



Coastal Protection and  
Restoration Authority of Louisiana

# State of Louisiana

**BOBBY JINDAL**  
GOVERNOR

March 16, 2015

Ms. Michelle Gonzales  
Director of Floodplain Management & Hazard Mitigation  
910 3rd Street  
Gretna, LA 70053

SUBJECT: Caminada Headland (BA-143) Hurricane Isaac Damages

Dear Ms. Gonzales:

The damage to the Caminada Headland project (BA-143) as outlined in FEMA Form 90-91/ PW 1513 still exists. CPRA estimates that Hurricane Isaac caused a loss of approximately 210,000 cubic yards of beach fill on the 14,000 linear feet of the Caminada Headlands located within Jefferson Parish. Funding was requested through FEMA's PA program. However, that request was denied due to the fact that the originally planned project had not yet been constructed. Accordingly, the footprint of the project was moved back approximately fifty feet to allow for construction. The loss of those fifty feet of beach was not repaired.

Although we do not have exact estimates of the total losses or the cost to replace those losses, the order of magnitude costs is in the millions of dollars. We would require significantly more than \$400,000 to replace the lost sediment.

Sincerely,

Shannon Haynes, P.E.

cc: Sam Martin, CPRA  
file

<b>PA-06-LA-4080-PW-01513(0)</b> P	
Applicant Name:	Application Title:
OFFICE OF COASTAL PROTECTION AND RESTORATION	CCP020G-Coastal Nearshore Waterbottom, Adj. to BA-143
Period of Performance Start:	Period of Performance End:
08-29-2012	02-28-2014

Bundle Reference # (Amendment #)	Date Awarded

**Subgrant Application - FEMA Form 90-91**

Note: The Effective Cost Share for this application is 75%

FEDERAL EMERGENCY MANAGEMENT AGENCY PROJECT WORKSHEET					
DISASTER		PROJECT NO.	PA ID NO.	DATE	CATEGORY
FEMA	4080 - DR -LA	CCP020G	000-UTFMG-00	05-10-2013	G
APPLICANT: OFFICE OF COASTAL PROTECTION AND RESTORATION			WORK COMPLETE AS OF:		
			04-05-2013 : 0 %		
Site 1 of 1					
DAMAGED FACILITY:			COUNTY: Jefferson		
Caminada Headland Shoreline and Nearshore Waterbottom					
LOCATION:			LATITUDE:	LONGITUDE:	
Current Version:			29.1331948	-90.14124	
Coastal Nearshore Waterbottom, Adj. to Applicant Project BA-143			29.187583	-90.052778	
DAMAGE DESCRIPTION AND DIMENSIONS:					
Current Version:					
<p>This Project Worksheet addresses changes to the 'design template' for the Applicant's shoreline beach and dune construction project BA-143. These changes, per the Applicant, have been made necessary in response to coastal erosion at the project site, said erosion in response to Hurricane Isaac during the incident period August 26, 2012 through September 10, 2012. The original (pre-Isaac) design template was intended to serve as the Applicant's quantified basis for planned beach nourishment and stabilization work associated with BA-143. This beach nourishment work is to be undertaken along Caminada Headland beach shoreline over a distance of approx. 39,000 feet (5.871 miles). Historically, the formulation and design of this improved (engineered) beach and dune nourishment project represents the first such improved project at the site addressed here.</p> <p>Project BA-143 was 'heading to construction' (Applicant's terminology, refer to spreadsheet of damage claims, included with this Project Worksheet) at the time of Isaac's passage across the BA-143 project site, per Applicant. As such, work on this project had not commenced prior to Isaac. Also per the Applicant, work undertaken in response to Isaac is to be incorporated in the overall BA-143 construction project. To date, the Applicant has not secured funding for this project. Per Applicant, the final scope of work for this project awaits pre-construction surveys that are to be undertaken by the contractor immediately prior to commencement of project work.</p> <p>Note that Act 523, Section 9 of the Louisiana 2010 Regular Session provided for the transfer of the duties, responsibilities, personnel, property, programs, policies, projects and contracts from the Office of Coastal Restoration and Management within the Department of Natural Resources (DNR), relative to integrated coastal protection, to the Coastal Protection and Restoration Authority (CPRA) and Office of Coastal Protection and Restoration. On this basis, all State responsibilities associated with the Applicant's Caminada Headland Shoreline Restoration Project BA-143, as executed by DNR (as the State Sponsor), were transferred from DNR to CPRA through Act 523, Section 9 of the Louisiana 2010 Regular Session.</p> <p>The Applicant's post-Isaac design cross sections for Project BA-143, submitted to FEMA in April, 2013, depict anticipated or probable dune and beach fill dimensions, water-bottom topography, and bathymetry at selected locations along the length of the BA-143 construction site. These cross sections sample the project site at ~5,000 foot intervals, and do not appear to include, or note, cross sectional dimensional changes that may be specifically attributable to Hurricane Isaac.</p> <p>These design cross sections depict, on average, a dune/beach complex as follows:</p>					





- > Dune, having approx. horizontal surface width of 250 feet at +7 feet, dune sides sloped at a ratio of 1V:20H, approx. dune length 39,000 feet, said dune constructed on pre-existing shoreline beach, and transitioning Gulf-ward to beach platform referenced below.
- > Beach platform, approx. 65 feet wide at +4.5 feet (9 feet total vertical thickness), approx. length 39,000 feet, connecting to, and located Gulf-ward of the dune referenced above, also connecting to sloped beach referenced below.
- > Sloped beach (1V:20H), approx. 200 feet wide, approx. length of 39,000 feet, connecting to beach platform referenced above, and sloping Gulf-ward (1V:20H) to water.

Dimensions included above are approximate, and may vary along the length of the project. However, based on these dimensions, it is estimated by the Project Specialist that 4,373,056 cubic yards will be required for the combined pre- and post-Isaac components of this project. This estimate, differs by 10.4% from the Applicant's estimate (4,882,200 cubic yards, submitted September, 2012). A photo depicting a cross-sectional view of the anticipated beach/dune feature (to be constructed) is included as backup to this Project Worksheet. Also refer to backup volumetric calculation sheet.

Following Hurricane Isaac, the Applicant completed approximately 37 cross-sectional survey transects along the length of Project BA-143. The Applicant had also completed similar cross-sectional survey transects during 2010, following the occurrence of Hurricane Ike. (Note that Ike was declared as a Federal disaster on September 13, 2008.) Comparison of the post-Isaac and post-Ike survey cross sections reveal clear differences in thicknesses of submarine and shoreline fill. In general, post-Isaac cross sectional transects reveal losses of submarine and shoreline fill relative to post-Ike cross sections. (Refer to backup.)

From discussions with the Applicant, this project's design-template claim involves subsurface sand comprising the project's 'sub-base platform.' (The term 'sub-base platform,' for the purposes of this discussion, denotes the three-dimensional load-bearing submarine sand wedge that serves as the supporting floor for the overlying construction project, and that extends beyond the limits of project construction.) This sub-base platform is presumed to have been in place prior to the passage of Hurricane Isaac across the project area. Per the Applicant, bathymetric and hydrographic surveys are expected to indicate that this sub-base platform was disturbed, and that it sustained a volumetric loss in response to Isaac. (This expectation is generally confirmed by the transect survey results discussed above.) These submarine volumetric losses are interpreted as comprising the alteration to the project's design template, as submitted by the Applicant, in response to Isaac. On this basis, the specific damage description is as follows:

- > Sub-base platform, composed of load-bearing sand, underlying beach/dune complex to be constructed; scoured and transported away by the action of high energy storm surge, related high energy waves and near-shore currents.

Estimated dimensions of the eroded submarine platform: 39,000 feet (length) x 150 feet (width) x 2 feet (thickness), corresponding to 433,333 cubic yards.

Note 1: Project Specialist's calculated cubic yardage loss (433,333 cubic yards) associated with this project differs from the Applicant's yardage claim (616,000 cubic yards) by 29.65%. On the basis of this significant difference, cost estimates included in the Scope of Work utilize the Project Specialist's estimated yardage.

Note 2: The estimated project length (39,000 feet) associated with Project BA-143 is based on Applicant's design cross sections, included as backup to this Project Worksheet.

Note 3: The Applicant has submitted a companion claim (associated with Project BA-45) that addresses similar design template alterations, for a site on Caminada Headland that is contiguous to the site claimed for BA-143. This claim is addressed in Project Worksheet No. 01510 (Ref. No. CCP019G).

Note 4: Funding for this Project is likely to be provided by a Natural Resource Damage Assessment (NRDA) trustee. This trustee will also likely serve as Federal sponsor for this project.

A site visit to the project addressed here was completed March 25, 2013. Individuals representing the Applicant, the State of Louisiana and FEMA participated in this site visit.

Approx. GPS beginning and ending coordinates at this site: 29.1331948, -90.1412497, and 29.187583, -90.052778, respectively. GPS coordinates, Office of Coastal Protection and Restoration, 450 Laurel St., Baton Rouge, LA: 30.45237, -91.19215.

#### SCOPE OF WORK:

##### Current Version:

Note: The Applicant's claim is determined ineligible for the following reasons:

- (1) The beach, shoreline and adjacent, underlying sub-base (submarine) platform addressed in this Project Worksheet comprise unimproved natural features, and as such they do not satisfy the PA program's definition of a facility as defined under 44 CFR 206.221(h).
- (2) In addition, these sites, targeted for beach and dune nourishment, are privately owned. 44 CFR 206.223(c) limits PA permanent-work funding to repair or replacement of publicly-owned facilities and structures. On the basis of these requirements, the claim addressed in this Project Worksheet is determined to be ineligible.
- (3) Additionally, backup documentation submitted by the Applicant in support of this claim suggests that a Federal agency (to date unidentified), serving as a Natural Resource Damage Assessment (NRDA) trustee, will also serve as Federal sponsor for Project BA-143. It is expected that this Federal sponsor will be authorized to fund initial construction, maintenance and rehabilitation costs associated with BA-143. (Rehabilitation, as defined here, includes funding for repairs that are made necessary by Federally-declared disasters.) Per 44 CFR 206.226(a)(1), 'Generally, disaster assistance will not be made available under the Stafford Act when another Federal agency has specific authority to restore facilities damaged or destroyed by an event which is declared a major disaster.' FEMA generally defers reimbursement of disaster-related repair costs to those Federal agencies that are authorized to fund project construction, maintenance and rehabilitation, except in situations involving immediate threats to life and property. On this basis, the claim addressed in this Project Worksheet appears to be ineligible.

##### Work to be Completed

Replace natural sand, 39,000 feet (estimated length) x 150 feet (estimated width) x 2 feet (estimated thickness), corresponding to 433,333 cubic yards and comprising sub-base, load-bearing platform. This replacement work in anticipation of construction of beach/dune complex, to be positioned directly above the sub-base platform referenced here, said complex as described in the Damage Description, and not constructed to date.

From the Damage Description, the calculated yardage (433,333 cubic yards) associated with this claim differs from the Applicant's yardage claim (616,000 cubic yards) by 29.65%. The difference between these yardage values is likely a function of 1) minor coastal embayments/curvatures that are not included in the Project Specialist's analysis, 2) variations in project endpoints as submitted by the

Applicant vis-à-vis those utilized by FEMA Project Specialist, 3) differences in estimated erosion/scour dimensions relative to those submitted by the Applicant. On the basis of this significant difference, the cost estimate included here is based on the Project Specialist's estimated yardage, the Applicant's cost per cubic yard (\$17.96), and related claims as follows:

- > Installation of sand comprising load-bearing platform: \$7,782,660.68. (433,333 cubic yards) x (\$17.96 / cubic yard) = \$7,782,660.68.
- > Engineering and design costs, specifically in response to Isaac-generated alterations, from the Applicant: \$145,228.00 (estimate).
- > Other miscellaneous construction costs, specifically in response to Isaac-generated alterations, from the Applicant: \$328,000.00 (estimate).

Total cost estimate, this Project Worksheet: \$7,782,660.68 + \$145,228.00 + \$328,000.00 = \$8,255,888.68.

Note 1: The Applicant's claimed increase in mobilization/demobilization costs for this project have been excluded from cost estimate calculations.

Note 2: The Applicant has submitted a companion claim (BA-45) that addresses design template alterations at a Caminada Headland site that is contiguous with the site claimed for BA-143. Separate claim and design documents have been submitted for BA-45. The claim for BA-45 is addressed in Project Worksheet 01510 (Ref. No. CCP019G).

Refer to backup spreadsheet for comparison of Applicant's submitted itemized claim costs with Project Specialist's adjusted claim costs. Also refer to BA-143 construction contract and related documentation, included as backup with this Project Worksheet.

To date the Applicant has not submitted the following requested documentation:

- > Bid/procurement policy and documentation.
- > Copies of applicable permits.
- > Direct Administrative Costs specific to this Project Worksheet.
- > Documentation delineating the source of funding for project BA-143.

\*DAP9525.9 provides guidance on the eligibility of administrative costs. The policy states that FEMA will reimburse DAC that are "properly documented and directly chargeable on a PW for a specific project. Actual costs must be reasonable for the work performed and accounted for in accordance with 44 CFR §13.22 – Allowable Costs." The policy also states that DAC include "costs that can be tracked, charged, and accounted for directly to a specific project ... [and] are limited to actual reasonable costs incurred for a specific project." Throughout the policy, it is clear that DAC must be in compliance with §13.22, and by extension, A-87, and that the costs must be reasonable and properly documented in order to qualify for reimbursement. Such costs cannot be assumed reasonable if the costs are not directly tied to a PW and tracked and documented in such a way that FEMA staff can determine whether or not they are reasonable.

\*If applicable to this project, the Applicant is required to adhere to State Government Procurement rules and regulations and maintain adequate records to support the basis for all purchasing of goods and materials and contracting services for projects approved under the Public Assistance program, as stated in 44 CFR 13.36. The Applicant has advised they have/will follow their normal procurement procedures.

\*The Applicant must obtain all required Federal, State and local permits prior to the commencement of work.

\*Complete records and cost documents for all approved work must be maintained for at least 3 years from the date the last project was completed or from the date final payment was received, whichever is later.

Does the Scope of Work change the pre-disaster conditions at the site? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Special Considerations included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hazard Mitigation proposal included? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is there insurance coverage on this facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

**PROJECT COST**

ITEM	CODE	NARRATIVE	QUANTITY/UNIT	UNIT PRICE	COST
1	9999	Ineligible	1/LS	\$ 0.00	\$ 0.00
				<b>TOTAL COST</b>	<b>\$ 0.00</b>
PREPARED BY WALTER MUNLY			TITLE Coastal/Project Specialist	SIGNATURE	
APPLICANT REP. Janice Lansing			TITLE Chief Financial Officer	SIGNATURE	