



DNREC, Shoreline and Waterway Management Section

Winter 2007

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Northeaster Hits

The latest scoop:



- After significant legislative changes were made to the Beach Preservation Act in June 2006, DNREC decided to withdraw the proposed revisions to the Regulations Governing Beach Protection and the Use of Beaches. DNREC is currently incorporating the legislative changes into the revised regulations. Prior to adoption of the revised regulations DNREC will hold public workshops to share the legislative changes and the proposed regulatory changes with the public. Dates for public workshops will be advertised in the near future.
- DNREC is still waiting to receive Easements from property owners for the Bethany Beach/South Bethany Beach Nourishment Project

Hurricane Season ended November 30th, but coastal storms are a year-round threat. Weather experts predict the 2006-07 El Niño season will produce above-average rainfall this winter, increasing the risk of widespread damage from coastal flooding, ice jams, and snow melt. Several northeasters, this Fall have already depleted Delaware's dunes and beaches in many areas particularly over Thanksgiving Weekend.



Northeasters are a serious threat in the Mid-Atlantic and New England area. They can produce heavy rain and snow, along with wind driven waves that batter the coast from Virginia to Maine, causing severe flooding and beach erosion.

On November 22, 2006, sustained northeast winds reached 31 miles per hour with gusts up to 44 mph in Bethany Beach. This created large waves that battered the coastline, which is evident in the damage that occurred to steps, dune crossovers and the dunes themselves. It appears that we could be in for a long winter, so if you are an oceanfront property owner, be sure to

take precautions. This includes storing away deck furniture, removable steps and other items that may be loose and vulnerable to storm winds and waves. Keep these things secure until the coast is clear. Also, all residents in Special Flood Hazard Areas are at significant risk for flooding and should be protected with flood insurance. Protect your property. Make sure that your flood insurance policy is up to date.

Upcoming Events:

Annual Beach Grass Planting
 March 24, 2007
 9 AM–Noon
 To register: Call Marcia Cagle at (302) 739-9921 or online at <http://www.dnrec.delaware.gov>

Kent, Sussex and New Castle Counties
 NFIP Responsibilities for Participating Communities
 February 28, 2007
 For information: Call Greg Williams at (302) 739-9921 or e-mail gregory.williams@state.de.us



Mechanical Restoration of the Dunes



Many communities are left with scarped dunes, or vertical slopes, following coastal storms. This results when waves relocate sand from these natural storage areas to replace sand eroded from the beach. The scarps usually vary in height from a few inches to several feet.

The beach and dune system is dynamic, constantly changing in response to natural forces of the winds and tides as well as to seasonal conditions and storm events. During the spring and summer when waves are calm, the beach system builds as sand is carried onto the beach by waves and blown into the dunes.

The building dunes serve as habitat for wildlife, sand storage areas and storm barriers that absorb wave energy and provide storm protection to inland areas and structures during storm events.

In the late fall and winter the beach becomes narrower as sand is carried offshore and stored in offshore sand bars. If you visit one of Delaware's beaches today you will see this winter profile. As spring approaches, the beach will once again recover as the more gentle winds create gentle waves bringing sand from the offshore sand bars back onto the dry beach. As the beach builds a berm will form along the water's edge. Unless there are additional storms, this berm will dry and winds will pick up the dry sand and carry it to the back beach. Over time, the accumulation of wind blown sand will form new dunes.

The rebuilding process can be accelerated mechanically by scraping sand from the beach and pushing it onto the face of the dune. However, before you rush to hire a contractor to rebuild the dune it is important to first assess the beach conditions to make sure the conditions are favorable for relocation of the sand.

If scraping is completed too early in the storm season and when beach conditions are not favorable you are not only wasting your time and money, but you can also be making your property or your neighbor's property more vulnerable during the next storm.

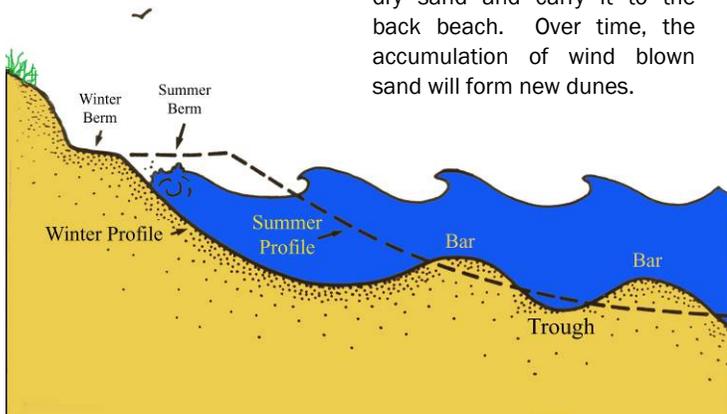
By scraping sand from the beach to build the dunes you are actually depleting the beach of sand that needs to stay in that area for protective reasons.



The dune is expected to erode naturally and will over time build naturally. Scraping the beach to quickly rebuild the dune will speed up the process, but is not necessary.

This activity requires a Permit from DNREC. The Permit is issued with several conditions, one being that a Shoreline and Waterway Management Section representative must be present before scraping commences. The Shoreline and Waterway Management Section is most familiar with Delaware's Beaches and how the sand is transported along the shoreline. They will do their best to make sure the job is getting

done correctly and the adjacent beaches are not being robbed of sand. If you are interested in scraping the beach to repair the dunes in your community or on your property, please contact the Shoreline and Waterway Management Section at (302) 739-9921.



Making Repairs to Storm Damage

The storm is over and you are now able to assess the damage to your home and lot. As you walk around your property, you will more than likely find that sand has been blown or washed around, underneath the house, and onto your driveway. Lower level structures such as boardwalks, showers, storage areas, steps and dune crossovers are damaged or destroyed and the dune and beach in front of your property is scarped or severely eroded.

Before you rebuild or move sand, check with the Town, the County and the Delaware Department of Natural Resources and Environmental Control (DNREC) to learn what types of repairs and approvals are required and allowed. **Please note**, when a structure is



destroyed, replacement of that structure must be done in accordance with current regulatory requirements. Contact the DNREC Division of Soil & Water Conservation at (302) 739-9921 to see what approvals are required.

As part of the reconstruction process, consider ways to minimize and prevent future damage. There will be other coastal storms. If a damaged structure is replaced in the same location, it will most likely be damaged again in future storms. Town and DNREC officials can help you with determining proper construction practices for surviving the next storm. Contact us and we will meet with you and/or your contractor at your property. The steps you take now to reconstruct wisely with the goal of minimizing future damage will save you time, money and aggravation when the next storm strikes.



There will be other coastal storms. Now is the time to prepare your property.

In Future Issues:

- Macro Algae Harvesting
- Updates on Our Projects
- More ideas for Storm Resistant Construction
- What are the Field Crews doing these days?
- How to easily find Public Beach Access
- Beach Nourishment

For Your Reference:

Beach Preservation Act

<http://www.delcode.state.de.us/title7/c068/index.htm>

Regulations Governing Beach Protection and the Use of Beaches

<http://www.dnrec.state.de.us/bechregs.htm>

Link to Applications for Coastal Construction

Scroll to the bottom of the page for list of applications

<http://www.dnrec.state.de.us/dnrec2000/Divisions/Soil/ShorelineCons/Shoreline.htm>

If you have any questions regarding the information found in this publication, please contact Jennifer Wheatley at (302) 739-9921 or

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