



HULL CONSERVATION COMMISSION

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Hull, MA 02045

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TUESDAY, January 22, 2019

Meeting held at Hull Town Hall, 2nd Floor

Members Present: Paul Paquin, Chair, Sean Bannen, Paul Epstein, Chris Oliveri, Lou Sorgi
Staff Present: Chris Krahforst, Conservation Administrator; Sarah Clarren, Assistant Conservation Administrator
Minutes: Upon a **motion** by P. Epstein **2nd** by S. Bannen and a **vote** of 5-0;
It was **voted** to: Approve the Minutes of December 18, 2018 as amended.

7:34 Call to order

7:35 839 Nantasket Ave, Map 12/Lot 106 Opening of a Public Hearing on the **Request for Determination of Applicability** filed by **Alysha Siliciano Perry** for work described as **Remove of concrete "Existing Fuel Storage Vault" and removal of underground fuel line.**

Representatives: none present

Abutters/Others: none present

Documents: "Existing Conditions Plan of Land" – Outback Engineering, Inc. – 10/29/2004

As the applicant was not present, C. Krahforst presented the proposed project. He stated that the applicant is seeking to do some pre-demo prep work prior to seeking a permit for further work. The proposed project involves removing an old square concrete container used for fuel storage and excavating to remove the pipe. The Commission asked what would happen if the soil is contaminated, to which C. Krahforst stated that they've done soil testing and the site has supposedly come back clean.

One Special Condition was added as follows:

1) The area must be filled in with clean, like-material and returned to the original grade.

- Upon a **motion** by P. Epstein **2nd** by S. Bannen and a **vote** of 5-0;

It was **voted** to:

Close the Public Hearing and **issue** a Negative Determination of Applicability. The Determination of Applicability was **signed**.

7:40 Parking lot area adjacent to 143 Beach Ave., Map 19/Lot 164 (SE35-1415) Continuation of a Public Hearing on the **Notice of Intent** filed by **Arjan Kraan** for work described as **post-storm clean up of sand in parking lot adjacent to 143 Beach Ave.**

Representatives: none present

Abutters/Others: none present

Documents: "Re: 143 Beach Ave NOI is still on for tonight [email]" – Philip Lemnios – 1/22/2019

C. Krahforst read aloud an email from P. Lemnios, Town Manager withdrawing support of the project. As the applicants were not present for the hearing, the Commission determined it was best practice to continue the meeting.

- Upon a **motion** by P. Epstein **2nd** by S. Bannen and a **vote** of 5-0;

It was **voted** to:

Continue the Public Hearing to 02/12/2019 at a time to be determined.

7:45 353 Beach Ave Map 12 /Lot 040 (SE35-1424) Continuation of a Public Hearing to **Amend the Order of Conditions** requested by **Leif O'Leary** for work described as **Elevate existing home onto piles and then remodel existing house.**

Representatives: none present

Abutters/Others: none present

Documents: "Re: 353 Beach Avenue, Hull, MA – Proposal [email]" – Leif O'Leary – 1/15/2019

C. Krahforst said that he reached out and solicited peer review for the structural design as requested by the Commission at the last meeting and has since received one response which he forwarded to David Ray, Surveyor, and the representative of the applicant. He stated that he also reached out to the state Floodplains Manager and CZM regarding the project; both relayed that the Commission should focus solely on WPA/resource areas. C. Krahforst then read an email from D. Ray aloud which stated that the applicants are not incorporating new design. The Commission therefore recognized the email as a withdrawal of their application.

7:50 Along the coastal bank adjacent to 26-30 Marine Drive, Map 60/Lot 900 (SE35-1451) Continuation of a Public Hearing on the Notice of Intent filed by Tony Susi for work described as proposed rock revetment for coastal bank stabilization.

Representatives: Tara Marden (Representative); Toni Susi (Representative); Amy Shaw (Representative)

Abutters/Others: Brian Herr (32 Marina Drive); Doug Melcher (29 Marina Dr); Mark Hoffman (2 Spinnaker Hill Ln); Greg Fallon (26 Marina Dr); Edward Gove (28 Marina Dr); Robin Gove (28 Marina Dr); Marjorie Wiseman (27 Marina Dr); Louis Colageo (405 Harbor House; Trustee);

Documents: "Proposed Bank Stabilization" – Holmes and McGrath, Inc – 11/02/2018, last rev. 12/11/2018

"Invasive Plant Management Plan" – Holmes and McGrath, Inc – 01/08/2019

"Plan of Proposed Roof Drainage" – Holmes and McGrath, Inc – 01/02/2019

"Invasive Plant Management and Monitoring Plan Narrative" – Woods Hole Group – n.d.

T. Marden stated that since the last hearing, nothing has changed. She stated that a continuance was agreed upon in order to allow the Commission to review the information that had been submitted the day of the last hearing.

C. Krahforst began by identifying the resource areas which include Coastal Bank and Coastal Beach. He stated that the Commission must examine how the project would follow the performance standards as indicated for each resource area under the WPA. He stated that the coastal bank not only serves as a vertical buffer, but also as a sediment source. He stated that the coastal bank is clearly eroding and therefore it is providing sediment to other resource areas. He read aloud a section from the WPA and added that it is clear from the regulations that there cannot be armoring of a coastal bank for that contains building/s that were constructed post-1978. C. Krahforst then noted that exemptions could be given if it is a gap project, but as the letter provided by CZM indicated, it is not quite a gap project. He indicated that gap projects are possibly permissible if there is enhanced evidence of scouring. Furthermore, CZM believes some of the erosion is due to wave action on occasion, but mostly due to lack of bank maintenance (e.g. invasive, non deep-rooted vegetation)/land-based water runoff (roof downspouts discharging directly to the top of the bank). Bank weakening has been occurring over time and the Jan-Mar 2018 storms caused it to collapse. CZM observed no significant enhanced scouring at the ends of adjacent revetments during a site visit and neither did the Commission nor Conservation Department staff.

C. Krahforst then discussed the alternatives analysis that was submitted. The first alternative proposed was no action, which given the site, is unreasonable. The second alternative is coastal bank replenishment, which may not work for the site. The third was a bio-engineered structure, and that focused on coir envelopes/blankets. C. Krahforst noted that they can be a short-term solution, but bio-engineered bank stabilization efforts should include a vegetation component in addition to coir blanket/log solutions. He added that CZM is in agreement with this third alternative, if vegetation is also proposed. Without the vegetated component, the proposed alternative would be short term. T. Marden stated that all bio-engineered solutions have a planting component, to which C. Krahforst responded that vegetation was not listed in the documents. The fourth alternative proposed was rock-filled gabion baskets; C. Krahforst agreed that they can be dangerous in the long-term. The fifth and last proposed alternative was the rock revetment, which the applicants want. C. Krahforst stated that under the current regulations, the proposed alternative is not permissible. He then noted that throughout the NOI there is reference to the low-energy, low-wave, and sheltered character of the work area. He then stated that all of these help indicate that it is a prime area for a bio-engineered solution.

C. Krahforst then reviewed a few items from the invasive species monitoring plan, including the fact that it partly recognized the invasives canopy as one of the reasons for the coastal bank destabilization and that the plan calls for Rodeo (like Round-Up; glyphosate) applications to help control invasive species. He then highly recommended adopting an island-wide invasive species removal and vegetation maintenance program. He added that p. 8 of the invasive species management plan calls for bio-engineered solutions will be used in another area of the site and then questioned why they aren't proposed in this location instead of the revetment, to which T. Marden said bio-engineering isn't proposed here due to the proximity of the foundation of one of the townhouses.

T. Marden stated that at the last meeting, they presented a drainage plan. She agreed that some of issues due to poor drainage coming from homes and the presence of invasive species. She added that it is a sheltered area, but there is still flooding and sea level rise; big waves can still do big damage. She said that the average wave in here isn't moving a lot of sediment. T. Marden said that since the first hearing to alleviate drainage, homeowners have installed some pipes and have since hired a civil engineer to create drainage plan which has drywells, PVC system, overflow pipe through revetment, which was presented at the last meeting. She added that the same concept can be used for the adjacent homes. She stated that the Invasive species management plan was also proposed at the last hearing, which include backfilling an area with clean native material, erosion control blankets, and plant native species, which is a good opportunity to enhance the resource area. Beach nourishment is also proposed. She stated that in some

locations, there is only about 1' to the foundation. She alluded to the fact that if the project isn't approved, the situation would get worse and there would soon be a vertical structure (the foundation).

T. Marden said that bio-engineering is designed to fail; stabilization does happen, but it's not designed to stop erosion. She suggested that it would be better utilized in a dune system, as plants don't stabilize coastal bank like they do a coastal dune. She added that the site is essentially up against the foundation and then added that bioengineering requires maintenance, which would involve annual heavy machinery on the beach.

T. Marden then said that applications are reviewed under the Town's Bylaw and the Wetlands Protection Act; the Commission has the ability to review the application on behalf of DEP, as DEP is unable to visit every site. She then stated that she doesn't agree with the statement that there isn't end effect erosion. She said that soft-stabilization will always include rebuilding. She added that soft-solutions would have to be built out 10-15' which gets close to that salt marsh and there isn't enough space onsite. She stated that the beach is gravelly and it is difficult to recreate a coastal bank. She added that the island has been manipulated for many years. T. Marden stated that beach nourishment is proposed once a year or every three years as part of the project. She added that current bank erosion was calculated to be eroding 4yards/year.

She said that the area gets a lot of debris that is collected by the property owners. She added that if coir envelopes are used, the debris would puncture and destroy it. She added that 95% of Spinnaker is armored. Salt marsh looks healthy along this stretch; she said that she doesn't think that the armoring in the other areas has had any impact on the salt marsh. She said it is not a nice beach; construction materials from the bank have been feeding the beach over the years.

T. Susi asked about the CZM letter and if it mentioned the effect waves has on the coastal bank. C. Krahforst said that a copy was provided to the applicant. He then read the letter aloud. He added that other alternatives could be used in order to protect the resource areas and the homes. He again added that regulations don't allow armoring. He stated that the applicants have followed the Commission and CZM recommendations regarding the upland runoff and invasive species. He then suggested that the applicants follow the third CZM suggestion of constructing a cobble berm and coconut fiber rolls with vegetation. C. Krahforst noted that he understands wave action helped cause the current conditions, but that it was exacerbated because the bank was destabilized. T. Susi said the project area is the only area on island that experienced erosion, to which the Commission stated that the rock revetment isn't as strong as he thinks it is and suggested that they walk around the island and to look at the revetment and the erosion within the rocks. It was added that rock revetments will not last forever. T. Marden said that when they met onsite with CZM and they didn't say anything; a letter was just provided.

A Commissioner suggested that the area consists of glacial till and suggested bringing in 10-15' of glacial till in, vegetate it, and then install a cobble berm. T. Marden said one cannot purchase glacial till and although it may sound like a good idea, there isn't a lot of room on site; she's not sure if CZM thought of the long-term impacts. She said that one cannot construct a coastal bank.

Another Commissioner said that the proposed 136' of revetment is between two existing structures, which makes it a gap project. The Commissioner then spoke favorably on the proposed nourishment. Another Commissioner said that they understood that there is an issue with the proximity of the homes to the shoreline, but the proposed project is against the WPA. They then questioned what the harm in violating the WPA is. They added that they don't see any evidence that it is a gap project and that it is a self-imposed problem; the applicants have to take ownership of the problem. Said Commissioner said they had stated and hoped a soft-solution would be presented, but that is not the case. They originally thought it would be best to deny the project and have it go to DEP who should approve it, but given the reading, they don't think DEP would do that; therefore, the Commissioner believes the Commission should approve the project and have DEP appeal it if necessary. T. Marden said that most people have no idea what an invasive species is or what drainage should be, so lack of maintenance is likely not maliciousness, but more likely being ignorant on the subject.

A Commissioner again suggested that it is a gap project of 136' and that special conditions could include requiring drainage throughout the site, invasive species removal and maintenance, and an annual beach nourishment to be done by hand. C. Krahforst noted that no adequate soft-solution has been proposed and that he strongly agrees that what CZM proposed is durable/viable. He said that there is concern that properties are very vulnerable right now and therefore suggests a temporary emergency order, with the understanding that the applicants consider CZMs design as a longer term soft solution. He said that the coastal bank remained intact a long time and three storms took it out. If that bank was maintained, it would've been fine. He again added that there is evidence that the coastal bank worked and there is evidence that it collapsed catastrophically and there is evidence of lack of maintenance. T. Marden said that the bank did not fail because of invasive species, but by the March Nor'easters; sea level rise is happening and storms

are more severe. T. Susi said that the Woods Hole Group has been onsite for 6 months, while CZM only went out for 30min. A Commissioner said that erosion happens at every tide, but the big damage happens during one event.

The Commission questioned why the gap has existed throughout the years. D. Melcher of 29 Marina Dr suggested that the reason there wasn't rocks there is that's where boats were launched during military operations prior to the construction of Spinnaker Island.

The Commission asked how the revetment will be constructed and if it is an adequately engineered, to which C. Krahforst said that he nor the Commission has that expertise. T. Marden said that she is a coastal geologist and therefore did not design the revetment. She added that the Woods Hole Group has a team of engineers who designed the revetment. She stated that there would be a staging area on Spinnaker Island and that machinery would go over the bank between 27 and 28 Marina Drive. She said the area is tight, but that she's worked in narrower areas. She added that she will be on site at various times to monitor construction. The salt marsh would be cornered off to ensure that no equipment crosses over that boundary. A smaller front-end loader will likely be used to deliver the chinking stone. T. Susi said that the existing decks would be cantilevered. D. Melcher of 29 Marina Dr. said that the property owners want to ensure the safety of the natural resources and will alert the Conservation Department if any equipment isn't being used properly.

S. Clarren asked if the Commission read the excerpt of a similar case which was provided in each Commissioner's packet; a similar revetment project was overturned by DEP because it violates the Wetlands Protection Act. She reminded the Commission that they are tasked with enforcing the Wetlands Protection Act. A Commissioner suggested that the case was different as the proposed project is a gap project. S. Clarren responded by stating that the resource areas and their performance standards remain the same. C. Krahforst then re-read CZM's letter which mentions that the proposed project is not a gap project. S. Clarren then added that there is a salt marsh that may be negatively impacted by construction of a revetment, depending on the amount and type of nourishment. T. Marden said that the marsh wasn't impacted by the other revetments and that such a comment was speculation, to which C. Krahforst said that the marsh has had sediment source, but the proposed revetment will cut off said sediment source. A Commissioner said that beach nourishment is proposed.

P. Epstein moved that the Commission approve the NOI with the following conditions:

- 1) The drainage system be addressed, constructed and maintained in such a way that it does not contribute to the destabilization of the coastal bank or impacts negatively on the coastal bank vegetation. This condition is ongoing and will not expire at the end of three years, nor after issuance of a Certificate of Compliance.
- 2) The coastal banks shall be checked and cleared of invasive species. The coastal bank shall be naturally vegetated and shall remain naturally vegetated in perpetuity. This condition is ongoing and will not expire at the end of three years, nor after issuance of a Certificate of Compliance.
- 3) Beach nourishment shall be done every year by hand to minimize impact to the wetland resources and to stabilize the area. Nourishment may vary; it shall be done to re-establish the beach to its condition prior to the storm season. This condition is ongoing and will not expire at the end of three years, nor after issuance of a Certificate of Compliance.
- 4) The approval of this project rests on the fact that it is the Commission's opinion that it is a gap project and fills the requirements of a gap project.

S. Clarren expressed concern over past Special Conditions requiring beach nourishment and the property owner's inability to complete the required nourishment. She stated that other towns have special reserve accounts for such activity which is replenished by the property owner every time it reaches below a certain amount. C. Krahforst suggested the Commission conditioning an escrow account to cover the cost of annual nourishment and inspections to ensure proper compliance. T. Marden stated that such a condition is agreeable, but suggested that the language would have to be worked out by legal advisors.

P. Epstein amended his original motion to include the following condition:

- 5) The Applicant and Property owner shall remain fully responsible for satisfying all terms and conditions of this OOC and applicable laws. As further assurance for the satisfaction of all terms and conditions of the OOC and applicable laws, an escrow account in the minimum amount of \$ 5,000 shall be created to ensure an annual beach nourishment implementation and any cost arising from the need to ensure compliance with the OOC and applicable laws. Annual nourishment shall include no less than 40 cubic yards of compatible material, but may be more if approved by the Conservation Administrator or designee to return to the area to its condition prior to the storm season preceding annual nourishment. Said amount shall be determined based on adequate beach monitoring which shall review the elevation and condition of the beach twice annually. Escrow funds shall be replenished as needed to ensure the balance of the account remains above \$5000. This condition is ongoing and will not expire at the end of three years, nor after issuance of a Certificate of Compliance. It shall be at the sole option and discretion of the Town, Conservation Commission and/or Conservation Administrator as to

whether to use whatever legal options and remedies it has, including but not limited to the escrow agreement and funds, other lawful means, or any combination there to enforce the terms of the OOC and the law, including any costs, staff time, legal fees, engineering/consulting fees in said enforcement activities and/or actions of the Town in relation thereto.

- Upon a **motion** by P. Epstein **2nd** by L. Sorgi and a **vote** of 5-0;

It was **voted** to:

Close the Public Hearing and **approve** the Order of Conditions with the above listed Special Conditions. The Order of Conditions was **signed**.

Certificate of Compliance Requests

76 Atlantic Ave: Sceviours present. C. Krahforst said that the owners have done as the Commission requested during the last meeting. He noted that a groundwater infiltration trench was also installed and therefore the property has better drainage containment within the lot. He added that what was regraded, may not be the best for the site, but it was returned to the grade it was before. D. Sceviour stated that he has hired the hydroseeder for the spring – P. Epstein

Motion, S. Bannen **2nd**, **vote** 5-0; CoC issued.

36 Cadish Ave: The Commission noted that no as-built has been provided. No action

Continued and New Business

MVP Workshop Feb 9th: C. Krahforst stated that if any Commissioners would like to attend the MVP workshop, they should RSVP.

MACC Annual Conference, March 2nd: S. Clarren indicated that workshops have been announced for MACC's Annual Conference and said that if any Commissioners would like to go, they should indicate which workshops they would like to take.

Permitting Propane Tanks: C. Krahforst stated that the Commission approved an Amended OoC which included a pad for propane tanks, but noted that propane tanks need to be approved by Fire Department.

Quarterly Report: C. Krahforst stated that if the Commissioners would like to make any changes to the draft Quarterly Report, they should email him by end of business day on 1/24/19.

Violations and Compliance issues

86 Main Street: C. Krahforst stated that the Commission approved an Order for the site and had noted that woodchips were on the bank; he issued a compliance letter that it needs to be removed.

11 Rockland Cicle: P. Paquin recused himself. C. Krahforst noted that there is a new person representing the site and its compliance. Krahforst met with pavement contractor onsite to review compliance. Krahforst will continue to update the Commission. P. Paquin returned.

Gunrock paper street ramp (new): The Commission debated the unpermitted work done on town land by private individuals that is currently impacting resource areas. The Commission considered the town seeking a permit for the ramp and suggested having Krahforst reach out to Town Counsel on how to proceed.

9:40 Upon a **motion** by P. Epstein and **2nd** by L. Sorgi and a **vote** of 5-0;

It was **voted** to: Adjourn.