

**Stow Conservation Commission
Minutes
March 31, 2020**

A meeting of the Stow Conservation Commission was held on March 31, 2020 at 7:30 in the evening by remote Meeting VIA Zoom Videoconferencing.

There were present: Jeff Saunders, Chair
 Serena Furman, Vice-Chair
 Andy Bass
 Andy Snow
 Matt Styckiewicz
 Ingeborg Hegemann Clark

 comprising a quorum of the Commission

Also present: Kathy Sferra, Conservation Coordinator
 Jacquie Goring, Conservation Assistant
 Sandra Grund, Associate Member

Appointment – Jeff Kimmelman – 269 Boxboro Road – Jeff Kimmelman, 269 Boxboro Road, was present to request a minor modification to Order #299-665. Kimmelman reviewed the proposed modifications including a terrace next to the existing garage, replacement of one existing timber retaining wall with a stone retaining wall, installation of one additional stone retaining wall, and moving the proposed location of the approved footbridge over Heath Hen Meadow Brook to the east. Kimmelman noted that a greenhouse will be constructed on the proposed terrace and he previously reviewed the plan with Sferra who determined the greenhouse is an accessory structure to a dwelling and meets the exemption in the Wetland Protection Act. The terrace will be located within the approved dog area. The timber retaining wall proposed for replacement is deteriorating and causing erosion. Kimmelman added that the additional retaining wall is needed to stabilize the yard and erosion controls will be extended to include the additional proposed work. The footbridge location will be moved to a more accessible area. The Commission confirmed with Kimmelman that the timbers will be removed and disposed of properly. Kimmelman confirmed that the highest retaining wall will be six feet high at the steepest part of the yard and the other retaining walls are three feet tall. The Commission discussed the proposed retaining walls include wildlife passage and erosion concerns. Kimmelman confirmed that the walls have been engineered and have been designed with drainage. Materials will be brought to the yard using a bobcat or smaller equipment. The Commission discussed the proposed new location for the bridge and Sferra confirmed the original location was very steep and the new location is flat and easier to cross. Kimmelman added that if the bridge was put in the originally proposed location it would need to be longer and stairs would need to be built to access it. *Serena Furman made a motion to approve the proposed redline changes to the plan for Order #299-665. Andy Snow seconded the motion and it was passed unanimously.*

Appointment – Steve Nadeau – Superintendent of Streets – Steve Nadeau, Superintendent of Streets, was present to discuss the repair or replacement of the Sandy Brook culverts on Hudson Road. Nadeau stated that he has contacted three engineering firms to get ideas about the scope and cost to fix the two compromised culvert pipes under Hudson Road. Nadeau noted that there are two available State grants for the work including one from the Massachusetts Department of Transportation (MassDOT) and another from the Division of Ecological Restoration (DER). Nadeau stated that both grants are very competitive and would require the design to completely meet Massachusetts River and Stream Crossing Standards (Stream Crossing Standards) and would only cover at most half of the estimated 1.5 million dollars for the work. Nadeau added that Sandy Brook is a cold water fishery. Nadeau asked all three firms to recommend a repair method and spin line repair was recommended. Spin lining would include spinning a wire mesh into the culverts and pumping concrete into the mesh to stabilize the pipes. Nadeau noted that the concrete would be an inch and a half thick and one culvert could remain open to divert the

water while the other is being repaired. Nadeau added that small rocks can be added to the bottom of the culverts after the repair to create a more natural stream bottom which could not be done if the culverts were slip lined with plastic piping.

Nadeau stated that he would like to try to meet Stream Crossing Standards and stay within the Town's budget and Chapter 90 funding. Nadeau reiterated that a design that meets Stream Crossing Standards would cost an estimated 1.5 million dollars and the Town has approximately 375,000 dollar in available funding if all other road work projects are put on hold. Nadeau also noted that the culvert work will require Conservation Commission, State and Army Corps of Engineers approval and Town Meeting vote for funding. Nadeau added that spin lining the culverts will cost an estimated 115,000 dollars. Other improvements will also be completed as part of the repairs including addressing water and silt run off from the road, which has been entering behind the headwalls causing damage, and replacing damaged guard rails. Nadeau noted that Hudson Road is sinking in some areas and cracks in the pavement have allowed fines to settle in and around the pipe. The asphalt would need to be removed and the road compacted and repaved. Nadeau added that the additional improvements are estimated to cost 75,000 dollars and would be done by the Highway Department to save costs. Nadeau confirmed he would like to start the work at the end of July but expects delays in permitting due to the current COVID-19 pandemic and is now hoping to get the work started in September or October and completed by winter. Nadeau added that the permitting with the Army Corps would be a three to four month process and would not be considered an emergency unless the culverts collapsed. Nadeau also noted that the Hudson Road culverts are inspected after every storm and the road is being monitored for sinking.

Matt Styckiewicz noted that both the Mass DOT small bridge grant and DER grants may not meet the timeline set by Nadeau and agreed the DER grant is extremely competitive. Nadeau expressed concerns about delaying the work noting that the Gleasondale Bridge replacement will take place next summer and will likely cause an increase in traffic on Hudson Road. Andy Snow stated that she owns the property that abuts the culverts and noted the increase in traffic on Hudson Road and large trucks using the road coming to and from the sawmill in Hudson. Snow also noted that many pedestrians cross Hudson Road at Randall Road. Nadeau clarified that if the culverts are lined the roadway would need to be closed for a much shorter period than if they were replaced which would be at least a six to eight week process. The Commission noted that the work has to be done correctly both fiscally and environmentally for the Town and timing would be critical. Nadeau stated that he is leaning towards the cement liner repair and installing rocks at the bottom of the culvert but would do more research with an engineering firm. Nadeau added that he would like something that is cost effective and meets the Stream Crossing Standards as much as possible. Nadeau also noted that lining the culverts will allow water to be diverted to one side at a time therefore diesel pumps won't be needed to pump water and wildlife can still use one culvert while the other is being repaired. Snow noted that there is a lot of wildlife in the area and there is often wildlife struck by cars when crossing Hudson Road.

Styckiewicz stated that professionally he has not been involved in a cement liner repair project on an old corrugated culvert but has been involved in State projects that must strictly adhere to the Stream Crossing Standards. Styckiewicz added that because Sandy Brook is designated as a cold water fishery the work will also require review from Mass Fisheries and Wildlife and being able to keep one culvert open during repairs seems like an advantageous approach. Nadeau confirmed that the existing culverts were installed in the 1950's and the proposed cement lining repair has been used for 50 years and should last for about 100 years. Nadeau added that there is a company that does cement lining in Massachusetts which he has been in contact with and their only concern was one end of the pipe sticks out and a new headwall would need to be built using a frame before the wire mesh and concrete was spun into place.

Nadeau confirmed that an inch and a half of concrete would be used around the entire inside of the existing pipes and would fill the pipes approximately two and a quarter inches when accounting for some of the concrete to fill the corrugated part of the pipe. Nadeau added that after repair the pipes would be a lot smoother and would change the flow so by adding rocks at the bottom of the pipe it would better match the existing flow. Ingeborg Hegemann Clark recommended that potential velocity issues should be looked at by an engineer and suggested that a stone outlet

could be used to prevent undercutting and scour. Nadeau confirmed that one of the culverts is partially blocked by rocks making it appear that the elevations are off but may only be off by a few inches. Hegemann Clark recommended that an engineer take survey elevations on both sides of the culverts to confirm. Hegemann Clark added that the stream has adapted to the current hydrology and it is important for an engineer to determine how the stream is functioning and how best to mitigate or minimize changes to prevent issues like backwater flooding or scour. Snow noted that the brook can get very low at times and is at its highest she has seen right now. Snow added that there are trees along the brook that the roots are being undermined during high flow. Nadeau added that there is an area after the water leaves the culvert where the flow slows down significantly and ponds. Hegemann Clark stated that if there is a plunge pool that is undercutting the culvert overtime, stone at the outlet could prevent long term instability of the pipes. Nadeau confirmed that some small saplings may need to be removed and any tree removal will be included in the permit application for Commission approval.

Goring expressed concerns about lining and decreasing the diameter of the culverts with the impacts of climate change causing heavier more frequent rain events. Nadeau noted that the Town of Bolton contributes significantly to the Sandy Brook watershed and it is difficult to predict and plan for future development in Bolton. Sferra agreed that a lot of the watershed is in Bolton, however, two potential large developments are being discussed on Walcott Street and Athens Lane which should be considered by an engineer. Sferra added that the Planning Board tries to match rates of flow for new development but it is not a perfect science. Nadeau stated that he would bring these questions to an engineer and noted that he has discussed the project with longtime Stow residents who stated that they have never seen the two culverts not be able to take the capacity and hope that an engineer could run calculations to show this. Nadeau confirmed that all stream crossings will be inspected this summer. Styckiewicz added that MassDOT has an inspection program for culverts and they will complete the first inspection then add the culverts on a Federal inventory list to be inspected and reported on by the Town every two years. Nadeau stated he will take the Commission's concerns to an engineer and will bring 25% design plans to the Commission before getting too far into a design.

Minutes: *Andy Snow made a motion to approve the minutes of March 4, 2020 as amended. Serena Furman seconded the motion and it was passed unanimously. Ingeborg Hegemann Clark abstained.*

Discussion – Draft Hunt Plan Assabet River National Wildlife Refuge – Sferra noted that the Commission was given the proposed Hunt Plan and noted that similar plans were proposed for the Monomoy and Mashpee National Wildlife Refuges and would not be going forward in Monomoy because of issues including endangered species concerns. Sferra discussed the proposed changes at Assabet with the Refuge Director and noted that efforts are being made to minimize the impact of expanded hunting including a shorter season than State regulations allow and not allowing baiting or night hunting. Sferra noted that the expanded Hunt Plan includes allowing hunting for bear, coyote and fox and clarified that there are no known resident bears at Assabet but the new plan would allow for hunting of bears in the future. Sferra stated she is hopeful that the Commission's input would have an impact on the proposed plan and she has made Sudbury, Maynard and Hudson aware of the proposed changes. Sferra reviewed the draft comment letter noting that an expansion in hunting should be compatible with the Refuge's comprehensive plan. Sferra expressed concerns about the cost of the proposed plans estimated to be over \$40,000 and the impact on the budget for the Refuge. Sferra noted when the Refuge was expanded, there was significant public opposition to hunting and the Refuge plan tried to strike a balance between hunting and the other purposes which the proposed hunt plan would further tip the balance towards hunting.

Sferra reviewed the proposed Hunt Plan map noting that expanded hunting area would be in Unit C of the Refuge which is along Track Road, Sudbury Road, Lake Boon and Gleasondale Road. Sferra added that Unit C was added to the Refuge in 2006 and is mostly floodplain and was not included in the comprehensive plan for the Refuge. The Commission noted the large number of residential properties in the area proposed for expanded hunting and concerns about safety and setback requirements. Sferra noted that the proposed hunting plan estimates that fewer than ten coyote and ten fox are expected to be taken between the three Refuges. Sferra stated that she believes there are no more than two packs of coyotes at the Assabet Refuge with each pack having four to six coyotes. The Commission expressed concerns about the sustainability of hunting fox and coyote in the Refuge. Sferra reviewed

the six uses for the Refuge included in the comprehensive plan which are meant to be equally weighted. Sferra confirmed there is currently deer, water fowl and small game hunting in the Refuge and deer stands and hunting dogs are allowed. The Commission agreed to bring comments on the draft letter to the next Commission meeting and Sferra confirmed she will share the letter with Sudbury, Hudson, Maynard and OARS.

Coordinator's Report

- **Collings** – Sferra reminded the Commission that the deadline for restoration of the gravel pit is the end of October. Collings met with the Planning Board and proposed moving material from one part of the site to backfill the pit. Collings is proposing an addition to the museum and the material Collings would like to use as backfill is the museum expansion area. Sferra and Jesse Steadman, Town Planner, are drafting a letter to Collings reminding him of the deadline for restoration and clarifying that the museum expansion project can in no way delay the restoration.
- **Captain Sargent** – Sferra informed the Commission that Ruth Kennedy Sudduth, abutter to Captain Sargent, would like to temporarily keep bees in an area that has been maintained as a field. The Commission confirmed it would be for a few months and expressed no concern about the bees temporarily being kept there.

Current Status of Town Meeting/Permit Deadlines and Discussion of April 7th Meeting – Sferra confirmed Town Meeting has been postponed to June 22, 2020 and Town Elections to June 29, 2020 due to the COVID-19 pandemic. Sferra updated the Commission on Town Building staffing, Governor Baker's Executive Order regarding permit extensions, and pending legislation to extend local permitting deadlines. Sferra confirmed there are three open wetland permits and is expecting three additional permits to be submitted. Sferra noted the large increase in Conservation Land users and the increased human traffic on the causeway between Flagg Hill and Captain Sargent. Sferra stated that she has been in touch with all of the applicants for the April 7, 2020 meeting and all would like to proceed via videoconference. The Commission discussed the April 7th meeting and agreed to hold the meeting and public hearings.

Massachusetts Association of Conservation Commissions Annual Conference Updates – Andy Bass, Styckiewicz and Goring provided updates from the MACC 2020 Annual Conference.

Adjournment – *Andy Snow made a motion to adjourn the meeting at 9:35PM. Andy Bass seconded the motion and it was passed unanimously.*

Respectfully submitted,

Jacquie Goring
Conservation Assistant

Materials Used during the March 31, 2020 Conservation Commission Meeting:

Draft Minutes
Site Plans, photos, and supporting materials for 269 Boxboro Road
Photos and supporting materials for Hudson Road culvert
Draft comment letter regarding the Draft Hunt Plan for Assabet River National Wildlife Refuge