



TOWN OF WINTHROP CONSERVATION COMMISSION

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MINUTES OF MEETING 7:30 P. M. – February 9, 2011 Joseph Harvey Hearing Room Winthrop Town Hall

Members in Attendance: Mary Kelley, Chairperson, Stephen Machcinski, Norman Hyett, David Girard, Kristine Dow, Scott Bocchio.

Public Hearing – Paul White, 202 Grandview Ave. – Abbreviated Notice of Intent – Repair damage under seawall where undermining occurred. Representative: Donald Falzarano, Peabody. Work performed under an Emergency Permit issued by the Building Inspector, James Soper. Mr. Falzarano is to submit pictures of completed project. No abutter comments received. Hearing closed. Order of Conditions signed.

Conservation Commission Chairperson: David Girard, Motion to have Mary Kelley remain Chairperson; Kristine Dow, 2nd the Motion – **UNANIMOUS VOTE**

Cottage Park Yacht Club – 6 Certificate of Compliances – David Girard, Motion to accept & sign all certificates; Kristine Dow, 2nd the Motion – **UNANIMOUS VOTE**

MINUTES OF MEETING – VOTE to accept December 8, 2010 Minutes of Meeting. Norman Hyett, Motion to accept; Stephen Machcinski, 2nd the Motion – **UNANIMOUS VOTE.**

PUBLIC HEARING – Dept. of Conservation & Recreation, Winthrop Beach Project – Annual Beach Maintenance. Representatives: Heather Warchalowski, Nick Gove and Christina Doctoroff. Discussed nesting areas, grass area, rat control, trash pick-up, fencing and growth of plants. Questions asked by both the Commission and Winthrop residents in attendance. Susannah Corona, of the Mass Audubon Society and resident of Winthrop, explained about nesting & the plants. Commission asked DCR for reports and more information regarding rat control, trash pick-up. All necessary information asked for will be added to the DCR Order of Conditions. Chairperson, Mary Kelley stated to the audience that if anyone has any comments, to please submit within Ten (10 days). Hearing Closed. Order of Conditions signed but to be held until all comments are received, forwarded to DCR for any response and will be attached to the Order of Conditions.

Fisherman's Bend grant application – Discuss e-mail from Peter Lombardi, Winthrop Grants Administrator regarding possible grant funds being cut. Peter asked if the Commission would sign on to the Coalition for Recreational Trails' Council of Advisors to support. This is the funding mechanism for the Recreational Trails program that Winthrop applied to from DCR for Fisherman's Bend. Stephen Machcinski, Motion to Accept; Kristine Dow, 2nd the Motion – **Unanimous Vote.**

Yirrell Beach DEP File #082-0322 Amended Order of Conditions –Discuss - Kenneth Fields, Representative for Town of Winthrop, submitted a copy of letter to Gary Bogue of DEP in response to DEP request for more information needed for an amended OOC. The Dept. of Environmental Protection did not accept the original Order of Conditions issued by the Winthrop Conservation Commission. Applicant, Town of Winthrop, must supply further details to amend this Order of Conditions.

MEETING ADJOURNED 8:55 P.M.

Paul L. White
202 Grandview Avenue, Winthrop, MA 02152

DEP File #082-0361

Final Approved Plans and Other Documents

Plan Title

Signed/Stamp/Date

Received December 21, 2010

Town of Winthrop Tax Map
Certificate of Title
Plan of Land in Winthrop
Photo project area
Locus Map
Abutter letters/list

March 23, 1988
January 8, 1976
May 15, 1909
November 8, 2010
December 2006
December 20, 2010

Received February 16, 2011

3 – Project pictures

December 2011

Jack Murray
Dept. of Conservation and Recreation
251 Causeway Street, Boston, MA 02114

PROJECT LOCATION: Winthrop Shore Drive, Winthrop, MA 02152

DEP FILE #082-0362

Final Approved Plans and Other Documents

Received December 21, 2010

<u>Plan Title</u>	<u>Signed/Stamp/Date</u>
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Locus Map	
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Wetland Resource Area Delineation Map-Winthrop Beach	October 2001
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Annual Maintenance Practices on Winthrop Beach-

Includes -Project summary; Site Description; Propose Activities; Photo's; Beach raking; Waterfront safety; Symbolic Fence Installation and Removal; Winter Sand Fence Installation on Recreation Beach; Litter pick-up and Big Belly Solar Trash Compactor Placement; Rat Control; Vegetation Control	2010
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Received January 17, 2011

Copy- Commonwealth of Mass., Division of Fisheries & Wildlife Determination Letter	January 17, 2011
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Received February 9, 2011

Material Safety Data Sheet: Terminex-monthly service
RE: Rat control

February 7, 2011

Rachel Freed
Attention: Gary Bogue
Commonwealth of Massachusetts
Department of Environmental Protection NERO
205B Lowell Street
Wilmington, MA 01887

RE: **DEP Appeal of DEP File No. 082-0322**
Yirrell Beach Storm Damage Protection Improvements

Dear Ms Freed:

This letter is submitted as a response to your September 17, 2010, appeal of DEP File No.082-0322, and the discussion at the site visit held on September 28, 2010.

Background

Along Yirrell Beach, a man-made structure, the seawall, exists between the landward edge of the beach and a developed residential area. The problem to be addressed is that sand from the beach is moved by wind and storm wave action in a landward direction. When the seawall is exposed, it redirects the wave energy back toward the sea. During storms, the seawall interrupts the natural movement of sand causing it to collect. Over time, the sand collection covers the face of the seawall and forms a ramp. When storm waves hit the beach, the water runs up and over the seawall into the residential backyards and the streets. Some of the storm waves hitting the wall also tend to run parallel to the wall. At the Southeastern end of the wall, seawater and sediment run around the wall and into the street.

Coastal processes affecting Yirrell Beach have been studied over several years. Within the area of the limits of work, the overall volume of sand has increased through accretion. This accretion exacerbates the ramping problem as it compounds the ramping and leaves less area of the seawall exposed.

Without the improved storm protection, coastal storm action will carry water and sand into the residential properties and into Taft Avenue and Shirley Street (and the perpendicular streets with which they intersect). These streets are essential to regional public infrastructure as they provide the only land access to the Deer Island Sewage Treatment

Plant. The North Metropolitan Trunk Sewer runs below the streets, and the water main to Deer Island runs just behind the seawall.

In 2007, Coastal Zone Management staff, in an advisory role, suggested that the DPW consider a "soft" solution to address the need to protect the residences, preserve infrastructure and assure access to Deer Island. CZM also suggested that stabilization methods be explored to limit the frequency of grading activities and migration of sand. While there may be social issues related to vegetating large areas of this very active recreational beach, a pilot dune creation project seemed appropriate. It is hoped that the "pilot" dune component will inform the development of a longer-term solution. Such solution would need to consider ecological impacts and limitations on the recreational uses of the beach, regional sand budgets with erosion on Winthrop Beach and accretion on Yirrell Beach, and the financial realities of available municipal and state government funding.

We remain concerned with the extent of our vulnerability to wholesale application of "soft" solutions as we have a long history of being on the forefront of most of the areas coastal events. Our concerns are also bedded

in the always dwindling available of public funds and extended depletion of our resources needed to cover the beach cleaning and grooming, and the costs associated with professional service fees for master planning, plan changes, and monitoring desired.

On September 8, 2010, the Winthrop Conservation Commission issued an Order of Conditions to the Winthrop Department of Public Works ("DPW") for proposed alterations on Yirrell Beach. The Order authorized the same work, which has occurred on an "as needed" basis for the past two decades on this manicured beach. Since 2002, under a Wetland Protection Act Order of Conditions, sand has been mechanically moved from the front of the seawall toward the water. A gentle mound was formed by the moved sand above the high tide line. The result has been improved storm damage protection with the recreated mound in conjunction with the revealed seawall providing a double buffer refracting wave action back toward the sea. The NOI anticipated, and the Conservation Commission understood, that the Order of Conditions would cover the DPW moving the sand as many times as needed over the course of the three year term (plus two years should an extension be granted), as distinguished from a single mobilization operation. The "pilot" dune area on the planting plan is intended to be a single operation, rather than on an "as needed" basis along the remainder of the beach.

Typically, mechanical sand movement would be conducted during off peak recreational use of the beach. Depending on the seasonal observation of the remaining reveal of the seawall, operations would be in the fall, in advance of the winter storm season, or early spring, in advance of the higher spring tides. The most recent mechanical movement of sand was conducted late this past summer, between the subject NOI's public hearing and the issuance of the Order of Conditions. That operation was conducted under an Emergency Certification in advance of Hurricane Earl. Therefore, beach conditions during the September 28, 2010 site visit were in the groomed state.

Regulatory Review

The section below is intended to address the regulatory issue(s) and to hopefully achieve a mutually acceptable plan that takes some account of practical sustainability and cost into consideration. While Fort Hill Infrastructure Services and the DPW believe strongly that our Notice of Intent along with the findings and conditions issued by the Winthrop Conservation Commission addressed the requisite performance standards and in some ways feels that the DEP's appeal lacks merit, we acknowledged that incorporating the DEP recommendations made at the September 28, 2010, site visit would provide for a better project. We believe that the pilot dune will give all parties a chance to better measure progress.

Issue(s) Under Appeal

The Town understands that the DEP's September 17, 2010, Notice of Appeal states that the Order of Conditions" is inconsistent with the Wetlands Protection Act regulations at 310 CMR 10.00. Specifically, the DEP states that proposed project does not appear to meet the performance standards for Barrier Beach pursuant to 310 CMR 10.29(3)." The performance standard relied on by DEP does not state any specific standard but rather refers to other performance standards (i.e. for Beaches and Dunes) found in the regulations. Said performance standard reads:

When a Barrier Beach is Determined to be Significant to Storm Damage Prevention, Flood Control, Marine Fisheries or Protection of Wildlife Habitat. 310 CMR 10.27(3) through 10.27(6) (coastal beaches) and 10.28(3) through 10.28(5) (coastal dunes) shall apply to the coastal beaches and to all coastal dunes which make up a barrier beach. 310 CMR 10.29(3)

No work is proposed on an existing dune therefore the reference to 310 CMR 10.28 is irrelevant to this appeal. The Winthrop Conservation Commission has rebutted the presumptions at 310 CMR 10.27 and determined that the resource area to be altered is not significant to storm damage prevention, flood control, or marine fisheries

when the beach sand is ramped against the seawall. Said determination is consistent with the Wetland Regulations at 310 CMR 10.03 (5).

The performance standards for Coastal Beaches were thoroughly addressed in an August 11, 2010, plan update letter to the Winthrop Conservation Commission per 310 CMR 10.03(1)(a)1, and the findings related to the interest of the Act by the Commission in the issued Order. These documents were copied to DEP. The relationship between the Coastal Beach performance standards and the Barrier Beach performance standards, as referenced above, were discussed at the public hearing. The Commission's findings, which are repeated below, are reasonable, accurate, and consistent with the Wetland Protection Act:

- A. The Winthrop Conservation Commission finds that the presumption that Yirrell Beach is significant to storm damage prevention and flood control has been rebutted as follows:
 - when wind, wave and storm action ramps sand up to the man-made structure- the seawall, the beach contributes to flooding and storm damage; and
 - that in that form, Yirrell Beach between the seawall and the high tide line is not significant to storm damage protection.
- B. The form, volume, elevation and relief for Yirrell Beach is found by the Winthrop Conservation Commission to be that which has been manicured between 2002 and 2007; the permitted form and volume of the beach allowed for response to wave action and provided better storm damage prevention than today's existing conditions.
- C. The Winthrop Conservation Commission finds that the approved form will not adversely affect wildlife habitat, the actual return of sand to the design form will have a negligible effect on wildlife habitat if conducted in accordance with the issued order of conditions. The proposed plan with the addition of a new dune with vegetation will provide improved wild life habitat
- D. The Winthrop Conservation Commission finds that the proposed movement of sand represents nourishing the mid-beach with clean sediment of a grain size compatible with that on the existing beach.
The proposed project poses less impact to the wildlife habitat than a beach nourishment project which would bring in additional sand which would be allowed under 310 CMR 10.27(5).

The regulations promulgated pursuant to the Wetland Protection Act established presumptions related to interests of the Act and performance standards to protect such interests. The regulations further allow for those presumptions to be rebutted. The Conservation Commission properly rebutted the presumption that the form and volume in the area of the beach described provides storm damage protection. That area in its ramped form facilitates storm damage to residential properties and public infrastructure.

Likewise, the Commission's other findings properly comply with the regulations and are consistent with the protection of the interests of the Wetland Protection Act.

**Response to DEP's Post Site Visit Requests
(Per October 20, 2010 G. Bogue e-mail)**

- DEP 1. Please provide details describing the proposed work in terms of where activity will take place.
As we understand it, sand will be removed from along the seawall and spread out towards the

ocean. No sand shall be moved or removed below the high tide line. A plan showing the limits of work should be provided.

Response: The plan submitted with the August 11, 2010 update outlines and labels the limit of work, and shows the annual high tide line as being seaward of the limit of work. Sand movement is as you understand it, essentially pulling sand away from the seawall and form a gently sloped berm between the high tide line and the seawall.

DEP 2. Provide a planting plan of species and number of plants to be used in vegetating the dune. Some of the other species discussed besides American Dune Grass were American Beach Grass, Dusty Miller, Bayberry, etc. Plan should include planting methodology and recommended times for planting.

Response: A revised planting plan is enclosed. American Beach Grass *Ammophila breviligulata* will be the dominant species Sweet Fern *Comptonia peregrine*, Northern Bayberry *Myrica pensylvanica* and Beach Heather *Hudsonia tomentosa* have been added, for diversity, stabilization and nutrient balance. We have chosen not to use Dusty Miller as it is not an indigenous species. The original plan anticipated that the dune grass would be augmented by the natural colonization of species from the adjacent dune system. Such colonization has already begun in the area where sand is piled next to the end of the seawall. The planting season for the selected species is between October and April. Should this appeal be resolved in time to fund, order and plant, there is a chance that planting could occur prior to the upcoming growing season. However, that timeframe may be unrealistic. Planting will most likely occur at the beginning of the next dormant season in October. The initial site prep will be done using the equipment which grooms the beach. Plantings will need to have holes dug by hand. Bayberry will be planted in groups with each plant between 2' and 4' on center; Sweet fern will likewise be planted in groups between 2' and 4' on center. Heather will be interspersed but between 3' and 6' feet on center. Roots will be covered by at least 4" of sand. Beach Grass plugs will be planted throughout the dune between 1 foot and 18" apart, and culms covered with 8" of sand. The area will be supplemented with water 2 times per week for the first month.

DEP 3. Provide a follow up monitoring plan for the dune vegetation for a 2 year period.

Response: A member of the Conservation Commission has offered to monitor the success of the planning plan. Visits will be made twice a year, in the early summer and in the early fall. Observations will be made on percent cover of the overall area, and note whether any of the woody species (Sweet Fern and Northern Bayberry) have died out. If the percent cover or the number of woody species falls below 75% of the recommended planning plan, then the DPW would replace the failed plantings under the direction of the Conservation Commission. After two years, if the percent cover and the number of woody species is at or above 75% of the recommended planning plan, then the pilot dune portion of the project will be deemed successful and eligible for a Certificate of Compliance.

DEP 4. Provide a plan for protecting the dune as discussed at the site visit.

Response: The planting plan arranges the woody species (Sweet Fern and Northern Bayberry) to provide a visual cue and a physical barrier on the perimeter. Additionally the Town proposes to

ring the pilot area with sand fencing. This will be removed when the Conservation Commission determines that at least 75% of the dune planting area is covered by vegetation and that the dune is stabilized. The DPW and Conservation Commission are committed to designing and installing educational signage as part of the project and plans to install at least one sign facing in each direction just near the limits of dune.

DEP 5. Provide a timetable for the development of a long-term beach management plan.

Response: We have contacted both the Department of Conservation and Recreation (DCR) and various consultants (including the site referenced Swampscott / Epsilon) regarding examples of acceptable beach management plans, with little success. It seems that the plans are very site specific and are often geared to immediate goals.

The plan will focus on operations such as when and where to move sand, how to conduct seasonal and routine cleaning, trash and debris collection, how to protect / encourage wildlife habitat, how to care for the pilot dune and possible long range assessment tools and more educational opportunities. The Town finds itself in a delicate position as the effectiveness of the “pilot” dune is unknown and agreement on the plan requires a level of compromise between several competing interests. The Town is committing to developing a long-term beach management plan by the time the subject Order of Conditions has expired, and prior to any extension thereof.

DEP 6 Other conditions that should be included in the amended OOC:

1. There shall be onsite supervision of the project by the project engineer.
2. Planting of vegetation on the dune needs to be supervised by a coastal wetland specialist.
3. MassDEP and the Conservation Commission shall be notified at least 2 weeks prior to start of work.

Response:

With the pilot dune being relatively small and the recent history and experience of the DPW, local Conservation Commission, the Town recommends the project engineer be the DPW Director, a Professionally Registered Engineer. Possibly more important is that the project be financially digestible for the community. We therefore recommend that the additional conditions read:

1. The DPW Director or his designee will provide onsite supervision of the beach grading work and the planting plan.
2. Planting of vegetation on the pilot dune will be supervised by a member of the Winthrop Conservation Commission or their designee.
3. MassDEP and the Conservation Commission shall be notified at least 2 weeks prior to the start of work unless a coastal storm warning warrants more immediate action. In the case of a coastal storm warning requiring such action, the DEP and Conservation Commission shall be notified prior to the start of work.

We hope that this response satisfies your concerns with the project. Both the DPW and the Winthrop Conservation Commission have carefully considered and balanced your comments and ideas. We believe that the proposed actions fully reflect the interests of the Wetland Protection Act along with the realities of public

funding while providing protection for the residents, the infrastructure, and the environment. Should you have any questions or further comments then please contact me at 617-201-3008, or kfields@fhislle.com. Thank you for your time and attention.

Sincerely,

Fort Hill Infrastructure Services, LLC

Kenneth P. Fields
Principal

enclosure

Cc: Winthrop Conservation Commission
David J. Hickey, Jr. P.E., Winthrop DPW Director
James McKenna, Town Manager
Robert A. DeLeo, State Representative
Marianne Connelly, MWRA
John Vetere, MWRA

Received with letter-copy of Proposed Grading Plan #G-1 dated July 30, 2010.