



CONSERVATION COMMISSION

PUBLIC MEETING

2 Bathing Beach Road
Nantucket, Massachusetts 02554

www.nantucket-ma.gov

Monday, March 11, 2019

4 Fairgrounds Road, Training Room – 4:00 p.m.

Commissioners: Andrew Bennett(Chair), Ashley Erisman(Vice Chair), Ernie Steinauer, David LaFleur, Ben Champoux, Ian Golding, Joe Topham

Called to order at 4:11 p.m.

Staff in attendance: Jeff Carlson, Natural Resources Coordinator; Joanne Dodd, Natural Resources Office Administrator; Terry Norton, Town Minutes Taker

Attending Members: Bennett, Erisman, Steinauer, LaFleur, Champoux, Golding, Topham

Absent Members: None

Late Arrivals: None

Earlier Departure: None

Town Third-party: Greg Burnham, Woods Hole Group

Agenda adopted by unanimous consent

I. PUBLIC MEETING

A. Announcements

B. Public Comment – None

II. PUBLIC HEARING

A. Notice of Intent

1. *Sconset Beach Preservation Fund – 59-119 Baxter Road (49&48-various) Area SE48-3115

Sitting Bennett, Erisman, Steinauer, LaFleur, Champoux, Golding, Topham

Recused None

Documentation Supporting documents and plans. PowerPoint® presentation.

Applicant Steven Cohen, Cohen & Cohen LP

Representatives Dwight Dunk, Epsilon Associates Inc.

Josh Posner, 77 Baxter Road, Chairman 'Sconset Beach Preservation Fund

Public Judith Wegner, 50 Quidnet Road

Emily Molden, Nantucket Land Council (NCL)

Dirk Roggeveen, Quidnet/Squam Association (QSA)

Maureen Phillips, Nantucket Coastal Conservancy

D. Anne Atherton, 48 Squam Road, Nantucket Coastal Conservancy

Discussion **Dunk** – Reviewed major topics of discussion from past hearings and responded to comments referring to PowerPoint® presentation. Mr. Golding identified 83, 79, 77, and 73 Baxter Road as not eligible for protection, but we believe they are; reviewed the rationale. Regarding maintaining a walkable beach in front of the array, the mean low water (MLW) is moving within a 40-foot band consistent with the pre-installation level back to 2005. Reviewed the shoreline change at unprotected adjacent areas indicating about 1-plus foot per year accretion based upon data from the Woods Hole Group (WHG). Reviewed the sand mitigation protocol – 22 cubic yards per linear foot (cy/lf) per year to be supplemented and adjusted as needed; will use the topo survey to determine amount of sand washed off the system and introduced into the littoral system. Compared the existing project to the proposed project with minor changes based upon “lessons learned.” Reviewed how the expanded project is compliant with performance standards and meets the requirements of the Wetlands Protection Act.

Bennett – Noted accretion based on MLW, asked if that could be from nourishment or design.

Dunk – The material we are seeing along the beaches is consistent with the natural system.

Golding – About the end scour we witnessed, asked where that was represented on these profiles.

Dunk – WHG doesn’t show every profile; the table in the presentation is from their data, which shows accretion from October to October at the two profiles closest to the ends.

Erisman – The aerial shows three profiles close to the north end and four below the south end that don’t have corresponding numbers; wants to see data from those points as well. She questions the argument of the extended southern project protecting public interest; there should be some plan for alternative access that includes the southern portion.

Dunk –The south end protects mostly pre-1978 homes; the north end protects infrastructure.

Golding – Disagrees with the claim of protecting pre-1978 homes; he feels they are including homes on the west side. Asked if there is any location where the road is more than 100 feet from the coastal bank, which would be outside the area of protection.

Dunk – We clarified in the file that we are not considering homes on the west side of Baxter Road. We also identify the Bluff Walk as part of the infrastructure protection. Doesn't have information on the distances of the road from the bluff; he will review the documentation for that information.

Cohen – We previously detailed the four categories of protection; that is in the packet.

Steinauer – Asked Mr. Golding to review his assessment of pre- and post-1978 structures.

Golding – 119 & 117 vacant, 113 & 109 pre-1978, 107A, 105, & 101 vacant, 77 & 93 pre-1978, 87 & 85 vacant, 81 & 69 constructed since 1978, and 67-59 are pre-1978. He disagrees with Mr. Dunk's the assessments of 83, 79, 77, 73; they had more than 20% livable space added since 1978.

Bennett – There was concern expressed about the limited resources of Nantucket. Asked if there had been progress in looking for alternative sources of sand.

Posner – We recognize we are committing to a large amount of sand; we have some on-Island viable sources. We have identified and will begin permitting for potential off-shore dredging, in which we are particularly interested. Another potential is to test and use material from on-Island construction projects; most sand on the island is compatible.

Champoux – Everyone is concerned about long-term sustainability. If this project goes into failure and is ordered to be removed, asked if there is a legal way to ensure future homeowners won't block that removal.

Cohen – If it is ordered to be removed, authority to do that is provided in the order of condition. A future homeowner could appeal the order but that's true of any permit.

Erisman – The Massachusetts Natural Heritage (MNH) letter dated February 11 asked for site plans specific to the coastal dune area at the southern end as well as topographical information.

Dunk – That is consistent with the NOI statement there is no intent to alter the dune. The dunes in front of 57 and 59 Baxter Road eroded out last winter, but this project will not extend beyond 57. MNH identified conditions to be included; the end return will be moved northward above the dune, but the angle of return will be installed per the plan.

Golding – Asked how the houses above the dunes are in danger.

Dunk – We get accelerated coastal bank erosion. There is still some vegetated bank, but it has been sloughing off and the toe has shifted.

Topham – Asked for an updated calendar showing when sand was replaced after storm events. His concern is the bare tubes being a hard surface reflecting the wave energy.

Posner – We focused on last March because of the back-to-back storms that caused the tubes to be exposed; that was the only month that condition occurred. There have been a number of storms that the tubes were exposed and then recovered within a short timeframe; we submit a report to ConCom staff after every storm.

Steinauer – If it becomes necessary to bring sand in by barge or from off-island and we have an extended period when the boats can't run, that leaves the tubes bare for an extended period of time.

Posner – The template is 2.5 times the normal erosion amount; it is the stockpile. We would still have some on-island sand source.

Erisman – If there is no sand to take, we don't know how much sand the template would have given into the system.

Cohen – It isn't an issue how much sand is being contributed between when sand is washed away to when the tubes are recovered because sand is looked at over the contribution period. You have to differentiate between the tubes being exposed and being exposed and not contributing sand. An exposed bag causes issues with wave reflection; sand is looked at as a contribution. During a storm, there is already a huge column of sand in the system.

Dunk – In terms of the mechanism of sand movement, when the material washes off the template, it goes onto the beach making it available to the wash zone; from there it eventually moves into the littoral system transport mechanism. We want to maintain the annual amount of sand going into the system. They have on-site storage at the top of the template.

LaFleur – Part of the reason the bags were exposed is because of the inability of equipment to access the site.

Posner – We currently have our own equipment; if we had that in March 2018, the rolls would have been covered sooner. As to the comment about contribution, we might not know how much would have come off the template, but we can ascertain how much came off the unprotected bluff.

Erisman – She's worried about the implications of lack of contribution to other resource areas over time.

Golding – The equipment won't be kept on the geotubes; pointed out that after the March 2018 storms, the Hoicks Hollow access had to be rebuilt before the equipment could reach the site.

Erisman – With the bulldozer going back and forth across the beach after each storm event, she's concerned about the impact to the beach.

Bennett – Asked to hear from Mr. Burnham.

Burnham – Addressed the importance of contribution during a storm event; a concern is when the geo-tubes are exposed during a storm event, the wave reflection isn't being deflected and over time could require a larger and larger template to maintain enough material. We don't know what the full volume that would have been required to keep the templates covered during the March 2018 storm events. If you're trying to maintain the beach at a certain elevation and provide material from a certain position, it is going to take more and more sand over time. If it isn't provided by the template, it will come from somewhere else.

Posner – Part of the adaptive management is to measure the amount lost at the end of the year and replace; if that volume changes, adaptive management meets that change.

Golding – As sea level rises, asked if that will put pressure on the structure and eliminate the walkable beach.

Burnham – Sea level rise is at a relatively slow rate; most of the curve is at the end. It is the short-term storm events that will drive the sand amounts.

Golding – He’s surprised of the emphasis on the yearly rate which seems to ignore the short-term damage to the beach.

Burnham – You will see a reduction of elevation after an event; it is a short-term impact. Trigger point replenishment is when a beach reaches a certain elevation, that’s when it should be replenished.

Steinauer – This is definitely a coastal engineering structure; it’s the template that softens it. Without the sand, it is hard armoring.

Dunk – Regarding erosion at the toe, the project as designed is to accommodate that. The sand pushed off the template would backfill any hole at the toe.

Burnham – It’s the ends that have to be monitored since sand would move faster there during a storm event. The farther from the project, the more the impact is delayed.

Posner – During a storm, the entire beach drops sometimes 8 feet, then within a week it is built back up; this is not just in front of the structure.

Dunk – Noted that there is less of a winter profile and summer profile for this beach.

Champoux – If we’re separating out the annual contribution versus during a storm event, asked how detrimental the exposure of the tubes is on the overall system.

Burnham – That is why he prefers figuring out the annual contribution, especially starting off; over years, it is going to take more off the template. If we are trying to stop all wave reflection, you need to make sure it is covered at all times and have adaptive management that allows for the template to be adjusted.

Golding – We originally had a provision for an analysis for nano-fauna of 50 microns or less. Asked how important that is; he understands it is the basis for all life in the ocean.

Dunk – We responded to that request early in the process. The monitoring plan was submitted and approved and implemented. On beaches where sterile sand is being brought in, those beaches have quickly developed a nano-fauna ecology.

Golding – We didn’t condition it at that time as we would in the actual order of conditions, there was a discussion about the threat to micro fauna and the applicant used 100 microns when I asked for 50 microns.

Bennett – Not that in Mr. Burnham’s report, he noted a project like this grows and creates more erosion.

Burnham – If scour occurs, the returns will have to be extended; that makes neighbors nervous. If mitigation is not done, you have a scour channel, wave energy all the way down focusing the current into the bank. He encourages folks to transition between hard and soft.

Erisman – Asked if he recommends this project have coir returns installed at construction.

Burnham – Unless you can pull it back far enough that the transition is going to negatively impact coastal resource areas of the dune, you might not want the returns. Even a perfectly designed coir return could result in retreat of the bank and end scour.

Wegner – She did an extensive title search to rights of the beach. At the time the right of way was created, in 1883, it was to be held in trust by the proprietors in perpetuity and secured an area 30-rods wide above the high-water mark. She wants it in the record that the original easement envisioned something more extensive than just a walkable beach. She noted that the applicant submitted an order of condition; she hopes that the order of conditions is written by an independent entity not a proponent. Monitoring and reporting of Sechachacha Pond is important since this won’t be the last such application for hard armoring.

Molden – She understands the commission process of setting deadlines and tries to meet those deadlines; however, she feels the need to comment that the public hearing process is not to provide the applicant with time to respond to all comments; some come up at the meeting. Noted some outstanding regulatory issues: because the existing geo-tubes were permitted doesn’t mean it meets all the local performance standards; it is important to remember the size and scale of this project in relation to the performance standards; the eligibility of some structures is in question; this project is unusual due to the number of “gap” lots; the waiver applied for requires the applicant meets the burden of proof of no adverse impact. The applicant can assert their analysis is that there is no impact on the beach; however, there is a time when the tubes are exposed and end scour is taking place. Her concern is that the mitigation protocol could result in less nourishment being provided.

Dunk – In terms of providing a preliminary draft order, it took the existing order of conditions and modified it to the proposed adaptive management. In terms of the issuing authority, if the Department of Environmental Protection (DEPL) had not determined that the project met the regulations, they could not have issued the order of conditions on the original superseding order. In terms of the loss of sediment and damage to the beach, data shown tonight is subjective data, not an opinion.

Roggeveen – A small project might not have much of an impact but the impact increases with the scale of the project, especially during storm events. Where there are revetments, you can see the ends carved out after a storm even along the north shore, which doesn’t have the wave energy this beach has. The DEP granted an emergency permit to prevent the road and infrastructure from being lost. We didn’t have a local bylaw provision at that time. When the NOI was filed for that project, SBPF wanted to add an additional tier and be permitted to allow it to remain indefinitely and to protect lots on the west side; DEP said no to the lots to the west and the empty lots;

the only buildings allowed to have the geotube were pre-1978 structures. Read the cover letter from DEP superseding order, which described what DEP was trying to do – it allowed the structure to remain for six years or up until an alternative access was provided. Contends that the bluff walk and vegetation on the bluff are not infrastructure, as Mr. Cohen suggested. The superseding order also denied the fourth tier. DEP stated that any future NOIs had to prove immediate threats to pre-1978 structures. He doesn't think the gap lots can be protected, and the Commission should have the information necessary to make a finding why each lot is allowed to be armored. The DEP requires 27 cy/lf annually; he doesn't believe as that the extended project should be permitted with less mitigation.

Dunk – The superseding order of conditions Page 2 identified the geo-tube proposal as temporary but that the timeframe would allow a long-term protection project to be implemented and relocate Baxter Road and infrastructure. Condition 41 likewise identifies the ability to file for a long-term expansion. We did provide a series of figures on the off-set of each home along Baxter Road.

Phillips – This is a very long-term project. A threshold question is does it make sense to allow the expansion considering the negative impact. Concerns include: not knowing where nourishment sand will come from; 5 of the top 10 storms have happened in the last five years and sea level is rising causing the possibility for more damage; the hard data being presented could be extrapolated as going down as well as going up.

Atherton – At the last hearing in response to a question about the Town having alternative access, Mr. Cohen said that was predicated upon this project being approve; we sent an email to Town Administration and Town Counsel to substantiate that comment; we found in Section 3 of the Memorandum of Understanding, SBPF will assist Town in planning of long-term relocation of Baxter Road whether or not ConCom approves a long-term CES. She wants in the record the expected longevity of this project; no figure is given in file documents and we need hard facts on how long it will last. The applicant has been silent on an alternative analysis; the one in the NOI is cursory and incomplete and contains no relocation alternatives; reviewed four relocation alternatives, which will be submitted to the commission. The length and depth of the proposed project will displace four acres of pristine beach habitat; there is no mitigation plan for that loss.

Bennett – Asked what the applicant wants to do.

Cohen – Asked for a two-week continuance. Appointments are up in June and we have submitted a ton of information. Hopefully we'll be at the closing point at the next hearing.

Discussion about information commissioners would like to see.

Champoux – Would like to see what the annual projected increases in mitigation might be.

Golding – The composition of the bluff looks nothing like the template; it isn't pure sand. Asked Mr. Burnham to comment on that. There is cobble.

Burnham – There isn't specific guidance; the State talks about keeping nourishment close to the grain size but doesn't address the angularity or color. The cobble is likely grouping itself; it was part of the flood plain and since the shore retreated it ended up off shore. There isn't much in the records about cobble coming off the bank. All the sand on the Island was laid down by the same glacier.

Steinauer – Asked if the silt provides nutrients for off-shore algae or plants.

Burnham – Probably less so in this site.

Staff The DEP superseding order is in respect State performance standards; it doesn't apply to the local bylaw. We can have Mr. Burnham evaluate the conditions and come back with recommendations.

Next hearing Next hearing could be scheduled for March 25.

Motion **Continued for two weeks by unanimous consent**

Vote N/A

III. PUBLIC MEETING

A. Other Business

- 1. None

Adjourned at 7:10 p.m. by unanimous consent.

Submitted by:
Terry L. Norton