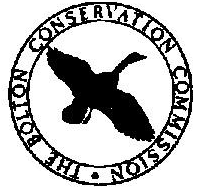




Bolton Conservation Commission

Meeting Minutes



Date:	Tuesday, February 16 th 2021
Time/Location	7:00 p.m. Zoom (remote participation)
Commissioners Present:	Chair Brian Berube, Emily Winner, William Payne, Jeffrey Bryan (Conservation Agent, Rebecca Longvall)
Guests:	Jim Geraghty, Richard Davis, Matt Watsky, Scott Hayes, Dominic Rinaldi
Next Meeting:	Tuesday, March 2nd 2021 7:00pm, Zoom Remote Participation

1. **7:00pm Continued Notice of Intent – Century Mill Road Map 3D Parcel 75 – proposed construction of three single family homes and widen and pave an existing gravel driveway**
Matthew Watsky and Scott Hayes were present on behalf of the applicant. Domonic Rinaldi of BSC Group provided an update and summary of his findings relative to the peer review of the two depressional areas of lot 2 and lot 4 on site. They were requested by the commission to review the two localized depressions at the rear of these lots to determine if they qualify either as isolated land subject to flooding under the wetlands protection act or land subject to flooding or inundation by ground water or surface water under the bylaw (shortened to LSF in report). They looked at through the calculations, ILSF under calculations are reviewed to understand if the depression is holding a quarter acre foot around 10,000 cubic ft at a 6” depth. Local requirement is that there but be a depression of at least 1,000 sq ft in size and under that calculation hold that same 6” depth. In the report, it expresses the calculations however using these calculations it did not meet the definition of either, now from photographs that have been provided and anecdotal evidence that has been provided the results do not jive with what is here. These areas clearly flood and pond on the ground but the calculations show there should be none. Therefore, the report details how they did the calculations, the information used, and why they think the results do not jive with the photos and anecdotal evidence they have been provided. There are three main parts that go into these calculations; 1) tributary area, the area of land that drains to the depressions. This information used were the plans, underlying survey, lidar data from FEMA 2010, aerial photos between 2010 and 2020 no significant changes in the landscape observed. Comfortable with drainage areas. 2) Surface type, wooded landscape in good condition, TR55 land description used and they are comfortable with this aspect. 3) Soils; NRCS online soil mapping plus test pits done for the sceptics done in front of these properties. These show a sandy loam or loamy sand, that soil type used in the calculations establishes little runoff getting to the depressions. Displaying soil map Dominic described the varying soils using NRCS visual ranging from A, D and A/D within the larger project area as a whole. Overall, these maps are very good overall but not perfect, it is based off of a limited number of soils, landforms, and other information. It is not meant to be exact and to be used as a guide as it is much more general than site specific. These locations may show something different than a perfect sandy loam which is why you see these depressions fill up with water. If the commission wants to know whether these areas are definitely jurisdictional or not they would need to conduct soil tests which would probably involve a day to a half a day of test pitting within these depressional areas. Conservation Agent inquired for the engineer to highlight the limitations on site. Dominic stated unfortunately right now from the time that they were contracted and before this point in getting the report out, the snow on the ground limited their ability to get out on site and were not contracted to conduct the soil testing on site. They would need to have the land owner involved in anything like soil tests.
Chair Brian inquires to the commission if they have any concerns or questions. Jeff inquired the calculations 7” over a 24hr period, Dominic clarified yes that the numbers are required in the WPA and Bylaw. Bill clarifies yes both regulations refer to it as a 100yr storm event then define it as a 7” storm event. Emily stated there was a 100yr storm event in the past 20 years. Brian stated he believes there have been 2 within the last 20 years. Jeff just stated that this seemed to be a lot of rain in a 24hr period. Emily asked if there was soil testing done when a wetland scientist had reviewed these depressional areas previously. The Conservation Agent stated this was specific to establishing whether or not this was a vernal pool, some augers were shown but not taken as a sample. Jeff stated they were looking for salamanders and insects that may qualify the areas as a vernal pool. Bill inquired to the engineer that the Bolton Wetland Bylaw calls for a 10,000 sq ft ponding? Dominic clarified that it was 1,000 sq ft not 10,000. Dominic stated both depressions are physically big enough to qualify but with the information that is currently available to him, the calculations do not show that 6” of ponding. Bill stated the one that there was ponding in depression B is 850sq ft which is close to 1,000 sq ft is only one corner of the 26000 sq ft depression. In looking at the topographical maps of this depression it only varies by 3” where the measures on site vary by up to 6”. Bill is curious if you could get ponding over 1,000sq ft without filling the entirety of those depressions. The calculations put water across the 26000 sqft depression and having that water leach into the soil across the full surface area. Dominic

stated that as part of these calculations you do not include infiltration. Bill inquired how do you lose water that is on the surface. Dominic stated that it does not, what you are seeing is not the loss of water through well-draining soils but rather the lack of runoff. When you have A soils and good woods, you typically get very little runoff. The total runoff for these is .01 acre feet based on the calculations about 85 cubic feet. Bill inquired what the definition of runoff. Dominic clarified that it is the actual physical water that flows down to the point of concern. Bill inquired why the soil type would differ. Dominic stated the soil type changes the curve number. A D soil would cause the curve to go up and cause the number to go up. Dominic stated it may still not be jurisdictional. Bill inquired if there are areas that are lower, he stated they are assuming a steady decline in elevation. Dominic highlighted the depressional areas, water runs into the depressions then from that depression it builds up to go over berms or goes into the ground no matter how bad soils are. The calculations do not take into consideration that it goes into the ground. Jeff inquired that these are the existing conditions, and stated if a house is placed inside the area then it dams up where the water goes. Dominic stated yes it would change the drainage however they are not tasked currently to review the site post development. They are currently reviewing the areas in terms of whether or not they are jurisdictional. Bill inquired whether under the calculations if there were any ponding. Bill stressed the difference between the physical occurrence on the ground of ponding vs the calculation result. Conservation Agent paraphrased Dominic's response stating the soils are the area that need to be investigated further to give 100% confidence of what these two depressional areas are relative to the commission's jurisdiction. Dominic stated yes two out of the three areas they are very comfortable with and the soils would be clarified through testing. Bill inquired if both soil types were run through the calculations. Dominic stated just to see if it made a difference yes (A and D soils). If it is a D soil, they had enough runoff and ponding to qualify, but that would be a D soil. Bill stated there is a D soil close to these areas. Conservation Agent inquired if the soil test pits could be done when there are conditions like today. Domonic stated as long as the right equipment is used and the operator is able to locate and see the depression yes. Chair Brian stated the commission needs to wait to have these tests carried out for the commission to determine whether or not these areas are jurisdictional. Conservation Agent highlighted to the Chair that this work is not currently within the contracted scope with BSC Group to her understanding. If further authorization from the applicant is necessary for this scope of work then the commission may request this from the applicant and they may either accept it or appeal to the Board of Selectmen. Conservation Agent inquired to Dominic what the turn around for a scope and quote for this work. He stated this week, however the excavator is the item that would need to be addressed. Conservation Agent stated having the applicant and BSC group present as well and if the applicant hires the excavator. Dominic stated that the applicant is capable of doing the test pits themselves. Bill inquired where the test pits would be done. Dominic stated within the depressions, ballpark center. Bill inquired why center and not bottom left where the lowest point of depression B is, or rather closest to the soil type. Bill stated why not carry out the test pits at the low point, at that point you're only about 25' away from that other soil type NRCS boundary. Emily inquired if we have soil data for the other lot and questioned whether or not the test was carried out for the design of the foundation. Brian inquired who did the test pits for the septic. Scott Hayes stated he did the test holes on site. The testing on lots 2 and 4 were just to the west of the depression areas from where the dwellings are proposed. Those tests were sandy soils, where the groundwater data was observed on lot 2 where estimated seasonal high water was about 308.5/309 where the depression on lot 2 is 309/310. Lot 4 soil were representative of the D soils. There is a break in the soil conditions to the north east then from the other side along the driveway coming off of century mill. The soils were a typical sandy loam/glacial till. Scott Hayes highlighted based on the data they have he would not expect the soils to change as you head toward the depressions. Chair Brian inquired to Scott what would suggest the changes in the calculations and the observations and photos on the ground there? Soil conditions seem to be one of the items that could explain it. Brian inquired if the soils aren't thought to change then what would the changes be caused by. Scott stated there are not significant watersheds contributing to these areas, the soils are well drained, the undulating nature of the bottom of these depressions or flirting with the seasonal high groundwater table within the adjacent areas test pits, and there may be parts of the depression that have small

ground water contributions to them. The areas from a drainage perspective, the depressions to not support adequate runoff to support these calculations. The history of the site where these areas were essentially borrow pits for gravel, Chair Brian interjected to inquire directly to Scott exactly when these were borrow pits? Additionally, and asked if it had been in fact proven? He inquired where the fact came from and inquired for everyone to stop stating that it was a borrow pit as a fact since there is no evidence to support it. Scott stated he was not sure but the site characteristics suggest this to him. However this could be verified with shallow test pits within the area and that they will find well-draining soils all the way to the property line. Bill inquired if there were any other reasons as to why they would pond at all, and highlighted the goal of trying to address why the areas are ponding. Scott stated there may be differential areas specific to the water table, surface cover within the depressions that may allow for the water to pond outside of the topography feeding into the area. The evidence doesn't correlate well with some of the observations we've seen. Bill stated this is where the problem lies where the physical evidence doesn't correlate well with the analysis. Brian reiterates that the soil sample would address the item that would tie it together specific to soil types. Scott stated localization of the high-water table may be a contributor to this. Conservation Agent inquired to Scott if it would be beneficial or would he agree with Dominic that the soil samples would address the outstanding item that seems to not be matching out in the field. On any site is this typically the approach that you would approach it by approaching those three main items and one thing may not be 100% do you typically go out or suggest to your clients that one piece is missing so that one piece should therefore be further looked into. Matt Watsky interjected stating 1) what information does Scott have about the soils and does he expect the test pit to show anything different? 2) given the drainage calculations that have been done already are they consistent with the regulatory standards set in the wetland protection act and the concom's bylaw? Those calculations whether you like the results or not as he reads the WPA and Concom regulations are the definitive way to determine whether something is jurisdictional or not. Under DEP if there is a dispute about the maximum extent of flooding that's been observed, the way to resolve the issue would be to conduct the calculation. Here he notes, BSC has done the calculation and its conclusion is that the average depth is 0.6" rather than 6" so it is a 10th of the average depth. Under the concom rule and regulation the boundary of the isolated land of flooding... or whatever acronym wished to be used is the maximum observed if during a 100yr storm or the calculation. The calculation under both rules Matt stated have not reached the conclusion that it is not deep enough to be considered under those rules as both rules require an average depth of 6". Matt inquired to Scott if test pits are done out there are you expecting to find anything different from what you already know? Scott stated it is common practice to use NRCS overlay, the soil test pits that he has immediately adjacent to these areas representative of the A soils, he does not believe they will find anything different. He does not think that the data will really change the calculations based on the size of these watersheds. It is important to note, the large and level bottom areas of these things can hold a substantial amount of water without ponding to 6" in average depth, it would be difficult to achieve this standard. Bill stated he would agree but he again highlighted we are only looking for over 1,000sq ft as is required and that is what has been observed. Conservation Agent inquired to Dominic if it is required to use NRCS soil overlay data. Domonic stated it is not required, you would use the best available data. If someone had done test pits within these areas you would use it since that is what is actually there. Barring that the NRCS data is typically what you would use. That is common practice and similar to stormwater calculations. Bill stated and if there have been other observations onsite that does not agree with the calculations? Domonic stated that the images showed ponding. Matt inquired that upon completing the calculations have they concluded that from the ponding shown in the photos, they cannot tell the depth. Matt stated all they can see is a puddle and does not see how the photos given are inconsistent with the calculations. Bill stated the commission has measured data from 12/3/2020 that shows in depression B with ponding up to 6" over 800sq ft and that was three days after a two-inch storm event. Bill highlighted somewhere within this area you could easily get to 1000 sq ft and you would need 2/3 of maximum depth, therefore you are very close to that 1,000 sq ft 6". Matt stated that is not how the regulation reads, that's how to determine jurisdiction. Bill stated he understands that and he is an engineer himself and there is no way that he could design something

on paper go out and build it and not have it work and still go off and sell it to a customer. If the measured data does not agree with the analysis then he would question the analysis. He questions the analysis now because what we are seeing in the field does not match the analysis. So if there is a question whether it is soil type based or not then we need to look into that. When we have an agreement then he will be content. Matt stated he does not follow the conclusion Bill is reaching. That if you found an area of 6" depth over 800 sq ft. how is that inconsistent with Dominic's calculations, the concern Matt has is that he does not see the distinction that is trying to be drawn is an indication that there is anything wrong with the calculations. It is not unusual to have one small area 6" deep but if you run the calculations and it is 10,000 sq ft footprint over an inch, then its nonjurisdictional because the regs call for you to do those calculations. Matt continued that if a puddle is observed to have 6" calculations but you run the calculations overall and it is so shallow then it is non jurisdictional and if the area gets filled in then it doesn't matter. Conservation Agent stated this is understood, she clarified that what Bill is referring to in his statement is not just a small puddle. What Bill is referring to is that 1,000 sq ft area that is required, that is within this larger area and therefore may qualify on its own within this greater area as jurisdictional, that is what he is referring to. Bill stated that is correct and after a 2" rainfall. Conservation Agent inquired to Bill if this was the depth we had a question about due to the measurement being taken days after the rain event? Bill confirmed it was measured three days after. Conservation Agent stated to add to the previously stated comment, would it then be possible that the area actually measured 7" before the third day when the calculations were carried out? Would doing the soil test clarify those questions? Scott stated there's no question that there are areas that are at a depth of 6-8", the issue is meeting the statue as once you exceed those deeper areas and start fanning out over a larger area you're reducing the average depth throughout the ponded area. Then as you fan out beyond these deeper puddled areas it is going to substantially reduce the average depth. Bill highlighted from Scott Hays's previous report stating "average depth is calculated of 2/3 of maximum depth calculated". Bill stated someone actually measured 6" depth out there. The measurements may not be accurate but it is very close to 6" average over 1,000 sq ft. Bill wants to know what the difference is that we are seeing between the analysis and the observations in the field. If there is something, we can point to lets take a look at it because the two do not agree. The observed and the calculated are not aligning and that is bother some. That is why we were asking what is the difference earlier and you came up with a couple of possible reasons and one of them is soils so lets take a quick look at the soils.

Chair Brian stated he would like to see the test pits done. He inquired if other commission members had inquiries thoughts or issues. Brian opened the hearing to the public for comment. Matt Watsky interjected in his view the commission has the information to go ahead and make a decision. He urged the commission to make a decision, that his is nonjurisdictional, stating you have a plan in front of you that is designed that even though these areas are nonjurisdictional, Scott Hayes has designed the site with compensatory flood storage to account for any displaced water to be addressed elsewhere on site. He stated the commission's concerns are already being addressed within these plans that is even though within he and his clients view that the areas are nonjursidctional. He also stated that he is concerned that if there is the further delay and further expense of the test pits, they will come back and the plan may not have the compensatory flood storage anymore because if it is determined that these areas are nonjurisdictional, the client will no longer be willing to offer the compensatory flood storage anymore. Matt stated he would like to have this closed now and would like to provide the compensatory flood storage now but not later. Conservation Agent through the Chair made a statement in response, Bolton's local wetland bylaw requires mitigation when resource areas including the adjacent upland resource area, is disturbed. Their client may very well still be required and may choose to still propose these areas highlighted as compensatory flood storage at this time, as the mitigation measures. Therefore, this is still a considerable project, and the compensatory flood storage areas proposed may be related to any project moving forward. Chair Brian stated that the applicant's representative has stated they think that the commission has all they need to make a decision right now. Brian stated the commission was trying to be very clear that the observations do not match the calculations, that the commission is looking for that missing piece and therefore does not have all the information they need to

	make a decision. He does not feel he has all of the information that he needs. Jim Gerghaty was present but the question had been addressed, the calculations and photographic evidence do not match. Richard Davis inquired to Dominic after the 7" rain event how deep would the water be on average. In one it was .5" and a little more than that. There were 1-2" of rain during a drought, and according to the calculations there should be no ponding with that amount of rain. Richard also inquired if Dominic had seen the photos of the excavation area. Conservation Agent confirmed those photos were sent. Richard stated the soils within this area have clearly been moved around significantly and how that may impact the drainage now. He noted that there was no testing carried out prior to the excavation. He also noted the difference in water table discussed earlier. Richard inquired if Scott Hayes is a financially interested party in this project, noting it took a year for Scott Goddard to do so. Conservation Agent noted we appreciate the note but he has disclosed for this project as this is under a new filing. Chair Brian polled the commission to recommend that the additional soil sampling be carried out for Map 3.D Parcel 75 on Century Mill Road as discussed, this evening. WP, EW, JB, BB unanimous AYE. Matt Watsky stated he has the authority; the applicant's representative accented the commission's request for the continuation of the public hearing until the March 2nd 2021 meeting of the conservation commission. The applicant will arrange for the backhoe to come out and have this coordinated with Dominic to have him present when the test pit is done. Conservation Agent inquired if to oversee or participate in the soil test falls under the current scope. Dominic stated the scope recommended is to conduct onsite soil testing in both depressions similar to what you would do for stormwater management. Chair Brian made a motion to continue the public hearing until Tuesday, March 2nd 2021 at 7:15 pm for the proposed project to be located at Map 3D Parcel 75. Emily seconded; all unanimously agree. Roll call vote to continue: BB, EW, WP, JB; unanimous, Aye
2.	Discussion – Letter from 580 Main Street Conservation Agent provided a summary and history. There had been some vegetation cut around one of the artificial wetland marsh area that was created with the property many years ago. After communicating with the property owner and noted future management needs to be approved by concom immediately. She clarified that this seemed to be beyond regular maintenance of the area. She discussed all conditions from the history of the property to establish the limitations and specific areas on site. The letter was a follow up and to the commission after the meeting. Bolton Office Park had an open order that established the split rail fence as the limit of work. Beyond that area is the resource area shown on the historical plans, however there was confusion as to what the OOC was referring to which limited their ability to work within this area. Conservation Agent established what she was going by was the OOC 112-608 which is the most recent order issued for the property, that explicitly includes language that the order includes Bolton Office Park and associated infrastructure. They include within the letter their steps to come into compliance. They would like to request a certificate of compliance and discuss an operation and maintenance plan. They also highlighted that the artificial march/wetland is acting as a stormwater basin, and that this is used as a backup firepond. This is common throughout the town of Bolton as we see resource areas with dry hydrants installed adjacent to them. They wanted to be sure that at times it may need to be maintained as such. Jeff inquired about the brook and if it feeds into the wetland area. Conservation Agent confirmed it drains it. Emily inquired whether or not there is an existing OM plan for the property because the OOC expired. The existing OOC is in place still just expired inclusive of the OM plan. The current status not clearly state what they are trying to do. Other areas on site it explicitly highlights such as the parking area and lawn around the buildings. There are weirs as outflow structures and a fire pond however there is a type of maintenance that is done around sensitive areas which did not seem to be carried out. Therefore, the OM should clarify this and that is what they will be inquiring the commission to review. Conservation Agent stated what they actually bring forward to the commission she is unsure, aside from the letter. She expressed there have been permit extensions for various reasons.

3.	Minutes – Chair Brian made a motion to accept the minutes as drafted from the February 2nd 2021 public meeting of the conservation commission. Jeff seconded; all unanimously agree. Roll call vote on motion to continue: BB, EW, WP, JB; unanimous, AYE
4.	The Oaks Conservation Area will be reviewed and monitored along with updating property boundary making and trails. Contact the Conservation Office with questions.
5.	OM Plan review for conservation properties: Conservation Agent provided summary Add language about being a conservation property to increase public awareness of the difference between a park and a conservation property. - At Bower Springs the parking area has been delineated with great effort from DPW, however individuals are still encroaching within “no parking” areas. - The dogs on this property at times we have had issues with dogs running onto adjacent properties, and individuals not picking up after their dogs. There are rules and regulations posted to the kiosk and on the town website. - Timeline for work (mowing invasive species maintenance) being mindful of restrictions prior to or after migratory bird breeding - This document is for what is done on the property verses who is contracted to do the work - When work becomes jurisdictional an OOC is necessary and to be discussed at public hearings - Communicating work through letters of intent if outside of the current scope - Delineating areas that need to be isolated for treatment or from mowing OM plans will be shared online once draft is more finalized. Emily highlighted the need for noting that other methods are to be utilized prior to chemical treatment of poison ivy or invasive species. Additionally, information of best management practices for the common invasive issue specific to the property would be beneficial to include in the OM documents. Suggestions: Increase or use volunteers and interns better: Invasive Pulling parties, maintenance efforts, more work parties. Conservation Agent noted individuals may be getting more comfortable with the upfront efforts for policies and procedures for safety to participate in work days. Chair Brian suggested creating a contact at the highschool to ensure the cleanup days are advertised there for participants. Another suggestion was made to establish the impacts present and into the future observed from increased traffic throughout the conservation properties. Specifically, as Bowers starts to get used more and more it may continue to cause impacts that would require the commission to take trails or areas offline for public access to ensure the conservation values that the property was acquired for remain present and protected. Conservation Agent (in discussions with her counterparts across Massachusetts) stated it should stay increased the unknown is by how much, not only have people discovered these areas for the first time but with remote working and schooling, the ability to take a break and visit these areas more frequently vs having to stay at work or having to drive a distance. She will reach out to the individual who had raised a concern to inquire if they would like to count the amount of people present on a property. Emily inquired what happens to the invasive species after it is removed from the property. Some are bagged and removed off site, others are composted on site and turned over, others like knotweed best management practice at this time is to cut and treat the stem directly. Burning is another aspect of what could be done for management.
6.	Chair Brian made a motion to close the public meeting of the Conservation Commission Tuesday, February 16th 2021. Jeff seconded; all unanimously approve. Roll Call Vote on motion: BB, EW, JB, WP; unanimous, AYE