

City of Keene
New Hampshire

CONSERVATION COMMISSION
MEETING MINUTES

Monday, September 19, 2022

4:30 PM

**Room 22,
Recreation Center**

Members Present:

Alexander Von Plinsky, IV, Chair
Councilor Robert Williams
Art Walker
Ken Bergman
Thomas Haynes, Alternate (Voting)
Steven Bill, Alternate (Voting)
John Therriault, Alternate (Voting)

Staff Present:

Mari Brunner, Senior Planner

Members Not Present:

Councilor Andrew Madison, Vice Chair
Eloise Clark
Brian Reilly, Alternate

1) Call to Order

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

2) Approval of Meeting Minutes – August 15, 2022

A motion by Mr. Bergman to approve the August 15, 2022, minutes was duly seconded by Mr. Therriault and the motion carried unanimously.

3) NHDES Standard Dredge and Fill Wetlands Permit Application – Wilson Pond Dam

Chair Von Plinsky welcomed guests: Ken Dooley of the School District and Charles Johnston from Dubois and King, this project's manager. Chair Von Plinsky recalled a discussion last month about this application, which included comments from Jim Phippard, who was also present at the meeting. Mr. Johnston would walk the Committee through the project.

Mr. Johnston shared photos of the project plans. He said Dubois and King began working on this project with the School District in 2018, The goal was to bring the dam back into compliance for a significant hazard dam, which it was upgraded to in winter of last year, meaning it lacks hydraulic capacity to pass the design storm and may not be stable in its current condition. The

goal is to reshape the earthen part of the dam, with a stone fill portion of the dam that the water flows over during normal storms and flows several feet over during 100-year floods, making its way under Arch Street. The historical records show a dry laid stone wall with a concrete cap, the latter of which was discarded in the 1980s, when the smaller area was deemed unstable and backfilled with stone. They were supposed to keep the concrete cap exposed via an overflow spillway but that did not happen. The Dam Bureau reclassified this an earth embankment dam, meaning it cannot overtop without causing damage to it. They recognize there is not a lot of hydraulic capacity here, so we developed a plan to reconfigure the dam so there is a designated stable area the water flows through that is concrete grouted stone fill, and raise a portion of the earth embankment to maintain the park area that will not top over. This will keep water controlled within one foot of the grass portion of the dam and does not significantly increase flows through Arch Street. It also replaces the intake structure from a one-sided stop-log structure to a four-sided spillway, giving it better control over the normal pool, and replaces the crushed outlet pipe no longer flowing. There are subsurface improvements to capture groundwater through the dam so the soils are more stable. In addition, some tree removal shows on the plans. All trees and shrubs must be removed within 15' of the top of the dam. They were able to retain one tree within 10'. He mentioned the abutting homes where there would be some tree removal, in addition to at the end of the dam. He showed the different wetland classifications in the system and the impacts.

Mr. Therriault asked about the design of the level at full fill and how that compares to the historic full fill prior to this dam work when water was lowered to not put pressure on the dam. Mr. Johnston said the goal is not to lower the historic water level; they measured, and water was always too high at the portion of the rock crest. That was deemed unsafe to maintain from an erosion and structural support perspective and it was plugged, which resulted in the water being high. In spring 2018, the Wetland Bureau issued an emergency order to clean that structure and lower the water to where it was historically supposed to be. The water level the School District has maintained since then is what this project will try to maintain. This concrete structure is set to maintain the water level during normal times. The overall structure or rip rap and stone fill is designed to resist the uplift loads that occur during the 100-year flood events.

Councilor Williams was concerned about aquatic creatures swimming upstream and populating this area, which he said we want to encourage. He imagined that swimming through a concrete conduit might trap fish. He wondered if there was any way to facilitate creatures entering and exiting during this project. Mr. Johnston said there is currently no connection upstream to downstream for fish passage. The existing structure is a drop structure, so water flows over a set of stop logs before dropping 3–4' into a similar sized culvert that goes through the dam. They are not improving aquatic passage with this project.

Mr. Bergman asked whether Staff could provide copies of the plans presented, which Ms. Brunner agreed to facilitate. Mr. Johnston said they were in the application.

The Chairman asked if this permit was concerning the wetland to the left when facing the dam from the road. Mr. Johnston agreed that is the certified wetland delineated specifically; the state delineates all water bodies as wetlands as well and a pond/lake is considered a wetland type as well. The impact plan designated impacts to different types of areas categorized in the State permit. Mr. Johnston continued that a lot of the impacts are temporary, with construction fencing and a sandbag coffer dam, which will be removed when the water level is returned. In the actual project area, these are considered permanent impacts even though it is already stone fill. The Chairman understood the impacts on the pond but wondered what that left wetland would look like after the project. Mr. Johnston said the goal is to minimize impacts in that area by using rubber matting and other protections from vehicles in a 20' zone of the wetland. They will use measures suggested by the Wetland Bureau and reestablish the ground after the projects. Water will flow out of a pipe and back fill to reestablish the wetland.

Jim Phippard is an eastern abutter of the dam and strongly favored this recommendation. He asked Mr. Johnston about the work schedule and duration. Mr. Johnston replied that NH does not have a restriction on when a project can occur. At present, the wetland application had been submitted but not reviewed until all signatures have been gathered, including the City's. Then, there is a 60-day period of review—hopefully including public comment on the standard dredge and fill. They are currently reviewing some of the Dam Bureau's stability calculation questions. He expects permits in hand by the end of November, followed by a bid phase, and then he imagined construction beginning late spring/early summer following the snow melt. Overall, the project duration should be two or three months to build, mobilize, set-up control of water systems, excavate and install a core wall, and reshape the downstream rip rap and install the new principal spillway.

Mr. Bergman asked Mr. Phippard whether the targeted water level was in line with his desire. Mr. Phippard said he looked closely at the plans and believed what Mr. Johnston said was accurate. He cited reasons to restore the former high-water level, including water quality and restoring another ponded area upstream important to the neighborhood, Shadow Lake, which was also drained down. He said there are migratory birds that nest that rely on the pond. He said it was good news there were no restrictions in place due to the nesting period, though he was surprised there were not. Geese are active there, for example. A wetland scientist did complete a Natural Heritage Bureau check, but they said the application was administratively complete except for sign-off from the City, so he did not believe there were any restrictions on that. Mr. Bergman noted that the Natural Heritage Bureau focuses on species of concern (i.e., endangered and threatened) and not on migratory birds.

The Chairman recognized Mr. Ken Dooley of the Keene School Board, who said he had nothing more to add other than the historic multitude of options explored. He said it was fortunate there was a surplus and the School Board secured funds to fix the dam under the budget. This is probably the only time to do it without impacting taxpayers. He heard concerns with removing the dam entirely, for which there would be unhappiness in the neighborhood. Mr. Dooley

thought this was a good compromise to bring the dam back to where it was and to have it secured.

Mr. Bill asked if the school uses the pond for any classwork. Mr. Dooley said it was used heavily years ago but had not been again until recent interest in keeping it for that. Mr. Bill suggested the pond could act as a science lab on campus, and Mr. Dooley said that would be up to the teachers. Mr. Bill asked if the water would be drawn down for the full three months. Mr. Johnston replied that to complete construction, they must lower the water to reach the portion on the upstream portion of the wall and construct the spillway. The contractor could raise the water sooner, but they are projecting that the water will be lowered during those three months. Notification is required per NH Fish and Game as is monitoring wildlife around the pond perimeter, like when Goose Pond was lowered and regular turtle counts were required. He was unsure whether that would be a restriction in this instance, but there is usually a stipulation for monitoring aquatic species.

The Chairman heard concerns from Commissioners to include in a motion. Councilor Williams mentioned highlighting aquatic species and the lack of a fish ladder.

Chair Von Plinsky mentioned the backfill into the wetland at the end of the project, and asked what would occur to reconstruct that wetland. Mr. Johnston replied that wetland mixes would be applied; there is also a grass mix for dams. Those would be applied after mats are removed but it is unclear how well they would survive after the coffer dam is removed. That area backs-up before reaching Arch Street, and during storm events it will activate the spillway and the water could go and kill the wetland mix, thought the area looks to be more shrubs.

Mr. Bill asked what material underlies that wetlands. Mr. Johnston said they did borings on site, with a monitoring well 25' deep. He said there is a timber layer the stone fill was placed on and then the majority of soils are silty and sandy until about 15' and then it is more of a glacial till. Mr. Bill asked because it would impact how much disruption is caused by equipment.

Mr. Therriault would love to see native wildflowers planted where soils are disturbed that are not hydraulically sensitive but they must do what is best for the structure of the dam.

A motion by Chair Von Plinsky to recommend consideration of an upstream passage for aquatic species or submittal of an explanation of why that option is not practical or valuable was duly seconded by Councilor Williams. The motion carried unanimously.

Chair Von Plinsky thanked the guests for their contributions.

4) Report-Outs

A) Greater Goose Pond Forest Stewardship Committee

Mr. Haynes reported that the Committee met the previous week and talked about trail maintenance, signage, trailheads, the potential for future workshops, and potential tools needed. No plans were solidified but likely would be the next month. Their efforts are progressing. They dropped some hemlock timber (if walking up the access road to the right of the spillway and the park areas) to create a walkway over a wet area on the south side of the pond, which could contribute to a workshop/workday on creating good, simple walkways.

B) Outreach

Mr. Haynes reported that Mr. Bill was willing to lead a geology walk at Robin Hood Park on October 15 from 9:00 AM–11:30 AM. Mr. Bill said he wandered the park and there is a decent exposure of geology near Jordan Road. Mr. Haynes continued that there will be a walk on October 29 at 10:00 AM led by Jeff Littleton on his topic of reading the forested landscape and looking at forest history. The walks will be publicized, and participants can sign-up by calling the Parks and Recreation Department.

C) Invasive Species

Councilor Williams said the event on Labor Day at the double Stone Arch Bridge was rained out. He said there was a lot of buckthorns at that location, including some growing out the of the bridge. Before the rain, they cleared the worst of it, but they will need to go back and try to cut more from the bottom, hopefully in the next few weeks. The Councilor said that area is a great place to see a bouquet of different invasive species. He continued reporting the next event on Indigenous Peoples/Columbus Day at Robin Hood Park at 5:00 PM, which will first target the knotweed pulled last year in addition to pulling Norway maple seedlings. Mr. Therriault said the knotweed takes pulling three years in a row. Councilor Williams recalled treating the pulled area last year with seeds, which he did not think had taken; they need to look at other ways to get things to sprout. A notice will be sent and advertised. Chair Von Plinsky noted that the knotweed gets worse the further north and east you go. Councilor Williams said this was the time of year to see it.

5) Discussion Items

A) Conservation Commission Speaking Events

Chair Von Plinsky said this was a great idea that had not gotten off the ground yet. He would still like to see this happen and will discuss with Councilor Madison. The Chairman did not want perfect as the enemy of possible. He hoped for at least a small presentation before the end of the year, at either the Recreation Center or the Library.

B) Airport Proposed Wildlife Control Fence

Mr. Bergman has been checking the Airport Development and Marketing Committee minutes, though they have only met sporadically, hoping to find something. Staff has been out of town

recently and there had not been much new to learn. The Chairman is happy to check on this every one to two months. Mr. Bergman would like to invite Airport Director Hickling to a meeting to speak, for which The Chairman would extend the invitation. Councilor Williams thought the ball was rolling as funds were approved recently for the initial planning phase.

C) Budget Planning

Thanks to Councilor Madison, the Commission budget is now \$2,000 moving forward, which must be spent before June 31, 2023 or it is returned to the General Fund.

Common annual expenditures include: Bee City USA Membership (\$200), dues to NH Association of Conservation Commissions (approximately \$750), and dues to the Ashuelot River Local Advisory Committee (\$125).

Mr. Haynes noted that there would ideally be three Goose Pond Through the Seasons walks before the end of the fiscal year with honorariums to presenters up to \$150 each, for a total of \$450.

Mr. Haynes noted the Outreach Working Group was looking to bring back the Tap to Toilet program, looking at the Keene water system and where our water comes from and goes. He said there could be fees to rent a space, though he was trying to partner with the Historical Society, which has a meeting room, but there could still be a minor fee. This would be a series of programs, including trips to the Water Plant and Wastewater Treatment Plant. They could do the event in spring to have the meetings outdoors.

Discussion ensued about starting a long-term Goose Pond Forest Stewardship endowment and whether it would be valuable to use \$500 to seed that. Mr. Haynes was unsure of the best approach, noting that endowments usually pull a certain percentage of funds and so it might not be worth it for a few hundred dollars. He suggested perhaps putting what remains at the end of the year into a seed fund to possibly start that endowment. Mr. Bill suggested treating it like seed money to think longer term about it. Mr. Haynes said it was open to discussion. There could be other costs throughout the year relative to Goose Pond for signage, etc. Though Mr. Hayes did mention they are applying for a grant for much of that work.

Discussion ensued about the costs already listed and how much to leave available for discretionary needs throughout the year.

Chair Von Plinsky suggested the following annually: at least \$600 for outreach speakers, \$1,000 for dues (NHACC, Bee City, and ARLAC), and \$400 remaining. Councilor William suggested \$50–\$150 for invasive species supplies such as seeds and shrubs from that \$400. There was consensus on this structure.

Regarding the Tap to Toilet event, Mr. Bergman said he personally hoped to have a site visit for the Commission to the Roxbury Reservoirs to get a true impression of where our water really comes from. The area is restricted, and he thinks the Commission has some justification to see the areas. Mr. Bill also suggested the well field. Ms. Brunner attended the NHACC and Cheshire County Conservation District potluck, and the town of Roxbury recently reconstituted their Conservation Commission with the sole purpose to comment on a bridge and they now exist as three members. Ms. Brunner could reach out to a member who wondered if Keene wanted to partner on something with the reservoir. Chair Von Plinsky said that perhaps there could be a joint meeting/field trip to Roxbury in two months. Mr. Haynes said they discussed walks to the reservoirs as a part of this outreach program and that could be a fourth component to the Tap to Toilet series. If not possible for the public, Mr. Bergman suggested a tour for just the Commission. Mr. Haynes recalled a few years ago when a study was being done by the City to understand the watershed in the greater forest and the Commission never heard how it played out in the end. He was curious to know if it was completed. Ms. Brunner would research the status for next month. Mr. Bergman recalled Jim Rousmaniere's book on the history and layout of Roxbury but said it was hard to really understand the area without seeing it. Mr. Haynes thought Mr. Rousmaniere might be willing to walk to the sites he uses in his books; he has given talks at the Historical Society.

6) New or Other Business

Ms. Brunner reminded the Commission of the Source to Sea Clean-Up event Friday, September 23 at Ashuelot Park. There is canoe meeting off Water Street on Saturday at 9:00 AM, and there might be something in Winchester and Swanzey on Sunday.

Mr. Bergman presented two ideas; 1. Create an inventory of all Keene street trees given climate change, development, public service activities, and more, beginning within a certain amount of feet from core streets, much as trees were inventoried and digitized on the Keene State College campus. 2. Create a shared drive of photos from permit applications sites and photos of local nature the public can contribute to that could be available through the Commission webpage, with legal stipulations and Staff oversight. Chair Von Plinsky liked the second idea of a shared drive of photos available through the Commission webpage. He was unsure what it would take for public access and Mr. Bergman assumed the City would control it. Ms. Brunner said there are other things available on the page for public access and so she would look into it. The file storage space would likely come from the Commission budget. The Energy and Climate Committee uses a Google Drive and include the link on all of their agendas. The Chairman said it sounded valuable. Mr. Haynes noted that the Historical Society has 1,000s of photos and someone who has done the scanning to digitize them and perhaps might allow inclusion of these digital photos.

Regarding a tree inventory, the Chairman saw value but did not know how it could occur. Mr. Haynes recalled that the Ashuelot River Park has a tree inventory with linked QR codes on the trees. He would contact Director Andy Bohannon to see if there is a wider database of City trees,

though they hired a company for the Ashuelot Park project. Mr. Bergman recalled that the KSC tree inventory plan included cost estimates of each tree, but it was an expensive service and was out-of-date within a few years. He did not propose something that extensive for the City, but it could be great citizen science or a student project.

Ms. Brunner said the public library partners with the Historical Society of Cheshire County and they have a shared Flickr account accessible to the public. It sounds like there is precedent of such a partnership but she was unsure if they would accept non-historic photos; it was argued that they would be historic eventually. Mr. Bergman recalled when Keene destroyed the largest living elm tree in Keene. Mr. Bill suggested starting with trees over 100 years-old and other options were discussed like student projects. The Chair thought a partnership was possible. This can be a discussion item next month.

Mr. Bill mentioned the 30x30 challenge to conserve 30% of the country's land by 2030 and that it seems like something the Commission should promote or seek statistics on. The Chair has dug into the GIS data but said it is difficult to define what is conserved and actually protects species diversity and reduces climate change. The Chair could help with this effort. This can be a discussion item next month.

Mr. Therriault will share photos of the pollinator garden next month.

7) **Adjournment – Next Meeting Date: Monday, October 17, 2022**

There being no further business, Chair Von Plinsky adjourned the meeting at 4:50 PM.

Respectfully submitted by,
Katriona Kibler, Minute Taker
September 26, 2022

Reviewed and edited by,
Corinne Marcou, Administrative Assistant