

## **Determination of Effect on Essential Fish Habitat from Florida Northwest Florida Fort Walton Beach Educational Boardwalk project**

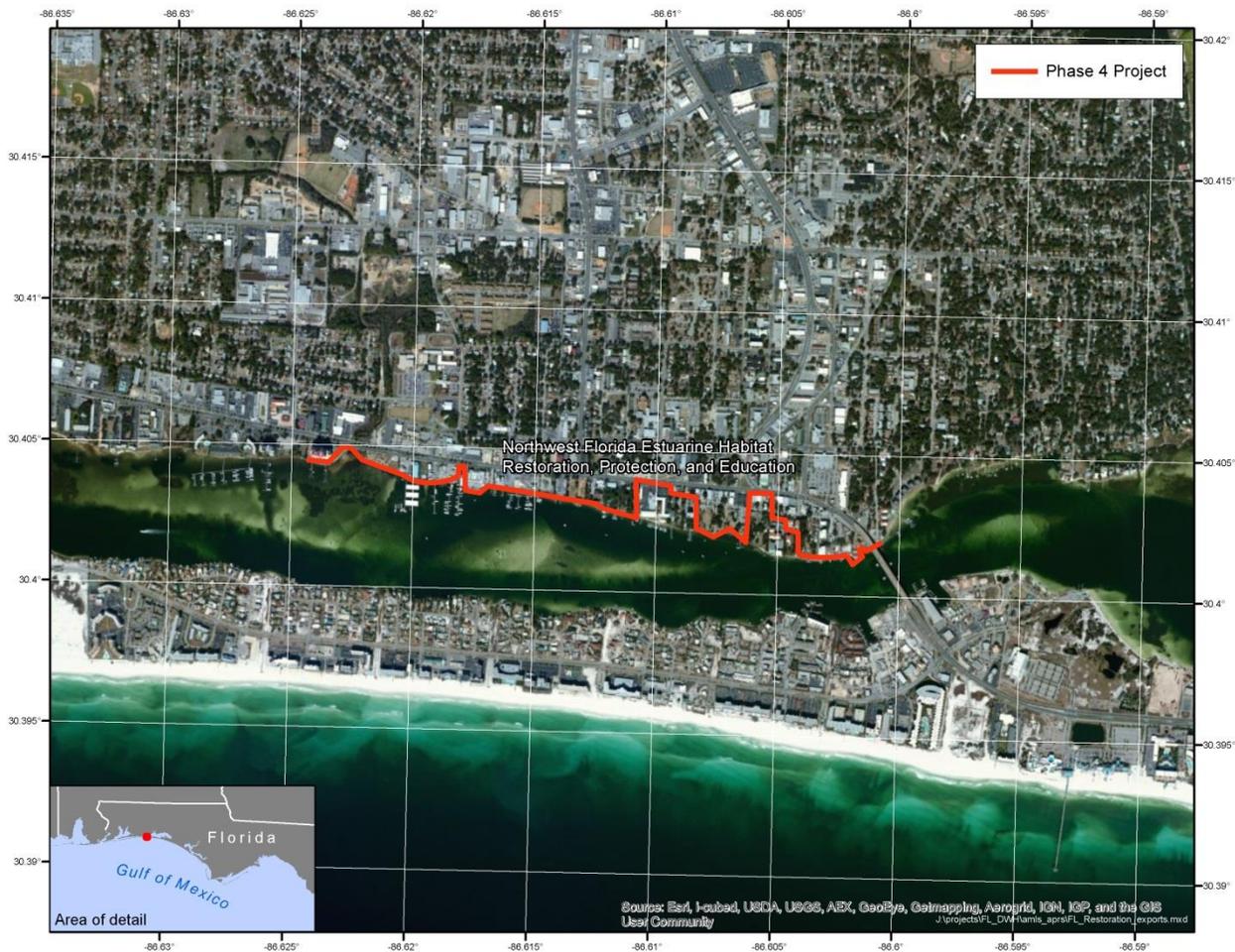
### ***EFH overview from Magnuson Stevens Act***

The 1996 Magnuson-Stevens Act requires cooperation among the National Marine Fisheries Service (NMFS), anglers, and federal and state agencies to protect, conserve, and enhance Essential Fish Habitat (EFH). EFH is defined as those waters and substrates necessary to fish for spawning, breeding, feeding, or growth to maturity. The designation and conservation of EFH seek to minimize adverse effects on habitat caused by fishing and non-fishing activities.

### ***Project description***

The proposed Northwest Florida Fort Walton Beach Educational Boardwalk project would expand existing boardwalks as well as conducting several small natural resource and habitat enhancement projects in Fort Walton Beach. The proposed improvements include constructing a new educational and interactive boardwalk, expanding an existing intertidal oyster reef, and restoring a degraded salt marsh. Figure 1 illustrates the project location and the planned boardwalk.

The proposed boardwalk will be approximately 8,390 linear feet and would include new educational devices such as U.S.-manufactured pier-mounted coin binoculars, wooden markers to identify bird and fish species, and eight life-size bird statuettes showing wingspan length. Approximately 65% of the boardwalk would be constructed of concrete and 35% would be constructed of wood. The footprint of construction activities for most sections of boardwalk installation would occur within the footprint of existing boardwalks or other developed, upland areas of the Fort Walton Beach. New sections of boardwalk would require some minimal area disturbance, as they would occur outside existing areas developed by the municipality or private landowners, but will be limited to the extent possible given the area available between existing developed areas along Santa Rosa Sound and the shoreline.



**Figure 1. Location of the Northwest Florida Fort Walton Beach project.**

In addition, the project would take advantage of access and equipment availability to conduct several small natural resource and habitat enhancement projects including a 0.2 acre expansion of an existing intertidal oyster reef and restoration of approximately 0.5 acres of a degraded salt marsh by planting appropriate native vegetation in Santa Rosa Sound. Figure 2 illustrates the planned locations of the oyster reef and salt marsh restoration.

Construction plans for the artificial oyster reef have not yet been finalized. A total of 7,200 square feet of sub-tidal oyster reef habitat will be created by expanding an existing reef that was constructed in Santa Rosa Sound. Reef structures approximately 1.5 to 3 feet in height will be placed in the water between the existing reef and the shoreline. Figure 3 illustrates preliminary conceptual plans for oyster reef placement. Oyster spat will be placed in the newly created reef. Reef material, either cured oyster shells or mined fossilized shells, will be placed using heavy equipment such as a crane from shore as the area is too shallow for a barge. The final placement method will be determined as part of the final project design. Additional details about restoration methods, including specific reef material and sources, will be defined in the final project design, and take into account the availability of suitable material from different sources. Upon completion, the deployment area would be surveyed to delineate expanded portions of the oyster reef.



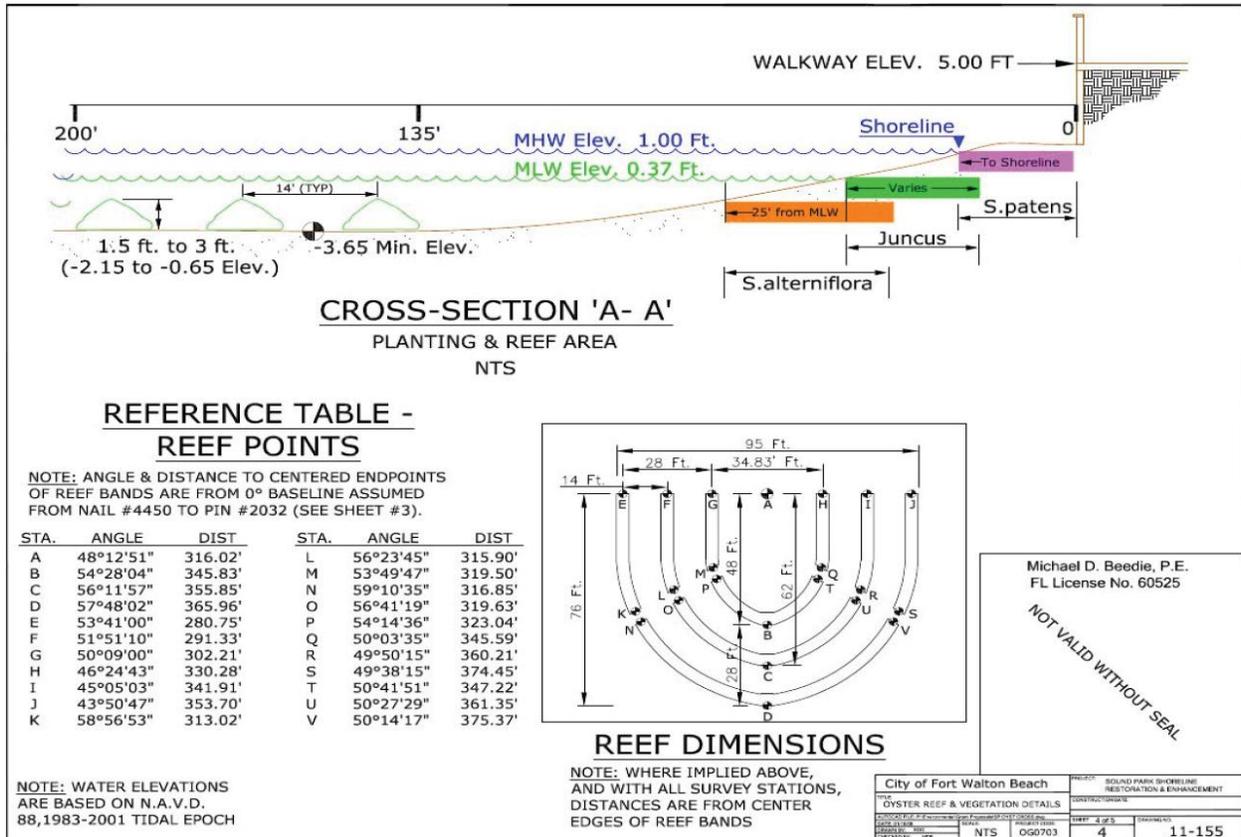


Figure 3. Phase I oyster reef and vegetation design plans.

*Federally managed fisheries and EFH (develop table from*

Information on designated EFH in the Gulf of Mexico was obtained in September, 2013 from the NMFS' EFH web site at <http://www.habitat.noaa.gov/protection/efh/newInv>. Table 1 provides a summary of the species identified as having designated EFH for one or more life stages within the area of potential affect for the proposed project.

**Table 1. Federally managed species with designated Essential Fish Habitat (EFH) in the proposed project area.**

EFH Category	Species
<b>Atlantic Highly Migratory Species</b>	
	Atlantic Sharpnose Shark-Neonate
	Bull Shark-Adult
	Bull Shark-Juvenile
	Nurse Shark-Juvenile
	Sandbar Shark-Adult
	Scalloped Hammerhead Shark-Juvenile
	Scalloped Hammerhead Shark-Neonate
	Spinner Shark-Adult
	Spinner Shark-Juvenile
	Tiger Shark-Juvenile

<b>Coastal Migratory Pelagics of the Gulf of Mexico AND South Atlantic</b>	
	Cobia
	King Mackerel
	Spanish Mackerel
<b>Gulf of Mexico Red Drum</b>	
	Red Drum
<b>Gulf of Mexico Shrimp</b>	
	Brown Shrimp
	Pink Shrimp
	Rock Shrimp
	Seabob Shrimp
	White Shrimp
<b>Reef Fish Resources of the Gulf of Mexico</b>	
	Almaco Jack
	Banded Rudderfish
	Black Grouper
	Blackfin Snapper
	Blueline Tilefish
	Cubera Snapper
	Gag
	Goldface Tilefish
	Gray (Mangrove) Snapper
	Gray Triggerfish
	Greater Amberjack
	Hogfish
	Lane Snapper
	Lesser Amberjack
	Mutton Snapper
	Nassau Grouper
	Queen Snapper
	Red Grouper
	Red Snapper
	Scamp
	Silk Snapper
	Snowy Grouper
	Speckled Hind
	Tilefish
	Vermilion Snapper
	Warsaw Grouper
	Wenchman
	Yellowedge Grouper
	Yellowfin Grouper
	Yellowmouth Grouper

### *Assessment of effects to EFH*

Restoration actions at the NW Florida Fort Walton Beach are expected to have no to minor impacts on EFH. The proposed boardwalk construction will take place above mean high water and would lack a direct connection to identified EFH management areas. The proposed oyster reef and salt marsh restoration work would take place in-water.

### *Oyster reef restoration*

It is unlikely that the placement and use of oyster reef material or planting native salt marsh vegetation would have any adverse effect to federally managed species or designated EFH, since any initial disturbance would be very brief, would not interfere with EFH used for migration, spawning or refuge areas, and would eventually be likely to benefit many federally managed species.

The new reef material will be placed between the shoreline and the existing restored reef, thus, the habitat in the proposed location (see Figure 3) is already managed for use consistent with the restoration project. Further the conversion of roughly 0.2 acres of subtidal substrate to oyster reef habitat does not represent a significant conversion within the overall project area or region more generally.

Placing oyster reef material can occur relatively quickly and any disturbance would be brief. It is anticipated that placing material would have only brief and minor effects to any federally managed species or designated EFH. The possibility for oyster bars interfering with vessel navigation is very low given the depth at the site and as material would be placed between the existing reef and the shoreline, making the area already unlikely to be used by boats.

The duration and extent of disturbance would not significantly interfere with species movement, migration, nesting, or refuge areas, since adjacent areas of similar habitat would be available and undisturbed, and most organisms could easily move away from the temporary disturbance activity to undisturbed areas when it occurs. Best management practices for construction would be followed to minimize impacts.

### *Estuarine salt marsh habitat restoration*

The restoration of the roughly 0.5 acre area of estuarine salt marsh with the planting of different native vegetation will occur in an area well-suited to support native salt marsh vegetation (see Figure 3) and would aim to improve the habitat quality for aquatic species in the vicinity of the affected habitat. While some substrate would be converted from an unvegetated to a vegetated state this is seen as having no adverse impact and potential benefits by increasing habitat diversity in the project area.

The native vegetation planting can occur relatively quickly and any disturbance would be brief. Movement of managed fishery resources would not be impeded by the newly planted vegetation. The possibility for salt marsh vegetation interfering with vessel navigation is also very low as the vegetation will be planted in shallow water near the shoreline (see Figure 3).

It is anticipated that planting vegetation would have only brief and minor effects to any federally managed species or designated EFH. The duration and extent of disturbance would not significantly interfere with species migration, nesting, or refuge areas, since adjacent areas of similar habitat would be available and undisturbed, and most organisms could easily move away from the temporary disturbance activity to undisturbed areas when it occurs. Best management practices for construction would be followed to minimize impacts.

The project would have a relatively small spatial impact relative to the Gulf of Mexico management area (see Figure 3). The lack of adverse effects is a reflection of the *net* impact of the project which is focused on restoring habitat critical to native oysters and native salt marsh habitat, neither of which would be suitable if the restoration was not completed. It is anticipated that the proposed project would provide a net benefit to the communities present, to the habitat services they provide, and to biological resources that depend on them.

### ***Conclusion***

The project is not likely to adversely affect EFH. Restoring the oyster reef and planting native salt marsh vegetation may result in a small area of existing habitat being converted from one EFH habitat to another type; however, both habitat changes will be small and are anticipated to have a net beneficial impact to habitat quality and species found in the area. Disturbance to any EFH and species using the habitat in areas adjacent to locations where restoration would occur would be brief and insignificant, with risks further mitigated by following identified best management practices during construction. No adverse impacts to other EFH types would result from the proposed restoration techniques.