



FEMA

January 21, 2016

Norma Forgione
Federal Funds Officer
Massachusetts Department of Conservation and Recreation
251 Causeway Street
Boston, MA 02114

Re: Additional information required – MA Department of Conservation and Recreation, FEMA-4214-DR-MA, Project Worksheet Reference No. MDCRB03) Salisbury Beach State Reservation Emergency Berm

Dear Ms. Forgione,

In our efforts to provide Public Assistance to the Salisbury Beach State Reservation, we are seeking your help to determine the eligibility and formulation of the above-mentioned project worksheet. Specifically, we are requesting the below identified additional information.

1. Please provide copies of the latest adopted Salisbury Beach State Reservation Barrier Beach Management Plan. The most current plan we have on file is dated September 2008. If this is the most current plan, please indicate as such.
2. To establish eligibility of Salisbury Beach as a designed and maintained facility (as defined by FEMA Policy 9580.8), please provide, if available, the following documentation:
 - a. All design studies, plans, construction documents, and as-builts for the original renourishment;
 - b. All studies, plans, construction documents, and as-builts for every renourishment;
 - c. Documentation and details of the maintenance plan, including how the need for renourishment is determined and funded; and
 - d. Pre-and post-storm profiles that extend at least to the seaward edge of the subaqueous nearshore zone (closure depth, usually -15 to -20 feet).
3. If the Salisbury Beach dunes are eligible facilities based on paragraph 2 above, please provide any pre-storm dune design profiles along with post-storm dune profiles to substantiate any storm related claims of dune damages (sand loss, beach grass and


sand fence damages). Note: Initial dune damage claims were between access points 6 and 7.

4. If claiming any other storm related damages to Salisbury Beach facilities as a direct result of the January 26-28, 2015 winter storm, please provide pre-storm and post-storm empirical data to support your claim. Examples of these facilities can be boardwalks, parking lots, lighting, etc.
5. If claiming emergency protective measures to protect improved property against erosion caused by a five-year storm event, the entire beach profile must be evaluated. Please provide plan and cross sectional data indicating the following:
 - a. Location and base elevations of all improved property requiring emergency protective measures (protection from damages by coastal flooding caused by a five-year event).
 - b. Location of the five-year stillwater elevation defined in FEMA Policy 9580.8 as “the maximum storm-induced water-surface elevation, primarily a combination of the normal tide and the storm surge”. This elevation for DR-1701, 2007 at Salisbury Beach, was determined by FEMA to be 8.0 feet National Geodetic Vertical Datum of 1929 (NGVD29) and in July 16, 2014 it was updated to 7.2 feet North American Vertical Datum of 1988 (NAVD88).
 - c. An emergency berm can be constructed if after considering the entire beach elevation between the stillwater five-year elevation and the improved property in peril there are areas deficient in the allowed maximum 6 CY/LF of emergency berm above the five-year stillwater elevation. We have on-hand cross sectional details from GZA showing as-built grades from June 24, 2014; however, reference to 5-year stillwater elevation is missing as well as elevations for facilities requiring 5-year protection. Access Points 6 to 7 (also noted as Station 24+50 to 39+50) require post-storm cross sectional profiles for the same areas. Additionally, please provide pre-storm and post-storm (January 26-28, 2015) profiles for any other areas being claimed as having insufficient five-year protection, along with the elevation/location of improved property needing protection. These profiles will be used to determine if the full 6 CY/LF are required to restore five-year storm protection. All cross sectional drawing need to reference the stillwater elevation of 7.2’ NAVD to properly apply 9580.8 eligibility criteria.
 - d. The emergency berms, if required, should be constructed utilizing recovered sand where available. If sand is unavailable or state policy restricts reclaiming sand, then sand can be imported, if cost effective. Please substantiate your selected option along with the associated rationale and historic costs per cubic yard. If using stockpiled sand from dredging, then provide cost to move sand; if purchasing sand, then use purchase price plus placement cost per cubic yard.

- e. For DR-1701 at Salisbury Beach, 2008, Vine Associates captured beach profiles and elevations between Access Way #1 and #2, and this report was utilized to determine the eligible quantities of sand needed to construct an emergency protective dune to restore five-year storm protection. Within PW 602 is a memo dated August 8, 2007 summarizing how the quantities were determined. The methodology used for PW602 will be used for DR-4214 PW Reference No. MDCRB03 – Salisbury Beach Emergency Berm Construction.
6. Please provide a cross reference plan-view map of Salisbury Beach indicating where the various Sections / Stations are located as referenced in your engineer's reports.
7. Please confirm if any other federal funding has been received for any emergency berm or dune restoration work on Salisbury Beach, such as from the US Department of Fish and Wildlife?

Once provided this information, we will be able to write your project worksheets to capture your eligible costs. Please forward your responses to me c/o MEMA, 400 Worcester Rd., Framingham, MA 01702.

Sincerely,



Angela D. Green
Task Force Leader
FEMA DR-4214