



CONSERVATION COMMISSION MEETING MINUTES– October 7, 2019

Present: Laurie Freeman- Chair, Jacqueline Zane-Vice Chair, Bob Hidell, John Mooney and Crystal Kelly - Commissioners, Loni Fournier- Conservation Officer and Sylvia Schuler- Administrative Secretary

Absent: Bob Mosher

The meeting was called to order at 7:03 PM.

Weir River Stream Channel Maintenance Plan

Meeting Documents & Exhibits: draft Weir River Stream Channel Maintenance Plan dated October 2, 2019, submitted by the Division of Marine Fisheries as well as a power point slide show with photos of the river and problem areas.

Brad Chase, Division of Marine Fisheries (DMF) & Dan Wells, Weir River Watershed Association (WRWA) were present to talk about the maintenance plan and ask for the Commission's approval of the plan. B. Chase explained that the passage for fish (principally river herring but also American eel and brook trout) is difficult due to the amount of debris and live vegetation that's built up in the channel, and that since the harvest ban put in place 12 years ago, maintenance of the runs has diminished. B. Chase described the journey of the fish up the river to spawn; they travel from the ocean, pass through Foundry Pond, follow the Weir River up to Accord Brook and through to Triphammer Pond using the fish ladder rebuilt by the DMF in 2018 in cooperation with the town.

The Division of Marine Fisheries coordinates to assist towns in manually improving the fish passage by training a local crew to do get out there a couple of times a year with clippers, pruners and handsaw to remove the jams of debris; in Hingham they are proposing to coordinate with the Weir River Watershed Association. There would be some clipping of live vegetation when that live vegetation threatens to block the channel. One species of live vegetation in particular, water willow, is hanging over the brook. They would like to work in mid-October thru December.

D. Wells explained that they would initially focus on an area along the powerlines behind Shultz's field where Accord Brook meets the Weir River. Due to trees removed from the powerlines, the underbrush has grown thick. D. Wells stated that herring were spotted in Triphammer Pond this past season. He described segments of the brook where the vegetation was actually growing through the channel. The work proposed would leave tree arch and any logs would be left on the bank for habitat; no chemicals would be used.

The C.O. explained that the Commission's input was needed as to whether or not they would want to approve the plan with 'no expiry' date or 'no reporting requirement'. The Commission discussed this and concluded that it was not needed to have an expiry date and agreed that the plan outlines standard and good practices. However, the Commission agreed that it could be beneficial to have a report as a record of growth and rate of regrowth. The C.O. explained that there is a requirement to keep a log book but presumably that is kept with the WRWA. The C.O. added that a report, especially for the first year to provide a before and after, would also be valuable as a how to guide for newer volunteers for guidance as to where, how, and how often the work is done. D. Wells explained that he is walking the whole stream bed, taking photos and creating GPS waypoints and after the work is done they can take after pictures;

D. Wells stated they would be starting with the Accord Brook section and estimated that the 30-50 feet just at the intersection of the stream would probably take him 42 hours of work with hand equipment. B. Chase added that with only 2 or 3 people it would be slow going but with a team of 6 to 8 people progress is made. The C.O. felt it would be beneficial for them to notify the office when they going in to do the work in case observers call the Conservation office with concerns.

The Commission agreed that they approved of the plan and brief discussion followed concluding to have B. Chase amend the plan to include the annual reporting for a period of three years and to approve the plan administratively.

Motion: Commissioner Hidell moved to approve the Weir River Stream Channel Maintenance Plan dated October 2, 2019 as may be amended from time to time.

Second: Commissioner Zane

In Favor: All

Opposed: None

Approval of Minutes

Motion: Commissioner Mooney moved to approve the draft minutes from the September 23, 2019 meeting.

Second: Commissioner Hidell

In Favor: All

Opposed: None

Certificate of Compliance

29 Canterbury Street - DEP 034-1297

Applicant: John Woodin, Canterbury Street LLC

Representative: Gary James, James Engineering, Inc

Meeting Documents & Exhibits: Staff memo

Excerpts from the staff memo: *Work on the dam and culvert has been completed and the areas are stable. Erosion controls, including a silt sack in a Weir Street catch basin and a silt curtain in Patterson Pond, are still in place and may be removed. The replication area has been excavated, but not yet planted; erosion controls should remain in place until the area is stable, not just planted. In order to move forward with construction on the upland portion of the site (Canterbury Street subdivision, a.k.a. Patterson Pond Estates) the applicant must satisfy a Planning Board condition linked to the completion of the dam, "as evidenced by a partial or full Certificate of Compliance from the Conservation Commission." The following discrepancies between the proposed and as-built conditions for the dam were identified by the representative (#1-6) and staff (#7-14):*

1. *The alignment of the embankment was straightened out in the field. As shown on the plan, it was primarily moved further into the pond and away from the vegetated wetlands behind the embankment. The result is that the wetlands alteration associated with the repair was reduced from 2,400 square feet to 1,940 square feet. Staff note: the alignment was approved as a field change. The wetlands alteration area approved was 2,100sqft.*
2. *The entrance onto the embankment was moved closer to the outlet channel. This modification had no impact on the wetlands.*
3. *The outlet headwall from the culvert across Weir Street was converted from masonry to precast concrete blocks.*
4. *The outlet control structure for the dam was raised 0.31' above design. Minimum pond level will now be elevation 28.31.*
5. *The crest of the dam was also set higher at elevation 40.6+.*
6. *The outlet channel from the dam to Weir Street has been stone lined.*
7. *The proposed box culvert under Weir Street was replaced with a 24" pipe. Representative note: "I believe that the final approval was at the discretion of the DPW and that is how they approved it."*
8. *The 24" outfall elevation is nearly one foot lower than approved. Representative note: "We had to get under the existing water main, which forced it lower. The water main is actually sitting right on top of the culvert."*
9. *A new label, indicating a 4" pipe discharging into the stream, was added to the plan. Representative note: "[I]t comes from a catch basin in weir street south of the site which no one was aware of."*
10. *Was stone used for the headwall on dam side of the Weir Street culvert? The final approved plan indicates that stone would be reset. Representative note: "Yes the stone was reused and supplemented where necessary."*
11. *The 24" inlet elevation is one foot lower than approved. Staff note: see response to #8.*
12. *Why are there inlet elevations for a 12" and 24" pipe on the dam side of the Weir Street culvert? Where does the 12" pipe come from? Staff note: a revised plan was submitted clarifying that the 12" elevation relates to an orifice in the outlet control structure.*
13. *There are only approximate elevations for the two 15" outlet pipes coming from the dam's outlet control structure (35.7+/-) and the structure itself (36.2 +/-). Staff note: a revised plan was submitted with specific elevations.*
14. *The emergency spillway was approved to be 16' wide, but was constructed at 24' wide. Representative note: "The spillway was always going to be 24' of precast concrete curbing they just did not bed the 4' on the outside. Since it is an emergency spillway wider is not a problem. If you want it to be reduced to 16' we can still fill as needed."*

The representative identified #8, above, as a potentially significant issue given the “impact it might have on the hydraulic performance of the dam.” The representative provided the following data and conclusion.

Patterson Pond Dam		2-Year Storm	10-Year Storm	100-Year Storm
Peak rate	Design	2.61 cfs	7.41 cfs	8.93 cfs
	As built	2.48 cfs	7.09 cfs	10.26 cfs
Max. W. Surface	Design	38.54	38.85	39.82
	As built	38.83	39.14	40.05

Weir Street culvert		2-Year Storm	10-Year Storm	100-Year Storm
Peak rate	Design	3.81 cfs	7.67 cfs	9.13 cfs
	As built	3.72 cfs	7.23 cfs	8.86 cfs
Max. W. Surface	Design	35.68	38.04	39.44
	As built	35.47	38.16	39.99

“As can be seen from the results, the change in the outlet elevation had very little impact on the overall results. In all instances, the peak flow rate through the weir street culvert was actually reduced. The peak water surface elevation at the dam was raised 0.23’ however, the crest of the dam was actually built up to elevation 40.6+, 0.35’ above the original design elevation 40.25. Thus, the freeboard remains the same as designed.”

If the Commission is satisfied with the information presented, a Partial Certificate of Compliance could be issued. Alternatively, if the Commission would like the information peer reviewed by the original consultant for this project, the discussion could be continued to 10/21/19 to allow time for a review to take place.

Meeting Documents & Exhibits: Staff memo

John Woodin and Gary James, James Engineering, Inc. were present. G. James stated that there is grass growing on the dam, the outlet control structure is in and all that is left is to do is pull out the boom in the pond and the rest of the erosion controls. The C.O. explained that the erosion controls need to remain in place for the replication area only; erosion controls for the dam and culvert can be removed. G. James stated that everything is done except for the replication area and continuing maintenance on the structure so it doesn’t end up the way it was before. J. Woodin stated that even with the dry spell, there is water in the pond.

Commissioner Hidell asked if there was any net impact from it being 1 ft lower than designed and G. James answered in the negative, that it’s still being controlled by the orifice in the inlet control structure. G. James added that they’d straightened the 12 inch coming in from the other side coming down Weir Street. J. Woodin stated that the culvert had turned out well and that the plantings were done that day for the replication area.

The C.O stated to the Commission that she cannot evaluate the calculations provided so if the Commission would like reassurance that the changes that occurred between proposed and constructed are not going to have any catastrophic impacts there would need to be help with that. Pat Brennan had done the initial peer review of the Notice of Intent and is familiar with the watershed, and could evaluate the watershed calculations and/or this As Built design based on stormwater events. G. James stated that everything pretty much stayed the same it just came up that three tenths of a foot. Commissioner Hidell stated he didn’t have a problem with it and that the calculations look reasonable. Commissioner Freeman acknowledged her lack of expertise in this, noted that there were a lot of items changed from the original design and confirmed that Commissioner Hidell had reviewed them. Commissioner Hidell stated that it looks reasonable, reiterated that he did not have a problem with it and felt that if there’s a difference, it’s not going to be a huge number. Brief discussion followed about the watershed. The C.O. commented that there would be three houses built and Commissioner Hidell recalled that they all had downspouts going into subsurface systems. Commissioner Hidell stated that three tenths of a foot of height on the dam is not going to be a disaster. The Commission confirmed with Commissioner Hidell that he did not feel that a peer review was necessary.

Motion: Commissioner Zane moved to issue a partial Certificate of Compliance for 29 Canterbury Street, DEP 034-1297.

Second: Commissioner Mooney

In Favor: All

Opposed: None

Request for Determination of Applicability

3 Flintlock Circle

Applicant: Allison and Kevin Daury

Proposed: Grading, hardscaping, play structure, and landscaping

Excerpts from the staff memo:

Staff has several concerns and comments with regard to the proposed work:

- **BVW filling/alteration & limit of work.** *The new boulder wall and leveling and filling the yard to the extent proposed, as well as a portion of the proposed dry creek bed (additional info below), would entail filling and altering BVW, though no exact quantification of impacts was provided. The limit of proposed work in the northwest corner is not clear and may also include work within the BVW. No wetland mitigation/replication is proposed and assuming the Commission was willing to permit this, staff does not think there is space to replicate wetlands and complete the proposed work on site. In addition, 310 CMR 10.00 requires the filing of a Notice of Intent for any filling or altering of wetland resource areas.*
- **Erosion controls.** *No erosion controls are proposed, but they will be critical given site topography and scope and location of work.*
- **Tree removals in buffer zone.** *The applicant is proposing to remove 10 trees in the 50ft buffer zone and 10 trees in the 100ft buffer zone. During the site visit, staff observed that although the exact trees proposed for removal weren't marked, most of the trees in the work area are mature and appear to be healthy and many of them are native maples and oaks. The applicant has indicated that some trees with exposed roots or that are leaning toward the house would be removed from a safety perspective. Staff recommends requiring a written opinion from a Certified Arborist regarding these trees. It is not clear if there would be any tree impacts from the proposed zip line. A number of plantings are proposed in both the 50 and 100ft buffer zones, which could help to at least partially mitigate for tree removals, however exact quantities and a planting list were not yet available.*
- **Stormwater management/dry creek bed.** *Based on the plans, it is not clear how the dry creek bed would function and what its elevation and grades would be. Staff is partially concerned with directing untreated driveway runoff to the BVW. The applicant has indicated that the runoff is intended to infiltrate through the gravel and that the goal is to direct water from their property and the surrounding neighborhood into the drainage easement. A dry well or other structure could also be installed. Staff notes that groundwater is very high in this location, which will affect the ability of stormwater management features to function properly. At a minimum, staff recommends that a detail be provided for the dry creek bed or other structure, if proposed.*
- **Structures in the 50ft buffer zone.** *Although the play equipment (and retaining walls) are mostly proposed in the 50ft buffer zone, these structures do not significantly increase the impervious area onsite. The relocation of the existing shed would be a benefit to the resource areas. A "four-posted structure" is proposed on a corner of patio inside the 100ft buffer zone and assuming this is a covered structure, this would increase the impervious area.*

Meeting Documents & Exhibits: Staff memo, Revised Plans and written responses to comments in staff memo

Homeowners Allison and Kevin Daury were present. K. Daury distributed revised plans and written responses to comments in the staff memo. A. Daury stated that the two big revisions on the plans were that the boulder wall would be not actually in the wetlands and that the dry creek bed is specified as a dry well if that's preferable but they are willing to hear suggestions on that. The purpose of the dry creek bed is to help manage the drainage so it doesn't go into the wetlands and instead is a solution to help it drain down through layers.

A. Daury described the property, in particular the left side of the property where there is a drainage easement. That area also has some wetlands on it that have expanded onto the property. Since they moved in this summer, they've observed some clogging in the drain; with standing water, the drain is not draining as effectively as it should. She added that it looked like the prior owner had dumped leaves, grass clippings and some masonry stones in the back; A. Daury stated that they will be removing that. The Daurys also contacted Plymouth County Mosquito control and are on their schedule to have them clean out the drain by hand and at the same time, evaluate if they can make it deeper.

K. Daury described the elevations of the area and how the back yard slopes from the back right down to the wetlands on the left. He explained that ideally, they would be cutting into the right slope, pulling out the left side and creating a flat grass area. They propose to expand the existing patio, which is currently midway up the slope, and create a dining and living part to the patio in addition to the grill area. They would also remove an existing shed, which is very close to the wetland line, and put a shed over in the back right corner.

A. Daury stated that two ways they've tried to be mindful of the wetlands is that the wall they are proposing to use to elevate their yard is a non-mortared boulder wall using landscaping fabric to contain the yard while remaining permeable. Also moving the shed as far away from the wetlands as it can be as well as planning the patio expansion to be within the 50-100 ft buffer. They want to reclaim parts of the yard that were not maintained as well by the previous owner. There would be some tree removal within the 50 ft and 100ft buffers and they would work within the replanting guidelines.

Responding to questions, K. Daury described the existing grass and gardens and that the grass goes to the wetland line. He added that there is an existing small rock wall where the proposed boulder wall would be. K. Daury described the proposed boulder wall as being 4 ft high and consisting of non-mortared boulders with a fabric liner between it and the fill. He was unsure of the size of the boulders but discussion followed that the boulders would have to be either 4 ft or if smaller, stacked to be 4 ft. K. Daury stated that depending on how much soil they can pull from the right side to the left for levelling, there could be 175 to 200 yards of fill added. Responding to questions from the C.O., K. Daury stated that some of the existing stone wall would be removed and that the new wall would be in the same location however starting a little further back (southwest).

Responding to a question from Commissioner Zane, the C.O. stated that with the revised plan showing the dry creek bed pulled back from the wetland area, that addressed the biggest concern, and with the intent of the structure being the same as a dry well, she had no preference as long as it doesn't go into the wetlands.

Commissioner Zane asked what the 4 posted structure was and A. Daury described it as a roofed structure to provide a shaded living area over part of the patio area. Commissioner Freeman asked the C.O. if there was any concerns about increased patio and drainage. The C.O. responded that the patio size was increasing, however, it is outside the 50 ft buffer in an area that was previously maintained as lawn and there is a draft condition requiring it to be permeable. She added that even with the impervious roof, with it having open sides, and sited within the patio, the rain water will still make its way into the permeable patio. Commissioner Hidell agreed it would drain onto the patio and would leave it as proposed.

Commissioner Zane asked if there was de minimis or no increase in impervious within the 50 ft buffer, and the C.O. stated that it would be de minimis, comprised of the L-shaped retaining walls towards the front. She stated that clearly there is no stone there now, but what isn't being documented are the little stone walls that went around the landscaping beds.

Commissioner Freeman asked if there had been any revisions regarding proposed tree removals. K. Daury stated that there was no change and there were approximately 10 trees in 50 ft, and about 20 altogether. The C.O. explained that the applicant has agreed to tree replacements at the ratios preferred by the Commission, 2:1 tree for tree in the 50 ft buffer and 1:1 tree/shrub for those within the 100 ft buffer. The C.O. explained that there would be a significant loss of canopy for a while because the existing trees are large mature trees and will be replaced with much smaller trees; she is unsure where those replacements are planned. The Commission asked why so many trees are being requested for removal and is there any way they could reduce the number. K. Daury explained that without doing so, they won't get the size of yard that they're trying to get and A. Daury further explained that it's to get an open area of yard for kids to play. The C.O. described the trees; mature large oaks and a few maples. K. Daury stated that within the 50 ft buffer, 3 trees are in the area they where they want to create a level grassed play area and there are 5 in the area of the swing set; in the right hand part of the yard (within the 100 ft buffer) there are a number proposed for removal. Commissioner Hidell summed up that the purpose of the tree removals was for more space and light. He explained that that one purpose of the Commission is to preserve the integrity of mature healthy trees and reduce the number of trees removed within the buffer zones. Members of the Commission expressed interest in doing a site visit. Commissioner Freeman stated that the Commission tries to accommodate homeowner's wishes but where they've purchased a wooded back yard within the Commission's jurisdiction, the Commission's duty is to protect the wetland resources. A. Daury stated that there will still be trees, and reiterated that they would like an area where the kids can kick a ball and it would be within the same scope as other properties in the area. Commissioner Freeman explained other properties would have different wetland considerations, location and tree situations.

The C.O. explained that the 'replication' referenced in the staff memo was for the boulder wall when it was proposed to be located within the wetland and now that the revised plan proposes the wall to be right up against the edge of the wetland there would be no replication. The 'mitigation' would be for the tree removals. Brief discussion followed about tree replacements, where they might be planted and clarification that three of the trees proposed for removal would not survive the 4 ft of proposed fill. A. Daury pointed out on the revised plan the areas next to the steps

near the driveway where the new trees would be planted. The C.O. commented that she hadn't realized that the plantings on the revised plans were meant to be the proposed replacements and it seemed as if they were smaller and more ornamental in nature, and, being grouped close together as if for a privacy screen, would result in smaller trees in the end. Brief discussion followed regarding the Commission's tree policy with the C.O. stating that currently it only specifies caliper size, not species for species.

The Commission discussed coordination of a site visit and continuance of the hearing to October 21st. A. Daury asked for a continuance and if they would be allowed to begin removal of the old patio. Discussion followed with the Commission and C.O. speaking about the various aspects of the proposal. The C.O. stated that she feels the fill, in and of itself, will be properly contained, and it would be lawn replacing lawn, but it's the tree removals that come with that that are concerning. The Commission agreed that only removal of the existing patio could commence.

Motion: Commissioner Hidell moved to continue the hearing for 3 Flintlock Circle to October 21, 2019.

Second: Commissioner Zane **In Favor:** All **Opposed:** None

Abbreviated Notice of Resource Area Delineation

0 Southeast Expressway – DEP 034-1350

Applicant: South Shore Industrial Park Trust

Representative: Kelly Killeen, CHA Consulting, Inc.

Excerpts from the staff memo: 0 Southeast Expressway (approximately 160 acres) is situated in the southwest corner of Hingham, between Route 3 and Abington Street, adjacent to the industrial park (South Shore Park). Three resource areas were delineated on the property: Inland Bank (9,987 linear feet), Bordering Vegetated Wetland (29,240 linear feet), and Isolated Vegetated Wetland (4,176 linear feet). A Professional Wetland Scientist with CHA Consulting, Inc. delineated the resource areas in June and July, 2019. There is no site work proposed. Staff received advanced notice of this application and has been working with the applicant to strategize a thorough, but efficient review of the delineations. Staff recommends, and the applicant is supportive of, hiring a peer review to assist with the fieldwork. Additionally, staff recommends continuing the hearing to 11/18/19, which the applicant is also supportive of, to provide enough time to select a consultant and schedule days in the field, plus allow for some flexibility if the weather becomes an issue.

Meeting Documents & Exhibits: Staff memo

Motion: Commissioner Kelly moved to authorize the hiring of a peer review consultant and continue the Abbreviated Notice of Resource Area Delineation hearing for 0 Southeast Expressway (DEP 034-1350) to November 18, 2019.

Second: Commissioner Mooney **In Favor:** All **Opposed:** None

Request for Extension of Order of Resource Area Delineation

100 Industrial Park Road DEP 034-1271

Applicant: JEB Group, LLC

Representative: Lawrence Beals & Bryan Sutherlin, Beals Associates, Inc.

The current Order of Resource Area Delineation for 100 Industrial Park Road (DEP 034-1271) was issued on October 21, 2016 and is set to expire on October 21, 2019. The property is largely developed, with two separate industrial buildings and associated driveways and parking areas. The only resource areas covered by the current Order are two separate bordering vegetated wetlands on the southeastern and southwestern portions of the property. The applicant did not indicate any certain plans for (re)development in the application, however the cover letter states that the "resource area will remain undisturbed and subject to a future review by the Conservation Commission if the property is redeveloped."

Coincidentally, the abutting property, 0 Southeast Expressway, filed an Abbreviated Notice of Resource Area Delineation this month. Their submitted plans indicate a perennial stream in close proximity to 100 Industrial Park Road. The stream channel is also visible on recent aerial photos of the two properties (see below). Staff believes this stream channel is close enough to the boundary of 100 Industrial Park Road to, at a minimum, have the associated Riverfront Area extend onto the property. Near the southeastern corner of 100 Industrial Park Road, the stream channel itself could be on the property.

The state and local regulations allow the Commission to deny the request for an extension and require the filing of a new Notice of Intent or Abbreviated Notice of Resource Area Delineation in the following circumstances:

1. where no work has begun on the project, except where such failure is due to an unavoidable delay, such as appeals, in the obtaining of other necessary permits;

2. *where new information, not available at the time the Order was issued, has become available and indicates that the Order is not adequate to protect the interests identified...; or*
3. *where incomplete work is causing damage to the interests identified...;*
4. *where work has been done in violation of the Order...; or*
5. *where a resource area delineation or certification...in an Order...is no longer accurate.*

Staff recommends denying this Request for an Extension due to the fact that no work has begun on the project and new information, not available at the time the original Order was issued, has become available and indicates that the Order is not adequate to protect the interests identified in the Wetlands Protection Act and By-Law.

Meeting Documents & Exhibits: Staff memo and response letter from Larry Beals

M. Costa and B. Sutherlin of Beals Associates were present. M. Costa explained that they had only on Friday learned of and seen the aerial photo of the neighboring property depicting a perennial stream and they would like to request an extension to the next public hearing in order to do some more research. He also had some information to present to the Commission; in October 2006 there was an ORAD issued for the property and at that time there had been an in depth process regarding the stream which they had labelled as intermittent. At the time, Cliff Prentiss was the Conservation Officer. Beals Associates had gone through a number of things with C. Prentiss including what made a perennial stream, the watershed area, things coming to it and the size of that area as well as submitted a series of photographs over four days and had the Commission come out for a site walk and review the stream to see if it was perennial or not. In the 2006 ORAD, C. Prentiss had made a statement in the cover letter which M. Costa quoted, *“Further, the Hingham Conservation Commission took under advisement the supportive documentation submitted by Beals Associates on your behalf that the stream that crosses the site on the southeast is intermittent rather perennial in nature. Following site visits by the Hingham Conservation Commission staff and the additional photographic record of “no flow” witnessed and documented by the Beals Associates staff, the Hingham Conservation Commission is in concurrence with this assessment.”* That ORAD had expired and in October 2016, they had applied for a new ORAD and had gone through the same process and it was marked as an intermittent stream. They did go through that lengthy process to prove it wasn’t a perennial stream in 2006 and he has photos of the stream taken over 4 consecutive days showing it dry. The C.O. asked what time of year the photos were taken and M. Costa stated that it was in August and he was unaware if there was a drought or not.

Commissioner Freeman noted that the Commission has the authority to deny the extension for two reasons, one being that there has been no work done on the property and the other that there is now new information that wasn’t available at the time of the original ORAD. M. Costa explained that he was unaware as to why there has been no work done yet.

The C.O. had questions regarding the 2006 ORAD. She stated that C. Prentiss did make that introductory statement about the status of the stream, however, on the second page of the MA DEP form, under the Resource Areas listed, he handwrote in Riverfront area. She stated that if it was an intermittent stream then she doesn’t understand how the Riverfront area was incorporated. Since L. Beals’ response had come in to the office that afternoon, she’d been unable to locate the file nor the plans in order to try to make sense of it.

The C.O. pointed out that on the A.W. Perry site plan (assuming that North is up), there is an intermittent stream that runs East-West coming from 100 Industrial Park Road over in to the perennial stream on 0 Southeast Expressway. So if that was the stream that was evaluated and determined to be officially intermittent in 2006, then that makes sense to her. But it seems as though the North-South running stream, the bulk of which is on the Southeast Expressway parcel, is very visible from the orthos, based on the description from CHA as a wide channel that’s fairly deep, and she wonders if that was the stream or not the stream. So to sum up there is a reference to a riverfront area and there are two streams in close proximity to each other right at the boundary line. She thinks the perennial may have been offsite for 100 Industrial Park Road.

M. Costa stated that he knew the East-West stream the C.O. was referencing and that it was coming out of the culvert right by a corner of the building and goes East-West and thought they had that labeled as a drainage swale because it was coming right out of the culvert. The East-West was just done through the ANRAD and didn’t have a problem.

M. Costa stated that the photos filed in 2006 are of the culvert and show that culvert underneath the expressway and a big fence runs along there. The C.O. confirmed that that is where the stream in question runs North-South and stated that confusion over which stream was deemed intermittent is cleared up but it doesn’t explain why the order references Riverfront.

M. Costa further described the intermittent stream as a man-made drainage ditch from when the highway was built in 1969 and showed old images showing before and after the highway was built. Commissioner Hidell commented that whether it was manmade or not, the regulations still treat it like a stream. M. Costa agreed, and stated that he's not debating whether it's a stream or not, and that it may very well be a perennial stream farther down, but to where it is on 100 Industrial Park Road, looking on the USGS map, it is a very small watershed area that's coming to that point. Farther down that stream does become very long, and it could very well be a perennial stream farther down.

The Commission, C.O. and representatives talked about the various application processes, delineations and future development of the parcel. M. Costa stated that they would like some more time to take a second look and come back next month and talk about it; it would be their preference not to start from scratch with a new application. The C.O. explained that the current ORAD expires on October 21, 2019, the date of the next Commission meeting and that it's general practice to vote at the meeting and issue the document in the following days. Brief discussion followed. The Commission concluded with an offer to extend the ORAD for two months until December 21st.

Motion: Commissioner Zane moved to approve the request for an extension of the Order of Resource Area Delineation for 100 Industrial Park Road (DEP 034-1271) to December 21, 2019.

Second: Commissioner Mooney

In Favor: All

Opposed: None

Notice of Intent:

156 Chief Justice Cushing Highway – DEP 034-1349, continued to 11/4/19

Applicant: Fred Butts

Representative: Brendan Sullivan, Cavanaro Consulting, Inc.

Proposed: Construction of single family home and septic system

Other Business

a. Wetland Resource Area Review letter for 156 East St (aka 220 Summer Street)

Meeting Documents & Exhibits: Memorandum from the C.O. dated 10/7/19, titled 'Wetland Resource Area Review -156 East Street (a.k.a. 220 Summer Street)', Environmental Assessment letter from Paul Shea of Independent Environmental Consultants, Inc. to the owner of 156 East Street, dated 10/13/17, and a Wetland Resource Area Review letter from John Zimmer of South River Environmental to the Hingham Board of Health, dated 9/3/19.

The C.O. introduced Paul Shea of Independent Environmental Consultants, Inc, representative for the property owner, who was in the audience and available to answer any questions and/or meet the Commission on site if they should so choose. The C.O. explained why this had come before the Commission; initially it had come to the Conservation office as a neighbor complaint regarding vegetation clearing and has since evolved to come before the Commission because the homeowner had applied for permitting through the Planning Board as well as the Board of Health (BOH), who had concerns about the wetlands status and had included as a condition of their current approval for installation of a new septic system, that the letter by John Zimmer be reviewed and approved or denied by the Conservation Commission. Commissioner Freeman stated that both studies state that there is not 50% vegetation as would be required for it to qualify as a wetland. The C.O. said that the Board of Health had requested a second opinion and the homeowner had selected John Zimmer. Commissioner Freeman did not see any reason not to approve.

The C.O. stated that her personal hesitation was that when she went to the property, as a result of a complaint call to the Conservation office regarding work being done in wetlands, in 2017, that she saw wetland vegetation before it was cleared. She is frustrated that the only reason the second wetland scientist did not deem it wetlands was because of the lack of vegetation; yet the vegetation had all been since removed. The C.O. stated that she did not know if it was greater than 50% at that time.

P. Shea stated that, in 2017, when he went to inspect the site, there was an upland garden and a lower garden. He encountered an impervious layer under 22-24 inches of loamy garden soil; he hit rock refusal at 2 ft down and it was definitely not clay. P. Shea stated that in his opinion there were upland conditions and there was far less than 50% wetland vegetation in 2017. In 2018 DPW created a drainage swale improvement along Kilby Street and other improvements on Summer St that increased stormwater flows from 228 on to the downgradient property. In the winter of 2019, the project was before the BOH and with 2019 spring's record precipitations in Massachusetts and so in February and March, this site was extremely wet with lots of stormwater flows constantly dosing the site. G. James, the engineer for the property, was out there in June and could see wetland vegetation species emerging and they couldn't

understand the amount of flow onto the property. In a dry period of 5-6 days in June 2019, with trees coming to life and sucking groundwater out of the ground, the site still had flow. Commissioner Hidell asked if it was subsurface flow and P. Shea confirmed it was but that G. James had noticed another flow and had it tested and it indicated levels of chlorine and fluoride in it. They concluded that there was a water main leak with an Aquarion pipe leaking 8-10,000 gallons/day producing wetter and wetter conditions. Eventually the property owner put in a stone swale area to get water through the property from the higher garden area to the lower garden area and it's working and drying that whole area out. The areas that got altered along both sides of the stone trench are revegetating with predominantly crab grass, an upland species that can't survive in wetlands. The Board of Health got a 2nd opinion from another profession wetland scientist, J. Zimmer, who agreed that technically, it's not a wetland. P. Shea described the site as an atypical site that had changed radically in the past two years, due to stormwater and the broken water line. Should it get fixed, the site will completely dry out.

Commissioner Hidell confirmed with P. Shea that with his soils analysis, he determine the soil type to be upland soil. P. Shea agreed and stated that J. Zimmer was picking up some wet soil conditions but that was right by the stone culvert is. P. Shea stated that if you take upland soils that have an accumulation of organic matter from decades of gardening, if they are aerated soils, you're not going to get the development of hydric soils, but if you then add in stormwater flows and chlorine and fluoride water main water, the equivalent of a 1/3 of a standard swimming pool every day, then it would start what would be the development of wetland soils. P. Shea stated that once that source is shut off, it goes back to being the dry upland soils.

Commissioner Freeman asked P. Shea if he was saying it was upland, not wetland before it was cleared by the homeowner and P. Shea stated that it was upland. P. Shea acknowledged that there were some areas with sensitive fern but that during his September 2017 field evaluation, the soil was not saturated and there was no ground water. Brief discussion followed about surface flows and elevations in that area. The C.O. asked if J. Zimmer classified the soils as hydric solely due to saturation. P. Shea stated J. Zimmer saw the development of mottling were no hydrolics and J. Zimmer had added that it doesn't usually happen so fast. P. Shea described a situation where he had seen soil change happen that quickly. He added that the only area where J. Zimmer was seeing the mottling was right next to rock channel where there was constant flow from water main.

The C.O. informed the Commission that the owner had prior commitments and was unable to attend the meeting, but had earlier provided the C.O. with a power point presentation that included photos of a rain event should the Commission want to see it. Commissioner Hidell asked if what is shown on the 2006 Perkins delineation of vegetated wetlands is not a legitimate boundary. The C.O. stated that had been her understanding until she saw the most recent letter and that's when she got concerned about it being just a matter of vegetation. When she was onsite in 2017, she had not done the extensive testing that P. Shea had, and therefore when he started doing soil testing and looking for groundwater and hitting rock, she had no reason but to believe, which is why site work proceeded to the point that it did today and then when the second letter came through, she had reservations.

Discussion followed about the proposed work for the site, where the location of the new septic system is proposed and P. Shea pointed out the water flows.

The C.O. summarized that the BOH is looking for the Commission's feedback on the letter from John Zimmer and whether they agree or disagree. Commissioner Freeman stated that as of right now it's not deemed a wetland and the reason is that changed so quickly is this artificial manmade alteration. The Commission further discussed the matter and Commissioner Hidell stated that, in his opinion, the key lies in soils and not so much the vegetation. Commissioner Zane pointed out that J. Zimmer said there is the presence of hydric soils. Commissioner Freeman stated that they would need more than that so if they don't have enough to call it a wetland and they have two wetland scientists, two years apart, stating that it's not, she doesn't see on what basis the Commission would not approve the letter. Brief discussion followed about the impervious layer and whether it is possibly a boulder field and not entirely impervious. Commissioner Hidell restated that the soils do not support that it's a wetland.

Motion: Commissioner Zane moved to approve the letter dated September 23, 2019 submitted to the Board of Health by John Zimmer, South River Environmental regarding 156 East Street.

Second: Commissioner Mooney

In Favor: All

Opposed: None

- b. Discussion and vote related to peer review for submitted wave study at 15 Howard Road (DEP 034-1300)

Meeting Documents & Exhibits: Wave and Wind Study letter dated September 18, sent to the owners of 15 Howard Rd by RACE Coastal Engineering

The C.O. explained that she raised the question to give the Commission time to procure a peer review for the submitted wave study should they feel they need one. Commissioner Hidell commented that the study was not done on site which is critically different from one generated from outside data collection. Commissioner Kelly asked what the criteria is for the hiring of a peer review and the C.O. explained that it would be if the Commission would like a second opinion or need more information to interpret the submitted wave study. The Commission briefly discussed the study and concluded that they would not request a peer review.

- c. Vote to approve Commission policies on resource area delineation and tree removal and replacement

In the interest of time, the Commission chose to continue this item to the October 21, 2019.

- d. Vote to approve 2020 Commission meeting schedule

Motion: Commissioner Mooney moved to approve the 2020 Commission schedule.

Second: Commissioner Hidell **In Favor:** All **Opposed:** None

Commissioner Freeman adjourned the meeting at 9:28 pm.

Submitted, _____
Sylvia Schuler, Administrative Secretary

Approved on October 21, 2019

Meetings are recorded. To obtain a copy of the recording, please contact the Conservation Office.