



# Department of Environmental Protection

Jeb Bush  
Governor

Marjory Stoneman Douglas Building  
3900 Commonwealth Boulevard  
Tallahassee, Florida 32399-3000

David B. Struhs  
Secretary

In the Matter of an  
Application for Permit/Water Quality Certification,  
and Authorization to Use Sovereign Submerged Lands and Variance by:

**APPLICANT:**

Mr. Stephen J. Boutelle  
Lee County Natural Resources Division  
1500 Monroe Street  
Fort Myers, FL 33902

**PROJECT NAME:**

Estero Island and Lovers Key Beach Restoration  
Project  
  
File No. 0173059-001-JC  
Lee County

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**CONSOLIDATED NOTICE OF INTENT TO ISSUE  
JOINT COASTAL PERMIT, AUTHORIZATION TO USE  
SOVEREIGN SUBMERGED LANDS, AND VARIANCE**

The Department of Environmental Protection gives consolidated notice of its intent to:

- (a) issue a joint coastal permit under Chapter 161 and Part IV of Chapter 373, Florida Statutes (F.S.), and Title 62, Florida Administrative Code (F.A.C.) (draft copy of permit attached). Issuance of the joint coastal permit also constitutes certification of compliance with state water quality standards pursuant to Section 404 of the Clean Water Act, 33 U.S.C. 1344;
- (b) grant a consent to use sovereign submerged lands for the proposed beach fill areas, under Article X, Section 11 of the Florida Constitution, Chapter 253, F.S., Title 18, F.A.C., and the policies of the Board of Trustees.
- (c) grant a public easement (BOT File No. 360223529 Instrument No. 30635) to use sovereign submerged lands for the proposed borrow areas and terminal structure, under Article X, Section 11 of the Florida Constitution, Chapter(s) 253, F.S., Title 18, F.A.C., and the policies of the Board of Trustees.
- (d) grant a variance (No. 0173059-002-EV) from the provisions of Rule 62-4.244(5)(c), F.A.C., to establish a temporary mixing zone greater than 150 meters within an area of Class III Waters of the state.

Where applicable (such as activities in coastal counties), issuance of the joint coastal permit also constitutes a finding of consistency with Florida's Coastal Zone Management Program, as required by Section 307 of the Coastal Zone Management Act. In addition, the

Department has determined, pursuant to Section 380.0651(3)(e), F.S., that the facility is located so that it will not adversely impact Outstanding Florida Waters or Class II Waters, and will not contribute to boat traffic in a manner that will adversely impact the manatee.

## **I. DESCRIPTION OF THE PROPOSED ACTIVITY**

The applicant, Lee County, applied on July 26, 2000 to the Department of Environmental Protection for a 10 year permit/water quality certification and authorization to use sovereign submerged lands owned by the Board of Trustees of the Internal Improvement Trust Fund (Board of Trustees) to conduct a beach restoration project for Estero Island and Lovers' Key. The Estero Island and Lovers' Key Beach Restoration project is to be divided into three reaches. Reach 1 is located in north Estero Island and extends approximately 4.6 miles and begins 300 feet north of R-175 and continues south to R-198. This project includes the construction of a terminal groin on Estero Island 300 feet north of R-175 to prevent losses of beach sand into Mantanzas Pass, which is a Federal navigation project. Reach 2 is located at the southern tip of Estero Island and extends approximately 0.51 miles beginning at R-208 adjacent to the sand spit (Little Estero Island) and extending south to a point 500 feet east of R-210. No sand will be placed within the sand-spit region. Reach 3 is located on Lovers' Key, and extends approximately 1.1 miles commencing 500 feet north of R-215 and proceeding to a point 500 feet south of R-220. Lovers' Key State Recreational Area is both state and county owned, but the state is managing it. Acceptable beach fill material has been identified in two offshore borrow sites. Borrow Site I is located 1.6 miles offshore of Estero Island. Borrow Site II is located 0.5 miles southwest of south Estero Island.

The activity includes consideration of an application for a 10-year sovereign submerged lands public easement (BOT File No. 360223529, Instrument No. 30635) containing ~188.43 acres or 8,208,229 square feet, more or less for Borrow Area I and 103.12 acres or 4,492,119.22 square feet, more or less for Borrow Area II. Borrow Area I is located 1.6 miles offshore from DNR reference monument R-178. Borrow Area II is located 0.5 miles southwest from DNR reference monument R-205. The terminal structure will contain ~0.29 acres or 12,661.29 sq. feet.

The applicant has also requested a variance (File No. 0173059-002-EV) from Rule 62-4.244(5)(c), F.A.C., to establish a temporary mixing zone of 300 meters offshore and up to 4,500 meters along shore from the point of sand discharge onto the beach disposal area.

The activity is located along Estero Island and Lovers' Key, Lee County, fronting the Gulf Of Mexico, Class III Waters, adjacent to Outstanding Florida Waters (Figure 1 & 2).

### Latitude/Longitude

(Reach 1) N. Project Limit = Lat 26 27 54.82784/ Long 81 58 05.76430  
S. Project Limit = Lat 26 25 34.83753/ Long 81 54 33.37939

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(Reach 2) N. Project Limit = Lat 26 24 14.69500/ Long 81 53 27.50000  
S. Project Limit = Lat 26 24 14.70200/ Long 81 52 58.60240  
(Reach 3) N. Project Limit = Lat 26 23 40.04500/ Long 81 53 02.27900  
S. Project Limit = Lat 26 22 55.48445/ Long 81 52 18.81936

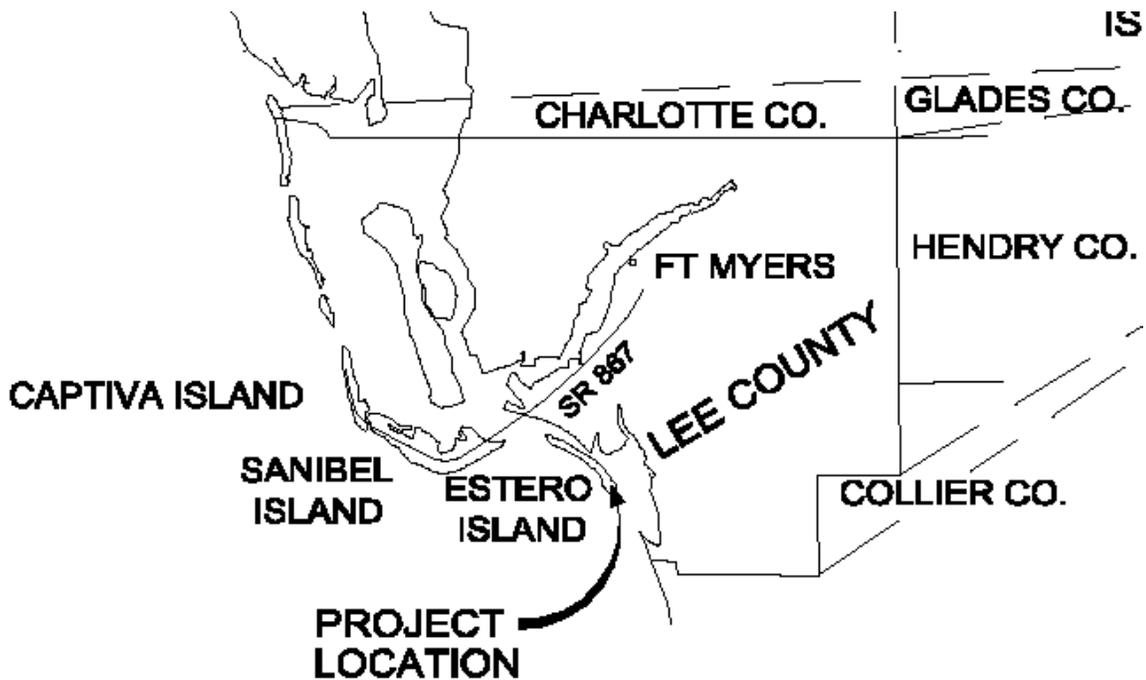
State Plane Coordinates: *All 3 Project Areas in NAD 1983*

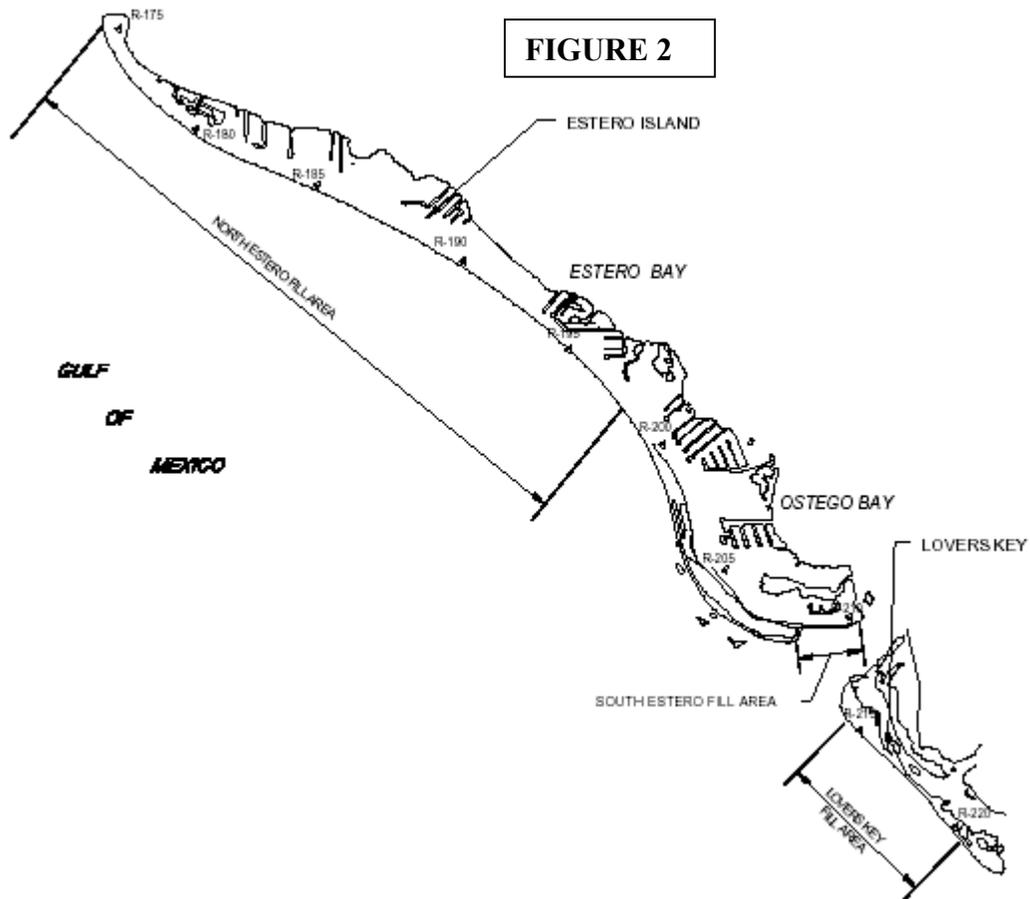
(Reach 1) N. Project Limit = 774787.7N / 666547.7E  
S. Project Limit = 760662.6N / 685857.9E  
(Reach 2) N. Project Limit = 752572.6N / 691853.9E  
S. Project Limit = 752578.6N / 694480.9E  
(Reach 3) N. Project Limit = 749079.1N / 694149.8E  
S. Project Limit = 744583.8N / 698106.0E

DNR Reference Monuments:

(Reach 1) N. Project Limit 300ft north of R-175; S. Project Limit R-198.  
(Reach 2) N. Project Limit R-208; S. Project Limit = 500ft east of R-210  
(Reach 3) N. Project Limit 500ft north of R-215; S. Project Limit = 500ft south of R-220

**FIGURE 1**





## II. AUTHORITY FOR REVIEW

The Department has permitting authority under Chapter 161 and Part IV of Chapter 373, F.S., and Chapters 62B-41, 62B-49, 62-330 and 62-343, F.A.C. Pursuant to Operating Agreements executed between the Department and the water management districts, as referenced in Chapter 62-113, F.A.C., the Department is responsible for reviewing this application.

The activity also requires a proprietary authorization, as it is located on sovereign submerged lands owned by the Board of Trustees of the Internal Improvement Trust Fund. The activity is not exempt from the need to obtain a proprietary authorization. Pursuant to Article X, Section 11 of the Florida Constitution, Sections 253.002 and 253.77, F.S., Sections 18-21.0040, 18-21.0051, 62-343.075, F.A.C., the policies of the Board of Trustees, and the Operating Agreements executed between the Department and the water management districts, as referenced

in Chapter 62-113, F.A.C., the Department has the responsibility to review and take final action on this request for proprietary authorization.

The applicant has also requested a variance from state water quality standards pursuant to Section 403.201, Florida Statutes, of the Florida Air and Water Pollution Control Act. Pursuant to 62-103.100, F.A.C., the Department has the responsibility to review and take final action on this request for water quality variance.

### **III. BACKGROUND/BASIS FOR ISSUANCE**

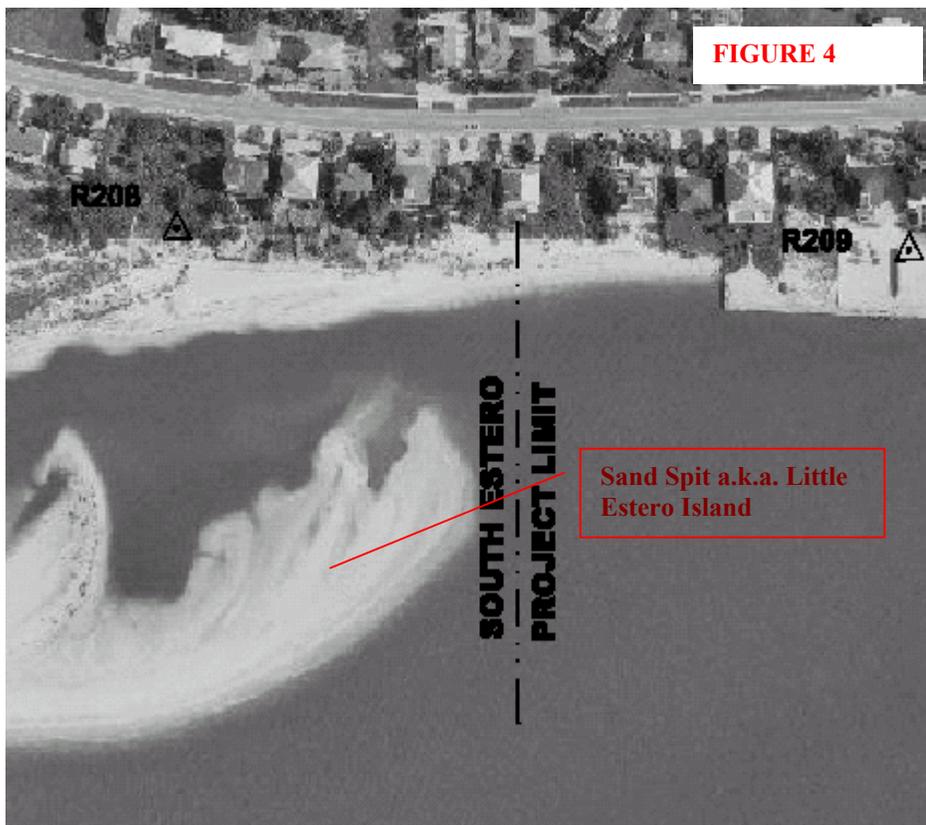
#### **A. General**

Estero Island is highly developed both publicly and privately, resulting in extensive recreational use of the beach. Hotels, restaurants, and beach-front homes make up the developed coastline. It has a tourism-oriented economy, which is highly dependent on its beaches. Lovers' Key is largely undeveloped, and includes the Lovers' Key State Recreation Area. The Estero Island and Lovers' Key Beach Restoration project is divided into three reaches. All three areas are critically eroded as defined by the State of Florida, and unable to provide sufficient storm protection for upland properties and infrastructure.

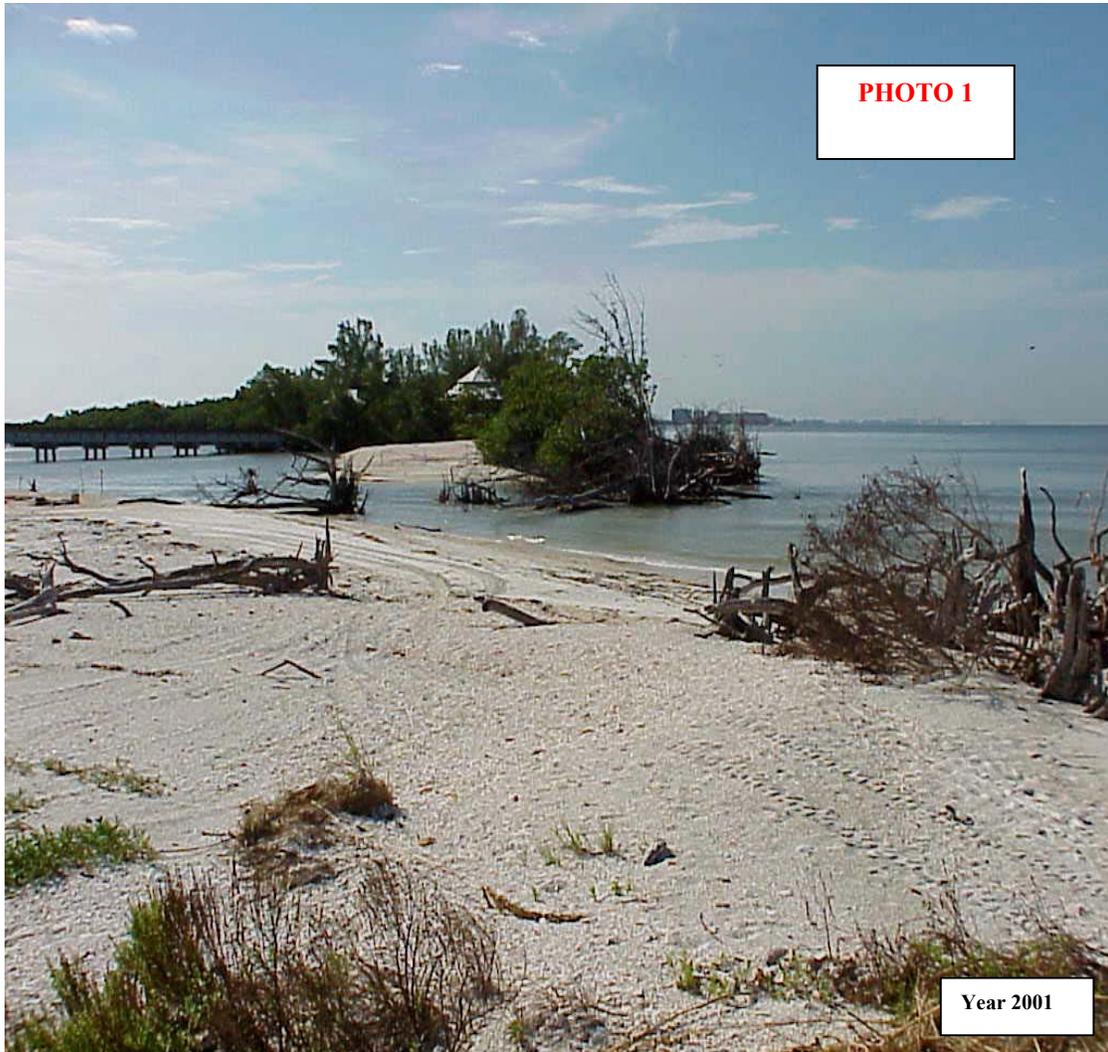
**Reach 1** is located in north Estero Island, extends approximately 4.6 miles and begins 300 feet north of R-175 and continues south to R-198. This project includes the construction of a terminal groin (See Figure 3 below) on Estero Island 300 feet north of R-175 to prevent losses of beach sand into Mantanzas Pass, which is a Federal navigation project. The proposed terminal groin is 240 feet long (crest) by 60.8 feet wide (base), situated perpendicular to the shoreline with 90 feet landward of the 2000 MHW and 150 feet seaward of the 2000 MHW shoreline. Reach 1 of the project consists of a 4.1 feet NGVD berm, and a 40-foot shoreline extension from the April 2000 MHW location. It has sufficient advanced nourishment to address an erosion rate of three feet per year in the northern segment of Reach 1; and an erosion rate of five feet per year for R-190 to R-197 (historical hotspot for erosion). The project design calls for the placement of 1,010,000 cubic yards of compatible beach quality sand on Reach 1.



**Reach 2** is located at the southern tip of Estero Island and extends approximately 0.51 miles beginning at R-208 adjacent to the sand spit (Little Estero Island) and extending south to a point 500 feet east of R-210 (Figure 4). No sand will be placed within the sand-spit region. The proposed project also consists of a 4.1 feet NGVD berm, a 40-foot shoreline extension from the April 2000 MHW location, and sufficient advanced nourishment to address an erosion rate of three feet per year. Reach 2 is designed to receive 70,000 cubic yards of sand.

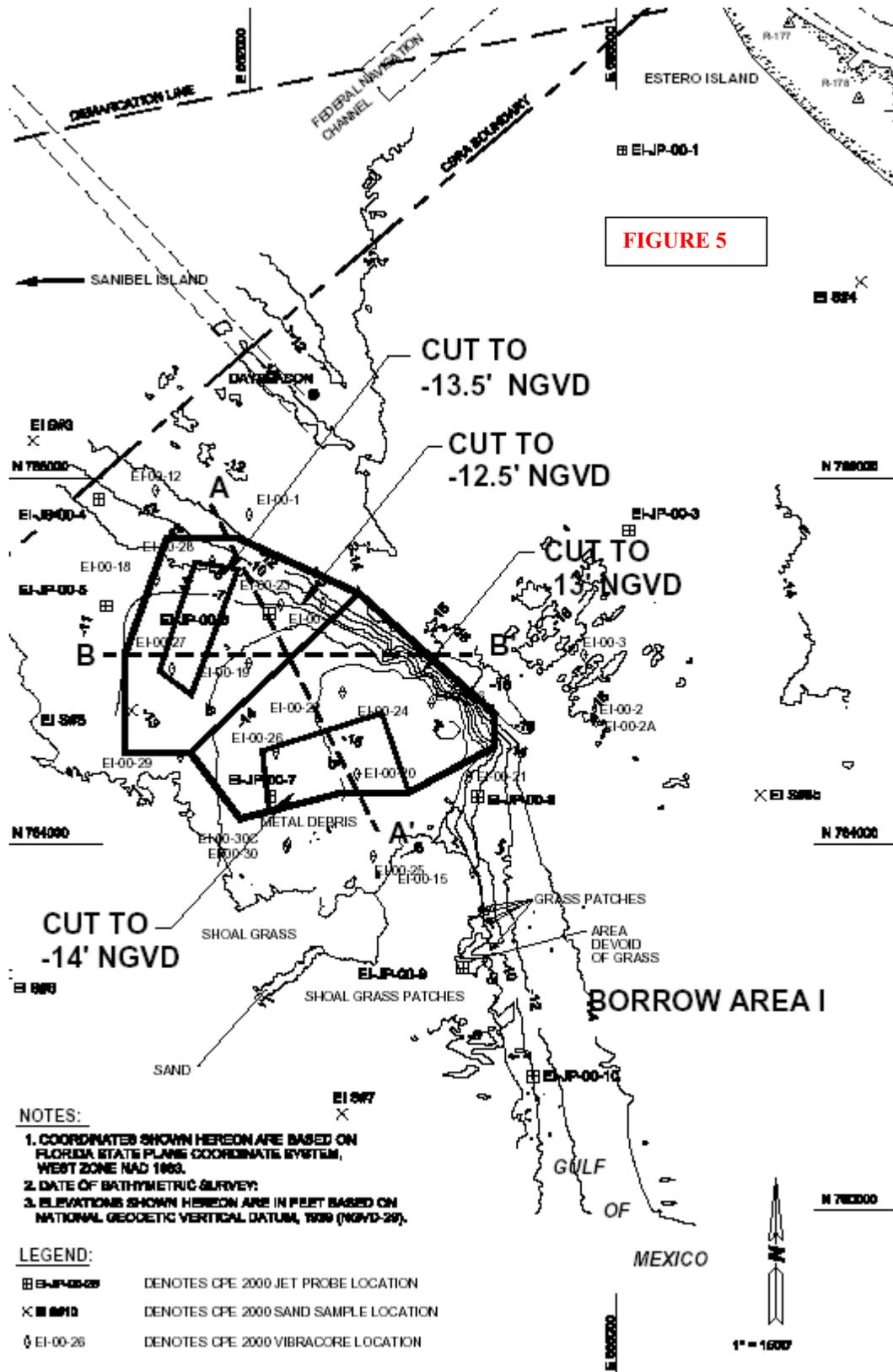


**Reach 3** is located on Lovers' Key, and extends approximately 1.1 miles commencing 500 feet north of R-215 and proceeding to a point 500 feet south of R-220. Lovers' Key State Recreational Area is both state and county owned, but the state is managing it. The historic erosion is most critical in the center of the island (from R-216 south to R-219) with uprooted trees in the surf zone. Lovers' Key is severely eroded and in perpetual danger of being breached in the event of a significant storm event. In fact, Photo1 below shows a breach that occurred in 2001 during the processing of this application. The mangrove roots and stumps illustrate the severe erosive state of this shoreline. The project calls for the placement of 335,000 cubic yards in Reach 3. In Reach 3, the proposed project consists of a 4.1 foot NGVD berm, a 40 foot shoreline extension from the April 2000 MHW location, and an erosion rate of seven feet per year.



Geotechnical Review

A detail sand search and borrow area sediment evaluation was performed by the applicant's consultant, Coastal Planning and Engineering, Inc. Acceptable beach fill material was identified in two offshore borrow sites. Borrow Site I is located 1.6 miles offshore of Estero (See Figure 5). Borrow Site II is located 0.5 miles southwest of south Estero Island (See Figure 6).



**FIGURE 5**

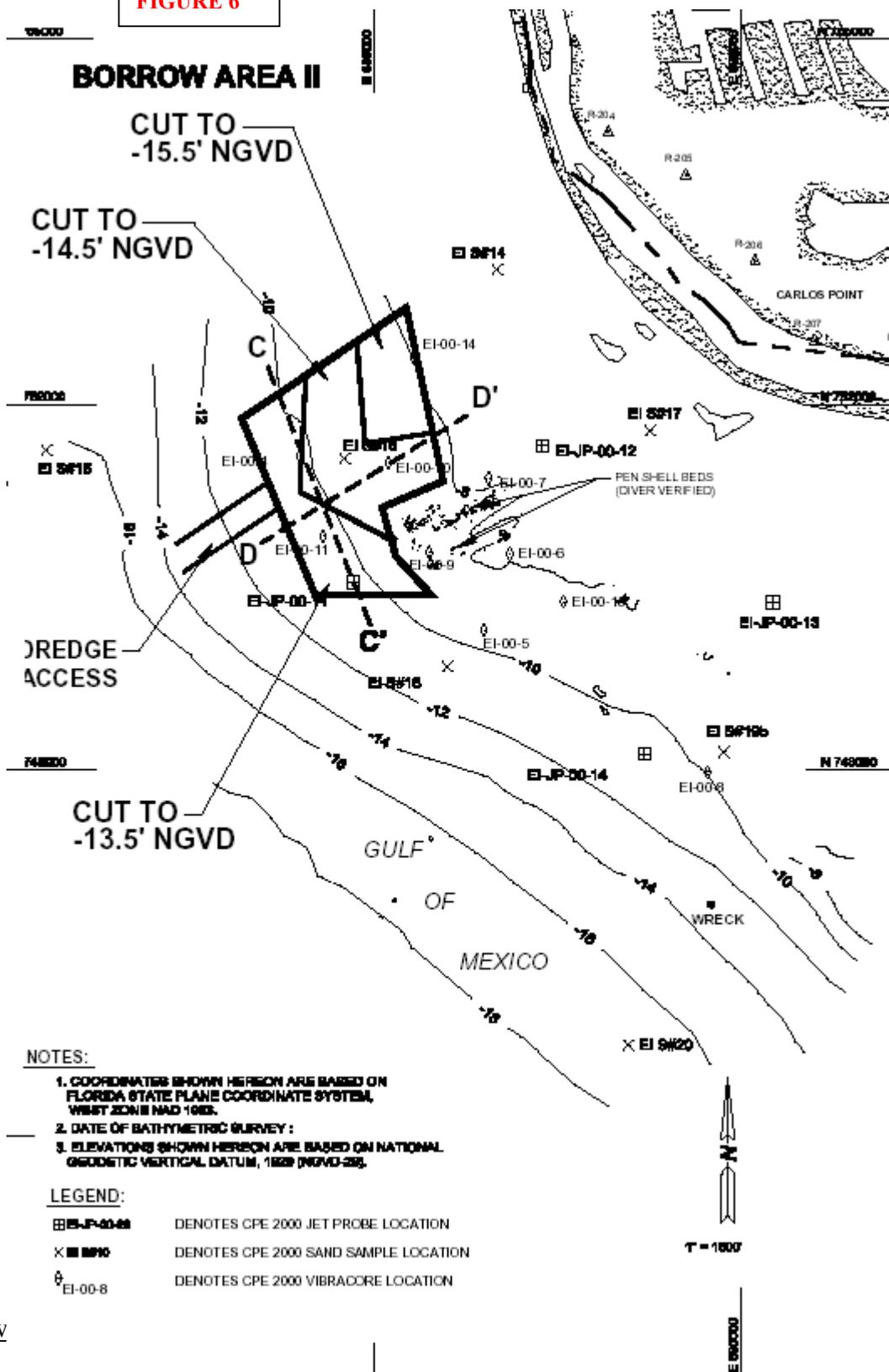
**NOTES:**

1. COORDINATES SHOWN HEREON ARE BASED ON FLORIDA STATE PLANE COORDINATE SYSTEM, WEST ZONE NAD 1983.
2. DATE OF BATHYMETRIC SURVEY:
3. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NATIONAL GEODETIC VERTICAL DATUM, 1989 (NGVD-89).

**LEGEND:**

- ▣ EI-JP-00-09 DENOTES CPE 2000 JET PROBE LOCATION
- X EI-SM10 DENOTES CPE 2000 SAND SAMPLE LOCATION
- ⊕ EI-00-26 DENOTES CPE 2000 VIBRACORE LOCATION

**FIGURE 6**



Borrow

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Composite statistics from Borrow Area I (BA I) samples have a mean grain size of 0.15 mm (2.73 $\phi$ ) and a range of 0.10 mm (3.28 $\phi$ ) to 0.41 mm (1.27 $\phi$ ). The borrow site is moderately well sorted with a sample phi distribution range of 0.32 to 1.86 and a weighted average of 0.97. Silt content ranges from 1.58% to 11.48% with a composite of 4.04%. Coarse sediments of a size greater than 4.0 mm (-2.0 $\phi$ ) range from 0.0% to 6.74%. Coarse sediments comprise approximately 1.22% of the borrow site.

Composite statistics from Borrow Area II (BA II) samples have a mean grain size of 0.16 mm (2.62 $\phi$ ) and a range of 0.12 mm (3.02 $\phi$ ) to 0.30 mm (1.73 $\phi$ ). The borrow site is moderately sorted with a sample phi distribution range of 0.60 to 2.26 and a weighted average of 1.13. Silt content ranges from 2.67% to 13.19% with a composite of 5.49%. Coarse sediments of a size greater than 4.0 mm (-2.0 $\phi$ ) range from 0.10% to 12.52%. Coarse sediments comprise approximately 1.64% of the borrow site.

Native to Borrow Site Comparison

Comparison of mean grain size from Borrow Area I to the North Estero native beach shows similar ranges and composite values as shown in Table 1. Evaluation of the composite characteristics show the median sorting value of the borrow site to be more poorly sorted than the existing beach while ranges of sorting values are similar for both existing and borrow areas. Composite silt content is lower in the borrow area though samples of sediments taken from the area show excessively high (>5%) percentages of fine material. The borrow area is characterized by slightly higher composite percentage for coarse material, but is well within the allowable (<5%). Though some samples contain excessively high percentage of material greater than 4.00 mm, applicant has estimated the total volume of coarse material to be approximately 18.5 KCY, which when spread over the ~1.0 MCY project area should not be problematic. Applicant stated in his response that pockets of adverse material would be remedied through mixing or removal from the project site.

**Table 1**  
Comparison of Sediment Characteristics between North Estero Island and Borrow Area I

MEASURE	LOCATION	MINIMUM	MAXIMUM	COMPOSITE
Mean Grain Size	North Estero	0.09	0.26	0.14
	BA I	0.10	0.41	0.15
Sorting	North Estero	0.19	1.51	0.63
	BA I	0.32	1.86	0.97
Silt Content	North Estero	0.61	53.55	8.86
	BA I	1.58	11.48	4.04
Coarse Sediment Content	North Estero	0.00	2.21	0.34
	BA I	0.00	6.74	1.22
Dry Beach Mean Grain Size	North Estero			0.14
	BA I			-
Dry Beach Sorting	North Estero			0.63
	BA I			-

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South Estero Island and Lovers Key have similar mean grain sizes, sorting coefficients, and coarse and fine fractions. The applicant has proposed use of Borrow Area II as a sediment source for these two sections of the project. A comparative table of values is shown in Table 2. Comparison of sediment characteristics show the mean grain size of the borrow site to be slightly less than the two segments to be filled, which the applicant expects to produce a slightly flatter beach. Spreading of the toe of fill will not create adverse impacts due to the lack of hardbottom or reef structures in the area. Composite silt content from BA II exceeds the 5% limitation allowed by statute for fine material by ~0.5%. The borrow area is characterized by slightly higher composite percentage for coarse material than the native beach, but is well within the allowable (<5%).

**Table 2**  
Comparison of Sediment Characteristics between South Estero Island, Lovers Key and Borrow Area II

MEASURE	LOCATION	MINIMUM	MAXIMUM	COMPOSITE
Mean Grain Size (mm)	South Estero	0.15	0.31	0.20
	Lovers Key	0.12	.68	0.20
	BA II	0.12	0.30	0.16
Sorting	South Estero	0.46	1.70	1.04
	Lovers Key	0.39	1.54	.87
	BA II	0.60	2.26	1.13
Silt Content (%)	South Estero	0.59	5.25	2.46
	Lovers Key	0.59	5.76	2.48
	BA II	2.67	13.19	5.49
Coarse Sediment Content (%)	South Estero	0.00	4.16	0.90
	Lovers Key	0.00	4.23	1.01
	BA II	0.10	12.52	1.64
Dry Beach Mean Grain Size (mm)	South Estero	0.18	0.31	0.22
	Lovers Key	0.18	0.68	0.27
	BA II	-	-	-
Dry Beach Sorting	South Estero	0.90	1.73	1.19
	Lovers Key	0.62	1.19	1.11
	BA II	-	-	-

In summary, the applicant investigated the physical characteristics of the three segments of native beach and two potential offshore borrow areas. Sediment cores were sampled and characterized and composite characteristics were developed for each area by weighting the occurrence of each attribute based on estimated volumetric occurrence. Characteristics used to describe sediment were color, mean grain size, sorting coefficient, and coarse and fine fractions. Methodologies used in comparing borrow site sediments to the native beach, including composite sediment characteristic calculations, were reviewed, and found consistent with standard engineering practices and principles.

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No excessive gravel or indication of extraneous materials such as construction debris, rocks, clay or other foreign material existing within the borrow areas was found, which is consistent with 62B-41. However, BA II exhibited a slightly elevated percentage of fines (5.49%) that exceeds the limitation as set out in 62B-41 FAC. Due to the inherent inaccuracy associated with composite characterization and the loss of fine material expected during the dredging process, the percentage of fines is not expected to exceed 5% on the filled beach. To ensure the highest quality sediment reaches the fill area, applicant is requested to dredge portions A, B, and D of BA II, as shown on Figure A-2 of the plans, until the beach quality sediment is depleted. Initiation of BA II Section C dredging will begin only after the applicant has notified the Department of proposed dredging and provided written justification for such action.

Office staff have determined that the information characterizing the two borrow areas and three existing beach sites is sufficient and that the applicant has shown similarity between the existing beach and proposed fill dredged from an offshore site. The conclusion of the review is that sediment from Borrow Area I is similar to existing sediment on the North Estero Island Segment. Borrow Area II sediment is similar to the South Estero Island and Lovers Key segments of the project. The project with its associated borrow site is consistent with sediment requirements as laid out in 62B-41.007(2)(j) FAC.

Structure Impact Review

The proposed terminal groin at the northwest end of Estero Island has the potential to starve the sandy beach areas and shorelines along the inside of the inlet. This end of the island is a Lee County park. It may become necessary to armor all or portions of the downdrift shoreline inside of the inlet as a result of erosion induced by the construction in the future following groin construction. This potential adverse impact should be addressed through a required monitoring program and associated contingency plan to address erosion remediation pursuant to Rule 62B-41.005(17) and (18), F.A.C. Alternatively the designers could eliminate the groin and have less fill near that end of the island, or consider making the groin porous to some degree to reduce the expected problem.

Borrow Area Impact Review

A Coastal Planning and Engineering (CPE) report entitled "Borrow Area Impact Analysis, Refraction, Diffraction and Cross-Shore Modeling for the Estero Island and Lovers Key Beach Restoration Project" was reviewed by staff.

Both borrow areas, I & II, are located in shoal areas. Area I is located midway between north Estero Island and south end of Sanibel Island on a shoal that projects south from Sanibel adjacent to and south of the mouth of Matanzas Pass. Area I is over 6000 ft. offshore of N. Estero Island and separated from Estero by a primary channel leading into Matanzas Pass of 12-14 ft. depth. Area I is almost 2 miles offshore (to the east) of Sanibel Island. The REF-DIF refraction results in the CPE study show very little expected impact to the wave conditions and

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associated alongshore energy flux along both North Estero Island and Sanibel Island. Personally, after reviewing this report I have no particular concerns about borrow area I.

Borrow area II is located within 2000-2500 ft. of the south end of Estero Island in depths of 8-14 ft. The cut will result in a vertical slope along the landward side of the borrow area of about 6-7 ft. The refraction results generally show minimal impact of the borrow area to wave energy. However, Cases 5 and 7 show, for larger waves from the west, an increase in nearshore wave heights at locations along the southern end of Estero Is. Figure 10 also shows some alterations to alongshore energy flux along south Estero Island resulting from the borrow area cut. Cross-shore modeling with SBEACH shows some minor increases in profile recession from a 10 yr. storm.

These model simulations do not necessarily indicate that an adverse impact will occur from dredging of borrow area II, but do indicate that there is potential of some impact, possibly adverse, to south Estero Island. The extent of impact shown by the models, which is considered minor by CPE, is about as much as can be projected from this level of modeling. A rule-of-thumb proposed by Bob Dean during his initial hot-spot studies is to maintain borrow sites outside (seaward) of the depth of closure. His earlier (1989) depth of closure estimate for the southwest FL Gulf Coast was 12-14 ft. It is not clear whether the rule of thumb is applicable to inlet-related shoal areas or not. Pursuant to Rule 62B-41.005(16), F.A.C., a monitoring program is required as a condition of the permit, if the project has a potential for adverse impacts. Remediation shall be provided for any erosion effects to the adjacent coastal system attributable to alteration of the inlet in accordance with Rule 62B-41.005(15), F.A.C.

Proposed permit conditions as referenced above:

1. The permittee shall conduct a monitoring program to include specific monitoring to assess the effects of the excavation of the borrow areas and construction of the terminal groin structure on erosion and accretion patterns within the fill placement area and adjacent shorelines and on the inlet littoral system in order to identify any adverse impacts attributable to the project authorized by this permit.
2. Prior to issuance of a notice to proceed, the permittee shall submit a detailed monitoring plan. The plan shall specify aerial photography and the collection of topographic and bathymetric survey data sufficient to calculate annual shoreline position and volumetric changes in the project area and along the adjacent shorelines fronting the north end of Lovers Key. The plan shall describe how the specific data is to be collected, the time period for data collection, the analysis to be conducted, and the printed and electronic formats in which the results are to be reported. A pre-construction survey shall be conducted followed by annual post-construction surveys until commencement of the first beach renourishment project, at which time the Department will determine the necessity for continued monitoring. Aerial

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photography shall be conducted concurrently with each survey. The permittee shall submit a monitoring report within 90 days of completion of each post-construction survey.

3. Prior to issuance of a notice to proceed, the permittee shall submit a contingency plan to mitigate any significant erosion to the northwest shoreline area downdrift of the proposed groin structure attributable to the groin structure or to the north Lovers Key shoreline attributable to the excavation of Borrow Area II as identified in the monitoring reports. Corrective actions shall include the placement of beach fill material sufficient to restore and maintain the impacted shoreline through the next monitoring period and/or adjustment or removal of the terminal groin structure to alleviate the impacts to the affected shoreline.

Water Quality Variance

Direct impacts to water quality resulting from the offloading of material from the dredge site and subsequent placement on the beach placement site should be minimal. The applicant has petitioned the Department for a variance from Rule 62-4.242(5)(c), F.A.C. establishing a mixing zone extending 300 meters offshore and 4,500 meters downdrift from the point of sand discharge at the beach disposal site. A mixing zone variance was not requested for the proposed borrow areas.

The location of the project is on a barrier island, which comprises the western limit of the City of Fort Myers. The project will be affected by waves and currents generated in the Gulf of Mexico, and through the inlet at San Carlos Bay Entrance. The waves and currents are, of course, beyond human control. The potential controls of the turbidity generated by the dredge and fill process are as follows:

1. Selection of the borrow area which minimizes the amount of silt/clay in the fill. A borrow area will be selected which minimizes the silt/clay content while providing beach compatible sand.
2. Stopping of the dredge operation when turbidity exceeds 29 NTU's above background, for a standard mixing zone. This could result in numerous construction delays.
3. Construction of dikes paralleling the lower portion of the beach, theoretically allowing the sediment which creates turbidity to fall out of suspension before the spoil runoff reaches the ocean.

The above listed controls are not adequate to construct without the requested mixing zone variance, for the following reasons:

1. A silt/clay component is present in the offshore borrow area intended for use in the beach restoration project. The preliminary analysis of jet probe samples taken in the proposed borrow areas indicate the silt/clay content is comparatively low. However, the presence

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of silt and clay dictate the need for a mixing zone greater than the allowable 150 meter mixing zone. Wind, wave and/or current conditions will transport turbidity beyond the 150 meter mixing zone.

2. Stopping the dredge when turbidity levels become unacceptable is a method to attempt to control turbidity in the project area. Of course, the frequency at which the dredge will be required to stop relates directly to the allowed mixing zone and sea state. Given a 150 meter mixing zone, previous projects (Anna Maria Island, 1992/1993; Delray Beach 1973, 1978, 1984, 1992; Jupiter Island 1973, 1983; Pompano Beach 1983; etc.) have demonstrated that dredging could be interrupted frequently, assuming strict enforcement of the 150 meter mixing zone. A standard 150 meter mixing zone would very likely result in major delays in construction of the project with increased costs.
3. The dredge contractor will be required to use 500 foot long dikes to control turbidity, however, dikes have limited application in this extent. Dikes have been used in other projects with limited success.

Proposed Turbidity Monitoring Schedule

Due to the location of suitable sand sources for beach nourishment, the Estero Island and Lovers' Key Beach Nourishment Project will be constructed by hydraulic dredge. The proposed turbidity monitoring schedule has been approved for other projects in the Gulf of Mexico, which also required a hydraulic dredge for project construction. Turbidity in Nephelometric Turbidity Units (NTU's) shall be monitored twice daily at the beach fill site and at the dredge site during daylight hours. The samples shall be analyzed on site within two hours of collection. If samples are analyzed offsite and a violation occurs, notice of the violation shall be transmitted immediately from the lab to the construction site by telephone or radio.

Beach Fill Monitoring

Monitoring at the beach fill areas shall be conducted twice daily during daylight hours when disposal occurs, at least 4 hours apart, and whenever possible 1 hour after continuous discharge. Three samples will be collected at each site; 1 at the surface, 1 at mid-depth, and 1 at 1 meter above bottom.

Project Reach #2 is located at the southern tip of Estero Island and extends approximately 0.51 miles beginning at R-208 adjacent to a sand spit (Little Estero Island) and extends south to a point 500 feet east of R-210. The beach nourishment site (Reach #2) is adjacent to the Estero Bay Aquatic Preserve (Outstanding Florida Waters), which extends into Big Carlos Pass. Several turbidity control measures will be taken in order to prevent elevated turbidity levels within the Estero Bay Aquatic Preserve. The project on the southern segment of Estero Island (Reach 2) will be constructed from east to west. The hydraulic dredge operation will position

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the discharge pipe facing west towards the Gulf of Mexico. The rapid movement of sand and water out of the pipe in the westerly direction will minimize sand being drawn into the channel.

Construction at the project site shall be monitored closely to assure that turbidity levels do not exceed the compliance standards established in this permit. Accordingly, an individual familiar with beach construction techniques and turbidity monitoring shall be present at all times when fill material is discharged on the beach. This individual will serve as site supervisor and shall have authority to alter construction techniques or shut down the dredging or beach construction operations if turbidity levels exceed the compliance standards established in this permit. The names and qualifications of those individuals performing these functions along with 24-hour contact information will be submitted for approval to the Office of Beaches and Coastal Systems in Tallahassee, with a copy to the DEP, Southwest District Office. Any individual who performs this function will be approved by the Department before beginning to serve in this capacity. If monitoring reveals turbidity levels at the compliance sites greater than 0-NTUs at the boundary of OFW above the associated background turbidity levels, construction activities will cease immediately and not resume until corrective measures have been taken or conditions changed and turbidity has returned to acceptable levels.

Borrow Area Monitoring

Monitoring at the borrow area shall be conducted twice daily during daylight hours, at least 6 hours apart during dredging. Three samples will be collected at each site; 1 at the surface, 1 at mid-depth, and 1 at 1 meter above bottom.

Background Monitoring

Two (2) background stations will be sampled; 1 station at the beach fill site and 1 station at the dredge site. At the dredge site, the background sample will be collected outside of any visible turbidity plume at surface, mid-depth and 1 meter above bottom. At the beach fill site the background sample will be collected outside of any visible turbidity plume at the surface, mid-depth and 1 meter above bottom, and at the same distance offshore as the compliance site.

When any compliance sample collected is found to have a turbidity 29-NTU's above background as determined by the above described method, dredging and fill activities shall immediately cease. Dredging will not resume until action is taken to restore compliance with water quality standards.

Turbidity monitoring reports shall be submitted weekly to the Department of Environmental Protection in Tallahassee. In addition to the turbidity values measured, these reports shall include:

- (1) Permit number;
- (2) a map indicating sampling locations;
- (3) date and time of collection;
- (4) depth of sample;

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- (5) depth of water;
- (6) current direction;
- (7) wind direction; and
- (8) tidal stage.

Natural Communities

There are no natural communities of seagrass, shellfish beds, or exposed hardbottoms in the vicinity of the beach fill project areas or the borrow areas. Hence, neither direct burial or increased turbidity associated with dredging or construction of the project area will affect these types of natural resources.

Draft permit conditions (from the Florida Fish & Wildlife Conservation Commission) protecting marine turtles do not prohibit construction during the nesting season. Construction during the main marine turtle nesting season will be permitted, however, specific conditions such as daily monitoring for marine turtle nests (and relocating nests, if necessary) will be included in the “Specific Conditions” section of the permit.

Cultural and Historic Resources

Two hundred foot no-impact buffer zones have been established in several locations within the borrow sites. These buffer zones correspond to detected magnetic anomalies, which may be of cultural and/or historic significance. The Department of State’s, Division of Historical Resources, staff has indicated that the established buffer zones will be adequate to abate potential impacts to these areas.

**B. Specific Regulatory Basis for Issuance**

Through the above and based on the general/limiting and specific conditions to the permit, the applicant has provided affirmative reasonable assurance that the construction and operation of the activity, considering the direct, secondary and cumulative impacts, will comply with the provisions of Chapter 161 and Part IV of Chapter 373, F.S., and the rules adopted thereunder, including the Conditions for Issuance or Additional Conditions for Issuance of a joint coastal permit, pursuant to Chapter 161 and Part IV of Chapter 373, F.S., Chapters 62B-41, 62B-49 and 62-330, F.A.C. The construction and operation of the activity will not result in violations of the water quality standards set forth in Chapters 62-4, 62-302, 62-520, 62-522, and 62-550, F.A.C. The applicant has also demonstrated that the construction of the activity, including a consideration of the direct, secondary, and cumulative impacts, is not contrary to the public interest, pursuant to paragraph 373.414(1)(a), F.S.

Furthermore, after considering the merits of the proposal and any written objections from affected persons, the Department finds that on compliance with the permit conditions, the activities indicated in the project description are of such a nature that they will result in no

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significant adverse impacts to the sandy beaches of the state; are not expected to adversely impact nesting sea turtles, their hatchlings, or their habitat; will not interfere, except during construction, with the use by the public of any area of the beach seaward of mean high water; and are appropriately designed in accordance with Rule 62B-41, F.A.C.

Through the above, the applicant has also demonstrated that there are no practicable means known or available for the adequate control of turbidity within the standard mixing zone of 150 meters. Therefore, pursuant to Section 403.201, F.S., and upon compliance with the following conditions, the applicant has met the requirements for a variance from the provisions of Rule 62-4.244(5)(c), F.A.C., to establish a temporary mixing zone greater than 150 meters within an area of Class III Waters of the state. Pursuant to 62-103.100, F.A.C., the Department has the responsibility to review and take final action on this request for water quality variance.

The variance shall be subject to the following conditions:

1. This variance is subject to all conditions of Permit No. 0173059-001-JC.
2. Given good cause by either party, the Secretary or Deputy Secretary of the Department may alter the terms and conditions of the variance.
3. The variance is temporary and shall only be valid during work accomplished under the requirements of and during the term of Permit No. 0173059-001-JC.
4. This variance shall be subject to all monitoring conditions required by Permit No. 0173059-001-JC.

**C. Specific Proprietary Basis for Issuance**

Through the above and based on the general/limiting and specific conditions of the public easement, the applicant has met all applicable requirements for proprietary authorizations to use sovereign submerged lands, pursuant to Article X, Section 11 of the Florida Constitution, Chapter(s) 253, F.S., associated Rule(s) 18-21, F.A.C., and the policies of the Board of Trustees. The applicant has provided reasonable assurance that the activity:

- (1) is "not contrary to the public interest";
- (2) will maintain essentially natural conditions;
- (3) will not cause adverse impacts to fish and wildlife resources or public recreation or navigation; and
- (4) will not interfere with the riparian rights of adjacent property owners.

In addition, the project is consistent with the goals and objectives of the "Conceptual State Lands Management Plan" adopted by the Board of Trustees on March 17, 1981.

#### **IV. PUBLICATION OF NOTICE**

The Department has determined that the proposed activity, because of its size, potential effect on the environment or the public, controversial nature, or location, is likely to have a heightened public concern or likelihood of request for administrative proceedings. Therefore, pursuant to Section 373.413(4), F.S., and paragraph 62-343.090(2)(k), F.A.C., you (the applicant) are required to publish at your own expense the enclosed notice of this Consolidated Notice of Intent to Issue. The notice is required to be published one time within 30 days, in the legal ad section of a newspaper of general circulation in the area affected. For the purpose of this rule, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. The applicant shall provide proof of publication to:

Department of Environmental Protection  
Office of Beaches and Coastal Systems  
3900 Commonwealth Boulevard, Mail Station 300  
Tallahassee, Florida 32399-3000

The proof of publication shall be provided to the above address within seven days of publication. Failure to publish the notice and provide proof of publication within the allotted time shall be grounds for denial of the permit and authorization to use sovereign submerged lands.

#### **V. RIGHTS OF AFFECTED PARTIES**

The Department will issue the permit (draft attached) and intent to grant easement on sovereign submerged lands unless a sufficient petition for an administrative hearing is timely filed pursuant to sections 120.569 and 120.57, Florida Statutes, as provided below. The procedures for petitioning for a hearing are set forth below. The actual terms of the easement will be formally executed at a later date and shall include provisions for as normally are included in such easements. Mediation under Section 120.573, F.S., is not available for this proceeding.

The Department will issue the variance with the attached conditions unless a sufficient petition for an administrative hearing is timely filed pursuant to sections 120.569 and 120.57, Florida Statutes, as provided below. The procedures for petitioning for a hearing are set forth below. Mediation under Section 120.573, F.S., is not available for this proceeding.

A person whose substantial interests are affected by the Department's action may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received by the clerk) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000.

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Because the administrative hearing process is designed to redetermine final agency action on the application, the filing of a petition for an administrative hearing may result in a modification of the permit or even a denial of the application.

Under rule 62-110.106(4), Florida Administrative Code, a person whose substantial interests are affected by the Department's action may also request an extension of time to file a petition for an administrative hearing. The Department may, for good cause shown, grant the request for an extension of time. Requests for extension of time must be filed with the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, before the applicable deadline. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon. If a request is filed late, the Department may still grant it upon a motion by the requesting party showing that the failure to file a request for an extension of time before the deadline was the result of excusable neglect.

In the event that a timely and sufficient petition for an administrative hearing is filed, other persons whose substantial interests will be affected by the outcome of the administrative process have the right to petition to intervene in the proceeding. Any intervention will be only at the discretion of the presiding judge upon the filing of a motion in compliance with rule 28-106.205, F.A.C.

In accordance with rules 28-106.111(2) and 62-110.106(3)(a)(1), F.A.C., petitions for an administrative hearing by the applicant must be filed within 21 days of receipt of this written notice. Petitions filed by any persons other than the applicant, and other than those entitled to written notice under section 120.60(3), F.S., must be filed within 21 days of publication of the notice or within 21 days of receipt of the written notice, whichever occurs first.

Under section 120.60(3), F.S., however, any person who has asked the Department for notice of agency action may file a petition within 21 days of receipt of such notice, regardless of the date of publication.

The petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition for an administrative hearing within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57, F.S.

A petition that disputes the material facts on which the Department's action is based must contain the following information:

- (a) The name and address of each agency affected and each agency's file or identification number, if known;

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- (b) The name, address, and telephone number of the petitioner; the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests are or will be affected by the agency determination;
- (c) A statement of when and how the petitioner received notice of the agency decision;
- (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;
- (e) A concise statement of the ultimate facts alleged, including the specific facts that the petitioner contends warrant reversal or modification of the agency's proposed action;
- (f) A statement of the specific rules or statutes that the petitioner contends require reversal or modification of the agency's proposed action; and
- (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts on which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by rule 28-106.301, F.A.C. Under sections 120.569(2)(c) and (d), F.S., a petition for administrative hearing must be dismissed by the agency if the petition does not substantially comply with the above requirements or is untimely filed.

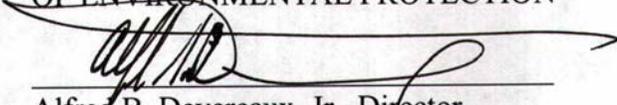
This action is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with the above. Upon the timely filing of a petition this order will not be effective until further order of the Department.

This intent to issue constitutes an order of the Department. The applicant has the right to seek judicial review of the order under section 120.68, F.S., by the filing of a notice of appeal under rule 9.110 of the Florida Rules of Appellate Procedure with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000; and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice of appeal must be filed within 30 days from the date when the final order is filed with the Clerk of the Department. The applicant, or any party within the meaning of section 373.114(1)(a), F.S., may also seek appellate review of this order before the Land and Water Adjudicatory Commission under section 373.114(1), F.S. Requests for review before the Land and Water Adjudicatory Commission must be filed with the Secretary of the Commission and served on the Department within 20 days from the date when the final order is filed with the Clerk of the Department.

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Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION



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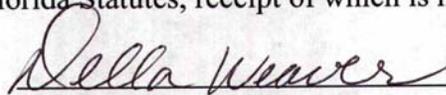
Alfred B. Devereaux, Jr., Director  
Office of Beaches and Coastal Systems

Copies furnished to:

Stephen Keehn, Coastal Planning & Engineering, Inc.  
Lucy Blair, DEP, South District, Ft. Myers  
Karen Moody, FWCC, BPSM  
Jim Beaver, FWCC  
Jennie Cowart, DEP, South District, Ft. Myers  
Heather Staford, Estero Bay Aquatic Preserve  
Lynda Charles, OBCS  
Echo Gates, OBCS  
Phil Flood, OBCS  
The Conservancy of Southwest Florida, nicoler@conservancy.org  
Harry W. Bergmann - CESAJ-RD-WF, U. S. Army Corps of Engineers, Ft. Myers  
OBCS File

**FILING AND ACKNOWLEDGMENT**

FILED, on this date with the designated Department Clerk, pursuant to Section 120.52,  
Florida Statutes, receipt of which is hereby acknowledged.

 11/19/01  
Deputy Clerk Date