

Natural Resource Damage Assessment (NRDA) PCB-Beach Outfalls to Gulf

A. General Information

Organization: City of Panama City Beach

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B. Project Information

Project Name: Beach Outfall Restoration with Environmental Enhancements

Location: Panama City Beach – Front Beach Road, US 98

State: FL County: Bay

Watershed/Basin: Outfall to Gulf of Mexico

Lat/Longitude: 30° 15'6.34"N To: 30° 11'0.44"N
85°57'9.24"W 85°49'12.51"W

Affected Area: ~9.5 miles of Shoreline

C. Project Description

This project includes the restoration, replacement and enhancement of fourteen continuous stormwater outfalls. These outfalls are located along and discharge to the Gulf of Mexico along approximately 9.5 miles of shoreline. The outfalls convey discharge from stormwater ponds and other small bodies of water on the north side of Front Beach Road south to the Gulf of Mexico. These outfall systems also collect and discharge stormwater from roadways, parking lots and other developed areas, which typically have a high pollution loading. Enhancement to the beach outfalls will consist of installation of nutrient separating baffle boxes to provide sediment, nutrient and pollution removal prior to discharge to the Gulf. They will also screen debris such as plastics, trash and other materials which are a direct threat to marine life. In addition, past monitoring records have shown that bacteria concentrations at these outfall locations are often in excess of allowable limits. Therefore, a filtration system will be installed in series with the baffle box to effectively reduce the bacterial concentrations, particularly those associated with solids, while also further removing dissolved phosphorus, dissolved nitrogen, total suspended solids and metals. This

reduction of pollutant and bacterial loading will greatly improve the quality of the stormwater being discharged to the Gulf, helping to preserve and protect fish and marine life. As part of this project, the continuous beach outfalls are proposed to extend further towards the water line of the Gulf of Mexico which will reduce a chronic problem of beach erosion and meandering. Depending on the severity and location of a rainfall event, the stormwater runoff can cut a channel parallel to the beach meandering as much as 200 yards east or west of the outfalls. This erosion and induced meandering threatens turtle nesting sites because in a matter of days it can remove several hundred cubic yards of beach sand.

D. Project Type(s)

- | | |
|--------------------------|--------------------|
| ✓ Restoration | ✓ Protection |
| ✓ Debris Removal | ✓ Land Acquisition |
| ✓ Maintenance/Management | Education |

E. Project Habitat(s)

- | | |
|-----------------------------|---------------------------------|
| ✓ Upland | Riverine |
| ✓ Marine/Estuarine Wetlands | ✓ Freshwater Wetlands |
| ✓ Beach/Dune | ✓ Subtidal (Nearshore/Offshore) |

F. Resource Benefit(s)

- | | |
|------------------------|--------------------------------------|
| ✓ Marine Mammals | Corals (no corals in NW Fl. waters) |
| ✓ Shellfish | ✓ Shoreline |
| ✓ Water Column | ✓ Fish |
| ✓ Birds | ✓ Vegetation |
| ✓ Terrestrial Wildlife | ✓ Human Use (Recreational, Cultural) |
| ✓ Sediment/Benthos | ✓ The project will directly benefit: |
| ✓ Reptiles/Amphibians | ✓ Sea Turtles and Dune Nesting Birds |

G. Project Status

- | | |
|-------------------------------|--|
| Project/Resource Acquisition: | Not Started |
| Project Planning/Design: | Preliminary stormwater modeling of the basins that discharge to the outfalls have been completed. A conceptual outfall cost estimate has been completed based on a typical preliminary design. |
| Permitting: | Not Started |
| Time to implement: | Construction could start within 9 months of funding |
| Time to Project Completion: | 18 month construction duration |

The project is part of a joint venture with the City of Panama City Beach and Bay County along with support from the Panama City Beach Convention and Visitors Bureau. Out of the 14 outfalls, Panama City Beach maintains 10 and Bay County maintains 4.

H. Project Costs

Estimated Cost: \$950,000: Typical Outfall
\$1,600,000: Large Diameter Pipe or Box Culverts
\$16,550,000: Total

Funding Available: None Currently

Note: Project can be considered as a full package or per individual Outfall