978 and 1983. NURP was conducted in order to examine the characteristics of urban runoff and similarities or differences between urban land uses, the extent to which urban runoff is a significant contributor to water quality problems nationwide, and the performance characteristics and effectiveness of management practices to control pollution loads from urban runoff. Sampling was conducted for 28 NURP projects which included 81 specific sites and more than 2,300 separate storm events. NURP focused on the following ten constituents:"

Suspended solids, Oxygen, Phosphorous, Ammonia, Nitrate and others.

Mr. Lacey stated that the Board is aware of the sources of phosphorous but added that he read in an article that regular grass clippings have five pounds per acre of phosphorous which he indicated is an urban problem. He noted that in Minnesota if someone was going to use fertilizer it is required that this fertilizer has a zero amount phosphorous.

He went on to quote from the EPA document:

“The concentration of pollutants found in urban runoff are directly related to degree of development within the watershed. This trend is shown in Table 4-3, a compilation of typical pollutant loadings from different urban land uses.”

Mr. Lacey then referred to the typical pollutant loadings from runoff in pounds per acre per year as follows:

Commercial	1.5	
Parking Lot.....	7	
High Density Residential	1	
Medium Density Residential.....	.5	
Low Density Residential.....	.04	– Mr. Lacey pointed out that this is where the Board is looking for 100 foot buffers
Freeway9	
Industrial	1.3	
Park	03	
Construction.....	80	

He added that total suspended solids have the same kind of pollutant loading. He referred to the .04 amount and indicated that typical piece of forest land exceeds that amount. Mr. Lacey that these calculations have been studied from water sheds all around the country, there are about 40 or 50 experimental stations and 100’s of sub-stations where these measurements are carried out.

He indicated that what is clear is that rural landowners are part of the wood work and are not contributing to what the Board thinks they are solving. When the curve is looked at the rural landowners should not be considered and look at where the problem lies. He indicated that these curves are built for full loads. He further stated that flooding from rural land is quite analogous, upland, riparian buffers or pass-throughs are not flood storage.

Mr. Lacey stated that in the rural zone there is a five-acre minimum; he noted that he used to live on Salisbury Road where there are third acre lots and when he did a calculation based on that compared to a rural zone, the calculation came out to be one dwelling unit per five-acre lot in the rural zone and felt this calculation does work and this is the reason such figures are published so that decision makers can make decisions based on facts not what they wish would happen. He went on to say that another item that he is surprised by are the DES Guidelines, Storm Water Management – in the Bibliography section there is an item referred to as Buffers for Wetlands and Surface Waters. He indicated that what this document says is that we really don’t know and referred to language as follows:

“...The methods currently available for buffer widths determination illustrate that although difference in buffer effectiveness due to features of landscape are acknowledged there is no consensus on a single method of predicting appropriate buffer widths for water quality protection... this standard width must balance the important protection of natural resources and the needs of the landowners.

Mr. Lacey indicated that this assumes that the City has undergone proper wetland inventory, which it hasn’t. He further referred:

“...where there are substantial areas of scattered surface waters and wetlands requiring buffers adjacent to all of them may not be justified. There is a need to balance protection of resources with the rights of private property owners. The master plan should clearly document the planning process that was followed to determine which resources warrant protection...”

Mr. Lacey stated that he has not seen that.

“...criteria for determining where the 100-foot buffer may not be appropriate. The following criteria may be used as guidance in determining which wetland and surface waters might be excluded from the locally selected buffer; the wetland or surface water is limited in size such as an isolated wetland or surface water of 3,000 square feet or smaller. The rationale for excluding wetlands smaller than 3,000 square feet is consistent with the Wetlands Board requirement for minimum impact projects. Some wetlands smaller than 3,000 square feet, which are of particular significance, should have buffers.

He indicated that there should be some sort of inventory and added that there are some bad ordinances that exist and just because one town has it does not mean Keene needs one as well. He felt this is a very dangerous place to be. He noted that Concord has an ordinance which indicates that if it is 3,000 square feet or less you don't worry about it as much and their setback is 50 feet. He added that the DES Guidelines does support a 100-foot buffer but that is for priority wetlands but Keene has not prioritized anything. Mr. Lacey did not feel this was a good start and added that it also talks about including forestry activities and promoting agriculture and felt the City should not limit such activity.

Mr. Lacey noted that this ordinance also says that it will promote wildlife corridors and did not feel Keene was lacking in wildlife corridors and felt it could be a chore of the Conservation Commission that if they see an area, they could always negotiate a conservation easement with that landowner. This concluded Mr. Lacey's presentation.

Mr. Walter Lacey of Daniels Hill Road was the next speaker. He indicated that if the ordinance was tied to surface water quality, Barbara Skuly's presentation detailed very well the progress of the Ashuelot through Keene and when it travelled through Keene it declined rapidly and then as it left, it improved all the way to the Connecticut River. He indicated that this clearly was represented in Mr. Simpson's presentation regarding pipe sheds and where the pollutants are coming from into the Ashuelot River.

He further stated that another interesting item about this ordinance is how the widths are backwards as outlined in this ordinance. He noted that Mr. Simpson talked about phosphorous being a dangerous pollutant that should be looked at. In that testimony low density residential was put in with parkland which is essentially background levels of forestland. He questioned how the Board can even consider buffers in such areas. He stressed that this is not a flood control ordinance but you still seem to hear about flood mitigation. Mr. Lacey noted that when you talk about hardship, this ordinance as outlined seems to be the sole burden of the rural zone. He felt that what the Board should be looking at is an overlay of the steep slopes ordinance and added that this is where they live and the City is shutting down their land. The burden seems to be with rural landowners not in the valley floor where the flooding is.

Councilor Chadbourne referred to the presentation by Mr. Thomas Lacey where he had indicated that the City has not completed an inventory on the wetlands and asked for comment on that from either staff or the Conservation Commission. Mr. Lamb stated that the City has an inventory of its first order streams but the wetland delineation is not something the City has a lot of information on. He indicated that the information that is available is from the National Wetlands Inventory, which is derived from high altitude aerial photography. The City also has wetland delineations which come to the City during a site plan or subdivision process or during a wetland permit application process. The Councilor recalled a Conservation Commission discussion that either Keene State College or Antioch University was completing an inventory on

vernal pools. Mr. Lamb stated that Ashuelot Valley Environmental Observatory (AVEO) has done a vernal pool inventory over a series of years and has documented that information, which is another source of information for the city. The limiting factor here is that it has only been done on public land not on private property.

Mr. Lamb then referred to certain language he and the City Attorney would like to propose. Section 102-1488, subsection a, refers to section 1490; it should be amended to read as section 1490.

Mr. Lamb stated that the other section that needs change is Conditional Use Application Procedure where the schedule between the Conservation Commission and the Planning Board are referred to. He indicated that in Section 1491 he would like to propose a change to paragraph B (referral to Conservation Commission) the period of time could be changed from ten days to five days.

In Paragraph C the ordinance states that Conservation Commissions shall conduct site visits; Mr. Lamb stated that there could be circumstances when a site visit is not necessary or there is bad weather, it would not be prudent to delay an application. He suggested changing the word "shall" to "may". He indicated that discussion did take place regarding the involvement of the Commission. As an alternative, if the Joint Committee's opinion that this expertise could rest with the Planning Board, that section could be deleted in its entirety. The Conservation Commission could still be involved and provide advisory comments like they do with any other application that comes before the Planning Board. Chair Abrash Walton stated that she would like to support the involvement of the Conservation Commission because she was not sure of the expertise of the Planning Board but also questioned whether the Conservation Commission had this expertise as well.

Mayor Lane stated that he was not sure who has this expertise but does know that the Planning Board has the ability to ask for this expertise if in fact it is needed for a particular application. He noted that the way it is written now, it is a blanket requirement that if someone needs a conditional use permit you are required to go before the Conservation Commission.

Councilor Duffy stated that he agrees with the Mayor and the Planning Board Chair but felt the Conservation Commission needs to be involved at least in an advisory role. He noted that even if the time is changed to five days, the permitting process is 60 days and the City is required to stay within that timeframe. Mr. Lamb stated that the way this ordinance is intended is that the Conservation Commission's review will happen prior to the Planning Board review. Councilor Duffy stated if these two reviews could be done simultaneously, that would work as well.

Chair Abrash Walton stated that she would like Mr. Lamb to explain the role the Conservation Commission could play if it is not a requirement for an applicant to go before that Body. She stated that she would also like to hear from members of the Planning Board whether they would like the involvement of the Commission. Mr. Lamb stated that without a formal requirement, the Planning Board retains the ability to refer a question to the Commission.

Ms. Landry stated that she was agreeable to removing the requirement of the Conservation Commission's involvement because there is always the option of using their expertise should the Planning Board require it.

Councilor Chadbourne felt that the Commission should be kept in the loop and not exist as a body that would be called upon only when the Planning Board needs their advice. She felt that there was a lot of expertise to be gained from this body especially from an individual like Del Meyer. She stated that this Commission was very involved in the process of creating this Ordinance.

Ms. Hague asked whether a good compromise would be to strike items C-F of the Conditional Use Application procedure section and weave in item B and leave it to staff to “wordsmith” language to indicate that the Commission is notified but there is no requirement for formal notification which would provide them the opportunity to provide comment.

Dr. Vander Haegen asked whether an applicant would not need to have a survey done delineating the wetlands if an applicant was going to do any work that might impinge on wetlands, so there would be an expert on hand.

Ms. Landry clarified that the reason for deleting some of this language is not to discount credibility or involvement of the Commission but to use them when it is necessary.

Dr. Welsh stated that he would like to endorse Ms. Hague’s idea; it would provide the Conservation Commission an opportunity to provide comment if they chose to.

Mr. Lamb suggested that the Planning Board could request a joint meeting between the Board and the Conservation Commission and this could be added into the language.

Emily Hague made a motion to amend the Ordinance such that letters C through F in Section 102-1491 is deleted; Letter B is modified, such that the Conservation Commission be notified of applications for Conditional Use Permits and the Planning Board will have the option to request a joint meeting with the Conservation Commission.

The motion was seconded by Councilor Bettina Chadbourne.

The motion was further amended by Emily Hague to change the ten days to five days. This amendment was seconded by Michael Welsh and carried on 13 to 1 vote with Peter Crowell voting in opposition.

Dr. Welsh stated that there have been changes to the setbacks and asked whether this warrants a public hearing. Mr. Lamb stated that if changes are made tonight, the Joint Committee might want to hear from the public tonight. He indicated that the Committee needs to make sure that the public has had an opportunity to be heard and that the Committee is aware of what they are sending to the City Council.

Councilor Duffy felt this matter could be moved forward tonight.

Attorney Goodwin agreed with what Mr. Lamb had stated and added that it is at the City Council hearing that if substantive changes have been made it should get referred back to the Joint Committee. The Committee needs to be aware of what it is sending forward to the Council.

Mayor Lane asked that staff put a draft together with all the changes for the next time especially because of how late it is tonight. PLD Chair Richards agreed. Councilor Duffy felt the Committee had everything it needs to move the matter forward.

Planning Chair Abrash Walton stated that she was fine with waiting for another month to move this forward. She further stated that she was however, surprised at how old some of these references are, that have been included in the Ordinance dating back to 1993 (Section 102-1482, Best Management Practices, Section II, July 1993, and 1996. Mr. Lamb stated that these are the most recent. She further stated that she appreciated Mr. Thomas Lacey and Mr. Walter Lacey's presence at the meetings and the points they have raised as well as the EPA document that was circulated tonight.

Ms. Hague asked how ordinances like this work out for other communities and stated that she has called some towns. She had spoken to the Planning Director in Dover and they have had a Wetlands Ordinance since the 80's (30,000 people) with 50 and 100-foot buffer and have a similar Conditional Use Permit application process and it has worked well for them and they have not had any legal challenges. She stated that she had also talked to the Town of Somersworth and their population is only 12,000 but their ordinance is structured differently with different buffer widths.

Councilor Chadbourne asked whether the Committee that worked on this ordinance had reviewed ordinances from other communities. Mr. Lamb answered in the affirmative and went on to say that the October Staff Report has this information outlined in it.

A motion was made by Abigail Abrash Walton that the Joint Committee continue this public workshop to the January 14, 2013 meeting at 6:30 PM. The motion was seconded by Mayor Kendall Lane and was unanimously approved.

5. Approve 2013 meeting schedule

A motion was made by Michael Welsh that the Joint Committee approve the 2013 meeting schedule. The motion was seconded by Mayor Kendall Lane and was unanimously approved.

Councilor Jacobs clarified that the meeting time for the upcoming year has changed to 6:30 pm. Mr. Lamb answered in the affirmative.

6. Next Meeting Monday, January 14, 2013

On a unanimous vote the meeting adjourned at 9:45 PM.

Respectfully submitted,

Krishni Pahl
Minute Taker
Edits, L. Langella

Continued Public Workshop

4. Ordinance – O-2012-07 – Relating to the establishment of a Surface Water Protection Overlay District. This ordinance would amend the City Code by creating an overlay district in Keene to protect the water quality of surface waters and wetlands and the buffers associated with these resources.

Chair Abrash Walton stated that the Joint Committee made substantive changes to the draft at its December meeting and there was discussion about the Conservation Commission's role in this process and asked the Joint Committee take a few minutes to look over the draft and offer additional comments. Chair Abrash Walton added that since the last meeting there was communication from Mr. Tad Lacey referencing a formula for calculating the width of the buffers as well as a response from Michael Simpson. The Chair stated that she and Mr. Lamb have discussed the information provided by Mr. Lacey and their response is that this is an appreciated contribution for this proceeding but that this formula is not one which was the focus of the Committee's deliberation and did not feel it did anything for the buffer widths that have been identified.

Dr. Welsh stated that the revised draft that the Committee has in its packet today is very satisfactory to him and they include all the edits that were proposed by the Committee. He added that he was happy with the evolution and shape of the draft.

Chair Abrash Walton opened the matter up to the public next.

Councilor Meader referred to *Sec. 102-1491. Conditional Use Permit Application Procedure:*

(b) Referral to the Conservation Commission: Upon receipt by the Planning Department, all applications for a Conditional Use Permit, under this section of the ordinance, shall be forwarded by the Planning Department to the Conservation Commission....

(c) Upon receipt of a referral from the Planning Department, the Conservation Commission may conduct an evaluation of the application and provide advisory comments to the Planning Board....

The Councilor asked whether it would be up to the Conservation Commission as to whether they wish to provide comment. Dr. Welsh stated that his understand is that the Planning Board may request the Conservation Commission to weigh in.

Councilor Curran noted that he recalls a discussion in the minutes which changed the word *shall* to *may* in section (b).

Ms. Hague stated that her recollection about that discussion is that the Conservation Commission would have to be notified but they did not have to take action which would speed up the process. Hence the word "shall" is that the Conservation Commission needs to be made aware of a pending application but they could choose to be involved or not.

Councilor Jacobs referred to Section 102-1490 and asked what the phrase "*maximum extent possible*" refers to in items (b) and (d). Mr. Lamb stated that these types of terms indicate that the Planning Board has some discretion about complying with the standards. He indicated that what is being indicated here is that if this Ordinance is adopted the Planning Board would, through its own process provide definition for what this means. He indicated that perhaps

maximum extent possible might not be exactly definable but it is intended to provide the language the Planning Board can use to determine that an application is complete and that the evaluation has some “teeth” to it. The Councilor clarified that at this point there is no definition and if an applicant should come before the Board and say that they have done all they can, there is no way to settle that discussion. Mr. Lamb agreed and stated that each property will be unique and defining specific standard to interpret that term is probably going to be difficult. This standard is expressing an intent to protect to the greatest degree possible the resources and it would be up to the Board to interpret this based on the facts they have before them. Mr. Lamb added that this is why there are multiple criteria and this statement is one standard used to measure whether a conditional use permit is required or not.

He further stated that if the Board is going to deal with encroachment and is going to ask an applicant to not encroach into the buffer, it is impossible to say how much is ok and how much is not. Hence, the other way to write this would be zero encroachment. What the Planning Board is going to say is that some encroachment is alright if other protection measures are emphasized; number of trees removed are minimized, infiltration of storm water is done appropriately through Best Management Practices.

Chair Abrash Walton explained that what the Committee was aiming to get tonight is a vote from the Planning Board for consistency with the Master Plan and a vote from the PLD Committee that this draft ordinance be sent to the Council for a public hearing.

Councilor Jacobs referred to page 27, Sec 102-1485, Exemptions. The Councilor stated that he was confused in that in the purpose statement of the Ordinance, there is an attempt to prevent sewage and hazardous substances, however, there is exemptions for *septage or manure lagoons* and felt this was in conflict with the stated purpose. Chair Abrash Walton stated that she shares the Councilor’s concern and referred the question to the Planning Director. Mr. Lamb stated that the items listed under the Exemptions section are all man-made features and are mostly associated with agricultural uses which the Committee has already decided not to regulate. In other situations they are installed because of land development codes that the City operates under. For instance a drainage system installation requires ditches and swales. He added that for instance if you build a large parking lot there is likely to be an open ditch in close proximity to the parking lot. In most cases it would be a lot less than 30 feet but would definitely be less than 100 feet. What the City does not want to do is to build it under the rules of the Planning Board and then have it be non-conforming under the setback requirements.

Chair Abrash Walton stated that he appreciates the clarification that was just provided and stated that all of these items make sense except for items e and 4 (*septage or manure lagoons and silage pits*). She felt these were different in the types of hazards they intentionally create.

Attorney Goodwin stated that his understanding of these exemptions are not that these things are permitted in the buffer zone it is that you don’t need to have a 100-foot buffer for instance around a silage lagoon because there is nothing there to protect. Chair Abrash Walton agreed with this explanation.

Ms. Hague stated that she would second Dr. Welsh’s comment, in that the revisions included in this draft reflect the committee’s intentions.

Councilor Duffy agreed with what was said and added that with reference to what Councilor Curran had stated, section c of the conditional use permit which has not been stricken does have the word “*may*”. He indicated that he is happy with the 30 foot buffer that is being proposed.

Councilor Chadbourne stated that she agrees with the revisions and stated that even if the Committee was to approve this there are going to be times when certain applicants are going to have issues but felt there are alternatives to challenge such issues. She felt that the Committee has deliberated on it, staff has worked on it, the Conservation Commission and many others have worked on it and it was time for a vote.

Mr. Spykman thanked the Committee who did the initial work on this as well as all the staff work that has gone into it. He indicated this is a good document but unfortunately not everyone will agree on it but stated that he was ready to move forward.

Dr. Welsh stated that this item has been before this Committee for a while and during that time went through several revisions and among them the ones that stand out for him are the deletion of the definition for seasonal pools, agricultural changes to Best Management Practices, setback to 30 feet from 10 feet, and the change in sequence of the conditional use permit and added that the interesting thing about these changes are that they originated from the public which shows the amount of public involvement this ordinance has had.

He added that this ordinance is not comprehensive; it is an overall framework of surface water and flood protection for the city. He indicated that this ordinance was well thought and meaningful but not rigid and there are ways to receive exemptions when necessary. Dr. Welsh stated that he was ready to move this matter forward.

A motion was made by Dr. Michael Welsh that the Planning Board find that this ordinance is consistent with the City of Keene's Comprehensive Master Plan. The motion was seconded by Emily Hague.

Mr. Crowell stated that he struggled with this matter from the beginning not because of its intent but because he is more maniacally aligned with its intent. He stated that his struggles are based on the techniques the City is using to achieve the intent, but unfortunately he has not been able to come up with an alternative technique and as a result will reluctantly vote in favor of it but felt we need something better.

Ms. Hague stated that she appreciates Mr. Crowell's comments as well as other comments that have been received. Ms. Hague felt that the City has reached the best possible means to an end that the City is trying to achieve with this ordinance.

The motion made by Dr. Michael Welsh to find this ordinance consistent with the City of Keene's Comprehensive Master Plan carried on a unanimous vote by the Planning Board.

A motion was made by Bettina Chadbourne that the Planning, Licenses and Development Committee recommend that this ordinance be sent to the City Council for the purpose of establishing a public hearing. The motion was seconded by Councilor David Curran.

Councilor Jacobs stated that he shares Mr. Crowell's concern. He stated that even in terms of the stated purpose "sewage and hazardous substances" is stated as being a goal but does not see that as being addressed in the ordinance. The Councilor stated that there has been a lot of discussion about buffers and he has heard that this could be a hardship for people to be able to use their properties. He went on to say that having served both on the Conservation Commission and the Planning Board it was always useful not to have language that needs a condition to be rewritten and referred to the phrase "*maximum extent possible*". He felt that this was opening the door for

contentious situations. The Councilor further stated that what was clearly brought to the attention of the Joint Committee by the scientific community is that the biggest problem is in the downtown area but this seems to be the area that has the least amount of buffer and the least regulated area.. He added that he was not opposed to the effort but did not feel it was good enough to address the real problems we have.

The motion made by Bettina Chadbourne to send this ordinance to the City Council for the purpose of establishing a public hearing carried on a 3-1 with Carl Jacobs voting in opposition.

Ms. Hague asked when this item will go before the Council. Mr. Lamb stated that it will appear on the agenda of the Council on the first meeting in February. The Mayor stated that at that point he will work with the City Clerk to see what other items are on the agenda but he did not have a definite date.

5. Next Meeting Monday, February 11, 2013

6. Adjourn

On a unanimous vote, the meeting adjourned at 7:10 PM.

Respectfully submitted,

Krishni Pahl
Minute Taker

9) Staff Updates

1. Cutting along the Ashuelot River Trail – Mr. Lamb reported that Mr. Bohannon agreed to address this issue (agenda item 3.h from last month) when the Commission’s agenda is a little less busy.
2. Payment of invoice for the Stearns Hill Easement – Mr. Lamb reported that this was approved.
3. Surface Water Protection Ordinance – Mr. Lamb reported that the Ordinance was voted out of the Joint Committee with some revisions modifying the buffer requirements and eliminating the obligatory referral to the Conservation Commission as part of the permit process. There should be a public hearing date set for late February/early March.
4. Tax Ditch Master Plan – Mr. Lamb reported that he is still waiting to hear from Jim Donison; he will have this for the next meeting.
5. ARM Fund Grant (Woodland Cemetery) – It has been approved and Mr. Lamb will be bringing this to Council in February.
6. SWRPC – Councilor Manwaring reported that she will be advised when the next meeting is to take place. She will keep the Commission members advised.

10) Next Meeting and Adjournment

The next meeting will be held on Tuesday, February 19, 2013.

A motion was made to adjourn at 6:02 PM. The motion was duly seconded and carried unanimously.

Respectfully submitted,
Mary Lou Sheats-Hall, Minute-taker
January 23, 2013
Edits, L. Langella

CITY MANAGER COMMENTS

The City Manager stated that an extensive amount of work goes into the preparation for a winter storm of the magnitude we expect at the end of this week and into Saturday. He commented on the steps the Public Works Department and other City Departments take to prepare, including pretreating roadways, scheduling work crews to provide a continuous presence during the storm, and once the snowfall has ceased they begin to finish cleaning up all the roads they have been working on, and remove snow from parking lots and sidewalks. These efforts take a certain number of human resources, and we cannot do all of this with the Public Works crews alone. Employees from the Parks and Recreation Department, the Airport, Cemeteries, etc. all participate to make it possible to handle this monumental task. He ended that although he hopes this particular storm will not be like the one that hit this area in 1978, he is confident City staff is well prepared and ready to respond.

MEMORANDUM – CITY MANAGER – UPDATE – MAY 2012 FLOOD RESPONSE

A memorandum was received from the City Manager relative to an update on the May 2012 flood response. The matter was referred to the Municipal Services, Facilities and Infrastructure Committee.

MEMORANDUM – PLANNING DIRECTOR – ORDINANCE O-2012-07-A: RELATING TO THE ESTABLISHMENT OF A SURFACE WATER PROTECTION OVERLAY DISTRICT

A memorandum was received from the Planning Director relative to Ordinance O-2012-07-A: Relating to Establishment of a Surface Water Protection Overlay District. The memorandum indicated that at the Joint Planning Board and Planning, Licenses and Development Committee meeting of January 14, 2013, the Planning Board voted unanimously to find the Ordinance consistent with the City of Keene's Comprehensive Master Plan. Further, the Planning, Licenses and Development Committee voted 4 to 1 to recommend a public hearing be scheduled before the City Council. Ordinance O-2012-07-A was referred to the Planning, Licenses and Development Committee. The Mayor set the public hearing for Thursday, March 21, 2013 at 7:00 PM.

MORE TIME

More time was granted by the Chair for the following items in Committee: 2013 Infrastructure Project, and Lease Renewal – Green River Maintenance and Flight Center, LLC.

QUARTERLY REPORTS

Fourth Quarter 2012 more time and attendance reports were received from the Municipal Services, Facilities and Infrastructure Committee, the Planning, Licenses and Development Committee, and the Finance Organization and Personnel Committee. The reports were filed into the record.

A regular meeting of the Keene City Council was held Thursday, March 21, 2013. The Honorable Mayor Kendall W. Lane called the meeting to order at 7:00 PM. Roll called: Kris E. Roberts, Terry M. Clark, Philip Dale Pregent, James P. Duffy, Carl B. Jacobs, Janis O. Manwaring, Robert J. O'Connor, Thomas F. Powers, David C. Richards, Bettina A. Chadbourne, David R. Meader, Ruth R. Venezia, David J. Curran and Mitchell H. Greenwald were present. Ward five Council seat vacant. The Mayor had Councilor Richards lead the Pledge of Allegiance. A motion made by Councilor Greenwald to accept the minutes from March 7, 2013 was duly seconded. The motion passed with a unanimous vote in favor.

PROCLAMATION – FRIENDS OF KEENE PUBLIC LIBRARY – FALL BOOK SALE

The Mayor presented a proclamation to Don Wilmeth of the Friends of the Keene Public Library, announcing the dates of the spring book sale which will be held on Friday, April 5th from 9:00 am to 6:00 pm and Saturday April 6th from 9:00 am to 2:00 pm. The Mayor further proclaimed April 5 and 6, 2013 as *Friends of the Keene Public Library Days* in the City of Keene. He encouraged all residents of the Monadnock Region to attend the book sale in support of continued excellent Library programs.

PUBLIC HEARING – ORDINANCE O-2012-07-A: SURFACE WATER PROTECTION

The Mayor opened the public hearing at 7:06 PM. The notice of hearing and certificate of publication were read. The Mayor recognized Planning Director Rhett Lamb to address the City Council relative to proposed Ordinance O-2012-07-A Relating to Surface Water Protection.

Planning Director Rhett Lamb began by providing context for those who were unable to hear the original presentation given to the joint Planning Board/Planning, Licenses, and Development Committee. With the aid of a PowerPoint presentation, Mr. Lamb stated the proposed ordinance is part of an ongoing, larger strategy with respect to managing Keene's water. He continued Keene has a long history of flooding, flood ordinances, mapped floodplains, and dealing with water quality in the Ashuelot River as it relates to discharge from the wastewater treatment plant. More recently, the City adopted a Hillside Protection Ordinance to manage development on the hillsides and the generation of storm water as it comes off the hillsides onto the valley floor. Even more recently, the Planning Board has been investigating low-impact development techniques as a strategy.

Mr. Lamb recognized the members that served on the Ad Hoc Surface Water Protection Committee, which was established in 2006 and is not currently active. He stated that the committee finished their work and provided a draft ordinance in 2012. The ordinance was introduced to the joint PB/PLD Committee in May. In June, a staff report was provided. From June to October, there were two presentations, one by Barbara Skully from the Ashuelot River Local Advisory Committee and another by Michael Simpson from Antioch University. During the whole process, the joint Committee received much public comment. As a result, there have been several revisions: the Conditional Use Permit procedures in the proposed ordinance had the requirement for a Conservation Commission review removed; there was a change to the buffer requirement; and the option for a 10-foot buffer in some places was changed to a 30-foot buffer. Also removed from the proposed ordinance was a reference to agricultural activities, because

they did not want to place any limitations on those. Another change is that the proposed ordinance no longer includes “standing water” in its definition of wetlands.

Mr. Lamb presented, for further context, an ordinance from 1990. He stated that the people who started this work in 2006 had some context from the work that took place back then. He continued that the intent is to preserve and protect the functions and values of wetlands and surface waters as recommended in the Comprehensive Master Plan. The Ordinance anticipates future development and maintaining current water quality, but it is not just a water quality standard. There is the potential, as these wetlands and surface waters are preserved, to have a great advantage in respect to storm water retention and flood storage. The functions and values of wetlands also include aquifer recharge – and the City of Keene does depend on groundwater resources for its drinking water supply, wildlife habitat, and aesthetics. Mr. Lamb continued that you can go further than that to include tourism, education, fisheries, green ways, noise, etc. These are all well-established values of wetlands and surface water bodies. The loss of wetlands is often not recognized right away until the next significant flood occurs or quality of life is decreased due to environmental changes. If those values and functions are lost they have to be replaced elsewhere. Usually that means the public pays for the installation of pipes and storm water basins and other structures to move the water that would have otherwise been stored in wetlands. Part of the intent of this ordinance is to preserve the natural infrastructure capacity of wetlands and surface water bodies, not degrade them any further, and preserve the value that Keene currently gets from those resources.

Mr. Lamb showed slides that had previously been presented to the joint committee in 2012 relative to water quality, emphasizing again that water quality is not the only issue. He stated the Ashuelot River Local Advisory Committee monitored the following water quality parameters from 2001 to 2011: dissolved oxygen, pH, E. coli, total phosphorus, chloride, turbidity, and temperature. Mr. Lamb stated that obviously all life requires oxygen. He continued that water can only hold so much dissolved oxygen per volume and even less at higher temperatures. Dissolved oxygen is measured in milligrams per liter and also reported as a percentage of the saturation value. Coldwater species like trout and salmon require at least 5 or 6 milligrams per liter. Mr. Lamb continued that levels of dissolved oxygen are affected by a number of things - plants produce oxygen in the water by photosynthesis during the day but consume it at night. Too much plant growth can lead to very low dissolved oxygen levels. Other substances affect dissolved oxygen, too. The NH regulatory limits for dissolved oxygen are 75% saturation minimum for class A (drinkable after disinfection) and also 75% saturation minimum for class B (fishable and swimmable). These are standards the City wants Keene’s water bodies to achieve.

Mr. Lamb showed a graph of the Ashuelot River’s dissolved oxygen percentage from 2001 to 2011 and pointed out the Keene locations. He stated that the values for dissolved oxygen are starting to go up as the river enters the City of Keene. He continued that there are a number of reasons. One is surface water runoff.

Mr. Lamb continued that phosphorus is a critical nutrient for plants. It is usually the limiting nutrient - a small amount can lead to excess algae and weeds. An overabundance of that plant life then can lead to substantially lower levels of dissolved oxygen. Sources of phosphorus are quite varied. The types of land uses surrounding the body of water can affect the phosphorus.

Significant sources of phosphorus are septic system drainage, sewage, illegal connections that discharge directly into a water body, lawn fertilizer, erosion, and other sources of pollution caused by development.

Mr. Lamb showed a graph of phosphorus levels in the Ashuelot River. He pointed out the Keene locations and noted that the higher values of phosphorus are found downstream of the City's waste water treatment plant. The take away is that as the river enters Keene, phosphorus levels go up. This is indicative of the fact that there are water quality issues worth addressing in the Ashuelot River.

Mr. Lamb stated the NH Shoreland Water Quality Protection Act was formally known as the Consolidated Shoreland Protection Act and it is in effect in Keene. It affects the location of structures and the buffers. Also regulated through the Federal permit process are standards and measures of practice for managing construction areas through an Environmental Protection Agency general permit. Members of the Planning Board and others may recognize the NH Department of Environmental Services Alteration of Terrain permit, which is necessary for the development of land which exceeds 100,000 square feet. The Planning Board applies a 30-foot standard to all projects that require site plan review. Site plan review is not required for single family or duplex houses; that type of development does not require a 30-foot setback. Mr. Lamb continued that 77 NH municipalities have opted to have regulations in addition to the ones given by the NH Shoreland Water Quality Protection Act.

Mr. Lamb explained the existing rules for protection of wetlands. Alteration, dredge and fill are regulated by the NHDES's Wetlands Bureau. There are different standards and thresholds for what type of permit you need to get through the Department of Environmental Services. A minimum impact permit is for impacts of less than 3,000 square feet. A minor impact is 3,000 to 20,000 square feet, and a major impact is above 20,000 square feet. You may need a Section 404 permit through the Army Corps of Engineers for larger projects. The Planning Board requires a 30-foot setback from streams and wetlands, limited only to projects required to have a site plan review. Mr. Lamb noted that 111 NH municipalities regulate development in wetlands through their own authority in a manner similar to the proposed ordinance.

Mr. Lamb showed a slide of the NH Shoreland Water Quality Protection Act, which is a way to introduce the concept of a buffer. He stated that today if you are building on a shoreland regulated by the State you are limited to where you can construct permanent structures. The first 50 feet is intended to be a natural buffer with no construction of permanent buildings. There are limits established for the area between 50 and 100 feet, and from 150 to 250 feet is where the intense development activity is intended to take place. There was an interesting discussion amongst the committee about whether the City should use these standards, with the graded distances. The complexity of the State law made a lot of people on the committee nervous. They wanted a simplified version of development and land preservation in areas close to shoreland.

Mr. Lamb showed a map of water bodies affected by the NH Shoreland Water Quality Protection Act, including the Branch River, the Ashuelot River, Otter Brook, Ash Swamp Brook, a portion of Black Brook, Wilson Pond, Goose Pond, and other larger ponds. He showed a red area on the map that indicates the Urban Exemption Zone, which was approved by the City Council. Within

the red areas, State permits are not required. State law did allow that for cities and towns that have identified areas where there is historical development and where they want to continue to encourage development to occur.

Mr. Lamb stated that the committee started with a model ordinance prepared by NHDES in 2008: Innovative Land Use Planning Techniques. They reviewed many existing ordinances, such as the ones from Swanzey, Dublin, and Milford. They revised the model ordinance to fit Keene's specific circumstances. The proposed ordinance went through lengthy committee and staff review. In 2011, they held a review with the local development community, the people who will be the ones to design land development and will be living with this ordinance on a day to day basis. The proposed ordinance applies to all surface water bodies in Keene, regardless of their size – rivers, streams, ponds, and wetlands, and a 100 buffer surrounding them. They expanded the State's definition of wetlands. State wetlands law does not consider vernal pools to be wetlands even though they have some of the most unique and interesting wetland habitat. The committee chose to add vernal pools into the list as regulated surface water. The proposed ordinance provides oversight over the locations of permanent structures. Temporary structures are not regulated. The proposed ordinance also does not affect existing structures; it is intended to deal with new development only.

Mr. Lamb continued that the committee established exemptions to what is considered wetlands. He showed the list, which includes man-made ditches and swales, and "tax ditches" which are the agricultural ditches built in the 1950s and 1960s with Federal agency assistance. Those types of wetlands and water bodies are not considered to be regulated by the ordinance.

Mr. Lamb explained a buffer as an area designed to remain vegetated in an undisturbed and natural condition to protect adjacent surface water functions and values from adverse impacts and provide habitat for wildlife. The question is how wide they should be. The answer depends on what function you intend to protect. That natural buffer is the area where the water can be filtered by the natural soils and plants before it enters the water body or wetland.

Mr. Lamb showed photos of a variety of buffers in the City, along Beaver Brook. He stated that the functions of buffers become quite important as you talk about the question of how wide they should be. Storm water management is a critical aspect. The committee understood that the ordinance, if adopted, would not solve the flooding problems, but would at least prevent them from getting worse. Buffers also act as a natural filter, capturing sediment, nutrients, and pollutants from runoff, which results in better water quality. Buffers help to manage flooding and erosion, manage temperature, and maintain aquatic and terrestrial habitats. Mr. Lamb continued that there are also values related to human activity, such as rural character and recreation.

Mr. Lamb stated that in terms of buffer widths, ideally, it would be site-specific; depending upon the value you are interested in preserving. For example, for bank stabilization, the recommended buffer width is 50 feet. The recommended buffer widths for other things, such as pollutant removal or maintenance of flood storage waters, go in a range. The committee looked at a large amount of information on the topic of buffer widths. This chart of recommended buffer widths comes from the CT River Joint River Commission, established by the State through the

Governor's Office. The 100-foot buffer width tends to find the middle for all of the functions and values. If you only wanted to manage temperature, the buffer would not need to be very big. If you were trying to preserve a wildlife corridor for large mammals, the buffer would need to be quite big. The other values are in between somewhere. Most communities are dealing with buffers of about 75 to 100 feet, although there are outliers from that. The committee recommends a 100 foot buffer.

Mr. Lamb stated that one of the committee's revisions to the draft ordinance was a reduced buffer zone width. Specifically, the joint committee decided to eliminate a 10-foot setback in the more densely developed areas. The premise is that in the agricultural, rural, and conservation zones, the buffer is 100 feet. In all of the other zones, the areas where Keene is most developed already, the setback would be 30 feet with the allowance of a 10-foot setback at the discretion of the Planning Board. To encourage greater density development the Planning Board would allow a smaller buffer. Mr. Lamb showed a list of permitted uses that do not require any permit at all and can go forward without review by the City. The list includes agricultural activities; maintenance of driveways, roadways, and utilities; and repair, replacement, and reconstruction of existing roads, bridges, culverts, and drainage systems. Mr. Lamb showed a list of the prohibited uses, which are the most influential activities, such as junk yards, auto repair shops, hazardous waste facilities, and solid waste storage. Mr. Lamb remarked that it seemed logical to not allow those within 100 feet of wetlands or surface waters.

Mr. Lamb continued that the ordinance establishes a process through a conditional use permit, which would be granted by the Planning Board. He showed a list of more normal, residential activities in the agricultural, rural, or conservation districts that one could get a conditional use permit for, such as construction of roadway or driveway, driveways, or parking lots; construction of a new house or subdivision. These activities, if located within the buffer, would need to go through the process. The proposed ordinance does not prohibit these activities; it says, you should design your project so it is not in the buffer, but if you cannot, work with the Planning Board and get a permit and do the project in a way that has the least impact.

Mr. Lamb showed the criteria for granting a conditional use permit, which are fairly traditional. They are discretionary while in review at the Planning Board level. He stated that the application procedure follows regular Planning Board procedures. He noted a strikethrough to a previous draft of the ordinance with respect to the committee no longer recommends forwarding the applications to the Conservation Commission for their review. This provision was taken out to facilitate a quicker review by the Planning Board. The proposed ordinance allows for pre-existing lots to be developed for the use they were intended, provided that the listed criteria are met. If you need a Shoreland Water Quality Protection Act permit from the State, you do not need a local permit.

Mr. Lamb showed an attempt at a map of the water bodies, wetlands, and buffers. He explained that it was done when the city did have a 10-foot buffer area. The City does not have a properly delineated wetland overlay on its GIS mapping system. This map is from aerial photography. The bottom line is that this depiction is intended to be representative, but not a perfect depiction. Each application for a permit would have to have its own delineation through the State's methodology.

Mr. Lamb concluded his presentation by stating that there were four specific areas in the Comprehensive Master Plan that recommended an ordinance like this one. Mayor Lane asked if Councilors had questions for Mr. Lamb.

Councilor Roberts asked about the definition of vernal pools. He added if someone walks through a wet road and leaves footprints, those footprints, if not removed, could turn into “vernal pools” in the next season. Mr. Lamb replied that there is a distinction between a seasonal pool and vernal pool. The presence of vernal pools requires the presence of the types of amphibians and crustaceans that can only survive in a vernal pool. Creating a vernal pool through footprints would not fit the City’s definition. Councilor Duffy stated that Mr. Lamb mentioned that 77 municipalities in NH now have surface water ordinances that go beyond the State laws. He asked if anyone has talked with people from those municipalities to explore the impact of the ordinances, related to the economy and development. Mr. Lamb replied that a committee member called the Cities of Rochester and Dover and asked those questions. He recalls that the feedback was positive and no economic concerns were given.

Councilor Duffy stated that one purpose of the proposed ordinance is to preserve wildlife. He asked if there is a relationship between the health of plants, soil, and wildlife. Mr. Lamb replied that there is a lot of evidence in vernal pools that the presence of amphibians has a lot to do with the health of forests. He continued that to remove the amphibians from the ecosystem modifies the health of the ecosystem substantially.

Councilor Duffy stated that Mr. Lamb had noted that the delineation of wetlands in the City’s GIS was not accurate. He continued that he spoke with Carol Ogilvie Director of Planning and Development in Peterborough, who said that even with sophisticated GPS it is very difficult to identify wetlands. The best way is to go and look. He asked if Mr. Lamb agrees. Mr. Lamb replied he did agree and continued that remote sensing techniques are for general planning purposes and he would not recommend that people use those to plan development.

Mayor Lane opened the floor to public comment. He explained the procedures for public comment and limited each speaker to five minutes.

Delbert Meyer, Chair of the Surface Water Protection Committee, stated that he attended a lot of hearings and made observations as people expressed their feelings. He continued that the issue that seems to come up consistently, and came up in deliberations of the committee, is the issue of rights: the rights of individuals versus the rights of the common good. The conflict is between how an individual feels versus what is for the common good. That kind of thinking involved everything the committee did. They looked at what individual interests might be and how they might be affected by this ordinance, versus the overall interests of the whole community. The proposed ordinance does have some limitations on individual rights, but it does comply with the Comprehensive Master Plan and the Climate Adaption Plan and it meets the criteria of a lot of communities. 111 communities in the State have adopted similar ordinances.

Mr. Meyer continued that the fundamental thing which drives this discussion is the issue of populations and the kind of involvement that human activities have with nature and the

disruption of nature. It comes down to the interactions of humans with the environment and the degradation of the environment that results from that. The more compact a population is, the more the degradation is concentrated and the more deleterious it is to the common good. There has to be a balance and people will have to decide if this proposed ordinance meets that balance. The committee realized that while they were working on the ordinance, that they could not address all of the issues that face the city, in regards to water and water supply, but they felt that this was something they could do. The intent of the Ordinance is to protect what Keene has. A lot of issues that cannot be addressed by this ordinance were actions taken 200 years ago. Those things are grandfathered and there are people who object to that. Things that have been around for 200 years are things people today have become fairly well adapted to. But if there is a hardship, there are mechanisms available to the person experiencing the hardship, to escape the conditions in the ordinance causing the hardship. The ordinance says, we want to have a buffer around wetlands, and that buffer is essential for maintaining our quality of life. It means you have to interact and people have to have a real give and take in the process and that way our society survives. It will not survive with totally independent thinking and behavior, as most people have already discovered.

Walter Lacey, of 230 Daniels Hill Road, read the following statement into the record:

“Ten years ago I was Chairman of the Conservation Commission and just prior to that my wife and I donated a conservation easement on 153 acres of land on West Hill, the hillside overlooking the valley on the west. I only mention this to affirm my concern for conservation and land protection as I speak in opposition to this ordinance. I find this ordinance to be problematic due to the lack of a demonstrated need, the lack of supporting science and its neglect of property rights, particularly those of rural and agricultural zone land owners.

This ordinance apparently began as a response to the flooding of October 2005 and an understandable but simplistic notion that by manipulating land use we can somehow control flooding. Keene has experienced flooding since its earliest days due to unique topography, hydrology and the fact that it is built on an extensive flood plain. Two hundred years after settlement, flood control came to the Keene Valley only after construction of the Surry, Otter Brook and Beaver Brook Dams. The purpose and intent section at the beginning of the ordinance would lead you to believe that these riparian buffers have unique, enhanced sponge-like qualities to deal with storm water and mitigate flooding in Keene. This is contrary to hydrologic science. In fact the only riparian buffer that provides flood storage is one on the flood plain that furnishes overflow capacity for a flooding stream or river. Any claim that this ordinance will prevent or mitigate flooding is not scientifically correct and is simply wishful thinking.

Another stated purpose is ‘preventing water quality deterioration associated with storm water runoff, (and) maintaining the health of natural surface and ground waters.’ In this case vegetated buffers do have the potential ability to cleanse contaminated runoff as it travels to a wetland or water body. This ordinance has it absolutely backwards, though, mandating a minimum buffer width of 30' in developed areas of highest pollution levels according to EPA data and a maximum 100' in pristine rural areas where EPA pollution tables show low density housing areas to be the same source level of Phosphorous as park land or forested areas. In the second workshop discussing this ordinance the water quality of the Ashuelot River was shown to

diminish as it passes through Keene and then improve on the rest of its journey to the Connecticut River. We later learned that the City's extensive storm drainage system or "pipe shed" is responsible for this degraded water quality as miles of piping and connected drains feed raw pollutants directly to the Ashuelot River, Beaver Brook and other wetlands. I wonder if the proposed walkway behind the Middle School will give the kids a good view of the 4-foot diameter pipe that dumps street runoff from neighborhoods to the west directly into the wetland it is intended to explore.

The stated purpose of protecting wildlife habitat and corridors would be laughable if not for its impact on the landowner. Ask any rural gardener or hunter. The rural zone by definition 'scattered, very low density development ... and undisturbed ... natural terrain, vegetation ... etc' provides ample habitat and space for wildlife, no buffers needed! Again, like the water quality issue, this is a disproportionate burden on the rural landowner with no rational basis.

The definition of 'surface water' (i.e. the scope of the proposed overlay district), is still too broad and unclear; for example the inclusion of intermittent and ephemeral streams and vernal pools, and is still too unclear.

Restrictions to agriculture remain in the rural and agricultural zones where the commercial use of all fertilizers, herbicides, fungicides and pesticides is prohibited within a 100' buffer. These same chemicals, though, can be used in developed areas next to a storm drain where the pipe shed can deliver them or their residue directly to a wetland or water body making a buffer of 30' or any width meaningless. What sense does that make?

I expect others will deal with the bureaucratic and economic impact of making existing properties non-conforming and restricting future sub-division. I would only point out that for some families of modest means developable land is an asset of great importance in their ability to deal with health, retirement or education issues and diminishing that asset for no good reason is just plain wrong.

The Public Works Director testified to the drafting committee that a minimum of 2,435 parcels of land will be affected by this ordinance. Are these property owners aware of the threat to the use of their land? I doubt it. The Master Plan calls for 'transparent and responsible leadership and the sharing of useful information with community members to help them participate in decisions that affect their well-being.' To that end I believe every property owner in Keene who is affected by an ordinance such as this is entitled to be notified of that fact, period.

The seven year history of this ordinance has never been a consistent, focused effort to remedy a specific problem or identify and prioritize wetlands; rather, it has been a concerted effort to control the most territory and find justification for that control. This ordinance offers little genuine resource protection beyond existing regulations and has a huge economic and practical downside. I urge you not to pass it."

Eloise Clark, of 1185 Roxbury Road, on Otter Brook, stated that there are wetlands on her property and she is okay with the wetlands ordinance. She continued that her purpose tonight is to read a letter from the Friends of Open Space in Keene, of which she is the president:

“The Friends of Open Space in Keene strongly supports the adoption and implementation of the Surface Water Protection Ordinance. This ordinance is important to Keene for the following reasons.

1. Keene is prone to flooding. As bad as the flooding has been at times, it would be even worse without wetlands. Wetland plants slow surface run-off of water allowing the mucky soils beneath to act as a sponge. This infiltration helps to retain rainwater and release it more slowly.

One example is the large acreage of Tenant Swamp best seen along Route 12 north. Here there are areas of deepwater cattail marsh as well as woody swamp. Another large wetland complex is found on the valley floor along Beaver Brook near the cemeteries. South Keene also has extensive wetlands near the Keene State athletic fields as well as a very unusual woody swamp by Silent Way. While there are extensive wetlands on the valley floor, there are also numerous "pocket" wetlands nestled on the hillsides draining into Keene. Although small in acreage, these areas help to slow cascading water from streams and rivulets. Your feet may have discovered one of these mossy and mucky areas as you've rambled through the forest.

By providing protection to these hillside wetlands, the Surface Water Protection Ordinance will complement the Hillside Protection Ordinance. Both help slow the runoff of rainwater during flood events.

2. Carbon sequestration and clean air: The City of Keene has pledged to reduce greenhouse gas emissions. Wetland soils and plants provide excellent storage areas for greenhouse gases. Carbon dioxide and methane are trapped, while oxygen is released. Clean air for residents to breathe is a clear public health benefit. One of the best ways to achieve the goal of clean air and carbon sequestration is to leave the wetlands as they are. The Surface Water Protection Ordinance would allow the City to protect those vital areas.

3. Drinking water: We are fortunate in Keene to have reliable and abundant drinking water. We depend on Babbidge Reservoir in Roxbury and several wells scattered throughout the city for our supply. The City owns many forested acres around Babbidge Pond for the express purpose of protecting the headwaters of its supply. The wells, on the valley floor in Keene, draw their water from the aquifer. Surface waters, particularly the wetlands, continuously recharge the aquifer. The soil beneath a wetland helps to filter the water of contaminants.

4. Benefits for wildlife & recreation: The surface waters in the City of Keene provide homes for many kinds of wildlife: vernal pools for salamanders; fish in the flowing waters providing food for otter, mink and fishermen; resting areas for waterfowl during migration; nesting areas for songbirds, and recreational opportunities for residents. From kayaking on the river to a walk around Goose Pond or quiet enjoyment of Ashuelot River Park, our citizens are drawn to water.

5. Formation of the SWPO: The Surface Water Protection Ordinance has been planned and deliberated for about six years. This citizen led sub-committee has worked with the Planning Department to allow many stakeholders to participate in the process, including developers. This blueprint for surface water protection has had lots of time for input, including this final hearing. We would urge the City Council to move forward with adoption of the Surface Water Protection

Ordinance and allow it to become law. This ordinance is one piece of a larger vision that we hope will sustain the clean and healthy community in which we live.

*Respectfully submitted,
Eloise Clark”*

Michael Welsh, of 17 Roosevelt Street, Vice Chair of the Planning Board, stated he made the motion that found the ordinance consistent with the Comprehensive Master Plan. He continued he is here to speak in favor of the ordinance, and in preparation, he went over his notes and rediscovered that the joint Planning Board and Planning, Licenses and Development Committee looked at this in June 2012 and then met five to seven more times in meetings that rarely went less than two hours, discussing this ordinance. They heard from four or five experts and a number of well-prepared members of the public, who gave fact-based information, relevant to the issue, having clearly read the proposed ordinance. Mr. Welsh continued he will not go over the list of changes they made in the recommended ordinance, because Mr. Lamb already did, but one point that is key is that the origin of these changes – such as the sequence of review, taking the Conservation Commission out of the process, and not including seasonal pools - resulted from input from the public. Towards the end of the deliberations, the committee was much more educated. Public input and expert input helped make this proposed ordinance better. When the time came, it was not difficult to find this ordinance consistent with the Comprehensive Master Plan. The origins of the ordinance pre-date the Plan. The committee’s approval of the ordinance was unanimous. They realize this measure is not the be-all or end-all to the protection of water quality and dealing with water issues, and they do not think the language in the ordinance is timeless and not above reconsideration or modification in the future. Mr. Welsh recommended the City Council approve the ordinance.

Peter Hansel, of 61 Bradford Road, stated he is a land owner whose property would be affected by this ordinance. He continued he speaks in favor of it. Mr. Lamb’s presentation mentioned the tax ditches that this City laid down 60 years ago. The prevailing science at that time was: wetlands should be drained, and the land should be used for more productive uses. Fortunately for us, science has changed. We have learned things over the past 60 years and there is a wealth of knowledge that says our wetlands and surface waters need to be protected. We cannot keep relying on good stewardship of landowners. We have to look to the future, as to what pressures the properties will come under. Water is a precious resource here and all over the world. We have to honor it. Mr. Hansel continued he is not convinced that this is the ideal ordinance, but he is impressed with the democratic process it has gone through. It has had six years of conversation. It is now time to take action and he asks the City Council to pass the Ordinance.

Norman Henry, of 48 Dickinson Road, stated 25 years ago he bought a piece of land off Arch Street which contained a gravel pit. Now that gravel pit is Langdon Place. He is not sure that Langdon Place would exist under current zoning. He continued 13 years ago, he also bought land on Whitcomb’s Mill road. Before he sold the land, he gave the person who owned it water and sewer rights to that 12.2 acres. Two weeks ago he went to the land owner and said it is time to start thinking of developing cluster housing. Mr. Henry remarked that back in 2005 or 2006 Mr. Lamb did a seminar about cluster housing. Mr. Henry continued that when he went to his land planner, two or three weeks ago, he had not heard about this ordinance. His planner said,

“Things are changing; you’d better stop.” This was something he had been planning for years, and now he cannot do it. His piece of land, if this ordinance passes, will be useless for cluster housing development. He passed around a map showing the property and the area. He continued that there are wetlands on the land. They were gravel pits in the 1950s and 1960s. The gravel was taken out of the two pits to build Route 9. His concern is that the 100 foot setback renders his property useless. It is almost a form of eminent domain. He has held on for 13 years until the time was right for him to do this development. This ordinance will financially impact something he has wanted to do for 13 years. Langdon Place has provided 2.2 million dollars in revenue for Keene and has taken care of hundreds of people who needed services and provides jobs for hundreds of people. Mr. Henry continued that if the 100-foot setback is set in stone, it will damage a lot of people in this community. He asks the City Council to look at the Ordinance closely.

Thomas Lacey, of 241 Daniels Hill Road, stated he is in opposition to this ordinance. He continued he has paid attention to this ordinance for the last couple of years. It will not prevent flooding, now or in the future. It will not have any significant impact on water quality, now or in the future. It will make a large number of properties in the rural zone non-conforming for no clear reason. The rural land is not particularly vulnerable to any great deal of development. The 750-foot rule, part of the Building Code, has pretty much shut it down. Problems which supporters of the ordinance have cited - high rates of runoff and poor water quality - are urban problems, not rural problems. This ordinance would mean it would be business as usual for everywhere except the rural zone. The changes proposed in the Ordinance mostly affect the rural zone. It will add 70 feet to the existing buffer and create a lot of non-conforming properties. EPA studies clearly show that residential lots only have 4% of the amount of phosphorus that comes from high-density areas. This amount is actually less than what is reported by scientists as naturally coming from a piece of regular forest land. EPA studies show that the first 30 feet of buffer are crucial and remove most of the pollutants. Beyond 30 feet the efficacy of the buffer has diminished to the point where additional widths have very little additional removal value. These buffer widths are calculated for full loading, where the problem is bad, not for other zones where you start with basically no loading at all. The same is true for water volumes coming from the rural zone, which is immeasurably small in relation to the total water potential of the watershed.

Mr. Lacey continued, by reading the following prepared statement for the record:

“The number of properties which will become non-conforming is considerable. The supporters of this ordinance have consistently avoided the use of the term ‘non-conforming’ and have minimized the real impact it will have. They have made it sound completely painless, that people will simply get to use their property as they always have and everything will be just ‘hunky dory.’ I assure you, that once the City crosses this threshold; the property owners who are made nonconforming and want to do something reasonable with their properties will be receiving no benevolence from anybody. It will be an unfriendly process. It will be at their expense, and it will be the result of a legislative process which, to this day, has not framed the issue. There is no map, or even any description of the general condition which this ordinance purports to address. The only map produced is a recopy of topographic information which has been around since the 1800s. This is in contrast to the recommendations made by the DES and NH Association of

Regional Planning Commissions. They emphasize the need to fully understand, before proposing such an ordinance, who the ordinance will affect and how. They emphasize the need to scientifically demonstrate that the surface waters and wetlands are worthy of the restrictions placed on the affected property owners. They emphasize the need to prioritize the wetlands and surface waters so that property owners are not unfairly scrutinized, recognizing that all surface waters do not need the same level of protections. In fact they suggest that it may not be prudent to even consider surface waters or wetlands below an established threshold size, and avoid dragging property owners through an unnecessary and expensive process. This ordinance is creating exactly the kind of regulatory process which the Innovative Land Use handbook and its supporting documents recommend avoiding. When the local government wants to pass an ordinance of this scope with no prior analysis and takes the attitude that 'we'll just deal with it as we come to it,' and all at the property owners' expense, it is irresponsible government."

Mr. Lacey continued that no one in this room can tell you what the impact is to land owners. If you drive around the rural zone and look at the amounts of small brooks and surface waters in relation to the buildings, you will see how many people will be ensnared by the Ordinance. This is a huge change in scope for the one zone where there are the least number of problems. The problems are in the urban areas. It has been clearly demonstrated that a huge amount of run off in the urban zones are piped directly into brooks, streams, tributaries, etc., or a ditch leading directly into one of these, with no buffers at all. When you consider all the hundreds of acres of pavement that have been laid down in the city over the last twenty years, and the building that has gone on next to the Ashuelot River, brooks, streams and wetlands, it is a real stretch to put this burden on the rural property owner and at their expense.

James Phippard, of 81 Arch Street, stated that he is here as a concerned citizen, not representing anyone else. He continued that he is Norm Henry's land use planner. He was the previous owner of the property, which Mr. Henry purchased from him and his brother. Mr. Phippard continued he is opposed to the ordinance as currently drafted. He is not opposed to wetlands protection or buffers. He agrees with the intent of the ordinance. He disagrees strongly with the 100-foot buffer in the rural zone. It is okay to have a 1000-foot buffer in the agricultural zone – who cares? There is no development anyway. In the rural zone this impacts so many properties. The Assessing Department lists 8,140 total lots of land in all the zones. There are 1,589 lots in the rural zone. This is only 19% of the total lots. Of those, 1,032 are less than or equal to 5 acres in size. Not all rural properties are large lots for which the 100-foot buffer requirement would not have a large effect.

Mr. Phippard continued he agrees with both of the Lacey's comments. He added he has attended several workshops on this issue. He listened to the presentation by Michael Simpson, who cited many studies and gave examples of the findings, in regards to the effectiveness of buffers removing contaminants from surface water runoff. Mr. Simpson showed a graph with the degree of effectiveness and it was clear that the most effective removal occurred within the first 30 feet of the buffer. The impact beyond 50 feet was measurable, but not significant. You get the "most bang for your buck" in the first 30 to 50 feet. Mr. Phippard continued that that made sense to him. That is where the buffer should be - that is the balance between minimizing impacts to land owners and protecting the wetlands.

Mr. Phippard showed, on the easel, properties where he has surveys, topography, and wetland delineations. He showed a subdivision of a 5-acre lot, which has wetlands outlined in blue. The red line shows the 30-foot buffer. Houses were built outside of the buffer. Mr. Phippard showed where the 100-foot buffer would be. He stated that it would have a dramatic impact. A person would have to go through the conditional use permit process with the Planning Board – it is a 5-page checklist of information that has to be provided. A homeowner who wants to add a deck to his or her property would probably be granted a permit, but it would cost that person \$3,000 to \$4,000 to get that permit, factoring in attorney or land use planner fees, survey work, permits, studies, etc.

Mr. Phippard showed a 5-acre lot which has not been built on. He stated that the owner asked him to lay out a driveway. Mr. Phippard pointed out the delineation of a wetlands area of 2000 square feet, which is about as big as the City Council Chambers. He showed what the impact of a 100-foot buffer around it would be. The owner of this land would need a conditional use permit to put in a driveway.

Mr. Phippard showed a lot on Darling Road. He stated that subdivision occurred many years ago. This lot is not on City water or sewer. There is a wetlands area. The little triangle on the drawing shows the area outside of the buffer, where the owner could build unrestricted, but it is within the 50-foot setback the rural zone requires, so he is out of luck. This person would have a hard time getting a conditional use permit if the house were not already built.

Mr. Phippard showed 150 acres of land off of Old Walpole Road. He stated that the Hillside Protection Ordinance affects the areas on this property that can be utilized. The areas shaded in grey represent 14 acres of existing wetlands with the 100-foot buffers. Seventy acres would be restricted if the ordinance were applied, which is pretty dramatic. If this ordinance is passed he and this land owner will have to throw their plans away and start over. Mr. Phippard continued he wanted the City Council to see the real affect this ordinance would have and see what land owners will be dealing with. He gets calls from people who are upset because they want to build a deck and the Code Enforcement Department informs them they need to come back with a plan to show where the setbacks are, where the wetlands are, and all kinds of additional information. He has to give them the bad news – “Yeah, that’s required now.” If this ordinance passes, land owners will have to pay for services from wetlands scientists and land use planners just to build something as simple as a deck.

William Beauregard of Spofford stated his family owns rural land in Keene that would be affected. He continued he has concerns about the methodology that went into the buffer distances. In the central part of the City there is a 30-foot buffer being proposed, and he asks the City Council to think of what Mr. Phippard indicated in terms of the impact – the cost of building a deck could suddenly go from \$5,000 to \$10,000. In the rural zone it is more significant. Mr. Beauregard showed plans and stated that with a typical 5-acre lot with a seasonal stream through it, with a 100-foot buffer on each side, you could be taking 2/3 of the lot. That would make a minor improvement cost prohibitive. Mr. Beauregard remarked that he is not opposed to buffering and thinks the valley floor needs to be protected from runoff. He thinks a 30-foot buffer in rural areas is appropriate. People should be able to reasonably utilize their properties.

Mr. Beauregard stated that Mr. Lamb had noted that the Conservation Commission review piece was removed from the ordinance. He continued that the proposed ordinance that is online on the City's website still contains reference to the Conservation Commission. Mr. Lamb replied that the draft that is on the Planning Department's website is not the most current draft. He continued that the current one is the "A" version. Mr. Beauregard replied that he has the "A" version and it still refers to the Conservation Commission and he is confused. The City Attorney concurred – he, too, has the "A" version and it does contain a reference to the Conservation Commission.

Mr. Beauregard stated that there are two golf courses in the city within 100 feet of the high water mark. He continued that typical golf course best practices would be prohibited by this proposed ordinance. Section 102-14-87-E of the proposed ordinance talks about activities that are prohibited within the surface water protection overlay district. Subcategory E talks about no use of fertilizers, herbicides, fungicides, or pesticides occur except when necessary for removal of invasive species. That seems to prohibit the golf courses from doing business – they both have brooks that go through them. Mr. Lamb replied that it would depend on what process the golf courses are currently using, and whether they meet the requirements of commercial for hire or commercial not for hire. If you have your own license and application you do not fit these definitions.

Emily Hague, of 92 Ashuelot Street, read the following statement into the record:

"I would like to encourage you to support the adoption of this ordinance. I speak to you as a member of the Planning Board, as a Conservation Commissioner, and as a citizen. I feel that this ordinance would enhance our quality of life here in Keene by protecting important natural resources such as streams, wetlands, floodplains, and vernal pools. This ordinance will reduce erosion, siltation, and water quality degradation in our waters by establishing a reasonable and scientifically based buffer overlay. One point that has not been touched on very much is I believe that this ordinance will also be a successful cost avoidance measure in our climate change adaptation, enabling us to avoid damage and replacement costs for structures and improvements near waterways that could be drastically affected by our changing climate and the changes that that brings with precipitation and runoff.

I believe this is backed by a portion of our State Vision, which seeks to 'protect environmental quality by minimizing impacts from human activities and planning for and maintaining natural areas that contribute to the health and quality of life of communities and people in NH.'

Ms. Hague stated that she wants to respond to Councilor Duffy's question in regards to how other communities' ordinances are working. She spoke with two Planning Directors, one in Dover and one in Somersworth. Dover is a city of about 30,000 people which implemented a wetlands protection ordinance in the 1980s with a minimum buffer of 50 feet. She asked their Planning Director whether their Planning Board or regulatory departments have had issues, and he did not indicate that was the case. Dover has a similar conditional use permit process that has been working well. They have not had any legal challenges. She continued that she spoke with the Planning Director in Somersworth, a town of about 12,000 people. They amended their wetlands overlay ordinance to match the State's NH Shoreland Water Quality Protection Act. They have a similar conditional use permit process which they have found to be very effective.

He did not indicate any significant issues, either. Their Planning Department and Code Enforcement Department work together, much like in Keene.

Ms. Hague continued that she wants to draw attention to the fact that the conversation has focused on water quality and not so much on quantity, but that is something to keep in mind. That was one of the issues that this ordinance was seeking to address – velocity and volume of runoff, and controlling erosion and siltation. They can look at the Beaver Brook watershed to understand the problems they are trying to avoid as the City grows and the built environment increases. All zoning limits land use. Sometimes what is more important is what is gained instead of lost. There are some areas in which a built environment is not the most important use. This ordinance does a good job of balancing potential land uses in the community. She urged the City Council to support it.

Mayor Lane asked if anyone else wished to speak in conjunction with this ordinance. Hearing no response, he closed the public hearing to oral testimony at 8:40 PM. He continued that the public hearing will remain open for written comments until Tuesday, March 26, 2013 at 1:00 PM. Written comments must be signed and submitted to the City Clerk by that date and time to be included in the record. Mayor Lane stated that this matter is now referred to the PLD Committee to consider at their next regular meeting.

A true record, attest:

City Clerk

ELECTION – WARD FIVE COUNCILOR

The Mayor announced that Philip M. Jones has filed a declaration of candidacy to fill the Ward Five Council seat vacated by June M. Donegan. The term for this position expires on December 31, 2013. The Mayor continued the election is governed by Section 38 of the Rules of Order. Mr. Jones shall be given 5 minutes to make a statement to the Council. There will not be an opportunity for questions. There shall be no primary vote as Mr. Jones is running unopposed. The Mayor continued that Section 38, sub-paragraph 4 of the Rules of Order requires that a candidate receive 8 positive votes to be elected. Any Councilor not wishing to vote for the candidate may vote “no.” Mr. Jones addressed the Council relative to his desire to serve on the Council. On a roll call vote, 14 Councilors were present and voted in favor of the election of Philip M. Jones. The Mayor proceeded to swear in the new Councilor and Councilor Jones took his seat for the remainder of the Council meeting. The Mayor expressed the City’s appreciation to Councilor Jones for his willingness to serve. He went on to announce that Councilor Jones will serve on the Municipal Services, Facilities and Infrastructure Committee as Vice-Chair.

issue of the long-term location of the Farmer's Market be referred to the Agricultural Commission.

Chair Richards advised that this issue will go before City Council next week for a final vote.

7. MEMORANDUM: Assistant Public Works Director/Laboratory Manager - Use of City Property for Parking a Construction Trailer

Donna Hanscom, Assistant Public Works Director/Laboratory Manager explained that the State of New Hampshire Department of Transportation has hired Evroks Corporation to perform repair work on the Route 101 bridge over the Ashuelot River. Evroks Corporation requested permission to park its construction trailer at the City's Martell Court Pump Station. Staff reviewed the request and the site and confirmed that the proposed location would not interfere with the upcoming pump station construction or routine activities. Evroks has agreed to obtain all the necessary insurance and the indemnification agreement required by the City. Ms. Hanscom referred to the map in the packet to show the proposed location. Ms. Hanscom recommends that the request from Evroks be approved.

Councilor Jacobs made the following motion which was seconded by Councilor Chadbourne.

On a vote of 5-0, the Planning, Licenses and Development Committee recommends the City Council grant permission for Evroks Corporation to park a construction trailer for the New Hampshire Department of Transportation engineers at 176 Martell Court from April 5 through December 1, 2013 during the Route 101 bridge work. Said permission is subject to Evroks signing a standard revocable license and indemnification agreement, submittal of certificate of liability insurance in the amount of \$1,000,000 listing the City of Keene as an additional insured together with appropriate endorsement showing the additional insured status on the policy and compliance with any recommendations of City staff.

8. ORDINANCE: O-2012-07-A: Establishment of a Surface Water Protection Overlay District

Chair Richards pointed out that this is the first time the current Committee has had to deal with a Zoning Ordinance and asked Attorney Goodwin to provide guidance on how to proceed. Attorney Goodwin advised that as this Ordinance has been through the public hearing process at City Council, at this point no additional public testimony is allowed. As this Ordinance has already been through the Joint Committee process we know it complies with the Master Plan. This evening the Planning, Licenses, and Development Committee will make a recommendation to City Council. Chair Richards clarified that Committee members may ask staff questions, and that no Councilors in the audience are allowed to ask questions at this time. Attorney Goodwin replied that this was correct. Chair Richards asked Committee members for their input.

Councilor Chadbourne asked staff if any City Boards or Commissions had reviewed the Ordinance and provided feedback. Mr. Lamb advised that the only recommendation not yet received is from the Agricultural Commission; this will be on the record for the City Council meeting next week. Although the minutes have not reached Mr. Lamb's office yet, he did report it was a 3:1 vote to recommend the Ordinance. Councilor Chadbourne also asked if the

Conservation Commission had given a recommendation. Mr. Lamb indicated that they did recommend the Ordinance during the Joint Committee process. Councilor Chadbourne indicated that she has been swayed by the opposition; pointing out testimony from Jim Phippard, Norman Henry, and a letter received today from Wes Cobb. She is beginning to wonder if the 100 foot buffer is too strict; noting that there are many people who may be negatively affected. Although she had voted to push this through she is now sitting on the fence. Chair Richards clarified that voting at the Joint Committee level to move this forward to City Council, does not necessarily constitute an endorsement from the Councilor level; it is merely moving the process along. He also indicated that if the Joint Committee had moved against the Ordinance it still would have moved forward to City Council as part of the process. Chair Richards clarified that a vote taken to move the process forward is not the same as an endorsement.

Councilor Curran indicated that he is willing to vote in favor to move this forward, but also expressed his struggles and desires to see changes with the 100 foot buffer zone. He referenced a presentation by Mr. Simpson on the curve and buffer zone, and pointed out the need to stay focused on the Master Plan.

Chair Richards asked for clarification that if the Committee moved to amend/make any substantive changes to the Ordinance it would have to go through the process again. Attorney Goodwin concurred.

Chair Richards indicated that he would like to know how the entire Committee feels before any changes are made because there are several options that can be utilized before this occurs. He pointed out the options as being 1) to vote for it, 2) to vote against it, or 3) we can vote against it with a recommendation that it goes back to the Joint Committee to look into more specific other items. Attorney Goodwin clarified that to vote it down and send it back, means you're sending the issue back, not this Ordinance. He continued that if you vote this Ordinance down, you can't send it back. Attorney Goodwin pointed out that there is a fourth option where you could send the Ordinance back to the Joint Committee with a recommendation that it be amended at the Joint Committee level.

Chair Richards continued that it is too stringent in the rural areas where the scientific evidence tells us that there isn't much problem with the water; there are no pollution or phosphorus problems until it gets to downtown. He doesn't think enough of the downtown options have been explored. Chair Richards also felt this should be back at the Joint Committee pointing out that they can request additional scientific evidence. Chair Richards noted the size of the scope of the proposed Ordinance and suggested that we first target those areas where we know there is a problem. He would like to see this Committee be on the same page as it moves forward with this issue. Councilor Chadbourne clarified her earlier statement noting that the curve has always stuck in her mind, and that perhaps the 100 foot buffer is over protective.

Councilor Jacobs commented that although we do need a Surface Water Protection Ordinance he doesn't feel this is the Ordinance we need. He also referred to Mr. Simpson's presentation that indicated the greatest benefit is obtained with a 50-60 foot buffer, and after that the benefits pretty much flat line. He has a hard time understanding the 100-foot buffer in the rural areas, and the 30-foot buffer in the downtown area if what we need is 50 feet. Councilor Jacobs

pointed out that there are inconsistencies, and science says that we need more than a 30-foot buffer if we want to accomplish our goals in the developed areas. Councilor Jacobs addressed the pipe sheds and the chemicals brought into the rivers and streams; pointing out that this is not addressed in the Ordinance. He feels that a consistent buffer makes more sense and that the pipe shed/water quality issues should be addressed.

Councilor Curran does not want to see this die, and believes it should move forward. He pointed out that although this has taken a long time, a little more time will satisfy a lot more people. Chair Richards agreed with Councilor Curran and added that if we send it back we need a clear direction of what we're looking for.

Chair Richards referred to the upcoming rework of the Land Use Ordinance and asked Mr. Lamb if some of these downtown issues would better be addressed there. Chair Richards would like to see additional presentations on green methods for protecting the downtown water. He also asked if this should specifically be a Surface Water issue or a Land Use issue that goes through the Planning Board. Mr. Lamb noted that this was one of the central points of confusion as the Ordinance was brought forward, and is unsure it was presented in a way that allowed you to see the full context of the Ordinance. Mr. Lamb pointed out that because this is a Zoning Ordinance it can't fix what is already on the ground. He continued that Zoning can only set up the framework and blueprint for how development will occur into the future. Zoning is not the tool to fix some of the end of the pipe problems that exist today; this is a larger picture discussion. Mr. Lamb pointed out that the Planning Board is already having discussions on low-impact development standards. He also noted that this Ordinance was developed to be part of a larger solution, recognizing that it would never do everything the Committee might want to do in terms of water quality and wetlands preservation. Mr. Lamb addressed the part of the question could this be addressed as part of the Land Use Code update. Mr. Lamb explained the Capital Improvement Program funding cycle for this program noting that the funding won't be available until July 2014. He suggested this could become part of that structure but has the same limitations that he mentioned earlier, zoning isn't going to fix the existing conditions in downtown. Mr. Lamb indicated that there are other solutions and those discussions should run parallel with the discussions had tonight.

Chair Richards would like to see the setbacks with clear recommendations from this Committee. Chair Richards feels the Ordinance is too broad, clarifying where there are issues we're not looking at closely enough and there are other issues we're looking at too hard. He summarized the primary issues of concern to this point as the buffer, the pipe shed/water quality issues, and what green methods could be used downtown.

Councilor Meader noted his appreciation for the work done by the Joint Committee. He pointed out his take on the main issues of concern raised at the public hearing were the buffer, and the role of the Conservation Commission. Councilor Meader alluded to the real perception that this will cause a hardship on property owners, and asked if the Ordinance addresses the problem. This Ordinance affects over 2,000 pieces of property and there are already six existing layers of regulations for wetlands. Councilor Meader also agreed that he doesn't want to see this Ordinance defeated. He feels that this Committee can come up with a recommendation based on the information that has been presented.

Mr. Lamb verified that Committee members had the correct version of the Ordinance in-hand. He explained that the revision made by the Joint Committee was to eliminate the required action by the Conservation Commission. He further explained that the previous version required the Conservation Commission to hold a meeting and provide guidance in review of a Conditional Use Permit. The obligation for the Conservation Commission to take those two steps was removed. Mr. Lamb clarified that the language is still there that the Conservation Commission may provide advice, because the statute allows that anyway. Mr. Lamb clarified for Chair Richards that in the language “shall” was removed and was replaced with “may”.

Chair Richards asked Attorney Goodwin for advice on the best way to proceed at this point. Attorney Goodwin suggested that a motion could be made with conditions attached to see how the vote carries. He also suggested that this could be placed on more time and staff could come back with an organized motion that would give the Committee something to work with at the next cycle.

Chair Richards was in favor of the latter suggestion. Councilor Chadbourne asked if this Committee could request this go back to the Joint Committee and then have the two Commissions develop the particulars. Chair Richards pointed out that many Committee members did state this at the Joint Committee meeting and those suggestions were not taken. He reiterated the need for clear, strong language from this Committee when it is sent back. Committee members were in agreement with the need for clear, strong language. Councilor Meader clarified that the Planning Director will make a list of the issues and come back at the next meeting with a clear motion for this Committee. Chair Richards replied in the affirmative. Mr. Lamb also pointed out that the list of issues this Committee recommends for the Joint Committee to work on, wouldn't be exclusive just to the items on the list. Once this is put back into the Joint Committee process they are open to add or subtract in the normal process of an amendment.

Discussion continued with the Committee developing the following list for the Planning Director to work with.

1. More avenues for being environmentally conscious in the downtown area. What can go in Land Use, put it there; and what can go in this zoning Ordinance should remain here.
 2. The 100-foot buffer is too severe in the rural areas – take a closer look at the downtown buffers (is a 50-foot buffer appropriate and what about the unprotected waters).
 3. Permeable asphalt: how it works and the costs. Is it practical and is the science there to support it.
 4. In general are there more things we can look at in the downtown area that could have a more substantive impact than simply looking at a buffer.
- Councilor Jacobs noted his agreement with the list so far. He added that he understands Mr. Lamb's comments on what does/doesn't fit into the purview of a Zoning Ordinance. He continued that he does not want to see the pipe shed issue go away and asked where this would

fit in. Chair Richards also pointed out the benefits of cluster development noting that this subject wasn't touched on with regards to buffers. Chair Richards asked if this should be an exclusion. Mr. Lamb suggested that this does need further consideration. He added that we did address it and tried to incorporate it so that they don't conflict. Mr. Lamb pointed out that the starting point of the cluster is to avoid impact to wetlands, which is consistent with what is proposed in this Ordinance. He also suggested this question should be revisited. Mr. Lamb also recommended that the issue of herbicides, pesticides, and fertilizers be added to the list.

Councilor Chadbourne asked Councilor Meader if he was satisfied with Mr. Lamb's explanation of the Conservation Commission's role or if this needed to be added to the list. Councilor Meader noted that if the Conservation Commission's role is provided for by state law than he is happy. He also agreed that the issue of herbicides, pesticides, and fertilizers should be added to the list.

Chair Richards clarified that the Committee would take a look at what staff has prepared in two weeks. He also recommended that Mr. Lamb be contacted with any additional suggestions in the meantime.

Councilor Jacobs made the following motion which was seconded by Councilor Chadbourne.

On a vote of 5-0, the Planning, Licenses and Development Committee recommends that Ordinance O-2012-07-A: Establishment of a Surface Water Protection Overlay District be placed on more time until the next Committee meeting.

The Planning, Licenses, and Development Committee adjourned at 8:15 PM after a motion was made and duly seconded.

Respectfully submitted by,
Mary Lou Sheats-Hall
Minute Taker
March 29, 2013

A regular meeting of the Keene City Council was held Thursday, July 18, 2013. The Honorable Mayor Kendall W. Lane called the meeting to order at 7:00 PM. Roll called: Kris E. Roberts, Terry M. Clark, Philip Dale Pregent, James P. Duffy, Philip M. Jones, Carl B. Jacobs, Janis O. Manwaring, Thomas F. Powers, David C. Richards, Bettina A. Chadbourne, David R. Meader, Ruth R. Venezia, David J. Curran and Mitchell H. Greenwald were present. Robert J. O'Connor was absent. The Mayor had Councilor Jacobs lead the Pledge of Allegiance. A motion by Councilor Greenwald to accept the minutes from June 20, 2013 was duly seconded. The motion passed with a unanimous vote in favor.

PUBLIC HEARING – ORDINANCE O-2012-07-B: SURFACE WATER PROTECTION

The Mayor opened the public hearing at 7:04 PM. The Notice of Hearing and Certificate of Publication were read. Mayor Lane stated that this is the second public hearing relative to the proposed Surface Water Protection Ordinance, and this is another opportunity for members of the public to be heard and express their views. The Mayor went on to recognize Planning Director Rhett Lamb.

Mr. Lamb stated that discussion on this ordinance began in the early part of 2012 and there has been a lot of discussion on it as the process has moved forward. The last public hearing was on March 21st and at that time the matter was referred to the Joint Planning Board and Planning, Licenses and Development Committee which was charged with the task of reviewing the issues identified by the Council in May 2013.

Mr. Lamb stated that he would like to explain the purpose and the intent of the ordinance, noting that this is part of a larger strategy to manage stormwater and water quality in a more comprehensive way. He noted as added context that the Planning Board is looking at low impact development standards, and the City is also looking at projects to remove sediment from Beaver Brook, and create flood storage at Woodland Cemetery. Mr. Lamb continued by stating the City is aware that this Ordinance in itself won't fix the existing problems; however, by enacting this Ordinance along with other programs it will go a long way towards alleviating the issues while also protecting future development. Mr. Lamb went on to say that protecting surface waters and buffers will allow the ability of natural processes to filter pollutants before they reach our rivers, streams and ponds. He continued this function is worth protecting so that we can avoid the costly improvements to clean up impaired waters, an issue other larger cities are currently facing due to the EPA phase two storm water rules. The alternative to inaction is to face the possibility of Federal oversight, like others have in the State. By protecting resources that are addressed in this Ordinance we save money in the long run and ensure the longevity of our prior investments. This Ordinance will not fix existing problems; no zoning ordinance can because zoning ordinances only reflect changes that will occur into the future. It will ensure that future development in Keene does not make things worse.

Mr. Lamb went over the changes included in the "B" version of the Ordinance. He stated the first change is to Section 102-1487. In this section, item "e" has been eliminated regarding the prohibition of the use of commercial volume pesticides.

Mr. Lamb stated the second change is to the buffer width in Rural, Agricultural, Conservation

and Conservation Residential Development Districts, which has been changed to 75 feet.

Mr. Lamb noted the third change is to Section 102-1493, where a minor change to the language was made to make this section consistent with the change in buffer width from 100 feet to 75 feet. Mr. Lamb noted the entire Joint Committee voted on the amendment and there was a split vote on this change, with four members of the Planning Board voting against it, but ultimately the Planning Board voted unanimously to find that the revised Ordinance was consistent with the Master Plan and the Planning, Licenses and Development Committee voted unanimously that a public hearing be held. This concluded Mr. Lamb's testimony.

Councilor Duffy asked for clarification relative to the buffer width in more densely developed areas, asking if it had changed from 30 feet to 10 feet. Mr. Lamb stated that this change was in the "A" version and added that there are now two buffer widths; 75 feet for the four districts mentioned this evening, and 30 feet in all other districts, but this can be reduced to 10 feet through a conditional use permit issued by the Planning Board based on the facts of each individual case.

The Mayor opened the matter up to public comment.

Mr. Jim Phippard of 81 Arch Street stated that he continues to be opposed to this ordinance. Mr. Phippard noted that he still does not understand why this is requiring such a large buffer in the rural, conservation and agricultural zones. He continued the zoning ordinance already restricts what one can do on those properties and limits you to no more than 20% lot coverage regardless of the size of your land area. If the intent is to maintain open space, the regulations already exist for that.

Mr. Phippard went on to reference a plan showing what effects this buffer width could have on properties. The first example was a property on Old Walpole Road, 200 acres in size of which 14 acres are wetlands, when you add the 75 foot buffer zone the restricted area goes from the 14 acres of wetlands to 40 acres. This property is in the rural zone and is already restricted to the 20%. It is also a property that the land use plan recommends for future development of housing. The 75 foot buffer would have a huge impact on the ability to develop this property for housing.

The second property used as an example by Mr. Phippard was a 5 acre lot on Jordan Road. He noted the wetland area is 2,000 square feet in size but when the 75 foot buffer zone is applied the restricted area goes to one acre. Mr. Phippard stated that this property owner wants to build on this lot but if the ordinance is passed he won't be able to build according to the plans he has already prepared and the plans will need to be redone at an additional cost. Mr. Phippard continued he understands that this rural homeowner may apply for a conditional use permit, however this process requires a wetlands scientist delineate the wetland on the property, have a surveyor draft a plan, and have someone come represent the applicant to explain why a permit should be granted. The result is that this homeowner will have to spend several thousand dollars to obtain a conditional use permit.

Mr. Phippard explained the conditional use permit process that would be placed on single family lot owners is unfair because this ordinance doesn't do anything and their lots are 80% open space

to begin with. He felt educating these homeowners about activities on their properties that cause problems would be much more useful. For instance someone who lives on a sloping lot, digs a ditch on their property to intercept water that is flowing downstream and redirects this runoff into a stream or onto a neighbor's property. Those types of activities are the ones causing problems by increasing runoff. Homeowners like that need to be educated about infiltration, storm water collection areas, level spreaders, which are all things that are easy to do to collect storm water runoff and prevent problems from occurring.

Mr. Phippard noted the Planning Board is already working on low impact design and the City should be changing its design standards, and designing all of its storm water systems for a 50-year design storm. He felt it was better to take this approach than to take the blanket overlay approach which will prevent property owners from trying to use their land. Show property owners how to do things correctly, rather than taking away their rights and instituting a process that will cost a landowner thousands of dollars to obtain a conditional use permit.

Mr. Phippard stated that if the Council was going to pass this ordinance, he asked that it be sent back to committee with the intent to reduce the buffer to 30 feet for all zones; treat everybody the same. At the same time educate the public rather than take away their rights. Another modification he asked that the Council consider is rather than this blanket buffer for wetlands, in other communities that have an ordinance like this, they usually put in place an exemption for water bodies less than 2,000 square feet in size; which exemption makes sense.

Councilor Greenwald asked if this ordinance was adopted how significant would it be in solving the flooding along Beaver Brook. Mr. Phippard stated that he did not feel it would make any difference at all. The Councilor went on to ask what consideration would be given by lenders for these non-conforming lots if this ordinance was adopted. Mr. Phippard stated that he gets calls from attorneys about these types of issues and stated that this process can get very expensive to have the attorney and developers do the extra work involved in determining if a property does or does not conform to the stipulations in these overlay districts.

Councilor Venezia stated that she was part of the development of this ordinance and worked on the scientific point of view and noted that Mr. Phippard mentioned some things during his remarks that might be beneficial to consider. The issue of the 100 foot setback was backed by scientific reasoning, however if there are other considerations to be discussed about mitigating issues when building on wetlands she would like the Council to hear them and consider them.

Mr. Bill Beauregard of Spofford, NH stated he and his family own several properties in the rural zone in Keene that would be affected by this ordinance, and he too is opposed to it. Mr. Beauregard referred to the following language from the Purpose and Intent statement "...*Given the history of flooding in Keene, an overarching purpose of this district is to prevent the loss or degradation of natural storm water storage, infiltration and conveyance capacity within the City...*" He noted that what has been seen and what this ordinance is reacting to is number of haphazard localized storm events that this ordinance would not have prevented. Mr. Beauregard stated that flooding is happening now and there are others ways to prevent that and he felt this is not the way to do that.

Mr. Beauregard then referred to a plan consisting of a five-acre lot, 465' x 465' with a stream running through it 20 feet in width from bank to bank. If the 75 foot buffer was enacted it would take two acres of the site and make them undevelopable. He agreed that the City has to do all it can to mitigate flooding but this ordinance won't do that, and he is unclear what its benefit really is. Mr. Beauregard then referred to what the Planning Director had talked about regarding low, Medium, High Density, High Density-1, Central Business, Central Business Limited (older areas around Central Square) and indicated that it is stated that for these areas the 30 foot buffer could be reduced to 10 feet at the discretion of the Planning Board if the applicant, for a conditional use permit, provides extraordinary mitigation. Mr. Beauregard questioned what that was and added that in this case if someone wants to construct a deck for a cost of \$1,000 they would now have to hire the services of someone like Mr. Phippard and apply for permit and the cost could then go up to nearly \$5,000 in permits.

Councilor Venezia stated that the basis for this ordinance was not only for flooding mitigation but the City is also trying to maintain the quality of the water in the region and surface water is an important component. This is meant to be a system of saving our surface water for the benefit of future generations, and to maintain the health of the ecosystems within and surrounding these areas. Mr. Beauregard noted that the second sentence in the Purpose and Intent statement deals with the history of flooding and given what everyone has suffered in these neighborhoods, this phrase is intended to get people's support for the Ordinance, but he did not feel this ordinance would necessarily accomplish that.

Mayor Lane emphasized to the Councilors that today is a time for the public to be heard and if the Councilors have views about this ordinance they would have plenty of time to express those views at Council meetings or Committee meetings.

Mr. David Crawford of Marlboro Street, Keene stated he believes that when a person purchases a piece of property they should be able to control that property but if a higher power wants to usurp those rights some of the high taxes these property owners pay should be reduced because they no longer have control of their property. He was opposed to the ordinance.

Mr. Paul Venezia landowner in Keene began by questioning the term "no disturbed buffer" and stated that his concern is a 30 foot "no disturb buffer" for instance around something as small as a vernal pool of any size that restricts all kinds of modification to vegetation and also indicates that stumps should be removed by hand yet, other provisions in the ordinance would allow logging to happen without any need for permits. It seems like the ordinance is equating a weed trimmer with a bulldozer. There is mention of industrial businesses that can have parking lots ten feet from a body of water but in a rural zone a shed cannot be constructed within 75 feet without the need for a permit.

Mr. Venezia went on to say that this ordinance will cut off waters that flow through a property; an owner won't be able to access that portion of the property unless they apply for a driveway. He stated that it is not clear whether this driveway permit will be required if one wants to drive a lawn tractor close to this body of water just for the purpose of collecting firewood. These are questions that he has and the ordinance is very vague, which causes him a lot of concern about how it would be administered.

Mr. Lamb in response to Mr. Venezia stated that a comparison is being made between a logging activity and a permanent structure. The Joint Committee in hearing comments from the public elected to eliminate any restrictions on logging. This is considered to be a temporary activity and the interest of logging is protected by State law, so any prohibition for logging has been eliminated early on in the process. As far as constructing a permanent structure within the 30-foot buffer area, this would require the conditional use permit process. As far as crossing a stream to gather firewood via a tractor, this would not be a regulated activity. The only activities that would be regulated would be installation of permanent structures or driveways.

Ms. Skye Stephenson of 14 Greenwood Avenue stated that the property she owns would not be affected by this ordinance, however, she stated she is proud of Keene for trying to move forward with protections for this community, especially with the climate change this region is experiencing. She agreed that this is not an easy process, it is complicated, but she commended the City in trying to pursue it. She noted the loss of wetlands and wildlife habitat she has noticed since moving here 10 years ago. Ms. Stephenson felt that as a community, steps need to be taken to protect our surface waters. She noted over 109 communities in NH have already adopted regulations related to wetlands, and thanked the Council for their work on this.

Ms. Eloise Clark, 1185 Roxbury Road, stated that she is a property owner and has 43 acres in conservation easement and owns other property as well. Ms. Clark stated that she supports this ordinance and feels it is one piece of a larger picture. The importance of protecting our surface waters, and drinking water, which all start from individual plots, will ensure the health of all members of this community, and when we look at the bigger picture we grow together as a community because of that. She stated that she supports this ordinance and hoped the Council will do so as well despite the criticism that comes along with it.

Mr. Walter Lacey of 230 Daniels Hill Road read the following statement for the record:

“This ordinance becomes controversial when it strays from the objective goal of water protection and into more subjective areas such as wildlife habitat, scenic values, recreation corridors, etc. Water quality has improved dramatically in recent decades thanks to federal and state attention and as we have learned there is more to be done. In Keene degraded water quality and flooding problems are primarily infrastructure issues as we learned in workshop presentations and have seen very dramatically in recent flooding events. That being said, we all want excellent water quality and where buffers can help us achieve that they should be employed.

A major shortcoming of this ordinance is the lack of shared sacrifice, particularly when looking at the scientific facts. Areas of the city with no history of polluting or diminished water quality will be held to a different, higher standard than those areas of greatest pollution. As a result some properties may become non-conforming with the potential bureaucratic expense of a new permitting process.

I would like to offer as a possible solution to the controversy two pieces. First, we determine a buffer width that can be used citywide. If water protection truly is the goal 30 feet might be a reasonable place to start the discussion as that width has been shown to be 85% effective for sediment removal, for example.

Secondly, I would propose that where a property becomes non-conforming as a result of this ordinance and the property owner is forced to hire a wetland scientist to provide information to the City, the City would share in that expense. By sharing this expense I believe the permitting process might be more collaborative and less adversarial.

A common goal, water protection, can be achieved if we respect the science and share fairly any burdens involved. A citywide buffer standard is a start.

Mr. Thomas Lacey of 241 Daniels Hill Road read the following statement into the record:

“I am opposed to this ordinance. Despite the fact that this ordinance has been in the hopper for over seven years, no one has given a satisfactory explanation as to why it is focused on the rural zone. It is a citywide issue.

Virtually all studies related to urban runoff clearly show that rural zones tend to have the highest water infiltration rates and are the lowest sources of particulates and water borne chemicals. The large lot sizes and limited kinds of uses in the rural zone assure this. After decades of issuing hundreds of building permits at one buffer width, with no identified or apparent problems, this ordinance will make a potentially high number of property owners non-conforming by increasing the width two and one-half times. To be rendered non-conforming is a serious issue. For even a simple change in a property, the entry fee into the planning process will be thousands of dollars.

Since there are no priorities set beforehand, as recommended by virtually all municipal planning guides, of what types and sizes of wetlands are important, you are at the whim of the process. This will inevitably become more expensive and time consuming as the planning board and conservation commission try to sort things out.

In the face of placing such burdens on one group, one would think at least some sort of critical analysis would be done beforehand to judge the impacts and results of the ordinance. Thus far, none has been accomplished.

Yet we hear the argument that this ordinance will “prevent future flooding from getting worse and protect water quality.”

I do not see how this could be so. The area of the city most vulnerable to flooding has been designated in our new Master Plan as part of the “Primary Growth Area.” The notion that you can control the spigot by reaching into the rural zone with this ordinance to make up for future downtown building is not realistic.

As far as water quality from the rural zone. What’s the problem? EPA guides for municipal planning show that rural residential uses are close to “background”, meaning “very clean”, when it comes to water quality. Especially when compared to the denser zones.

How ironic that we have a Master Plan which encourages building and infilling in flood prone areas, yet the City seeks to place the highest restrictions on properties which have the lowest risk of contributing to water quality and flooding issues.

The burden of dealing with surface waters should be shared across the city since it is a citywide issue. The denser zones, which cause most of the problems, remain untouched. This ordinance,

as written, will have no identifiable result except to cause a select group of property owner's significant costs and aggravation. The public benefit for imposing that burden has never been clearly identified and evaluated."

Mr. Jonah Erickson business owner on Victoria Street stated that this ordinance can't undo the problems with flooding and make the water pristinely clean all by itself, but this ordinance has been drafted by a group of people who know what they are doing. He stated that he would like to address the falsehood that runoff from rural areas doesn't affect the City and or the idea that the mitigation needs to happen where flooding happens. Mr. Erickson stated that he has experienced this while standing waist deep in water; the effects of rainfall elsewhere outside the City, long after the rain has ceased running down the hills and filled up the bottom of the basin, where he owns a business.

Ms. Ann Shedd Chair of 59 Greenwood Avenue and Chair of the Conservation Commission stated that in October 2011 the Conservation Commission supported an earlier version of this ordinance. At this week's meeting of the Commission the revised version was reviewed, the Commission has voted unanimously again for the adoption of this ordinance. The City has charged the Conservation Commission with a number of different tasks; one of the most important being the protection of the water shed resources and the other being the preservation of the best of the City's natural and physical resources, as well as welcoming well planned expansion or development. This ordinance goes a long way in meeting those standards but does not solve all of the problems such as flooding. We recognize that it won't solve the flooding, but this is a good example of recognizing that it is not just the downtown waters that contribute to our flooding, but also the water coming in from the rural areas and making its way to the valley floor.

Ms. Shedd noted that buffers as big as 300 feet have been used in certain communities to protect their surface waters but realistically Keene cannot achieve that. However, 75 feet in the rural zone where there are breeding amphibians in the sub-soils that we don't see, that serve an important function for our echo-system, are protected. She indicated that the Conservation Commission encourages the City Council's support of this ordinance.

Ms. Emily Hague 92 Ashuelot Street, Keene, called the Council's attention to a few sections in the ordinance. The first is *Division 4, Pre-existing Uses and Lots*, she stated that there has been lot of questions about what will be exempted and what would not be exempted.

The next is the *Section 102-1487*, prohibited uses section and went over the list as follows

- (a) *Subsurface wastewater disposal systems.*
- (b) *Salt storage including the storage of road salt or sand treated with road salt.*
- (c) *Automobile junk yards/salvage yards, service and/or repair shops.*
- (d) *Hazardous waste facilities.*

- (e) *Bulk storage in amounts greater than those for household use or agricultural use of chemicals, petroleum products or hazardous materials.*
- (f) *Earth Excavation operations as defined in the City zoning ordinance.*
- (g) *Off-site dumping or disposal of snow and ice collected from roadways or parking areas. This does not include snowplowing of existing roadways located within the Surface Water Protection Overlay District.*
- (h) *Storage or disposal of solid waste, liquid or leachate waste, animal wastes or byproducts, landfills, solid waste transfer stations, recycling facilities, incinerators, and composting facilities.*
- (i) *Animal feedlot operations.*

Ms. Hague noted that all of these are very intensive uses and can be very disruptive to water quality, water infiltration, etc. She noted however, that gardening, utility maintenance, and driveway maintenance are all still permitted within the overlay district.

She also called the Council's attention to a recent article in The Keene Sentinel on July 15th about cost avoidance and climate change adaptation damage. She stated that one of the tasks of this ordinance is cost avoidance and damage. The second article is the Editorial in July 16th paper which calls us to join other communities who have already adopted similar ordinances.

As a member of the Planning Board, Ms. Hague stated that the Board agreed that it won't be perfect but they look at this as a good starting point and their hope is to revisit it six months after it is adopted to see where revisions may need to be made. She asked that the Council not look at this as a final product and asked that it be supported.

Ms. Brett Thielen of 161 Court Street stated that she was here to voice her support for this ordinance. She felt the 75 foot buffer is a very reasonable compromise. As a Wildlife Biologist what she has always heard is that a 100 foot buffer is a minimum buffer protection of the ecological functions provided by some of these surface waters. She agreed that the 250 foot buffers that communities have adopted are not reasonable for Keene, but 75 feet is extremely reasonable. Bigger buffers are better in terms of protection. She did not feel a 30 foot buffer would address water quality, wildlife and flood storage capacity in areas that are currently undeveloped.

Mr. Carey Hall of Railroad Street stated that if the 75 foot buffer is put in effect, it will adversely affect many property owners. He continued the City has a Zoning Board which can address the properties that could have issues. He does not think the City should prevent everything, and fears there are some who would not even have the opportunities to be heard. Doesn't the City have a Zoning Board that has control over this already? The Mayor agreed that that the City has a zoning ordinance that everyone has to comply with, but single and two-family homes do not have to go through site plan review by the Planning Board.

Mr. Anthony Mastronardi of 100 Darling Road stated that he is certainly not opposed to

conservation. He noted he does have a brook that runs through his property and his home is 20 feet from this brook. He questioned how this ordinance will affect him, for instance if he wanted to put new siding on his home. What can I not do once this is enacted that I currently would be able to do? The Mayor stated that putting siding on one's property won't be affected by this ordinance. Mr. Mastronardi went on to say dealing with zoning and planning is a nightmare in cost and time. This will be very cost prohibitive to property owners. People will walk away from purchasing property here if they have to go through such a burdensome process.

With no further comment, the Mayor closed the public hearing at 8:08 PM. The Mayor stated that the hearing will be open for written comment until 1PM on July 23rd. Written comments must be signed and need to be forwarded to the City Clerk for inclusion into the record.

A true record, attest:

Deputy City Clerk

COMMUNICATION – ELEANOR VANDER HAEGEN – RESIGNATION FROM SOUTHWEST REGION PLANNING COMMISSION

A communication was received from Eleanor Vander Haegen resigning from her position on the Southwest Region Planning Commission. A motion by Councilor Greenwald to accept the resignation with regret and appreciation was duly seconded. The motion passed with a unanimous vote in favor.

NOMINATION – SOUTHWEST REGION PLANNING COMMISSION

The following nomination to the Southwest Region Planning Commission was received from the Mayor: Michael Welsh to serve as a regular member for a term to expire December 31, 2016. The confirmation shall occur at the next regular meeting.

APPOINTMENTS – AD HOC SAFE ROUTES TO SCHOOL COMMITTEE

The following reappointments to the ad hoc Safe Routes to School Committee were received from the Mayor: Dan Black and Susan Fratus. The Mayor stated that the appointment of Ms. Fratus would be tabled to a future meeting date to allow the City to provide her with additional information she has requested. A motion by Councilor Greenwald to accept the reappointment of Dan Black was duly seconded. The motion passed with a unanimous vote in favor.

COMMUNICATION – ATTORNEY PETER J. SAARI – KINGSBURY CORPORATION PROPERTY

A communication was received from Attorney Peter J. Saari representing Brian Thibeault in connection with his purchase of the former Kingsbury property. The letter acknowledged that there are unpaid property taxes on this property going back to 2009, and requested that the City hold in abeyance the tax deeding process until such time as the property can be evaluated for any

MORE TIME

More time was granted by the Chair for the following item in Committee: Hundred Nights Inc. – Request for Payments for 2013 Expenses.

QUARTERLY ATTENDANCE REPORTS

Quarterly attendance reports were received from the three Council Standing Committees. The reports were filed as informational.

MEMORANDUM – CITY ENGINEER AND ORDINANCE O-2013-02: AN ORDINANCE RELATING TO CHANGES IN PARKING

A memorandum was received from the City Engineer along with Ordinance O-2013-02: Relating to Changes in Parking. The memorandum was filed as informational. Ordinance O-2013-02 was read for the first time. The Ordinance was referred to the Municipal Services, Facilities and Infrastructure Committee.

PLD REPORT AND ORDINANCE O-2012-07-B: RELATING TO SURFACE WATER PROTECTION

Planning, Licenses and Development Committee report read recommending the adoption of Ordinance O-2012-07-B: Relating to Surface Water Protection. The report was filed as informational. Ordinance O-2012-07-B was read for the second time. A motion by Councilor Richards for adoption of the Ordinance was duly seconded. Discussion followed. On a roll call vote, with seven voting in favor and Councilors Jones, Powers, Richards, Meader, Venezia and Greenwald opposed, the motion carried. Ordinance O-2012-07-B declared adopted. Councilor Jones arrived at the meeting at 7:50 PM; Councilors Roberts and Duffy were absent.

FOP REPORT AND ORDINANCE O-2013-04-A: RELATING TO FOOD SERVICE ESTABLISHMENT PERMIT FEES

Finance, Organization and Personnel Committee report read recommending the adoption of Ordinance O-2013-04-A. The report was filed as informational. Ordinance O-2013-04-A: Relating to Food Service Establishment Permit Fees was read for the second time. A motion by Councilor Greenwald for adoption of the Ordinance was duly seconded. On a roll call vote, with 13 Councilors present and voting in favor the motion carried. Ordinance O-2013-04-A declared adopted. Councilors Roberts and Duffy were absent.

RESOLUTION R-2013-14: IN APPRECIATION OF GARY P. LAMOUREUX UPON HIS RETIREMENT

Resolution R-2013-14: In Appreciation of Gary P. Lamoureux Upon His Retirement was read for the first time. A motion by Councilor Greenwald for adoption of the Resolution was duly

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February 20, 2024

The Honorable Pete Buttigieg, Secretary
United States Department of Transportation
1200 New Jersey Avenue, S.E.
Washington, DC 20590

Re: Support for the *Revitalizing Downtown Keene* RAISE Grant Application

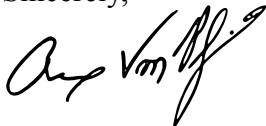
Dear Secretary Buttigieg:

As Keene's Conservation Commission, we take seriously our responsibility to protect and enhance our community's natural place within our surrounding environment. While it is true that Keene's downtown is the transportation, economic, and social hub of Southwestern New Hampshire, it is also our home. The commission sees the *Revitalizing Downtown Keene* project as an opportunity to ensure that our downtown melds even more deeply the built environment of Main Street & Central Square with the rolling hills and river valleys of the Monadnock Region.

The *Revitalizing Downtown Keene* project will allow us to enhance and expand our aging street tree environment; create comfortable, outdoor, human-scaled spaces and networks; and ensure Keene's ability to thrive in the coming decades in the face of unprecedented environmental, ecological, and climatic change. For all these reasons and more, we, the Keene Conservation Commission, wholeheartedly support the *Revitalizing Downtown Keene* project.

If we can be of any service in this project or if you have any further questions please feel free to contact us at (603) 352-5440.

Sincerely,

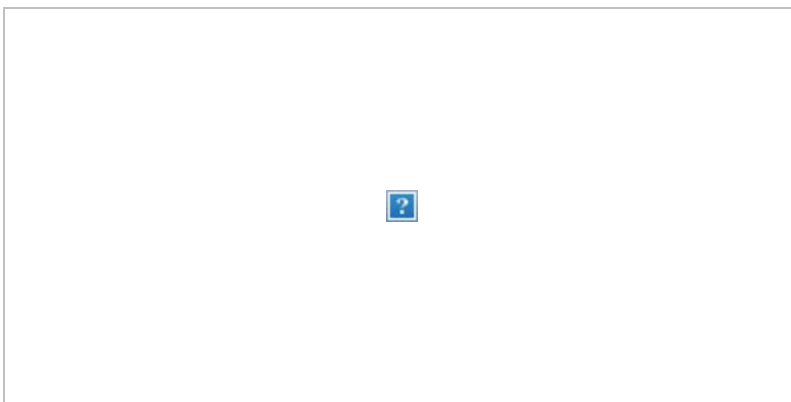
A handwritten signature in black ink, appearing to read "Sparky Von Plinsky". The signature is stylized and includes a flourish at the end.

Sparky Von Plinsky
Chair, Keene Conservation Commission

From: [Harry McKelvey](#)
To: [Donald Lussier](#); [Duncan Watson](#)
Cc: [Bob.Corning](#); [Brett Rusnock](#)
Subject: RE: Street Tree species
Date: Friday, January 26, 2024 7:20:46 AM
Attachments: [image001.png](#)

Red maple
Sugar maple
Pin oak
Linden
Birch cluster
Cleveland pear
Crab apple
Crimson maple
Blue spruce
White oak & Zelkova

Other trees are acceptable , would look at native and salt resistant



From: Donald Lussier <dlussier@keeneh.gov>
Sent: Thursday, January 25, 2024 3:55 PM
To: Duncan Watson <DWatson@keeneh.gov>; Harry McKelvey <HMcKelvey@keeneh.gov>
Cc: Bob.Corning <Bob.Corning@stantec.com>; Brett Rusnock <brusnock@keeneh.gov>
Subject: Street Tree species

Harry, Duncan,

Could you please send the list of your preferred street tree species to Bob Corning at Stantec (copied).

Don
