

## **North Carolina Public Assistance Beaches Quick Guide**

Storms often erode the coastline and leave improved property vulnerable to damage. Beaches and shorelines may be eligible for emergency sand placement or restoration through FEMA'S Public Assistance Program. Project location, scope of work, sand source, and potential impacts to flora and fauna are all important components to be considered. Since these areas are environmentally sensitive, coordination with multiple agencies may be required. All beach projects undergo extensive review by FEMA. The scope of work will determine the level of FEMA review and environmental consultation.

1. In regards to Emergency Berms, the Public Assistance Program and Policy Guide (FP 104-009-2 / June 2020, pg 137) states:
  - (a) If a natural or engineered beach has eroded to a point where flooding from a 5-year storm<sup>256</sup> could damage improved property, cost-effective emergency protective measures on the beach that protect the improved property against damage from that 5-year storm are eligible.
  - (b) Eligible measures typically include the construction of emergency sand berms to protect against additional damage from a 5-year storm. Emergency sand berms are not intended to permanently restore the beach; they are intended only to provide protection from immediate threats. The Applicant may construct emergency berms with sand recovered from the beach or with imported sand. If the Applicant constructs the berms with imported sand, FEMA will only provide PA funding if the sand is from a source that meets applicable environmental regulations and one of the following circumstances exists:
    - Recoverable quantities are insufficient; or
    - SLTT government regulations prohibit placement of the recovered sand.
  - (c) To show that a 5-year storm could damage improved property, the Applicant must demonstrate that the stillwater level plus wave runup elevation as determined by computer modeling for a 5-year storm exceeds the post-incident elevation of the primary dune. The 5-year Stillwater Level (SWL) is equal to the average water surface elevation of the rise in seawater level (surge) resulting from a 5-year storm, plus wave setup and the astronomical tide. The 5-year Total Water Level (TWL) is equal to the elevation of the wave runup predicted for a 5-year storm plus the SWL. Locations where the elevation of the post-incident profile is less than the TWL are eligible for placement of an emergency berm.
  - (d) Based on the average expected erosion for a 5-year storm, FEMA only provides PA funding for emergency berms constructed with up to 6 cubic yards per linear foot of

sand above the 5-year stillwater level or the berm’s pre-incident profile, whichever is less. In some cases, placing sand below the 5-year stillwater level may be necessary to provide a base for berm. The placement of that sand is also eligible as part of the emergency protective measure.

- (e) Placement of dune grass on an emergency dune or berm is only eligible if it is required by permit and is an established, enforced, uniform practice that applies to the construction of all emergency berms within the Applicant’s jurisdiction, regardless of the circumstance. The Applicant must include the grass placement cost in the dune or berm construction cost when evaluating cost-effectiveness. Any maintenance of the dune grass after the initial installation is ineligible.

2. In regards to repair of Beaches, the Public Assistance Program and Policy Guide (FP 104-009-2 / June 2020, pg 180) states:

(a) Replacement of sand on beaches is only eligible under certain conditions.<sup>1</sup> A beach is considered an eligible facility when all of the following conditions exist:

- The beach is not a federally constructed shoreline under the specific authority of U.S. Army Corp of Engineers (USACE) (i.e., not a specifically authorized and constructed Coastal Storm Risk Management Project)<sup>2</sup>;
- The beach was constructed by the placement of imported sand—of proper grain size—to a designed elevation, width, and slope<sup>3</sup>; and
- The Applicant has established and adhered to a maintenance program involving periodic renourishment with imported sand to preserve the original design or a specific engineered design that is justified and clearly stated in the maintenance program.<sup>4</sup> Placement of sand under the following circumstances does not meet this requirement:
  - Emergency or “one-time” nourishment, even if to a design;
  - Emergency or “as-needed” renourishments when the beach has eroded to a critical condition where all original nourishment is gone;
  - Partial renourishments or “hot-spot” nourishments; or
  - Renourishment using material from a channel maintenance project when dredge spoils do not meet compatibility design criteria and the amount placed is dependent on the amount dredged, not the beach design.

3. Documentation and Federally Mandated Review Requirements for both Emergency Berms and Beach Renourishment Projects

(a) Necessary information:

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<sup>1</sup>44 C.F.R. §§ 206.226(j) and 206.201(c).

<sup>2</sup>44 C.F.R. § 206.226(a).

<sup>3</sup>44 C.F.R. § 206.226(j)(2)(i).

<sup>4</sup>44 C.F.R. § 206.226(j)(2)(ii).

- Latitude and longitude of project
  - Linear feet of beach involved/affected
  - Above or below annual high tide line
  - In or near Coastal Barrier Resource System (CBRS) unit
  - Potentially affected threatened or endangered species
  - Specify if upland sand or offshore borrow will be used
  - Latitude and longitude of sand source
  - Dune Slope Ratio
  - Escarpment height and length
  - Projected dates of construction
  - Will the project consist of only the replacement of sand lost due to the disaster (standalone), or will the project be incorporated into the next scheduled renourishment and involve the placement of non-disaster related sand (comprehensive)
  - Status of permits (USACE and/or North Carolina Division of Coastal Management, including copies of permits)
  - Associated compliance documentation from USACE permits can help expedite review. If available, please provide copies of State Historic Preservation Office (SHPO) and/ or Office of State Archaeology consultations, National Marine Fisheries Service (NMFS) Essential Fish Habitat (EFH) consultations, Environmental Assessments (EA), Environmental Impact Statements (EIS), etc.
- (b) Per Executive Orders 11988 and 11990 and 44 CFR Part 9, FEMA will need to complete a full 8 step process in regards to floodplain and wetland management, which requires a final public notice process of 30 days.
- (c) For beach projects, EAs are usually triggered under the following circumstances:
- When a beach is being repaired by a comprehensive sand placement project (when the FEMA-funded portion is incorporated into the next scheduled renourishment and includes the placement of non-disaster related sand), OR
  - If sand placement for the construction of an emergency berm occurs past the period of an emergency need.
- (d) EAs take about 6-9 months if conducted by FEMA and will need 30 day regional and legal review periods plus 30 days for public comment. Sometimes, FEMA can adopt most, if not all of, previously completed EAs or EISs, if there is one that is still current and/ or completed within the last 5 years.
- (e) After project is complete:
- Actual dates of construction (start to finish)

- Statement of compliance with all general and specific permit and project conditions, such as U.S. Fish & Wildlife Service (USFWS) Conservation and Other Minimization Measures including copies of monitoring program documentation (monitoring results/reports).

#### 4. Potential Agency Coordination

##### (a) Federal

- U.S. Army Corps of Engineers (USACE)
- U.S. Fish and Wildlife Service (USFWS)
  - For dune modification (vegetation planting, sand fencing, etc.) or work in the summer, FEMA will have to consult formally with Fish and Wildlife on that work for threatened and endangered species. We are in process of a formal programmatic consultation which is projected to be completed early 2021.
- National Oceanic and Atmospheric Administration (NOAA)
- National Marine Fisheries Service (NMFS)
- Federally-recognized Tribes
- U.S. Coast Guard (USCG)
- Bureau of Ocean and Energy Management
- National Park Service

##### (b) State

- North Carolina Department of Environmental Quality (NCDEQ)
- North Carolina Wildlife Resources Commission (NCWRC)
- State Historic Preservation Office (SHPO)
- Office of State Archaeology (OSA)

#### 4. Point of Contact

To coordinate your FEMA-funded beach restoration activities or for more information please contact [FEMA-R4EHP@fema.dhs.gov](mailto:FEMA-R4EHP@fema.dhs.gov).