

**Florida Coastal Construction Control Line Program**  
**Post Storm Dune Recovery**  
**October 12, 2016**

As a result of Hurricane Matthew, the Department of Environmental Protection (DEP) issued an Emergency Final Order (EFO) on October 5, 2016. The Order provides relief from the Department's regulatory requirements to minimize environmental hazards and accelerate restoration in areas damaged by the storm. This emergency authorization allows recovery, repair and restoration to begin immediately on storm damaged properties and structures seaward of the Coastal Construction Control Line (CCCL).

A copy of the Department's Emergency Final Order and information on emergency permitting can be obtained from the DEP website (<http://www.dep.state.fl.us/mainpage/em/2016/matthew/matthew.htm>), contacting the CCCL program at (850) 245-7636, or emailing [cccl@dep.state.fl.us](mailto:cccl@dep.state.fl.us). DEP Emergency Final Orders OGC 16-1319 and OGC 16-1327 (stormwater relief), for Hurricane Matthew expire on November 2, 2016.

The DEP Division of Water Resource Management has developed this general guidance to provide property owners and local governments with descriptions of activities that are authorized in the EFO seaward of the Coastal Construction Control Line, starting on page 17. Also, visit the Beaches website ([www.dep.state.fl.us/beaches](http://www.dep.state.fl.us/beaches)) to access [emergency permit application forms](#) and [guidance](#) to local governments regarding emergency permitting of temporary coastal armoring.

**Note:** This document is for general information only. For the applicable Florida Department of Environmental Protection's regulatory standards and procedures, please refer to the Hurricane Matthew Emergency Final Order OGC 16-1319 and OGC 16-1327, Florida Statute 161.053 and Chapter 62B-33, Florida Administrative Code.

**Post Storm Cleanup - Returning Sand to the Beach**

- A DEP emergency final order provides short term regulatory relief for post storm response activities seaward of the coastal construction control line, such as debris removal, returning of sand to the beach and dune restoration. Activities must be conducted with the safety of the public, the beach and dune system, and beach dependent wildlife in mind.
- Removal of rocks, wood, concrete and other debris from the beach and dune system, and disposal landward of the coastal construction control line should be the immediate priority for post storm recovery. No CCCL permit is required for this activity.
- As roads, parking lots and other paved areas are cleared of sand "overwash," local governments are encouraged to stockpile the clean beach sand on vacant, cleared public land. This sand should be protected behind a fence or patrolled, and cannot be donated or sold. No CCCL permit is required for this activity.
- For homeowners and other private property owners, returning the sand to the beach is also exempt from state CCCL permitting. This covers removal of windblown sand, not involving a change in the general grade and provided that any beach quality sand is returned to the beach and dune system from developed areas, paved roads and parking areas, vehicular beach access ramps, pools, patios, walkways, or decks.
- Only large "armor stone" should be considered for salvage to be later used to protect upland property. Construction debris and rubble are not appropriate for this use.
- For the emergency period of the order, local governments are not required to get a CCCL permit to remove, haul, sift and replace sand back onto sandy beaches and damaged dunes.

### **Post Storm Cleanup - Returning Sand to the Beach (continued)**

- Beach sand should be sifted to remove debris and contaminated material. Sifting operations should be located upland of the beach or landward of the CCCL.
- Sand contaminated with chemicals, gasoline, oils and other undesirable chemicals must be separated, contained and transported to a Hazmat Disposal Site.
- Sand sifters should include a ¼-inch final screening to avoid placing small rocks, glass and other foreign objects on the beach. A small fraction of shell fragments, roots and small rocks up to ¾-inch may be acceptable in the sand returned to the beach.
- This is the CCCL standard for beach compatible sand, not including the Panhandle. Sand placed on the beach or seaward of the frontal dune is to be predominately of quartz, carbonate or similar material and to meet the following criteria:
  1. Silt, clay or colloids passing the #230-sieve (4.0phi) shall not exceed 5% by weight;
  2. Not contain greater than 5% by weight of fine gravel retained on the #4-sieve (- 2.25phi);
  3. Not contain coarse gravel, cobbles or material retained on the three-quarter inch sieve in a percentage or size greater than found on the native beach;
  4. Not contain construction debris, toxic material above background levels, clay balls, or other foreign matter;
  5. Not contain carbonate material that would result in cementation of the beach;
  6. Material shall have a moist Munsell color value of 6 or lighter; and
  7. Mean grain sizes shall fall between 0.25 mm and 0.55 mm.
- Areas for fill placement should be identified as large enough to contain the returned beach sand, barren of vegetation, and easily accessed from the upland without causing more damage to the dune or dune vegetation.
- Prior to fill placement, debris must be removed and the beach and dune cleaned.
- The fill should be placed high on the beach or in the damaged dune system, a safe distance above the higher tide line. See the preferred fill templates at the end of this document.
- Fill slopes should match the historical, natural slope of dunes in the area, or 1:4, and in no case exceed a 1:3 ratio of one foot in elevation for every 3 feet of distance along the ground.
- The top or crest elevation should be no higher than the historical, natural dune height.
- Local governments need to document the volume of sand recovered, managed and returned to the beach, and report the location and amount in cubic yards to DEP CCCL Program.
- Another post storm response activity is flood relief. Seaward of the CCCL line, deployment by local governments of temporary water pipes or hoses for dewatering or flood relief also does not require a CCCL permit. Temporary waterlines must be placed to cross the beach into the water so as not to damage dune topography or native vegetation, interfere with beach access and sea turtles, or inundate marked sea turtle nests.
- Planting with native dune vegetation should probably wait until most post-storm recovery activities are completed. Winter rains do provide ideal conditions for getting sea oats and other dune restoration plants started in north Florida.
- Marine turtle nesting season ends October 31. There may still be live sea turtle nests in the beach after that time on beaches south of Brevard County on the east coast, but are also possible in all coastal counties. Marked sea turtle nests must be avoided during all work. Please contact [marineturtle@myfwc.com](mailto:marineturtle@myfwc.com) for information on marked turtle nests prior to conducting work that could impact the nest site. Some nests have survived the storm and may hatch. Others will be checked by the FWC Marine Turtle Permit Holder at the appropriate time. Work in that area may commence once the marking stakes are removed by the Marine Turtle Permit Holder.

### **Post Storm Recovery – Dune Restoration Procedures**

- The DEP emergency order provides regulatory relief during the initial storm recovery phase. In addition to emergency permitting of dune restoration by local governments, the state CCCL program can assist with dune restoration permits during and after the emergency period.
- Once a state of emergency is declared by either Executive Order of the Governor pursuant to Section 252.36, F.S., or by the Secretary of the Department pursuant to Section 120.569(2)(l), F.S., the following emergency procedures are followed by the state CCCL program:
  - a. Designated representatives of the Department shall process emergency permits upon the request for an emergency field permit or the submittal of an emergency permit application. All construction shall be reasonably expected to be completed within 90 days of permit issuance;
  - b. Emergency field permits that are processed pursuant to Rule 62B-33.0014, F.A.C., may be issued for construction, including but not limited to: temporary or remedial activities to protect structures; repair or replace minor structures, including dune walkovers, retaining walls, decks, and gazebos; dune restoration with beach compatible sand; repair or replacement of minor damages to coastal armoring structures, including bulkhead or seawall caps, return walls, tiebacks, individual sheet piles, and individual armor stone; and other similar activities;
  - c. Emergency permit applications may be submitted for the following activities: permanent foundation repair to major structures, repair or reconstruction of major structures, or repair or reconstruction of major damages to coastal armoring structures. The request shall be submitted using the form entitled “Emergency Permit Application” available on the website [www.dep.state.fl.us/beaches](http://www.dep.state.fl.us/beaches);
  - d. Processing fees for emergency permits shall be waived;
  - e. Information requirements of Chapter 62B-33, F.A.C., and the Application Form shall be deferred if the delay necessary to gather and submit the information will compound the emergency; and
  - f. Public notice procedures shall be waived.

### **FDEP Beach Compatible Sand Guidelines**

This is the CCCL guideline for beach compatible sand, not including for the Panhandle. Sand placed on the beach or the frontal dune should be predominately of quartz, carbonate or similar material and meet the following criteria:

- a. Silt, clay or colloids passing the #230-sieve (4.0phi) are not exceed 5% by weight;
- b. Not contain greater than 5% by weight of fine gravel retained on the #4-sieve (- 2.25phi);
- c. Not contain coarse gravel, cobbles or material retained on the three-quarter inch sieve in a percentage or size greater than found on the native beach;
- d. Not contain construction debris, toxic material above background levels, clay balls, or other foreign matter;
- e. Not contain carbonate material that would result in cementation of the beach;
- f. Material should have a moist Munsell color value of 6 or lighter; and
- g. Mean grain sizes should fall between 0.25 mm and 0.55 mm.

### **Post Storm Recovery – Dune Restoration Guidelines**

- Areas for fill placement should be identified as large enough to contain the returned beach sand, barren of vegetation, and easily accessed from the upland without causing more damage to the dune or dune vegetation.
- Prior to fill placement, debris must be removed and the beach and dune cleaned.

### **Post Storm Recovery – Dune Restoration Guidelines (continued)**

- The fill should be placed high on the beach or in the damaged dune system, a safe distance above the higher tide line. See the preferred fill templates at the end of this document.
- Fill slopes should match the historical, natural slope of dunes in the area, or 1:4, and in no case exceed a 1:3 ratio of one foot in elevation for every 3 feet of distance along the ground.
- The top or crest elevation should be no higher than the historical, natural dune height.
- Local governments need to document the volume of beach sand placed for dune restoration, and report the location and amount in cubic yards to DEP CCCL Program.
- Planting with native dune vegetation should probably wait until most post-storm recovery activities are completed. Winter rains do provide ideal conditions for getting sea oats and other dune restoration plants started in north Florida.
- If dune restoration planting is proposed, plants should consist of a minimum of three species of salt tolerant beach dune vegetation native to the plant communities of the area, and generally planted a minimum of 6 inches deep, and on a minimum 18 inches on center.
- If sand fencing is proposed, the fencing must comply with the DEP sand fencing guidelines available on the DEP website <http://www.dep.state.fl.us/beaches/publications/index.htm>.
- Marine turtle nesting season ends October 31. There may still be live sea turtle nests in the beach after that time on beaches south of Brevard County on the east coast, but are also possible in all coastal counties. Marked sea turtle nests must be avoided during all work. Please contact [marineturtle@myfwc.com](mailto:marineturtle@myfwc.com) for information on marked turtle nests prior to conducting work that could impact the nest site. Some nests have survived the storm and may hatch. Others will be checked by the FWC Marine Turtle Permit Holder at the appropriate time. Work in that area may commence once the marking stakes are removed by the Marine Turtle Permit Holder.

### **Post Storm Recovery – Temporary Armoring**

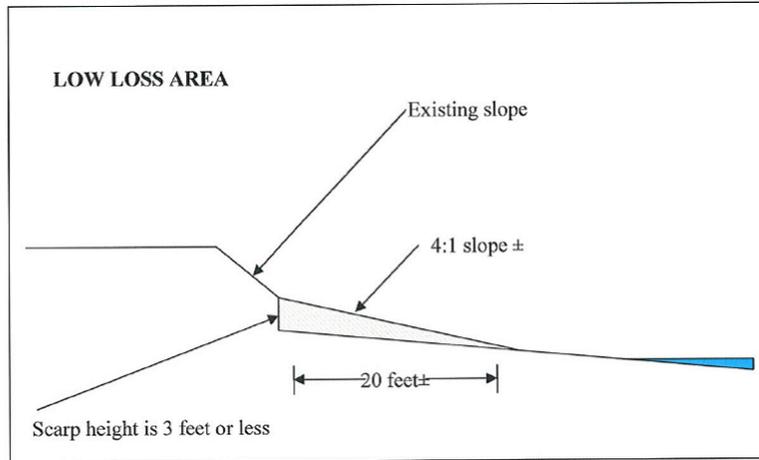
Local governments may take or authorize temporary emergency relief measures under the Emergency Final Order, s. 161.085(3), Florida Statutes, and Rule 62B-33.0051(5), Florida Administrative Code. The web document titled, [Guidelines to Local Governments for Emergency Temporary Coastal Armoring Seaward of the Coastal Construction Control Line](#) relates to these emergency relief measures (<http://www.dep.state.fl.us/beaches/programs/pdf/GuidelineEmergencyTempArmoring.pdf>).

Temporary walls or sandbags can be approved by either a permit issued by the local government or by the Department. IMPORTANT: temporary armoring structures must be removed within sixty (60) days of installation or application must be made for a CCCL permit for a permanent coastal protection structure. To allow the structure to remain as a permanent coastal armoring structure, such structure must be designed and installed in a manner which meets the Department's permitting requirements of Rule 62B-33.0051(5), Florida Administrative Code.

### **Post Storm Recovery – Beach Management**

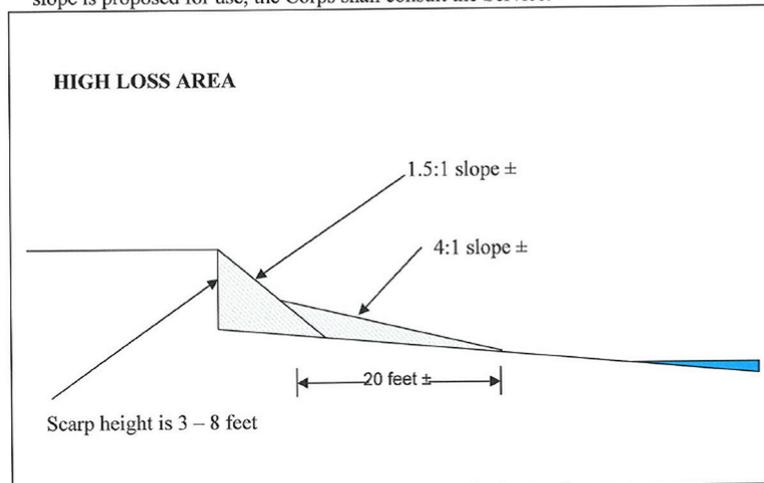
DEP is assessing beach and dune damage and will submit a post-storm beach erosion report with its annual beach program legislative funding request to the Governor and Legislature. The department administers beach and dune construction grants to local governments with appropriated funding as directed through the legislative process. In addition to state funding, federal funding assistance may also be available. Beach management projects are initiated and administered by the sponsoring local government. For more information on the state's management program visit: [Beaches and Coastal Systems - Beach Erosion Control - Florida DEP](#) (<http://www.dep.state.fl.us/beaches/programs/becp/index.htm>).

## Post Storm Dune Restoration Preferred\* Construction Templates



**Figure 14. Recommended slope on a low erosion beach for sand placement projects that include the creation of a dune.**

- A6. Dune restoration or creation included in the profile design (or project) shall have a slope of 1.5:1 followed by a gradual slope of 4:1 for approximately 20 feet seaward on a high erosion beach (Figure 13) or a 4:1 slope (Figure 14) on a low erosion beach. If another slope is proposed for use, the Corps shall consult the Service.



**Figure 13. Recommended slope on a high erosion beach for sand placement projects that include the creation of a dune.**

\*Note: Where the beach is extremely narrow, slopes may need to be steeper (to a 3:1 ratio of 3 feet horizontal distance to 1-foot change in height). A small berm may be necessary at the top of the dune or bluff to prevent stormwater from discharging seaward, or cue sea turtles from climbing into uplands.