



HULL CONSERVATION COMMISSION

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APPROVED – March 22, 2016

Members Present: Sheila Connor, Chair, Sean Bannen, Elizabeth Fish, Christopher Olivieri, Paul Paquin, Lou Sorgi

Members Absent: Paul Epstein

Staff Present: Anne Herbst, Conservation Administrator
Sarah Clarren, Clerk

Minutes: Upon a **motion** by P. Paquin **2nd** by S. Bannen and a **vote** of 6-0;
It was **voted** to: Approve the Minutes of March 8, 2016 as amended

7:30 Call to order

7:39 C. Olivieri arrived.

7:40 180 Main St., Map 1/Lot 1A (SE35-1303) Continuation of a Public Hearing on the **Notice of Intent** filed by **Kathleen Tyrell** for work described as **contingent on funding, construct synthetic turf field including lighting and jogging track.**

Representatives: Kathleen Tyrell (applicant); Eric Hipp, Stephanie Peters, David Twombly, Kelly Huxtable (School Committee members); David Degennaro, Diane Saniuk, Jim Quatromoni (school employees); Bill Seymoor and Maggie Jacques of Gale Associates; John Chessia (peer reviewer)

Abutters: Rhoda Kanet (Beach Management Committee); Vickie Baumwald (8 Third St.)

Documents: "Engineering Review" – J. Chessia – 03/16/2016

"Fields in floodzones" – n.d. (introduced)

"Tabor Academy – Synthetic Turf Athletic Field Evaluation – Cindy Baumann, P.E. – 04/13/2014 (introduced)

"Engineering Review (Responses)" – M. Jacques and B. Seymoor – 03/22/2016 (introduced)

"Notice of Intent (pages 1, 2, 6-9 out of 9)" (introduced)

"VCP6 6'H Vinyl Coated Polyester Mesh Windscreen Material" – Sportsfield Specialties – n.d. (introduced)

"Checklist for Stormwater Report" – n.d. (introduced)

"Existing and Proposed Site Conditions" – n.d. (introduced)

"Existing Conditions Plan (C001)" – Gale Associates, Inc. – 3/22/2016 (introduced)

"Athletic Campus Renovations (C002, C503) –Gale Associates, Inc. – 03/02/2016 (introduced)

"Wetlands Regulations 10.27; 10.34" – 10/24/2014

E. Hipp asked the Commission if the School Committee could open their meeting as well, to which the Commission agreed.

The Commission began by stating that it is rare that the Commission has such a complex project presented to them and due to its complexity, they asked for a peer review to be completed. Since the last hearing, J. Chessia (the peer reviewer) visited the site, reviewed the plan and prepared a peer review. The peer review was then provided to the Conservation Department and applicant.

J. Chessia directed the Commission to the peer review. He listed the suggestions he believes Gale Associates, Inc. should make to the NOI, which include 1) identify and locate resource areas on the plan; 2) identify land subject to coastal storm flowage as a resource area in the NOI, as currently, the NOI states that the project is only in the buffer zone; 3) include more details on the proposed windscreen along the proposed fence. J.

Chessia then stated that he reviewed the stormwater report that was submitted with the NOI. He went on to review the 10 DEP stormwater standards.

J. Chessia said that the first DEP stormwater standard is that there can be no untreated stormwater created on any project. J. Chessia then said that currently, all rainwater sheds off of the project area and the proposed project is designed to not produce any discharge, which means that the project meets this standard. The second standard is post development peak discharge rates should not exceed predevelopment rates. He then said that this site is in a coastal zone and is therefore eligible to request a waiver for this standard from the Commission because the location is in land subject to coastal storm flowage. J. Chessia said that he assumes that Gale will request a waiver, so he did not go into the details of his review on this standard.

The third standard is recharge to groundwater, which requires that one take a certain amount of rainfall and soak it back into the ground. He stated that the plan shows that the field pitches in multiple locations, but the calculations that were calculated for the recharge assumed that the field was flat; in other words, the calculations do not match the plan. He then said that test pits were completed, but because the tide affects the water table in this location, the test pits should be done during high tide. The Commission then asked what high tide level should be tested, to which J. Chessia suggested Mean High Water (MHW) or a spring tide. The Commission then stated that during a storm with wind, sometimes tides continue to build and then asked if this location would be more susceptible to flooding from below during a 100 year storm event. J. Chessia said that the recharge is relatively small, so if there is big storm, with a lot of rain, the amount of recharge will not matter; it will all runoff. He then said that the site is in a flood zone, so in a 100 year storm, the whole field will be underwater, and flooding will occur. B. Seymoor of Gale Associates, Inc. commented that the stormwater calculations they completed show that the field can withstand a 100 year storm. J. Chessia said that he has comments/concerns on the stormwater calculations and will discuss them later. B. Seymoor said that when they dug the 9 feet deep test pits two hours prior to high tide, they did not see any water in the holes. J. Chessia said that Gale Associates, Inc. should include elevations and depths of the system on the plan.

The fourth standard requires that runoff be treated to have suspended solids (TSS) removed. J. Chessia said that there is potential if this area floods, that the infill will migrate. He then questioned the idea of putting a artificial turf field in a coastal flood zone. B. Seymoor interjected by stating that there are multiple fields in coastal flood zones. J. Chessia then said that the Commission should be provided with information about how each field held up during and after flooding situations. B. Seymoor said he would provide this information. J. Chessia said that although the field only makes up a portion of the site, according to the regulations, if it is feasible, the school must make some improvement to the management of stormwater on the rest of the site. An operations and management plan should also be submitted that explains what is being installed and how it is going to be maintained. The Commission asked J. Chessia to define TSS. J. Chessia said that it is sediment or sand, so according to the regulations, crumb rubber can be considered TSS. He then said that typically, TSS are found on roads; a catch basin would be installed to catch the sand and/or salt used during the winter.

The fifth standard is applicable to sites with higher potential pollutant loads (gas stations, industrial sites, large parking lots), so it is not applicable to this project. The Commission asked if the artificial turf contains ground up tires if it could be considered a high pollutant load. J. Chessia responded by saying that the regulations list what can be considered high pollutant loads and artificial turf fields are not one of them. Standard six is 'protection of critical areas' and J. Chessia said that this project is subject to this standard because although the site is not located within a specific critical area, the project would discharge into a shellfish growing area. Anything that drains into a shellfish area is considered a critical area. Because of this, a higher water quality volume (WQV) must be treated. Standard seven is redevelopment projects and J. Chessia stated that this project could be considered a partial redevelopment project. Being designated a redevelopment project releases the project from 100% compliance with standards 2, 3, 4, 5, and 6. J. Chessia then said that the project is still subject to the comments that he has raised so far.

Standard 8 includes the construction phase; erosion/sediment control. J. Chessia said that this site is subject to a NPDES Stormwater Pollution Plan and which would be filed with the EPA. He continued by saying that this project involves a lot of earthwork, so the contractor/s must be very careful during construction. He then stated that the plan has minimal information on where and how materials will be stockpiled and although the project

could be approved by the Commission prior to the EPA coming to a decision, the Commission should require a copy of the plan prior to any work commencing.

Standard nine is an operations and maintenance (O&M) plan. J. Chessia said that although there is an O&M Plan included in the stormwater report, it does not address the entire parcel; only the land that the project is on. Additionally, more information on the maintenance of the drains should be included in the O&M Plan. The Commission said that in the past, they have required annual inspections. B. Seymoor said that as the bid is set currently, the contractor will be checking the system at six months and at 12 months. After 12 months, it is up to the Town to monitor the project. Standard ten is 'Illicit Discharge,' which requires a certification statement stating that there are no illicit drains on the parcel.

B. Seymoor presented the Commission with Gale Associates, Inc.'s response to J. Chessia's peer review. He stated that according to the stormwater model that they have completed, the site will be able to take a 100 year storm and infiltrate it 100% without standing water, as the field is designed to drain at 16 in/hour. The Commission then asked B. Seymoor what is keeping the infill out of the groundwater, to which B. Seymoor said the infill is held in place by filter fabric. B. Seymoor then went on to describe the proposed composition of the field. He said that first, there is a prepared subbase which is very permeable sand and underneath that there is six feet (vertically) of separation for stormwater storage and filtration between the groundwater and the field. On top of that, the filter fabric would be placed. On top of that, a 10 inch stone basin would be placed, which can take a 3 in storm without recharging anything into the underlying material. Additionally, every 20 feet there is a flat panel drain which takes water to the perimeter of the field and allows it to recharge into the groundwater. On top of the stone basin, a carpet is placed and fastened to a concrete curb (which also includes a trench drain to catch any sediment which migrates) around the perimeter of the field. B. Seymoor then said that with a storm event, the field will be just fine and nothing will leave the site. However, in a coastal flooding event, there will be runoff and some infill migration may occur. B. Seymoor said that the infill will not move unless a flooding event occurs and the system is completely overwhelmed. The Commission asked if the rubber infill could end up in the trench drains. B. Seymoor said that it shouldn't; instead, it is more likely that dirt would end up in the trench drains from the walking track along the perimeter of the field. The Commission then asked where the dirt would come from, to which B. Seymoor suggested that the dirt could come from players' shoes from playing on a dirt field the previous day. The Commission then asked how this material would be removed from the drain, to which B. Seymoor said that there is a basket that can be lifted out and cleaned. B. Seymoor then directed the Commission's attention to a second handout which shows other fields that have been built in flood zones. He then said each has had flooding and after flooding, it was reported that each field was put back into service without any additional infill material added.

B. Seymoor did state that if there is a significant storm, like Hurricane Sandy that overwhelms the field, infill may be lost. However, he said that Gale has completed leachate testing, aquatic toxicity testing, water quality testing under a field after a five year period looking at metals, and that they have yet to find a risk associated with these materials. M. Jacques of Gale Associates said that Taber Academy completed a water study on their crumb rubber field and discovered no significant water quality issues. She then passed out copies of the study.

The Commission stated that they should continue the hearing in order to review the many materials that were submitted. All parties agreed. B. Seymoor then asked if he could meet with J. Chessia prior to the next hearing, to which J. Chessia agreed. The Commission then asked Gale Associates to provide more information about the affect of the wind on the infill. When asked, B. Seymoor did say that until the infill settles into the matrix of the carpet (around six months), some infill may migrate due to wind. The Commission then suggested that Gale look into a more enhanced fence to contain any infill.

- Upon a **motion** by S. Bannen **2nd** by L. Sorgi and a **vote** of 6-0;

It was **voted** to:

Continue the Public Hearing to 4/12/2016 at a time to be determined.

8:38 12 Sunset Avenue, Map 16/Lot 11 (SE35-1305) Opening of a Public Hearing on the **Notice of Intent** filed by **Scott Prouty** for work described as **kitchen expansion and deck**.

Abutters: John Struzziery (20 Sunset Ave.)

Documents: "Alterations/Addition to: The Prouty Residence (A-1, A-3, A-4, A-5)" – James Kelliher – 02/27/2016

"Plan of Land in Hull, MA (Annotated)" – Ernest W. Branch Inc. – 1/6/1988

A. Herbst presented the proposed project. The plan includes converting the existing deck into a kitchen and constructing a small deck addition which will be on sonotubes. The new kitchen will be on a full foundation. J. Struzziery, of 20 Sunset Ave., asked how large the small deck addition would be. A. Herbst directed him to the plan. J. Struzziery then said that he thinks this project is a wonderful idea.

One Special Condition was added as follows:

S12. The Commission finds that the resource area is Land Subject to Coastal Storm Flowage. Although the property is shown to be on a barrier beach, the Commission finds that this location is not a coastal dune due to the evidence regarding the historic drumlin in this area.

- Upon a **motion** by S. Bannen **2nd** by L. Sorgi and a **vote** of 6-0;
It was **voted** to:

Close the Public Hearing and **approve** the project. The Order of Conditions was **signed**.

8:41 Spinnaker Island Causeway, Map 60/Lot 900 (SE35-1306) Opening of a Public Hearing on the **Notice of Intent** filed by **Spinnaker Island and Yacht Club** for work described as **20 test borings to prepare for water line replacement**.

Representatives: Steve Ivas (Ivas Environmental Engineering); Steve Bernstein (SUB Group); Scott Dennis (McPhail Associates); James Haley and Spiros Antoniadis (applicants)

Abutters: Kurt Bornheim (Harbormaster);

Documents: "Letter from Division of Marine Fisheries" – Jillian Carr – 03/18/2016

S. Ivas presented the proposed project. He stated that in order to prepare to replace the existing water main line, test borings must be done parallel to existing pipe. He said that two will be done on land (during low tide) and the other three will be in the water. S. Ivas then said that the resource area (land under the ocean) contains habitat of shellfish, blue mussel, softshell crab, flounder (in the winter), and eel grass. The Commission asked how many borings they actually intend to do, as the project originally called for 20 borings. S. Bernstein said when the permit request was originally submitted, it was not known how many borings were needed and they felt it would be better to ask for more than what was needed; they now intend to only complete 5. The Commission then asked how each boring would be done. S. Ivas said that each boring will go about 25 feet deep, which will take them to a natural clay layer. S. Dennis said that two of the borings will be on land and would be dug using a small track drill rig (about the size of a pickup truck). The three completed on the ocean will be dug using a small barge mounted drill rig. Each bore hole is entirely cased with steel, so as they advance, it will seal the bore hole. As they generate any waste water or soil from the boring, the waste will be put in drums which would later be legally disposed of.

A. Herbst asked how long it would take to complete the borings in the water, to which S. Dennis said it would take one day for each boring. A. Herbst then said that tides fluctuate and it would be difficult to complete the three borings in a short period of time. S. Dennis said that they are aware of that and will coordinate with the tides to maximize completing the work over a high tide period. A. Herbst asked how they will minimize turbidity, which S. Dennis said that they will wait for a calm day and each boring will be completed on a different day. The Commission asked if they intend on following the suggestions raised in the letter from Jillian Carr of Marine Fisheries, to which S. Dennis said yes. K. Bornheim asked what they intend on doing with the barge when it is not in service, to which S. Dennis said it would be close to the shore. K. Bornheim said that he would work with them on the exact location.

Two Special Conditions were added as follows:

S12. The Commission approves the installation of 5 borings as requested by the applicant.

S13. The applicant shall comply with the strategies to reduce impacts suggested by the Division of Marine Fisheries in their comment letter of March 18, 2016.

- Upon a **motion** by P. Paquin **2nd** by S. Bannen and a **vote** of 6-0;
It was **voted** to:

Close the Public Hearing and **approve** the project. The Order of Conditions was **signed**.

Requests for Certificate of Compliance

8 Circuit Ave. (SE35-1199) – CoC not issued; after discussion with the applicant, the Commission agreed to complete another site visit

182 Spring St. (SE35-1251) – P. Paquin **Motion**, S. Bannen **2nd**, vote 6-0; CoC **issued**.

119 Edgewater Rd (SE35-1242) – P. Paquin **Motion**, S. Bannen **2nd**, vote 6-0; CoC **issued**.

New Business:

Spinnaker Island Update: S. Antoniadis and J. Haley of Spinnaker Island gave the Commission an update on plans to remove hazards to navigation from the disbanded marina.

Beach grass planting: A. Herbst reminded the Commission that Beach Grass Planting will take place on 4/9, with a rain date on 4/10.

Next Commission meeting: A. Herbst reminded the Commission that the next meeting will be in 3 weeks and site visits will take place in two weeks, on 4/5.

10:02 Upon a **motion** by S. Bannen and **2nd** by L. Sorgi and a **vote** of 6-0;
It was **voted** to: Adjourn