Appendix B

PUBLIC COMMENTS

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
OFFICE OF OCEAN AND COASTAL RESOURCE MANAGEMENT
Silver Spring, Maryland 20910

U.S. EPA, Region 4
ATTN: Wesley B. Crum, Chief
Coastal Section
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, Georgia 30303

RE: Draft Environmental Impact Statement for designation of the Palm Beach Harbor Ocean Dredged Material Disposal Site and the Port Everglades Harbor Ocean Dredged Material Disposal Site

Dear Mr. Crum:

The Office of Ocean and Coastal Resource Management (OCRM) has the following comments on the above mentioned Draft Environmental Impact Statement (DEIS):

Page 103: The correct title of our office is Office of Ocean and Coastal Resource Management

Appendix L: Federal Consistency Evaluation Procedure:

- NOAA regulations require that a consistency determination include a detailed description of the proposed activity, its expected effects on the coastal zone and an evaluation of the activity in light of the applicable enforceable policies of the state coastal management program. The requirements for a consistency determination are set forth in NOAA regulations at 15 C.F.R. part 930, subpart C.

- The content of a consistency determination is located at 15 C.F.R. § 930.39. The definition of coastal effects is located at 15 C.F.R. § 930.11(e). OCRM notes that the application of "coastal effects" in Appendix L may be incomplete for Florida Statutes: Chapters 253 and 258. While the disposal sites are not within state waters, if use of the disposal sites and/or the disposal materials would have reasonably foreseeable effects on the state's submerged lands, then the U.S. EPA must be consistent to the maximum extent practicable with the enforceable policies of Chapters 253 and 258 and those policies should be evaluated for consistency.

The U.S. EPA should fully apply the Coastal Zone Management Act federal consistency 'effects test', as noted above, and consult with the Florida Coastal Management Program on whether the consistency determination is complete. The OCRM is available to provide any assistance you may need. Please feel free to contact Laurie Rounds of my staff at 301-713-3155 ext. 228.

Sincerely,

John King, Chief
Coastal Programs Division

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UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE

Southeast Regional Office
9721 Executive Center Dr. N.
St. Petersburg, FL 33702
(727) 570-5312, FAX 570-5517
http://caldera.sero.nmfs.gov

MAY 24 2004

F/SER3:JCL

Mr. James D. Giattina
United States Environmental Protection Agency
Region 4
Atlanta Federal Center
61 Forsyth Street
Atlanta, GA 30303-8960

Dear Mr. Giattina:

This letter is in reference to your letter dated March 24, 2004, requesting section 7 consultation with the National Marine Fisheries Service (NOAA Fisheries), pursuant to the Endangered Species Act of 1973 (ESA). The proposed action is the designation of the Palm Beach Harbor Ocean Dredged Material Disposal Site (ODMDS) and the Port Everglades Harbor ODMDS. For Palm Beach Harbor, the project area is a one square mile ODMDS located 4.5 nautical miles (nm) offshore Palm Beach, Florida. For Port Everglades Harbor, the project area is a one square mile ODMDS located four nm offshore Fort Lauderdale, Florida. The purpose of these ODMDSs is to accommodate maintenance-dredged material from both the Palm Beach Harbor Federal Project and the Port Everglades Harbor Federal Project. The NOAA Fisheries' Protected Resources Division has reviewed the Environmental Impact Statement (EIS) and Biological Assessment (BA) submitted by the Environmental Protection Agency (EPA), with respect to possible effects on the species listed and the critical habitat designated under the ESA under the purview of NOAA Fisheries.

The project includes the following activities:

- Approximately 50,000 cubic yards of dredged material annually may be placed at each site.
- Clamshell/barge dredging will be utilized for Palm Beach Harbor.
- Hopper dredging will be utilized for Port Everglades Harbor.
- Disposal of dredged material at the proposed sites will be conducted using a near-instantaneous dumping type barge or scow.

Of the ESA-listed species under the purview of NOAA Fisheries, five species of sea turtles including the loggerhead (*Caretta caretta*), green (*Chelonia mydas*), leatherback (*Dermochelys coriacea*), hawksbill (*Eretmochelys imbricata*), and Kemp's ridley (*Lepidochelys kempii*) are known to occur in the southeast Atlantic and may occur in the action area. Previous NOAA Fisheries' biological opinions issued to the U.S. Army Corps of Engineers in 1991, 1995, 1997, and 2003 have documented that non-hopper type dredges operating in the South Atlantic and Gulf of Mexico are unlikely to adversely affect sea turtles since it is believed that turtles are able to

avoid these slower moving dredges. On April 22, 2004, NOAA Fisheries consulted on the routine maintenance dredging of the Port Everglades Federal Navigation Project and concluded that no adverse effects to listed species are expected. NOAA Fisheries believes hopper dredging at Port Everglades Harbor falls is within the scope of the general type of hopper dredging activities proposed, described, and analyzed in the September 25, 1997, Regional Biological Opinion (RBO) to the Corp of Engineers' South Atlantic Division which amended the regional opinion conducted in 1995, and superseded the interim biological opinion issued on April 9, 1997.

Six federally-protected species of whales (blue, *Balaenoptera musculus*; finback, *Balaenoptera physalus*; humpback, *Magaptera novaeangliae;* right, *Eubalaena glacialis*; sei, *Balaenoptera borealis;* and sperm, *Physeter macrocephalus*) are found in the southeast Atlantic, usually off the continental shelf edge in deeper waters. The right whale has been documented to occur within 20 nm of the U.S. coastline 80 percent of the time. It has been reported that the greatest threats to the right whale are ship strikes and fishing interactions. The use of dredges and the disposal of dredged material using a near-instantaneous dumping type barge or scow have not been shown to adversely affect whales, although the RBO requires dredges to maintain a lookout for right whales and carefully avoid them, and reduce speed in limited visibility. During the recently completed Brunswick Harbor Dredging project, onboard observers detected and avoided right whales on numerous occasions when the dredge was operating or in transit to the Brunswick site. Therefore, NOAA Fisheries believes adverse effects to whales are unlikely to occur from the project.

NOAA Fisheries believes the effects of the proposed activity are entirely comparable to the effects of similar activities which have been previously analyzed by the RBO and no new effects of the proposed activity to turtles or whales beyond those effects previously analyzed by the RBO are expected. Thus, takes in association with the use of hopper dredges from the proposed activity have been previously anticipated in the RBO and shall be charged to the annual incidental take statement (ITS) established in the RBO. All terms and conditions of the reasonable and prudent measures of the ITS of the RBO must be adhered to by the applicant during the implementation of the proposed activity. Only incidental takes which occur while these measures are in full implementation are authorized.

The endangered shortnose sturgeon (*Acipenser brevirostrum*) is managed jointly by NOAA Fisheries and the U.S. Fish and Wildlife Service and may occur off Florida. The smalltooth sawfish *(Pristis pectinata)* may also occur off Florida. However, the occurrence of shortnose sturgeon or smalltooth sawfish has not been documented within the vicinity of the action area for this project. Therefore, since there is no evidence suggesting shortnose sturgeon or smalltooth sawfish occur within the action area, and because these species are highly mobile and likely are to move away from the area during the dredging activities if they happened to be present, we believe no effects to the shortnose sturgeon or smalltooth sawfish are likely to occur from the project.

You are also reminded that, in addition to your protected species/critical habitat consultation requirements with NOAA Fisheries' Protected Resources Division pursuant to section 7 of the ESA, prior to proceeding with the proposed action you must also consult with NOAA Fisheries'

Habitat Conservation Division pursuant to the Magnuson-Stevens Fishery Conservation and Management Act's requirements for essential fish habitat (EFH) consultation (16 U.S.C. 1855 (b)(2) and 50 CFR 600.905-.930, subpart K).

We look forward to continued cooperation with EPA in conserving our endangered and threatened resources. If you have any questions about EFH consultation for this project, please contact Ms. Jocelyn Karazsia, at (305) 595-8352. If you have any questions regarding this ESA consultation, please contact Mr. Juan Levesque, fishery biologist, at (727) 570-5779, or by e-mail at Juan.Levesque@noaa.gov.

Sincerely yours,

David Bernhart
Regional Administrator
for Protected Resources

cc: F/SER43 - J. Karazsia, HCD

Ref: I/SER/2004/00415

File: 1514-22.K.1.EPA FL

Bo Crum
Sent by: Bo Crum

05/11/2004 08:00 AM

To: Christopher McArthur/R4/USEPA/US@EPA
cc:
Subject: Offshore dumping EIS

Wesley B. Crum, Chief
Coastal Section
WMD, USEPA, Region 4
61 Forsyth Street
Atlanta, GA 30303
404-562-9352,FAX 9343
crum.bo@epa.gov
----- Forwarded by Bo Crum/R4/USEPA/US on 05/11/2004 08:00 AM -----

Janet Phipps
<JPHIPPS@co.palm-beach.fl.us>

05/10/2004 04:56 PM

To: Bo Crum/R4/USEPA/US@EPA
cc:
Subject: Offshore dumping EIS

Mr. Crum,
Attached is a draft of our comments concerning the harbor material offshore dumping DEIS. A hard copy will follow.
Thank you,
Janet Phipps

Janet J. Phipps, Ph.D.
Environmental Analyst
Environmental Resources Management
3323 Belvedere Rd., Bldg. 502
West Palm Beach, FL 33406
Tel: 561/233-2513
Fax: 561/233-2414

EPA offshore dumping DEIS.d

The following comments are in reference to the Draft Environmental Impact Statement (DEIS) for the Port Everglades Harbor Ocean Dredge Material Disposal Site (ODMDS) dated February 2004.

Roughly nine years ago when the study for the ODMDS began, there were approximately 4500 ship arrivals per year at Port Everglades. Now there are well over 6000. Not only are there almost 35% more ship arrivals, the ships that are arriving are significantly larger. Both the number and size of the ships calling at Port Everglades are anticipated to increase steadily into the future.

In order to accommodate this growth, the port has a desperate need to dredge new channels and berth spaces as well as deepen and widen existing ones. The current channel is operating near capacity. There are no feasible onshore disposal sites for this dredge material. The offshore site is essential.

The study indicated that the location chosen for disposal of dredged material will not adversely effect the environment, recreational boating or commercial shipping. It also indicated that no beach quality material is to be placed in the offshore site. Broward County has a tremendous need for beach quality material in its continuous beach re-nourishment projects. Any beach quality material dredged from Port Everglades will be welcomed additions to the beaches of Broward County. This will actually reduce the need for the removal of sand between the reef systems, thus leaving these valuable resources undisturbed.

The need to provide and maintain safe navigational conditions for the ships calling at Port Everglades is of paramount importance. The rapid growth of South Florida and the previously mentioned growth of the port make this essential. The future growth of South Florida is dependent on it.

Given the level of need for the offshore disposal site and the lack of any adverse impacts of it, there is no reason to delay and every reason to move forward in the designation of the proposed Port Everglades ODMDS.

Please feel free to contact me if you have any questions or if I may be of any further assistance in obtaining the required approvals.

Sincerely,

Captain James J. Ryan
Managing Pilot
Port Everglades Pilots Association
jimryan@pepilots.com
PO Box 13017
Fort Lauderdale, FL 33316
tel: (954) 522-4491
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BROWARD COUNTY
FLORIDA
DEPARTMENT OF PORT EVERGLADES - Construction Management & Planning Division
1850 Eller Drive • Fort Lauderdale, Florida, USA 33316 • 954-523-3404 • FAX 954-765-5389

May 4, 2004

Chief Wesley B. Crum
U.S. EPA, Region 4
Coastal Section
Sam Nunn Atlanta Federal Center
61 Forsyth Street, S.W.
Atlanta, GA 30303

Re: **Review and Comments for Port Everglades' Draft Environmental Impact Statement (EIS) for Its Ocean Dredge Material Disposal Site (ODMDS)**

Dear Mr. Crum:

Port staff has reviewed the referenced document and offers the following comments related to the Draft Environmental Impact Statement.

Much has changed at Port Everglades during the nine years that have transpired from the initial Public Notice of April 17, 1995. Time has made it more important to the Port for the designation of an Ocean Dredged Material Disposal Site (ODMDS). Our Southport disposal capabilities have decreased substantially over time due to the developments of the Port's Southport Container Facility. In the past, this area was utilized as a disposal area for both construction and maintenance dredged materials.

It is very important to the Port to be able to dispose of materials related to maintenance and construction activities. In order for the Port to maintain a safe and navigable harbor, it is of the utmost importance for us to be able to dispose of dredged material. As we undergo expansion, the only avenue for this material to be disposed of will be to an offshore disposal facility. Of the two areas under study, the Port prefers the site nearer to shore be selected. Both time and costs will be greatly reduced if the near shore is designated.

Both the COE and Port have always considered dredged material as a valued resource. As such, we look to deposit usable beach quality material on the adjacent beaches surrounding our Port.

Again, we like to thank you for this opportunity to comment on the DEIS and look forward to having this site designated as soon as possible so that we can continue to maintain a safe and navigable Port.

Sincerely,

Allan D. Sosnow
Environmental Projects Manager
Construction Management and Planning Division

ADS:keb

FILE: G:\ARCHIVE\ALLAN\ODMDS REVIEW_CRUM.DOC

Broward County Board of County Commissioners
Josephus Eggelletion, Jr. • Ben Graber • Sue Gunzburger • Kristin D. Jacobs • Ilene Lieberman • Lori Nance Parrish • John E. Rodstrom, Jr. • James A. Scott • Diana Wasserman-Rubin
www.broward.org/port

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May 11, 2004

U.S. EPA, Region 4
ATTN: Wesley B. Crum, Chief
Coastal Section
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, Georgia 30303

Dear Chief Crum:

In the nine years since we received public notice for the study of an off shore dredge material site, Port Everglades has grown tremendously.

It has limited area to dispose of dredge material either from maintenance or construction activities.

Port Everglades and the Corps look at dredged material as a possible resource, and if acceptable beach quality material is available, the port would prefer that this material be placed on the beach to eliminate the need for dredging between the reef systems off the port.

It is imperative to the continuation of safe navigational conditions that the designation of this Ocean Dredge Material Disposal Site (ODMDS) occurs as soon as possible.

Very truly yours,

Michael Y. Hopkins
Vice President/Operations
Latin America

MYH/ao

POST OFFICE BOX 359004 • FT. LAUDERDALE • FLORIDA • 33335 • 954.760.7900 • FAX 954.760.9220
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Department of Environmental Protection

Jeb Bush
Governor

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

Colleen M. Castille
Secretary

May 17, 2004

Mr. Wesley B. Crum, Chief
Coastal Section
U. S. EPA, Region 4
61 Forsyth Street, SW
Atlanta, Georgia 30303

RE: U.S. Environmental Protection Agency and U.S. Army Corps of Engineers – Draft Environmental Impact Statement for Designation of the Palm Beach Harbor and Port Everglades Harbor Ocean Dredged Material Disposal Sites – Palm Beach and Broward Counties, Florida.
SAI # FL200403195639C

Dear Mr. Crum:

The Florida Department of Environmental Protection (Department) State Clearinghouse, pursuant to section 403.061, Florida Statutes (F.S.), Executive Order 12372, Gubernatorial Executive Order 95-359, the Coastal Zone Management Act, 16 U.S.C. §§ 1451-1464, as amended, and the National Environmental Policy Act (NEPA), 42 U.S.C. §§ 4321, 4331-4335, 4341-4347, as amended, has coordinated a review of the above referenced Draft Environmental Impact Statement (DEIS). The DEIS was prepared by the U.S. Environmental Protection Agency (EPA) in cooperation with the U.S. Army Corps of Engineers (USACE) to satisfy the requirements for designating the Palm Beach Harbor and Port Everglades Harbor Ocean Dredged Material Disposal Sites (ODMDS).

The Marine Protection, Research, and Sanctuaries Act of 1972 (MPRSA) Section 102(c) authorizes the EPA to designate ODMDSs, precise geographical areas within which ocean disposal of dredged material maybe authorized. Sites are selected to minimize adverse environmental effects of dumping activities and interference with other uses of the marine environment. Historically, interim designated sites were used for the disposal of dredged material from Palm Beach Harbor and Port Everglades. However, the use of the sites was discontinued as a result of the implementation of the Water Resources Development Act of 1992.

EPA proposes to designate two ODMDSs, one located east of the Lake Worth Inlet and Port of Palm Beach, Florida and one located east of Port Everglades, Florida. Alternatives evaluated in the DEIS included: 1) no action or not designating an ODMDS; 2) upland disposal of dredged materials, including their use for beach re-nourishment; 3) and alternative sites for each designation, four for Palm Beach Harbor and three for Port Everglades Harbor. EPA's preferred alternative sites include the "4-mile site" for Port Everglades, 3.8 nautical miles from shore to the western edge of the site in 509 to 607 feet of water; and the "4.5-mile site" for Palm Beach Harbor, 4.3 nautical miles from shore to the western edge of the site in 525 to 625 feet of water. A variety of historical and recent data were used to describe the

sites including bathymetry; sediment and water chemistry; biological communities; and physical oceanographic characteristics.

The Department, designated as the state's lead coastal management agency pursuant to section 306(c) of the Coastal Zone Management Act, 16 U.S.C. section 1456(c), and section 380.22, Florida Statutes, hereby notifies the EPA and the USACE that the state, at this time, does not object to the consistency determination provided with the DEIS. All subsequent environmental documents must be reviewed to determine the project's continued consistency with the FCMP. The state's finding is based on consultation with the EPA and the USACE over the last several years to assist in identifying environmental information necessary to locate satisfactory sites, information provided in the DEIS, and the adoption of Site Management and Monitoring Plans as outlined in the DEIS. During review of the DEIS, several issues that should be addressed in the Final EIS were identified. The state's continued concurrence with the project will be based, in part, on the adequate resolution of issues identified during this and subsequent reviews.

Comments from the Department (DEP) staff are discussed below and in the enclosure. The DEIS indicates, and Florida strongly agrees, that where appropriate, beach re-nourishment is the preferred alternative for disposal of beach quality dredged materials. In addition, to ensure that disposed materials remain within the designated site and do not affect resources adjacent to the sites, disposal should not occur during times of high currents such as eddy intrusions.

An exhaustive review was completed of potential upland disposal sites, however, no consideration of alternative uses of non-beach quality material was included in the DEIS as requested in the Department's November 24, 1997 scoping notice response. The Department has recently been contacted about using intracoastal dredged material as landfill cover indicating that a potential need for dredged material might exist. Options for beneficial use should be developed so that offshore disposal is unnecessary. Therefore, we recommend that the ports and the USACE investigate possible beneficial uses of dredged material with nearby counties and, municipalities and document in the FEIS.

While all candidate sites appear to have had geophysical and visual benthic surveys conducted at or in the vicinity of the sites, different spatial and temporal sampling regimes were carried out and therefore, the individual sites were not evaluated equally. Because of the differences in collecting environmental information, it appears that the preferred sites were determined prior to completing detailed survey analysis. The DEIS should have clearly explained that information obtained in the broader surveys was used to identify those sites which are more environmentally acceptable and then more rigorous surveys were conducted.

Video and still photography was collected at the Port Everglades site in 1986. Information was presented in the DEIS regarding the Palm Beach Harbor photo documentation, but the timing of and methods for conducting the surveys are unclear. The state is concerned that the photodocumentation of these sites may be outdated. EISs should include analyses of the results of recent geophysical and visual surveys. The photo documentation should also be used to verify the identification of specific targets identified in contemporaneously conducted side scan sonar surveys.

The DEIS notes that video surveys were conducted within and around both the Palm Beach and Port Everglades preferred sites. Results of the photo documentation showed no preferred habitat for

Oculina varicose in the 4.5 mile Palm Beach site, but *Oculina* is known to occur within 1.7 nautical miles (nmi) of the site. Visual surveys of all areas potentially impacted by disposing of materials at the site, whether inside or outside of the side, should be conducted to ensure that no preferred habitat exists within the impact area. The NEPA analyses should also address the possibility of other deepwater coral resources such as black corals (i.e. *Cirrhipathes luetkeni* or *Tanacetipathes* sp) which have been noted in this area during the review of another project.

In an April 16, 2002 letter to the EPA concerning these proposals, the Department emphasized that site capacity requirements, projected material dispersion and the long-term fate of deposited material should be based on the maximum volume of material expected to be disposed of at each site. The determination of annual average of 50,000 cubic yards (cy) used in the DEIS seems inadequate considering the total amount of dredging that is expected at each port. Modeling and planning at the site to avoid long-term impacts should consider the amount of dredged material expected to be placed in the ODMDS during its lifetime. The modeling completed for the DEIS used a mound site that was 10 times the average annual amount or 500,000 cy to be deposited. This volume appears to be low since larger planned events, including disposing 2 million cy to improve the Palm Beach Harbor, may occur.

The cumulative impacts analysis in NEPA documents should provide the most up-to-date information for and thoroughly evaluate all projects being conducted in the area of impact. Projects evaluated in the DEIS that should be updated include AES Ocean Express and Tractebel Calypso pipelines; telecommunication cables; Port Everglades Harbor Deepening Project (PEHDP); and the Hillsboro Inlet dredging project. Final environmental impact statements with updated information concerning locations and projected impacts of both proposed pipelines were recently released. Cumulative analyses should include this updated information. Where available, information about the telecommunication cables should also be updated. The discussion of the PEHDP should include an estimate of the amount of dredged disposal material that will result from the project, and estimated disposal material volumes for other dredging projects should also be included. Hillsboro Inlet dredging should be added into the analysis of past projects. In addition, NEPA analyses should address the cumulative impacts of using these sites along with the use of other ODMDS along the southeast Florida coasts.

The Florida Fish and Wildlife Conservation Commission (FWCC) requests clarification of why the site modeling found the disposal sites to be non-dispersive despite persistent bottom current patterns.

The Treasure Coast Regional Planning Council (TCRPC) indicates that the preferred offshore site for the disposal of dredged material from Palm Beach Harbor is not in conflict or inconsistent with the Strategic Regional Policy Plan provided that coral reefs and other environmentally sensitive marine resources are not impacted by the disposal operation. Monitoring should occur to ensure that dispersion and transport of disposed dredged material does not impact reefs and other sensitive marine resources. All opportunities to utilize the dredged material for beneficial uses such as beach nourishment or lagoon restoration should be considered prior to disposal.

South Florida Regional Planning Council (SFRPC) staff notes that while the project will further the SFRPC's goals for a more livable, sustainable, and competitive region, the project should be reviewed to ensure that it is consistent with the goals and policies of the *Strategic Regional Policy Plan for South*

Florida regarding protection of shoreline, estuarine and benthic communities, fisheries and associated habitats. Please refer to the enclosed SFRPC letter for further details.

Thank you for the opportunity to review the DEIS and accompanying information. We look forward to continue working with EPA and the USACE to monitor the effects of using these designated sites. If you have any questions regarding this matter, please contact Ms. Lauren P. Milligan at (850) 245-2163.

Sincerely,

Sally B. Mann

Sally B. Mann, Director
Office of Intergovernmental Programs

SBM/lm

Enclosures

cc: ✓James C. Duck, USACE, Jacksonville
Roxanne Dow, DEP
Lynn Griffin, DEP
George Henderson, FWCC
Wynsum Hatton, TCRPC
Christina Miskis, SFRPC

Florida State Clearinghouse

Project Information	
Project:	FL200403195639C
Comments Due:	April 18, 2004
Letter Due:	May 18, 2004
Description:	ENVIRONMENTAL PROTECTION AGENCY AND U.S. ARMY CORPS OF ENGINEERS - DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR DESIGNATION OF THE PALM BEACH HARBOR AND PORT EVERGLADES HARBOR OCEAN DREDGED MATERIAL DISPOSAL SITES - PALM BEACH AND BROWARD COUNTIES, FLORIDA.
Keywords:	EPA/ACOE-PALM BEACH HARBOR/PORT EVERGLADES DREDGED MATERIAL SITES
CFDA #:	66.999

Agency Comments:

TREASURE COAST RPC - TREASURE COAST REGIONAL PLANNING COUNCIL

The preferred offshore site for the disposal of dredged material from Palm Beach Harbor is not in conflict or inconsistent with the SRPP provided that coral reefs and other environmentally sensitive marine resources are not impacted by the disposal operation. Monitoring should occur to ensure that dispersion and transport of disposed dredged material does not impact reefs and other sensitive marine resources. All opportunities to utilize the dredged material for beneficial uses such as beach nourishment or lagoon restoration should be considered prior to disposal.

SOUTH FL RPC - SOUTH FLORIDA REGIONAL PLANNING COUNCIL

While Council staff believes the project will further our goals for a more livable, sustainable, and competitive region, the project should be reviewed to ensure that it is consistent with the goals and policies of the Strategic Regional Policy Plan regarding protection of shoreline habitat, communities and listed marine species.

BROWARD - BROWARD COUNTY

PALM BEACH -

ENVIRONMENTAL POLICY UNIT - OFFICE OF POLICY AND BUDGET, ENVIRONMENTAL POLICY UNIT

No Comment

FISH and WILDLIFE COMMISSION - FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION

FMRI staff requests clarification of why the site modeling found the disposal sites to be non-dispersive despite persistent bottom current patterns.

STATE - FLORIDA DEPARTMENT OF STATE

TRANSPORTATION - FLORIDA DEPARTMENT OF TRANSPORTATION

Released Without Comment

ENVIRONMENTAL PROTECTION - FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

The DEIS indicates, and Florida strongly agrees, that where appropriate, beach re-nourishment is the preferred alternative for disposal of beach quality dredged materials. In addition, to ensure that disposed materials remain within the designated site and do not affect resources adjacent to the sites, disposal should not occur during times of high currents such as eddy intrusions. Staff recommends that the ports and the USACE investigate possible beneficial uses of dredged material with nearby counties and, municipalities and document in the FEIS. (See letter for additional comments.)

SOUTH FLORIDA WMD - SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Released Without Comment

Department of Environmental Protection
Specific Comments for Draft Environmental Statement for Designation of the Palm Beach Harbor ODMDS and the Port Everglades Harbor ODMDS
(May 16, 2004)

Section 1.2.4, page 4. The annual disposal volume to be placed in each proposed ODMDS site is 50,000 cubic yards (cy). Will this volume be adequate considering the dredging projects using the ODMDS sites may need to dispose of material well in excess of 50,000 cy (e.g. Palm Beach Harbor is estimated to have 2 million cy)?

Section 2.3. Figures 1 and 2. These figures and subsequent figures in the text and on the electronic version (CD) are difficult to analyze. The CD maps cannot be enlarged to a readable size as they become too blurry to distinguish features. NEPA documents should provide maps and figures that are clear and readable at most magnifications.

Sections 3 and 4. There are several citations of recognized experts (e.g. Porter, 1987; Marshall 1971) that are not included in the References section of the DEIS. Please correct.

Section 3.4, page 23. The EIS should clearly describe the date of, location, and methods used by Continental Shelf Associates in conducting the video surveys.

According to the text, no preferential substrate for *Oculina* was found in the 4.5 mile Palm Beach Harbor site during the video surveys. While it appears that geophysical surveys were used to determine if this substrate was found within the impact areas calculated by the modeling, video surveys of the area should be conducted to confirm that no preferential substrate for *Oculina* would be impacted. The EIS should provide a map detailing the locations of known *Oculina* and the location of the ODMDS candidate sites.

The state is concerned that an increase in turbidity and/or sedimentation resulting from disposal activity in the ODMDS could affect *Oculina* habitat since it is not clear in the DEIS whether it could exist within the area of impact.

The EIS should discuss information discerning whether substrates located in the sites or in proximity to the sites may be preferential to other species of coral besides *Oculina*. By specifically looking for *Oculina* in the video surveys, other important species may have been overlooked. The Tractebel Calypso Pipeline Project documented the presence of deepwater corals, including black corals, offshore Broward County, Florida.

Section 3.5, page 30. Fisheries data provided in tables 5 and 6 should be updated to include the most recently available information.

Section 3.13.1, page 44. More recent accounts of the recreational and commercial fisheries in the area should be included in the FEIS.

Section 3.17, page 57. The discussion should be updated. Both the AES Ocean Express LLC and the Tractebel Calypso LLC natural gas pipeline proposals have a published FEIS. The document should also include information concerning present and future telecommunication and fiber optic cables in the area.

The last sentence notes that the Tractebel Calypso pipeline's proposed route does not interfere with any of the Port Everglades Harbor ODMDS. When comparing maps in the Tractebel Calypso FEIS and maps of the proposed ODMDS, the 4-mile site seems in close in proximity to the pipeline route. The documents should provide a map detailing the location of the ODMDSs in relation to the Tractebel Calypso pipeline or any other significant structure in the area.

Section 3.18.1, page 58. The EIS should include a more thorough discussion about biological activity in the area as described in the DEIS. For example: could the biological disturbances (e.g. mounds and depressions) found at the Palm Beach Harbor 4.5-mile site been made by tilefish? Tilefish have become important fishery in this area and according to fishermen this species may only exist in certain types of sand habitats. Altering the sediments with dredge disposal may destroy essential fish habitat for this fishery.

The EIS should provide more detailed information concerning the surveys completed in the candidate sites including: a map clearly showing the locations of the video and photography; descriptions of when the surveys were conducted; and descriptions of survey methods used.

Section 3.18.2, page 58. NEPA documents should be based on recently obtained information about the area, including video/photography surveys necessary to verify the absence/presence of isolated corals and essential fish habitat. Based on the 1986 video, depressions, mounds, and other biological activity were noted in the area. This biological activity could be indicative of species now being utilized in a commercial fishery that were not in 1986 (e.g. blueline tilefish).

Section 4.3.3, page 60. In the discussion regarding 40 CFR 228.5(b), *Oculina* is noted as being found 1.7nmi west of the preferred Palm Beach Harbor ODMDS. The statement is then made that "At these locations, the likelihood of impacts to nearshore amenities is small." Is this statement applicable to *Oculina,* by referring to it as a nearshore amenity? If not, will there be a likelihood of impacts to *Oculina* from dispersion?

The EIS should clearly discuss whether the completed surveys confirm that no other areas of *Oculina* or other possible coral habitat are in the range of turbidity and sedimentation impact that will result from disposal in the ODMDS. According to the modeling in Appendix I, 2,400m is the maximum distance for sand concentration to be 1mg/l or less from the disposal location, yet it is unclear whether or not the surveys extended at least that far.

Section 4.3.3, page 61. The discussion of dispersion modeling results refers to Section 5.07, however, no Section 5.07 could be found. Please clarify this reference.

Section 4.3.4, page 62. The discussion in "Location in relation to beaches and other amenity areas [CFR 228.6(a)3]", does not discuss the *Oculina* habitat referenced in previous discussions [e.g., CFR 228.5(b)]. *Oculina* habitat should be discussed in this section also.

Section 4.3.4, page 67. Specific Site Selection Criteria 8 [40 CFR 228.6(a) 8] should be re-evaluated to include the tilefish fishery.

Section 4.5, page 74. The cumulative impact section in the NEPA documents should contain a thorough review of the effects of past, present and future projects and their possible cumulative effects with the proposed ODMDSs. Information concerning the telecommunication and fiber optic cables should be included in the EIS, along with any possible cumulative impacts. The Seafarer pipeline should be included in section 4.5.3 Reasonably Foreseeable Future Projects. The Tractebel Calypso and the AES Ocean Express pipeline projects should be updated to include information from their respective FEISs.

Section 4.11, page 80. Please refer to comments from Section 3.4, page 23.

All Appendices. The pages of the appendices should be numbered.

Appendix D, Section 2.0. The same side scan sonar resolution should be used to survey all potential ODMDSs. Employing different survey methods, can result in the appearance that a preferred site was pre-determined instead of using the surveys to determine a suitable site.

The discussion notes that a wider transect spacing was used for secondary areas because these areas were expected to be outside the impact area. The discussion should include an explanation of how the size secondary area to be surveyed was determined. The side scan sonar surveys were conducted in August of 1998, yet the report for the dispersion study was not dated until September 1998. Therefore, the assumption used to determine impact area for the secondary surveys may have been flawed since the side scan surveys were completed before the modeling report which detailed the distance of impact was completed.

The EIS should include information about the transect lengths and the distance surveyed beyond the site boundaries. This is not clear from the text or from the referenced Appendix A figures.

The evaluation of ODMDSs should include still and video photography, geophysical and/or additional surveys which may be necessary to help characterize the significance of features at the ODMDS identified with side scan sonar. Side scan sonar results alone still leave questions as to the significance of features found by this survey method.

Appendix D, Table 1. Please clarify the terms used under heading survey area.

Appendix I, Section 2. Table 4 states that the cohesive/non-cohesive behavior is not considered for the sand and are considered for the silt. The EIS should describe whether or not actual sediment samples were analyzed to justify these two assumptions. The discussion states that "If the sediment contains cohesive material, a combination of buoyancy and suspension may transport the cloud considerable distance from the point of disposal." A sensitivity test should be done to demonstrate how the sediment will behave if a considerable percentage is found to be cohesive.

Discussions note that the void ratio taken for silt-clay is 4.0. Please discuss whether sediment samples were analyzed to determine this value. A sensitivity test should be conducted (i.e., taking void ratio as 2.0 and running the model set-up) to demonstrate the scenario as a result of the void ratio being less than 4.0.

The time to empty the split-hull dredge is presented as 5 sec. But in STFATE model simulation, the 'model time step' is taken as 375-750 sec for Palm Beach and 300-600 sec for Port Everglade (Table 7). Please discuss how a time step of more than 300 sec simulates the effect of a 5 sec disposal (time to empty) time. Also, please clarify any other assumptions you may have taken in this regard.

The EIS should provide the reference and other applicable information to justify the values of the model coefficients listed in Table 7 - specifically from 'CSTRIP' down to 'AKYO'.

In the EIS Figures 36 to 51 should be drawn showing sediment concentrations up to the grid origin. For example, the higher concentrations in the Figures 41 (lower right), 43 (lower right), 48 (lower left and lower right), 49 (lower left and lower right), 50 (lower right) generate concerns because they show considerable higher concentrations and do not show the full distance of impact.

Appendix I, Section 3. The appendix notes that LTFATE has the capability to simulate both non-cohesive and cohesive sediment transport. Then the section describes the effects of waves on non-cohesive sediment transport. Cohesive transport was not further discussed. Are cohesive sediments not as important as non-cohesive sediments? If cohesive sediment transport is important, it should be included in future modeling.

The DPR tidal constituents are used for LTFATE modeling. The EIS should discuss whether any observed time-series of the tidal levels were available for locations near or inside the model area.

The EIS should include discussions to justify the 0.12 mm value used as the mean grain size for the LTFATE modeling. The outer layer of the sediment mound usually consists of finer particles due to their slower settling velocities. These outer layers of finer

particles may be more susceptible to ambient currents and turbulent diffusions, thus more prone to spreading.

It is preferable for analyses to include a sensitivity study with finer grid spacing and smaller time steps demonstrating how the selected models behave with smaller spacing and how the results vary for both the locations.

For the LTFATE initial screening, the depth average velocities are calculated for 170-200 m depth which is the depth near the ODMDS. The Department is more concerned about re-suspension of the deposits near to the hard bottoms. The higher concentrations shown in Figures 41 (lower right), 43 (lower right), 48 (lower left and lower right), 49 (lower left and lower right), 50 (lower right) etc. show that sediment may travel and/or be deposited near to the hard bottom area during the dynamic collapse phase. The bathymetry near the hard bottom area is much shallower with mean depth of around 20 m, where storm surge may become higher due to the shallower depth and higher water velocities may be generated. Please note that Figure 4 shows shallower depths than the considered 170-200 m near to the ODMDS site.

The EIS should provide the reference and other applicable information to justify the values of the model coefficients listed in Table 8 and 9.

Appendix I, Section 4. The conclusions state the primary concern when modeling dispersion was movement toward reefs 1-3 km offshore. The NEPA documents should address possible impacts to smaller discrete resources such as *Oculina* and other deepwater corals that could be within the impact area?

Section 4 (Conclusion) states that:
a. "In all Port Everglades ...The majority of the sand in the dredged material...., but some remains in the water column for longer time/distances as indicated by these results."
b. "In all Palm Beach ...The majority of the sand in the dredged material...., but some remains in the water column for longer time/distances as indicated by these results."
NEPA documents should use explicit/defined description and avoid the use of non-descript words such as "some" and "longer time/distances".

Appendix I, J, K. The EIS should provide the site capacity of the ODMDSs. The capacity limit and an estimated mound size should be used in the long-term fate modeling.

The EIS should discuss how the annual average disposal rates are determined, expected use or past disposal events. The DEIS should reflect a disposal rate determined by the anticipated use, such as the proposed disposal of 2 million cy to improve Palm Beach Harbor. It seems unrealistic to use such a low annual average disposal rate (50,000 cy) when much larger disposal projects have been forecasted. The NEPA documents should also discuss the percentage of material in the planned dredging projects that will actually be disposed of in the ODMDS.

Appendix J, page 4, Port Everglades and Palm Beach Harbor. The Site Management Monitoring Plan (SMMP) should include general guidelines to eliminate or minimize impact when dredging and disposal of dredged material should be avoided such as periods of strong currents or eddies as indicated by ADCP data.

Appendix J, page 8, Port Everglades and Palm Beach Harbor. The baseline monitoring surveys and environmental surveys should be overlapping covering the entire ODMDS, no data gaps. The surveys should continue at least .5 mile or at least the maximum predicted impact area around the site, not 500 feet as suggested in the SMMP.

South
Florida
Regional
Planning
Council

April 12, 2004

Ms. Lauren Milligan
Florida State Clearinghouse
Department of Environmental Protection
3900 Commonwealth Boulevard, Mail Station 47
Tallahassee, FL 32399-3000

RE. SFRPC #04-0345, SAI #FL200403195639C, request for comments on a Draft Environmental Impact Statement (DEIS) for designation of the Palm Beach Harbor and Port Everglades Harbor Ocean Dredged Material Disposal Sites (ODMDS), U.S. Army Corps of Engineers, offshore Palm Beach and Broward Counties.

Dear Ms. Milligan:

We have reviewed the above-referenced DEIS have the following comments:

- While Council staff believes the project will further our goals for a more livable, sustainable, and competitive region, the project should be reviewed to ensure that its is consistent with the goals and policies for the *Strategic Regional Policy Plan for South Florida*, particularly the following:

Strategic Regional Goal

3.8 Enhance and preserve natural system values of South Florida's shorelines, estuaries, benthic communities, fisheries, and associated habitats, including but not limited to, Florida Bay, Biscayne Bay and the coral reef tract.

Regional Policies

3.8.1 Enhance and preserve natural shoreline characteristics through requirements resulting from the review of proposed projects and in the implementation of ICE, including but not limited to, mangroves, beaches and dunes through prohibition of structural shoreline stabilization methods except to protect existing navigation channels, maintain reasonable riparian access, or allow an activity in the public interest as determined by applicable state and federal permitting criteria.

3.8.2 Enhance and preserve benthic communities, including but not limited t seagrass and shellfish beds, and coral habitats, by allowing only that dredge and fill activity, artificial shading of habitat areas, or destruction from boats that is the least amount practicable, and by encouraging permanent mooring facilities. Dredge and fill activities may occur on submerged lands in the Florida Keys only as permitted by the Monroe County Land Development Regulations. It must be demonstrated pursuant to the review of the proposed project features that the activities included in the proposed project do not cause permanent, adverse natural system impacts.

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email: sfadmin@sfrpc.com, website: www.sfrpc.com

3.8.5 Enhance and preserve habitat for endangered and threatened marine species by the preservation of identified endangered species habitat and populations. For threatened species or species of critical concern, on-site preservation will be required unless it is demonstrated that off-site mitigation will not adversely impact the viability or number of individuals of the species.

Thank you for the opportunity to comment. If you require further information, please contact me.

Sincerely,

John E. Hulsey, AICP
Senior Planner

JEH/kal

cc: Elliot Auerhahn, Broward County DPEP

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
9721 Executive Center Drive North
St. Petersburg, Florida 33702

May 6, 2004

Mr. Wesley B. Crum, Chief
Coastal Section
U.S. Environmental Protection Agency
61 Forsyth Street, SW
Atlanta, Georgia 30303

Dear Mr. Crum:

The National Marine Fisheries Service (NOAA Fisheries) has reviewed the U.S. Environmental Protection Agency's (EPA) **Draft Environmental Impact Statement (DEIS) for Designation of the Palm Beach Harbor Ocean Dredged Material Disposal Site (ODMDS) and the Port Everglades Harbor ODMDS** dated February 2004. The proposed ODMDSs would be located in the Atlantic Ocean to the east of Lake Worth Inlet and the Port of Palm Beach in Palm Beach County, Florida and to the east of Port Everglades in Broward County, Florida. The ODMDS would accommodate material dredged from Palm Beach Harbor and Port Everglades Harbor. According to the information provided, the need for ocean disposal is based primarily on the lack of economically, logistically, and environmentally feasible alternatives for the disposal of projected quantities of dredged material deemed unsuitable for beach nourishment or other beneficial uses. The DEIS states that the most cost effective method of dredging is clamshell/barge dredging for Palm Beach Harbor and hopper dredging for Port Everglades Harbor. Essential fish habitat consultation for the dredging work is being handled separately.

Section 102 (c) of the Marine Protection, Research, and Sanctuaries Act (MPRSA) authorizes EPA to designate and recommend sites for offshore disposal of dredged material. An ODMDS is 'a precise geographical area within which ocean disposal of dredged material is authorized. The primary purpose of site designation is to minimize adverse environmental impacts and minimize interference with other uses and activities.

No Action Alternatives and Non-Ocean Disposal Alternatives are evaluated in the DEIS. The EPA concludes that the No Action Alternative would not provide a long-term management option for dredged material disposal due, in part, to anticipated adverse impacts on maintenance of the existing federal navigation projects and subsequent effects on local and regional economies. Non-Ocean Disposal Alternatives (i.e., upland disposal and beach renourishment)

are also examined in the DEIS. The EPA concludes that cost effective upland disposal options are not available in the densely developed areas around the Port of Palm Beach and Port Everglades.

The four alternative sites evaluated for the Palm Beach ODMDS include:
Alternative 1: offshore interim site, 2.9 nautical miles (nm) from shore to the western edge of the site;
Alternative 2: 3-mile candidate site, located 3.3 nm from shore;
Alternative 3: (preferred) 4.5-mile site, located 4.3 nm from shore; and
Alternative 4: 9-mile candidate site, located 8 nm from shore.

The three alternative sites evaluated for Port Everglades Harbor ODMDS include:
Alternative 1: interim site, located 1.6 nm from shore;
Alternative 2: (preferred) located 4-mile site, 3.8 nm from shore; and
Alternative 3: 7-mile site, located 6 nm from shore.

According to the information provided, the preferred sites (each approximately one square nm in size) consist primarily of soft-bottom habitat. Each site is located on the upper continental slope near the western edge of the Florida current. The water depth at each site exceeds 150 meters. The acceptability of dredged material for ocean disposal would be determined on a case-by-case basis. The DEIS states that these sites were evaluated and selected with full consideration of the General and Specific Site Selection Criteria set forth in 40 CFR 228.5 and 228.6. NOAA Fisheries comments pursuant to the Site Selection Criteria are provided below.

The interim sites were eliminated from further evaluation, largely to avoid direct impacts to natural reefs in the vicinity of those sites. A 1984 survey conducted by EPA indicated that damage to nearby inshore hardbottom areas may have occurred due to the movement of fine grained material deposited near natural reefs.

The DEIS states that, based on EPA and Army Corps of Engineers (COE) surveys, no natural reefs or features of historical importance are located within or near the preferred sites. Areas of controversy identified during the scoping process include the proximity of the disposal sites to nearshore reefs and the potential for transport of fine-grained material to these reefs. The proximity to other significant marine resources, the adequacy and current status of designation surveys, and the scope, costs, and frequency of monitoring of disposal effects at the proposed sites were also identified as being controversial.

The DEIS states that unavoidable adverse effects from dredged material disposal at any of the alternative sites includes (1) formation of temporary, localized, water column changes associated with suspended sediment plumes; (2) burial and smothering of non-motile infauna and/or epifauna; (3) possible alteration of substrate texture, grain size, and/or chemical composition; and (4) changes in bathymetry (mounding of material).

General comments

NOAA Fisheries is concerned the proposed work could adversely impact resources for which we have management and stewardship responsibilities pursuant to provisions of the Fish and Wildlife Coordination Act and the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act). The proposed project is located in areas identified as essential fish habitat (EFH) by the South Atlantic Fishery Management Council (SAFMC). Categories of EFH that occur within the project vicinity include the marine water column, coral, hardbottoms, sargassum, sand habitats, the U.S. Continental Shelf, and the upper regions of the continental slope. Hardbottom areas are designated as EFH by the SAFMC for juvenile and adult red and gag grouper, gray and mutton snapper, white grunt, penaeid shrimp, tilefish, and spiny lobster. Coral reef habitat has been designated as EFH for juvenile and adult red and gag grouper, gray and mutton snapper, white grunt, and spiny lobster. The marine water column has been designated as EFH due to its importance as the medium of transport for nutrients and migrating organisms between estuarine systems and the open ocean. Sargassum has been designated EFH for sea bass, jack, and marbled grouper. In addition, sand bottom has been designated EFH for juvenile lane snapper and adult and subadult brown shrimp, juvenile and adult gag grouper. NOAA Fisheries has also identified EFH for highly migratory species that utilize the water column in this area including nurse, bonnethead, lemon, black tip, and bull sharks. Federally managed species associated with the U.S. Continental Shelf and its upper regions include golden crab and royal red shrimp, respectively.

Detailed information on shrimp, red drum, snapper/grouper complex (containing ten families and 73 species), spiny lobster, and other federally managed fisheries and their EFH is provided in the 1998 comprehensive amendment of the Fishery Management Plans for the South Atlantic Region prepared by the SAFMC[1]. The comprehensive amendment was prepared as required by the Magnuson-Stevens Act. In addition, sargassum, coral and coral reef (including deepwater *Lophelia* and *Enallopsammia* corals), and hardbottom habitats (including deepwater hardbottom habitats), which are located within the vicinity of the proposed ODMDSs, have been designated as habitat areas of particular concern (HAPC) by the SAFMC. HAPCs are subsets of EFH that are rare, particularly susceptible to human-induced degradation, especially ecologically important, or located in an environmentally stressed area. Contrary to the information provided in Section 4.9, of the DEIS, HAPCs are located within the ODMDSs.

The EFH assessment has not been made available for review. The EFH assessment should include a description of the proposed action; an analysis of the effects (including indirect and cumulative effects) of the action on EFH, managed species, and associated species by life history stage; EPA and COE views regarding the effects of the action on EFH; and proposed mitigation.

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[1]South Atlantic Fishery Management Council (SAFMC). 1998a. Final habitat plan for the south Atlantic region: essential fish habitat requirements for fishery management plans of the South Atlantic Fishery Management Council. Charleston, South Carolina. 639 p.

The EFH assessment should also include the results of site-specific studies, the views of recognized experts on impacts to habitats and species, a literature review, and any other relevant information. Additional guidance on the preparation of the EFH assessment is provided in the Information Needs Section (below).

In connection with our review of the DEIS, NOAA Fisheries is especially concerned regarding the inadequacy of the assessment of potential impacts to deepwater habitats. In the absence of an adequate EFH assessment for these habitats, it would not be possible to determine whether the fishery conservation requirements of the Magnuson-Stevens Act would be met and NOAA Fisheries would have no recourse but to recommend withholding ODMDS approval. Consequently, it is of great importance that the EFH assessment contains the required contents and an adequate level of detail. It also should include quantitative impact estimates based on available information and ongoing and completed studies for each category of EFH. The EFH assessment should also include an evaluation of the deepwater survey results and information regarding efforts to avoid and minimize impacts to deepwater habitats. The importance of this issue is emphasized in the following specific comments which encourage providing the EFH assessment as a supplement to the DEIS.

Specific comments

NOAA Fisheries has a number of specific comments related to our review of the DEIS and other project related documents. In the absence of adequate information or reasonable potential for significant adverse impacts to living marine resources and associated habitats, we may recommend against ODMDS approval and implementation. For simplicity sake we stratified our comments into the following sections:

- EFH Assessment and Deepwater Habitats
- Dredged Material Suitability for Offshore Disposal and Dredge Material Fate Studies
- Conflicts with Other Projects and Cumulative Effects
- Summary Information Needs
- EFH Conservation Recommendation

EFH Assessment and Deepwater Habitats

Pages 30-34. *Section 3.6 Essential Fish Habitat.* As stated above, NOAA Fisheries is concerned that the information provided is insufficient to demonstrate that avoidance and minimization of adverse impacts to EFH have been adequately addressed. To address this, an EFH assessment should be prepared and provided for NOAA Fisheries review.

Page 3. *Table 1: Relationship of Alternatives to Environmental Requirements.* In the absence of an EFH assessment, NOAA Fisheries does not concur with information in this table regarding the assertion that EPA is in full compliance with the Magnuson-Stevens Act.

Pages 20-23. *Deepwater shelf edge habitat and deepwater hardbottoms.* The DEIS states that "no natural reefs have been observed within the proposed project area." Although this area may not support reef-like features, the deepwater hardbottoms and softbottoms, and shelf edge zone are inhabited by managed fishes, such as snappers, groupers, and porgies. Fish distribution is often diffuse in this zone, with fishes aggregating over broken bottom relief in associations similar to those formed at inshore live bottom sites. The lower shelf habitat has a predominately smooth mud bottom, but is interspersed with rocky and coarse gravel substrates where groupers and tilefish may occur. This habitat and its association of fishes roughly marks the transition between fauna of the Continental Shelf and fauna of the Continental Slope. Water depths within this habitat zone range from 110 meters to 183 meters (360 to 600 ft) and bottom water temperatures vary from approximately 11° to 14° C (51° to 57° F). Fishes inhabiting the deeper live or hardbottom areas are believed to be particularly susceptible to heavy fishing pressure and environmental stress (SAFMC 1998).

Water depths at the ODMDSs are within the harvest range of blue-line tilefish (locally called blue or gray tiles). According to local fishers, tilefish prefer certain sediment types and NOAA Fisheries is concerned that alteration of the sediment type found in the ODMDSs could adversely affect the tilefish fishery in this region. Therefore, impacts to the tilefish habitat and other deepwater habitats should be evaluated in the EFH assessment.

Page 60. *General Site Selection Criteria #1: The dumping of materials into the ocean will be permitted only at sites in areas selected to minimize the interference of disposal activities with other activities in the marine environment,* ***particularly avoiding areas of existing fisheries*** *and regions of heavy commercial or recreational navigation* [40 CFR 228.5(a)]. NOAA Fisheries recommends that this General Site Selection Criteria item be re-evaluated in the EFH assessment to address impacts to the existing tilefish fishery.

Page 67. *Specific Site Selection Criteria #8: Interference with shipping, fishing, recreation . . . areas of special scientific importance, and other legitimate uses of the ocean* [40 CFR 228.6(a)]. NOAA Fisheries recommends that this Specific Site Selection Criteria item be re-evaluated in the EFH assessment to address impacts to the existing tilefish fishery.

Pages 23 and 80. *Deepwater corals.* NOAA Fisheries concurs with information in the DEIS regarding acknowledgment that ahermatypic corals are found in deeper waters. According to the information provided, video surveys performed by Continental Shelf Associates did not reveal the presence of deepwater corals at the preferred (4.5-mile) ODMDS for Palm Beach Harbor. However, based on the information provided, NOAA Fisheries is concerned that this study may have been limited to the examination/identification of *Oculina* reefs. A summary of the methods used and survey findings should be provided in the EFH assessment. The findings appear to contradict information, provided in Section 4.11 of the DEIS, regarding the identification of ahermatypic corals that were observed in scattered, isolated forms in the vicinity of the proposed Palm Beach Harbor ODMDS site.

We also note that results of deepwater surveys of locations offshore of Broward County, Florida, which were performed in connection with the Tractebel Calypso Pipeline Project, documented the presence of deepwater corals. Unbranched black corals (i.e., *Cirrhipathes luetkeni*) are relatively common in 70-100 ft waters offshore Broward County; however, branched species (i.e., *Tanacetipathes* sp.) are relatively rare and are substrate limited in water depths of 100-1000 ft (Goldberg, pers. comm., 2003). All species are characterized by slow growth, delayed first reproduction, limited larval dispersal, and low rates of recruitment, low natural adult mortality, and long life. Black coral colonies inhabit areas where few other species occur. They provide important habitat for invertebrates and fish, including commensal species that are dependent upon black coral for survival. Therefore, NOAA Fisheries considers avoidance of these resources as an important conservation biology issue and recommends that the ODMDS designation should be designed to avoid antipatharians and other sensitive deepwater habitats. Avoidance and minimization strategies for the aforementioned deepwater habitats should be clearly described in the EFH assessment.

Appendix D. *Sidescan sonar survey results.* NOAA Fisheries is concerned that the 250 meter transect spacing used in the May 2000, Sidescan Sonar Survey, is too wide to provide the level of coverage needed to conclude that impacts to deepwater habitats would be avoided and minimized through use of the preferred site. Transects that are spaced 100 meters apart are preferred for detection of deepwater habitats. With regard to deepwater hardbottom impacts, sidescan sonar mosaics of the route should be provided which show (1) the proposed ODMDS, (2) the locations of hardbottom that would be impacted, and (3) the locations of known fishery habitats and resources within the surveyed areas. This information is necessary in order to evaluate impacts to these resources. While additional side scan sonar surveys may not be necessary, the EPA and COE should reevaluate any possible features with photo or video at the preferred sites (i.e., the ridge feature in the Port Everglades 4-mile site and the possibility of Oculina within 1.7 nm of the preferred Palm Harbor 4.5-mile site).

In addition, the report does not define "low relief" as described in the Port Everglades 4-mile site. These low relief areas could support important marine habitats. According to the survey results, the Port Everglades 4-mile candidate site and surroundings contained "numerous unidentified highly reflective objects." NOAA Fisheries believes that these areas could support hardbottom habitats including deepwater corals. The level of information provided does not give reasonable assurance that impacts to federally managed resources would be avoided and/or minimized to the maximum extent possible. The results of additional video-truth surveys should be provided in the EFH assessment. In addition, the *low relief* areas and *highly reflective* areas referenced above should be quantitatively and qualitatively described in the EFH assessment.

Dredged Material Suitability for Offshore Disposal and Dredged Material Fate Studies

Page 36. *Spin-off eddies and proximity to the Gulf Stream/Florida Current.* NOAA Fisheries concurs with EPA's concern regarding the fate of dredged material placed at the proposed ODMDSs due to their proximity to the Gulf Stream and spin-off eddies. Large numbers of

marine species are concentrated along the frontal boundary of the Gulf Stream is important as a distribution mechanism, especially for early life stages, as are frontal zones and upwelling areas as foraging habitat. It appears that time averaged and prevailing currents were used in the dredged material distribution studies. Although this information may be useful, the EFH assessment should acknowledge and discuss eddies that may potentially re-distribute this material to important marine habitats. In addition, the EFH assessment should address potential adverse effects to marine organisms that utilize the Gulf Stream for distribution or as foraging habitat. Associated measures that would be integrated into the project design to mitigate for such impacts also should be addressed.

Page 60. *General Selection Criteria #2: The locations and boundaries of disposal sites will be chosen so that temporary perturbations in water quality or other environmental conditions can be expected to be reduced to ambient before reaching any beach, shoreline, marine sanctuary, or known geographically limited fishery or shellfishery* [40 CFR 228.5(b)]. NOAA Fisheries is concerned that this response neglects consideration of spin-off eddies and we recommend that the response be re-evaluated to address spin-off eddies and possible transport of sediments to important marine habitats. This information should be provided in the EFH assessment.

Page 3. *Suitability of dredged material.* The DEIS states that the suitability of dredged material destined for ocean disposal will be determined on a case-by-case basis. NOAA Fisheries recommends that evaluation criteria be developed and provided for interagency review. This information could also be provided in the EFH assessment.

Conflicts with Other Projects and Cumulative Effects

Page 74-76. *Cumulative Impacts.* NOAA Fisheries is concerned that the cumulative impacts section of the DEIS is overly narrow and omits several important projects in Broward and Palm Beach counties. The Hillsboro Inlet dredging project should be included in Section 4.5.1 Past Projects. In addition, individual beach renourishment projects and associated offshore dredging and inshore filling activities should be described in this section. The Seafarer Pipeline Project should be listed in Section 4.5.3 Reasonably Foreseeable Future Project. Although the DEIS acknowledges that pipeline activities are proposed, it lacks discussion of effects to projects and potential synergistic or cumulative effects.

Summary of Information Needs

1. The EPA and COE should prepare an EFH assessment for NOAA Fisheries review. The assessment should contain:
   A. A description of the proposed action. This description should include the proposed transport and disposal methods;
   B. An analysis of the effects of the action on EFH, managed species, and associated species by life history stage. This analysis should include, but not limited to the following components:

i. Direct, indirect, and cumulative effects;
ii. Effects of the proposed action on important marine habitats including deepwater habitats;
iii. Effects on managed species including tilefish;
iv. Effects on infauna and epifauna prey species for managed fisheries.

C. EPA and COE views regarding the effects of the action on EFH;
D. Proposed mitigation;
E. The results of site-specific studies, the views of recognized experts on the habitat or species effects, a literature review, and any other relevant information including:
   i. Side scan sonar video or photo identification (i.e., the ridge feature in the Port Everglades 4-mile site and the possibility of Oculina within 1.7 nm of the preferred Palm Harbor 4.5-mile site) and a reevaluation of side scan sonar surveys that quantify deepwater habitat impacts and define and characterize terms such as *low relief* and *highly reflective* areas;
   ii. An evaluation of spin-off eddies and associated potential sediment transport to important marine habitats; and
   iii. A summary of the Continental Shelf and Associates deepwater video survey methods and findings.

2. The EPA and the COE should develop evaluation criteria, in concert with NOAA Fisheries and other federal and state agencies, to determine the decision sequencing and suitability requirements of the materials to be disposed offshore.

EFH Conservation Recommendation

Environmental Protection Agency approval of ODMDS designation should be withheld pending receipt of an EFH assessment and other information needs as identified by NOAA Fisheries. Based on our review of the pending information, NOAA Fisheries may provide additional EFH conservation recommendations.

Section 305(b)(4)(B) of the Magnuson-Stevens Act and NOAA Fisheries' implementing regulation at 50 CFR Section 600.920(k) require your office to provide a written response to this letter within 30 days of its receipt. If it is not possible to provide a substantive response within 30 days, an interim response should be provided to NOAA Fisheries. A detailed response then must be provided at least ten days prior to final approval of the action. Your detailed response must include a description of measures proposed by your agency to avoid, mitigate, or offset the adverse impacts of the activity. If your response is inconsistent with our EFH conservation recommendation, you must provide a substantive discussion justifying the reasons for not following the recommendation.

The project area is within known distribution limits of federally listed threatened species that are under purview of the NOAA Fisheries. In accordance with the Endangered Species Act of 1973, as amended, it is the responsibility of the appropriate federal regulatory agency to review its activities and programs and identify any activity or program that may affect endangered or

threatened species or their habitat. Determinations involving species under NOAA Fisheries jurisdiction should be reported to our Protected Resources Division at the letterhead address. If it is determined that the activities may adversely affect any species listed as endangered or threatened and under NOAA Fisheries purview, then formal consultation must be initiated.

We look forward to working with the EPA, COE, and other agencies in resolving our outstanding concerns in this matter. We appreciate the opportunity to provide comments on the DEIS and we note that additional comments and recommendations, including EFH conservation recommendations, may be provided in response to the EFH assessment and other supplemental information that we are awaiting. Related correspondence should be addressed to the attention of Ms. Jocelyn Karazsia at our Miami Office. She may be reached at 11420 North Kendall Drive, Suite #103, Miami, Florida 33176, or by telephone at (305) 595-8352.

Sincerely,

David A. Ruckley

for Miles M. Croom
Assistant Regional Administrator
Habitat Conservation Division

cc:
EPA, WPB
FWS, Vero Beach
DEP, Tallahassee
SAFMC, Charleston
FSER45
FSER45-Karazsia
FSER43-Ruebsamen

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
PROGRAM PLANNING AND INTEGRATION
Silver Spring, Maryland 20910

April 28, 2004

Wesley B. Crum, Chief
U.S. EPA, Region 4
Coastal Section
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, Georgia 30303

Dear Mr. Crum:

Enclosed are comments on the Draft Environmental Impact Statement for Designation of the Palm Beach Harbor Ocean Dredged Material Disposal Site (ODMDS) and the Port Everglades Harbor ODMDS. We hope our comments will assist you. Thank you for giving the opportunity to review this document.

Sincerely,

Susan A. Kennedy
Acting NEPA Coordinator

Enclosure

Printed on Recycled Paper

MEMORANDUM FOR: Susan A. Kennedy
Acting NEPA Coordinator

FROM: Charles W. Challstrom
Director, National Geodetic Survey

SUBJECT: DEIS-0404-04: Designation of the Palm Beach Harbor and Port Everglades Harbor Ocean Dredged Material Disposal Sites

The subject statement has been reviewed within the areas of the National Ocean Service (NOS) responsibility and expertise and in terms of the impact of the proposed actions on NOS activities and projects.

All available geodetic control information about horizontal and vertical geodetic control monuments in the subject area is contained on the National Geodetic Survey's home page at the following Internet World Wide Web address: http://www.ngs.noaa.gov After entering the this home page, please access the topic "Products and Services" and then access the menu item "Data Sheet." This menu item will allow you to directly access geodetic control monument information from the National Geodetic Survey data base for the subject area project. This information should be reviewed for identifying the location and designation of any geodetic control monuments that may be affected by the proposed project.

If there are any planned activities which will disturb or destroy these monuments, NOS requires not less than 90 days' notification in advance of such activities in order to plan for their relocation. NOS recommends that funding for this project includes the cost of any relocation(s) required.

For further information about geodetic control monuments, please contact:

Galen Scott
SSMC3 8620, NOAA, N/NGS
1315 East West Highway
Silver Spring, Maryland 20910

Voice: (301) 713-3234 x139
Fax: (301) 713-4175
Email: Galen.Scott@noaa.gov.

May 10, 2004

U.S. EPA, Region 4
ATTN: Wesley B. Crum, Chief
Coastal Section
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, GA 30303

Dear Mr. Crum:

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS) FOR HARBOR DREDGED MATERIAL DISPOSAL

Thank you for providing us the opportunity to comment on the Draft EIS for the dredged material ocean disposal sites for the Palm Beach and Port Everglades Harbors. Palm Beach County supports establishing these areas in deeper water provided they are the last option used for disposal; however, we have concerns and offer the following comments with regard to the Palm Beach site:

Most important to us is the alternative disposal issue. The draft report does mention that the "issues of potentially reducing the opportunity for beneficial use of the dredged material, such as beach nourishment, due to the availability of offshore disposal has yet to be resolved" (sec. 1.1.3), and we are very concerned about this issue as well. It should be a requirement that any material that is beach compatible be used for beach nourishment or for building up nearshore berms. While the EIS indicated that beach compatible sand would not be disposed offshore, we request that a clear definition of beach compatibility be included in the document.

The EIS compared offshore disposal to upland disposal and concluded in all cases that offshore disposal is cheaper than upland disposal. However, use of non-beach compatible material to fill dredged holes in Lake Worth Lagoon was not evaluated and we request that additional analysis be conducted. We are concerned that the lower cost of ocean dumping would preclude the use of dredge material for beneficial uses and request that environmental benefits of the beneficial use be included in the

cost/benefit analysis. Palm Beach County is currently involved with the Corps in using Palm Beach Harbor dredge material for environmental restoration and expects that similar projects would be feasible and desirable in the future. While these inshore restoration projects may be more expensive than offshore disposal, the environmental benefit would likely outweigh any additional costs incurred.

The draft states that the rates of disposal of material is estimated at about 50,000 cy/year; yet elsewhere typical projects were described as ranging from 14,000 to 179,000 cy. Lastly, a maximum of 500,000 cy/project was set, and this amount is far larger than the estimated annual disposal amount. Are larger projects anticipated? Is this larger limit related to the statement that the disposal area will be opened up to other federal entities and private dredging projects? We are concerned as to what will be the amounts disposed offshore with this range of numbers provided.

The dispersal models provided information on the potential dispersal of materials of a given makeup. We recommend that if the characteristics of potential disposal material is not within the range of the parameters used for modeling, than the model should be rerun using the differing characteristics before decisions concerning disposal are made.

The data detailing the environmental resources that could be buried in the disposal site has a number of blank areas. Additional studies need to be conducted before concluding that there will be no reef impacts. Reef mounds of *Oculina* coral are in the deeper zones and are very productive communities. We recommend that given that this is intended to be a long-term disposal site, the gaps in the 100 kHz sidescan sonar survey be filled in and that the disposal area vicinity also be scanned using 400 kHz sidescan for higher resolution. Additionally, ROV video monitoring should be conducted in the vicinity of any sidescan anomalies to verify absence of reefs and corals.

The Biological Assessment (Appendix E) should include recognition that Palm Beach County usually has the highest number of leatherback nests and the second highest number of loggerhead and green turtle nests in the continental United States.

In conclusion, our recommendations are that additional sampling is required to ensure that coral reefs will not be impacted; alternative disposal on or near beaches and/or Lake Worth Lagoon deep holes be required for all compatible material (regardless of cost) prior to approving

offshore disposal.

If offshore disposal occurs, then more safeguards for dumping should be required. Disposal 4.5 nmi. offshore can be influenced by speeds and directions of the current. We recommend that the disposal pattern be modified in that the south half of the site be targeted for north currents (and vice versa) with the southernmost ¼

being used for stronger north currents to allow more area for dispersal of materials within the dump site. This will require the vessel to slow upon approaching the dumping site to ascertain current condition before commencing dumping. In addition, by not focusing dumping on one spot, the potential for stacking the material on resources is minimized.

Thank you for the opportunity to provide comments. If you should have any questions, please call me at 561-233-2400 or Janet Phipps at 561-233-2513.

Sincerely,

Richard E. Walesky, Director

REW:jjp

Cc: Robert Weisman, County Administrator
Palm Beach County
John Studt, U.S. Army Corps of Engineers
Tim Rach, Florida Department of Environmental Protection
J.I. Palmer, Jr., Treasure Coast Regional Planning Council

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David Cupka, Chairman
Louis Daniel, Vice-Chairman

Robert K. Mahood, Executive Director
Gregg T. Waugh, Deputy Executive Director

(MARCH 2003)
POLICIES FOR THE PROTECTION AND RESTORATION OF ESSENTIAL FISH HABITATS FROM BEACH DREDGING AND FILLING AND LARGE-SCALE COASTAL ENGINEERING

Policy Context

This document establishes the policies of the South Atlantic Fishery Management Council (SAFMC) regarding protection of the essential fish habitats (EFH) and habitat areas of particular concern (EFH-HAPCs) impacted by beach dredge and fill activities, and related large-scale coastal engineering projects. The policies are designed to be consistent with the overall habitat protection policies of the SAFMC as formulated and adopted in the Habitat Plan (SAFMC, 1998a) and the Comprehensive EFH Amendment (SAFMC, 1998b).

The findings presented below assess the threats to EFH potentially posed by activities related to the large-scale dredging and disposal of sediments in the coastal ocean and adjacent habitats, and the processes whereby those resources are placed at risk. The policies established in this document are designed to avoid, minimize and offset damage caused by these activities, in accordance with the general habitat policies of the SAFMC as mandated by law.

EFH At Risk from Beach Dredge and Fill Activities

The SAFMC finds:

1) In general, the array of large-scale and long-term beach dredging projects and related disposal activities currently being considered for the United States southeast together constitute a real and significant threat to EFH under the jurisdiction of the SAFMC.

2) The cumulative effects of these projects have not been adequately assessed, including impacts on public trust marine and estuarine resources, use of public trust beaches, public access, state and federally protected species, state critical habitat, SAFMC-designated EFH and EFH-HAPCs.

3) Individual beach dredge and fill projects and related large-scale coastal engineering activities rarely provide adequate impact assessments or consideration of potential damage to fishery resources under state and federal management. Historically, emphasis has been placed on the logistics of dredging and economics, with environmental considerations dominated by compliance with the Endangered Species Act for sea turtles, piping plovers and other listed organisms. There has been little or no consideration of hundreds of other species affected, many with direct fishery value.

4) Opportunities to avoid or minimize impacts of beach dredge and fill activities on fishery resources, and offsets for unavoidable impacts have rarely been proposed or implemented. Monitoring is rarely adequate to develop statistically appropriate impact evaluations.

5) Large-scale beach dredge and fill activities have the potential to impact a variety of habitats across the shelf, including:

   a) waters and benthic habitats near the dredging sites
   b) waters between dredging and filling sites
   c) waters and benthic habitats in or near the fill sites, and
   d) waters and benthic habitats potentially affected as sediments move subsequent to deposition in fill areas.

6) Certain nearshore habitats are particularly important to the long-term viability of commercial and recreational fisheries under SAFMC management, and potentially threatened by large-scale, long-term or frequent disturbance by dredging and filling:

   a) the swash and surf zones and beach-associated bars
   b) underwater soft-sediment topographic features
   c) onshore and offshore coral reefs, hardbottom and worm reefs
   d) inlets

7) Large sections of South Atlantic waters potentially affected by these projects, both individually and collectively, have been identified as EFH or EFH-HAPC by the SAFMC, as well as the Mid-Atlantic Fishery Management Council (MAFMC) in the case of North Carolina. Potentially Affected species and their EFH under federal management include (SAFMC, 1998b):

   a) summer flounder (various nearshore waters, including the surf zone and inlets; certain offshore waters)
   b) bluefish (various nearshore waters, including the surf zone and inlets)
   c) red drum (ocean high-salinity surf zones and unconsolidated bottoms nearshore waters)
   d) many snapper and grouper species (live hardbottom from shore to 600 feet, and – for estuarine-dependent species [e.g., gag grouper and gray snapper] – unconsolidated bottoms and live hardbottoms to the 100 foot contour).

e) black sea bass (various nearshore waters, including unconsolidated bottom and live hardbottom to 100 feet, and hardbottoms to 600 feet)
f) penaeid shrimp (offshore habitats used for spawning and growth to maturity, and waters connecting to inshore nursery areas, including the surf zone and inlets)
g) coastal migratory pelagics [e.g., king mackerel, Spanish mackerel] (sandy shoals of capes and bars, barrier island ocean-side waters from the surf zone to the shelf break inshore of the Gulf Stream; all coastal inlets)
h) corals of various types (hard substrates and muddy, silt bottoms from the subtidal to the shelf break)
i) areas identified as EFH for Highly Migratory Species (HMS) managed by the Secretary of Commerce (e.g., sharks: inlets and nearshore waters, including pupping and nursery grounds)

In addition, hundreds of species of crustaceans, mollusks, and annelids that are not directly managed, but form the critical prey base for most managed species, are killed or directly affected by large dredge and fill projects.

8) Beach dredge and fill projects also potentially threaten important habitats for anadromous species under federal, interstate and state management (in particular, inlets and offshore overwintering grounds), as well as essential overwintering grounds and other critical habitats for weakfish and other species managed by the Atlantic States Marine Fisheries Commission (ASMFC) and the states. The SAFMC also identified essential habitats of anadromous and catadromous species in the region (inlets and nearshore waters).

9) Many of the habitats potentially affected by these projects have been identified as EFH-HAPCs by the SAFMC. The specific fishery management plan is provided in parentheses:

a) all nearshore hardbottom areas (SAFMC, snapper grouper).
b) all coastal inlets (SAFMC, penaeid shrimps, red drum, and snapper grouper).
c) near-shore spawning sites (SAFMC, penaeid shrimps, and red drum).
d) benthic *Sargassum* (SAFMC, snapper grouper).
e) from shore to the ends of the sandy shoals of Cape Lookout, Cape Fear, and Cape Hatteras, North Carolina; Hurl Rocks, South Carolina; *Phragmatopora* (worm reefs) reefs off the central coast of Florida and nearshore hardbottom south of Cape Canaveral (SAFMC, coastal migratory pelagics).
f) Atlantic coast estuaries with high numbers of Spanish mackerel and cobia from ELMR, to include Bogue Sound, New River, North Carolina; Broad River, South Carolina (SAFMC, coastal migratory pelagics).
g) Florida Bay, Biscayne Bay, Card Sound, and coral hardbottom habitat from Jupiter Inlet through the Dry Tortugas, Florida (SAFMC, Spiny Lobster)
h) Hurl Rocks (South Carolina), The *Phragmatopoma* (worm reefs) off central east coast of Florida, nearshore (0-4 meters; 0-12 feet) hardbottom off the east coast of Florida from Cape Canaveral to Broward County; offshore (5-30 meters; 15-90 feet) hardbottom off the east coast of Florida from Palm Beach County to Fowey

Rocks; Biscayne Bay, Florida; Biscayne National Park, Florida; and the Florida Keys National Marine Sanctuary (SAFMC, Coral, Coral Reefs and Live Hardbottom Habitat).

i) EFH-HAPCs designated for HMS species (e.g., sharks) in the South Atlantic region (NMFS, Highly Migratory Species).

10) Habitats likely to be affected by beach dredge and fill projects include many recognized in state-level fishery management plans. Examples of these habitats include Critical Habitat Areas established by the North Carolina Marine Fisheries Commission, either in FMPs or in Coastal Habitat Protection Plans (CHAs).

11) Recent work by scientists in east Florida has documented important habitat values for nearshore, hardbottom habitats often buried by beach dredging projects, is used by over 500 species of fishes and invertebrates, including juveniles of many reef fishes. Equivalent scientific work is just beginning in other South Atlantic states, but life histories suggest that similar habitat use patterns will be found.

<u>Threats to Marine and Estuarine Resources from Beach Dredge and Fill Activities and Related Large Coastal Engineering Projects</u>

The SAFMC finds that beach dredge and fill activities and related large-scale coastal engineering projects (including inlet alteration projects) and disposal of material for navigational maintenance, threaten or potentially threaten EFH through the following mechanisms:

1) Direct mortality and displacement of organisms at and near sediment dredging sites
2) Direct mortality and displacement of organisms at initial sediment fill sites
3) Elevated turbidity and deposition of fine sediments down-current from dredging sites
4) Alteration of seafloor topography and associated current and waves patterns and magnitudes at dredging areas
5) Alteration of seafloor sediment size-frequency distributions at dredging sites, with secondary effects on benthos at those sites
6) Elevated turbidity in and near initial fill sites, especially in the surf zone, and deposition of fine sediment down-current from initial fill sites (ASMFC, 2002)
7) Alteration of nearshore topography and current and wave patterns and magnitudes associated with fill
8) Movement of deposited sediment away from initial fill sites, especially onto hardbottoms
9) Alteration of large-scale sediment budgets, sediment movement patterns and feeding and other ecological relationships, including the potential for cascading disturbance effects
10) Alteration of large-scale movement patterns of water, with secondary effects on water quality and biota
11) Alteration of movement patterns and successful inlet passage for larvae, post-larvae, juveniles and adults of marine and estuarine organisms

12) Alteration of long-term shoreline migration patterns (inducing further ecological cascades with consequences that are difficult to predict)
13) Exacerbation of transport and/or biological uptake of toxicants and other pollutants released at either dredge or fill sites

In addition, the interactions between cumulative and direct (sub-lethal) effects among the above factors certainly triggers non-linear impacts that are completely unstudied.

SAFMC Policies for Beach Dredge and Fill Projects and Related Large Coastal Engineering Projects

The SAFMC establishes the following general policies related to large-scale beach dredge and fill and related projects, to clarify and augment the general policies already adopted in the Habitat Plan and Comprehensive Habitat Amendment (SAFMC 1998a; SAFMC 1998b):

1) Projects should avoid, minimize and where possible offset damage to EFH and EFH-HAPCs.

2) Projects requiring expanded EFH consultation should provide detailed analyses of possible impacts to each type of EFH, with careful and detailed analyses of possible impacts to EFH-HAPCs and state CHAs, including short and long-term, and population and ecosystem scale effects. Agencies with oversight authority should require expanded EFH consultation.

3) Projects requiring expanded EFH consultation should provide a full range of alternatives, along with assessments of the relative impacts of each on each type of EFH, HAPC and CHAs.

4) Projects should avoid impacts on EFH, HAPCs and CHAs that are shown to be avoidable through the alternatives analysis, and minimize impacts that are not.

5) Projects should include assessments of potential unavoidable damage to EFH and other marine resources, using conservative assumptions.

6) Projects should be conditioned on the avoidance of avoidable impacts, and should include compensatory mitigation for all reasonably predictable impacts to EFH, taking into account uncertainty about these effects. Mitigation should be local, up-front and in-kind, and should be adequately monitored, wherever possible.

7) Projects should include baseline and project-related monitoring adequate to document pre-project conditions and impacts of the projects on EFH.

8) All assessments should be based upon the best available science, and be appropriately conservative so follow and precautionary principles as developed for various federal and state policies.

9) All assessments should take into account the cumulative impacts associated with other beach dredge and fill projects in the region, and other large-scale coastal engineering projects that are geographically and ecologically related.

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SAFMC Policy Statement Concerning Dredging and Dredge Material Disposal Activities

Ocean Dredged Material Disposal Sites (ODMDS) and SAFMC Policies.

The shortage of adequate upland disposal sites for dredged materials has forced dredging operations to look offshore for sites where dredged materials may be disposed. These Ocean Dredged Material Disposal Sites (ODMDSs) have been designated by the U.S. Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (COE) as suitable sites for disposal of dredged materials associated with berthing and navigation channel maintenance activities. The South Atlantic Fishery Management Council (SAFMC; the Council) is moving to establish its presence in regulating disposal activities at these ODMDSs. Pursuant to the Magnuson Fishery Conservation and Management Act of 1976 (the Magnuson Act), the regional fishery management Councils are charged with management of living marine resources and their habitat within the 200 mile Exclusive Economic Zone (EEZ) of the United States. Insofar as dredging and disposal activities at the various ODMDSs can impact fishery resources or essential habitat under Council jurisdiction, the following policies address the Council's role in the designation, operation, maintenance, and enforcement of activities in the ODMDSs:

The Council acknowledges that living marine resources under its jurisdiction and their essential habitat may be impacted by the designation, operation, and maintenance of ODMDSs in the South Atlantic. The Council may review the activities of EPA, COE, the state Ports Authorities, private dredging contractors, and any other entity engaged in activities which impact, directly or indirectly, living marine resources within the EEZ.

The Council may review plans and offer comments on the designation, maintenance, and enforcement of disposal activities at the ODMDSs.

ODMDSs should be designated or redesignated so as to avoid the loss of live or hard bottom habitat and minimize impacts to all living marine resources.

Notwithstanding the fluid nature of the marine environment, all impacts from the disposal activities should be contained within the designated perimeter of the ODMDSs.

The final designation of ODMDSs should be contingent upon the development of suitable management plans and a demonstrated ability to implement and enforce that plan. The Council encourages EPA to press for the implementation of such management plans for all designated ODMDSs.

All activities within the ODMDSs are required to be consistent with the approved management plan for the site.

The Council's Habitat and Environmental Protection Advisory Panel when requested by the Council will review such management plans and forward comment to the Council. The Council may review the plans and recommendations received from the advisory sub-panel and comment to the appropriate agency. All federal agencies and entities receiving a comment or recommendation from the Council will provide a detailed written response to the Council regarding the matter pursuant to 16 U.S.C. 1852 (i). All other agencies and entities receiving a comment or recommendation from the Council should provide a detailed written response to the Council regarding the matter, such as is required for federal agencies pursuant to 16 U.S.C. 1852 (i).

ODMDSs management plans should indicate appropriate users of the site. These plans should specify those entities/ agencies which may use the ODMDSs, such as port authorities, the U.S. Navy, the Corps of Engineers, etc. Other potential users of the ODMDSs should be acknowledged and the feasibility of their using the ODMDSs site should be assessed in the management plan.

Feasibility studies of dredge disposal options should acknowledge and incorporate ODMDSs in the larger analysis of dredge disposal sites within an entire basin or project. For example, Corps of Engineers analyses of existing and potential dredge disposal sites for harbor maintenance projects should incorporate the ODMDSs as part of the overall analysis of dredge disposal sites.

The Council recognizes that EPA and other relevant agencies are involved in managing and/or regulating the disposal of all dredged material. The Council recognizes that disposal activities regulated under the Ocean Dumping Act and dredging/filling carried out under the Clean Water Act have similar impacts to living marine resources and their habitats. Therefore, the Council urges these agencies apply the same strict policies to disposal activities at the ODMDSs. These policies apply to activities including, but not limited to, the disposal of contaminated sediments and the disposal of large volumes of fine-grained sediments. The Council will encourage strict enforcement of these policies for disposal activities in the EEZ. Insofar as these activities are relevant to disposal activities in the EEZ, the Council will offer comments on the further development of policies regarding the disposal/ deposition of dredged materials.

The Ocean Dumping Act requires that contaminated materials not be placed in an approved ODMDS. Therefore, the Council encourages relevant agencies to address the problem of disposal of contaminated materials. Although the Ocean Dumping Act does not specifically address inshore disposal activities, the Council encourages EPA and other relevant agencies to evaluate sites for the suitability of disposal and containment of contaminated dredged material. The Council further encourages those agencies to draft management plans for the disposal of contaminated dredge materials. A consideration for total removal from the basin should also be considered should the material be contaminated to a level that it would have to be relocated away from the coastal zone.

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Robert K. Mahood, Executive Director
Gregg Waugh, Deputy Executive Director

May 7, 2004

Wesley B. Crum, Chief
Coastal Section
U. S. Environmental Protection Agency
61 Forsyth Street, SW
Atlanta, GA 30303

Dear Mr. Crum:

The South Atlantic Fishery Management Council (Council) offers the following comments on the U.S. Environmental Protection Agency's (EPA) Draft Environmental Impact Statement (DEIS) for Designation of the Palm Beach Harbor Ocean Dredged Material Disposal Site (ODMDS) and the Port Everglades Harbor ODMDS dated February 2004. These comments are relative to impacts on Essential Fish Habitat (EFH), Essential Fish Habitat- Habitat Areas of Particular Concern (EFH-HAPCs) and Council policies on Beach Dredging and Filling and Large-Scale Coastal Engineering and Ocean Dredged Material Disposal Sites. These comments are based on staff review of the proposal and the Council's approved habitat policies and Habitat Plan. In addition, these comments have been coordinated with the Florida Sub-Panel of our Habitat and Environmental Protection Advisory Panel (Habitat AP).

The ODMDS sites as proposed in the DEIS will impact areas identified as Essential Fish Habitat (EFH) in the 1998 Comprehensive Amendment Addressing Essential Fish Habitat in Fishery Management Plans (FMPs) of the South Atlantic Region prepared by the Council. These FMPs include coral, coral reef and live bottom habitat, red drum, shrimp, spiny lobster, coastal migratory pelagic species, and the snapper-grouper complex. This comprehensive amendment was prepared in accordance with provisions described in the 1996 reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act, P.L. 104-297 (MSFCMA) and has been approved by the Secretary of Commerce.

Specific comments are as follows:
1. The proposed activities could have potential adverse effects on areas designated as EFH and EFH-HAPCs by the Council. Categories of EFH found within proximity of the area of proposed activity include the water column, coral and coral reefs, hardbottom areas, *Sargassum*, sand and soft sediment habitats, the Continental Shelf and upper Continental Slope. The marine water column is important in the transport of nutrients, spawning, larval dispersal and migrating organisms. Coral and coral reef habitat constitutes EFH for juvenile and adult stages of species in the snapper grouper complex (comprising 73 species in 9 families) and spiny lobster. Hardbottom areas have been designated as EFH for snapper grouper species, including tilefishes; spiny lobster and penaeid shrimp. *Sargassum* constitutes EFH for species in the snapper grouper complex as well as dolphin. Sand habitats and soft sediments have been designated as EFH for species in the snapper grouper complex and penaeid shrimp. Species associated with the Continental Shelf and upper Slope include golden crab and royal red shrimp, respectively. EFH-HAPCs that would be impacted

by the proposed activity include *Sargassum*, coral and coral reefs (including deepwater corals such as *Lophelia* and *Enallopsammia*) and hardbottom habitats. The Council's Comprehensive Habitat Amendment contains additional information on EFH and EFH-HAPC designation for species under Council jurisdiction. The Council and Habitat AP are particularly concerned about impacts the proposed activity may have on deepwater habitats. The information provided in the DEIS is insufficient to demonstrate that the proposed activities will avoid and/or minimize impacts to EFH.

2. The proposed ODMDSs are within the depth range occupied by tilefishes which are managed under the Council's Snapper Grouper FMP. However, no discussion of the potential impacts to the local tilefish fishery were included in the DEIS. According to local fishermen, tilefish prefer certain sediment types. The DEIS includes possible alterations in sediment texture, grain size, and/or chemical composition as one of the unavoidable adverse effects of the proposed activity. Thus the proposed activity has the potential of adversely affecting the local tilefish fishery. These impacts must be evaluated.

3. The DEIS includes results of studies conducted to determine the fate of dredged material disposed at the proposed ODMDSs. These studies were deemed necessary due to the proximity of the proposed activity areas to the Gulf Stream and spin-off eddies. The Gulf Stream has been designated as EFH for many of the species managed by the Council, including those in the snapper grouper complex. It appears that time-averaged and prevailing currents were used in the fate studies and no discussion was included as to how eddies could potentially re-distribute this material to other habitats such as nearshore reefs.

4. The cumulative impacts section of the DEIS is not complete in that it fails to discuss potential synergistic or cumulative effects of other ongoing and planned activities in Broward and Palm Beach Counties. The Council is aware of other projects in the area that were omitted from the DEIS.

5. The side-scan sonar survey described in Appendix D of the DEIS was not of adequate resolution to detect the presence of deepwater habitats and evaluate impacts to these habitats. NOAA Fisheries in their comments on the DEIS recommends transects every 100 meters. Furthermore, the survey indicated the presence of an "east west low relief ridge" but failed to investigate whether this area contained hardbottom habitat. Underwater videos off Broward County in the depth range of the proposed activity have shown sparse hardbottom. Also, the presence of "numerous unidentified highly reflective objects" should be further investigated. Ground-truthing with underwater video should be conducted.

6. The Council's Policy for the Protection and Restoration of Essential Fish Habitat from Beach Dredging and Filling and Large-Scale Coastal Engineering (attached) identifies numerous threats to marine and estuarine resources from such activities. The unavoidable adverse effects from the proposed ODMDSs as described in the DEIS encompass many of these threats. In addition, the Council's Policy Statement Concerning Dredging and Dredge Material Disposal Sites (attached) establishes the Council's role in the designation, operation, maintenance, and enforcement of activities in the ODMDSs.

Thank you for the opportunity to provide comments on the DEIS. If you have any questions or need additional information please contact Roger Pugliese or Myra Brouwer at the Council office.

Sincerely,

David Cupka

David Cupka by Rian
Chairman

cc: Council members & staff
Habitat and Coral Advisory Panels
Monica Smit-Brunello
Ginny Fay, Joe Kimmel, Miles Croom and David Dale
Nancy Thompson and John Merriner

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Mary McCarty
Burt Aaronson
Addie L. Greene

County Administrator
Robert Weisman

May 10, 2004

U.S. EPA, Region 4
ATTN: Wesley B. Crum, Chief
Coastal Section
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, GA 30303

Dear Mr. Crum:

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS) FOR HARBOR DREDGED MATERIAL DISPOSAL

Thank you for providing us the opportunity to comment on the Draft EIS for the dredged material ocean disposal sites for the Palm Beach and Port Everglades Harbors. Palm Beach County supports establishing these areas in deeper water provided they are the last option used for disposal; however, we have concerns and offer the following comments with regard to the Palm Beach site:

Most important to us is the alternative disposal issue. The draft report does mention that the "issues of potentially reducing the opportunity for beneficial use of the dredged material, such as beach nourishment, due to the availability of offshore disposal has yet to be resolved" (sec. 1.1.3), and we are very concerned about this issue as well. It should be a requirement that any material that is beach compatible be used for beach nourishment or for building up nearshore berms. While the EIS indicated that beach compatible sand would not be disposed offshore, we request that a clear definition of beach compatibility be included in the document.

The EIS compared offshore disposal to upland disposal and concluded in all cases that offshore disposal is cheaper than upland disposal. However, use of non-beach compatible material to fill dredged holes in Lake Worth Lagoon was not evaluated and we request that additional analysis be conducted. We are concerned that the lower cost of ocean dumping would preclude the use of dredge material for beneficial uses and request that environmental benefits of the beneficial use be included in the

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cost/benefit analysis. Palm Beach County is currently involved with the Corps in using Palm Beach Harbor dredge material for environmental restoration and expects that similar projects would be feasible and desirable in the future. While these inshore restoration projects may be more expensive than offshore disposal, the environmental benefit would likely outweigh any additional costs incurred.

The draft states that the rates of disposal of material is estimated at about 50,000 cy/year; yet elsewhere typical projects were described as ranging from 14,000 to 179,000 cy. Lastly, a maximum of 500,000 cy/project was set, and this amount is far larger than the estimated annual disposal amount. Are larger projects anticipated? Is this larger limit related to the statement that the disposal area will be opened up to other federal entities and private dredging projects? We are concerned as to what will be the amounts disposed offshore with this range of numbers provided.

The dispersal models provided information on the potential dispersal of materials of a given makeup. We recommend that if the characteristics of potential disposal material are not within the range of the parameters used for modeling, than the model should be rerun using the differing characteristics before decisions concerning disposal are made.

The data detailing the environmental resources that could be buried in the disposal site has a number of blank areas. Additional studies need to be conducted before concluding that there will be no reef impacts. Reef mounds of *Oculina* coral are in the deeper zones and are very productive communities. We recommend that given that this is intended to be a long-term disposal site, the gaps in the 100 kHz sidescan sonar survey be filled in and that the disposal area vicinity also be scanned using 400 kHz sidescan for higher resolution. Additionally, ROV video monitoring should be conducted in the vicinity of any sidescan anomalies to verify absence of reefs and corals.

The Biological Assessment (Appendix E) should include recognition that Palm Beach County usually has the highest number of leatherback nests and the second highest number of loggerhead and green turtle nests in the continental United States.

In conclusion, our recommendations are that additional sampling is required to ensure that coral reefs will not be impacted; alternative disposal on or near beaches and/or Lake Worth Lagoon deep holes be required for all compatible material (regardless of cost) prior to approving

offshore disposal.

If offshore disposal occurs, then more safeguards for dumping should be required. Disposal 4.5 nmi. offshore can be influenced by speeds and directions of the current. We recommend that the disposal pattern be modified in that the south half of the site be targeted for north currents (and vice versa) with the southernmost ¼ being used for stronger north currents to allow more area for dispersal of materials within the dump site. This will require the vessel to slow upon approaching the dumping site to ascertain current condition before commencing dumping. In addition, by not focusing dumping on one spot, the potential for stacking the material on resources is minimized.

Thank you for the opportunity to provide comments. If you should have any questions, please call me at 561-233-2400 or Janet Phipps at 561-233-2513.

Sincerely,

Richard E. Walesky, Director

REW:jjp

Cc: Robert Weisman, County Administrator
Palm Beach County
John Studt, U.S. Army Corps of Engineers
Tim Rach, Florida Department of Environmental Protection
J.I. Palmer, Jr., Treasure Coast Regional Planning Council

May 11, 2004

TO: Lauren Milligan, Office of Intergovernmental Programs

FROM: Roxane Dow, Bureau of Beaches and Coastal Systems

SUBJECT: DEIS for Designation of the Palm Beach Harbor and Port Everglades Harbor ODMS

The Bureau has reviewed the draft environmental impact statement (DEIS) for the designation of 2 ocean dredged material disposal sites (ODMS) for the referenced ports. We have no specific objections to the designation of these sites. Side scan sonar was used to survey for hard bottom habitat and the modeling conducted by the Waterways Experiment Station seems to assure that turbidity plumes will not effect any nearby reefs. The DEIS makes it quite clear that beach quality material will be placed on the adjacent beaches when included in any maintenance dredging event. Final decisions about where dredged materials will actually be placed will be based upon the descriptions of sediment quality submitted as part of the permit applications to the Bureau.

We note, however, that the DEIS does not include an investigation of other beneficial reuse options, as requested in the Department's November 24, 1997 letter in response to the scoping notice. An exhaustive review was completed of potential upland disposal sites, but no consideration of alternative use of non-beach quality material was found in the document. We have recently been approached about the use of intracoastal dredged material for use as landfill cover, and recommend that the ports and the USACE discuss the possibility of use of maintenance dredged material with nearby counties and municipalities as well as the DEP Southeast District office.

We have some recommendations to improve the document. The DEP Southeast District Office should be consulted on the most recent applications and status on the placement of fiber optic cables and gas transmission lines. The terminology for beach placement should be standardized throughout the document; the Bureau's preferred term is "beach nourishment", as most if not all of the possible placement beaches have been "restored". We do not use the outdated term "renourishment". The first sentence on page 75 on nutrient loadings from wastewater treatment plant ocean outfalls needs to be revised to make the statement more meaningful, and an appropriate reference should be cited. Some appendices are missing, notably the Biological Assessments, and others are included that are not cited in the Table of Contents.

Finally, we have previously requested that the USACE revise its statement on coastal zone consistency with Chapter 161, Florida Statutes in all documents. Chapter 161, Florida Statutes is much more than the stated regulation of construction projects seaward of mean high water. It includes the state's long term Strategic Beach Management Plan and it's associated inlet management plans, as well as authority with reguard to activities proposed seaward of the Coastal Construction Control Line. We would be happy to meet with the USACE to revise this section to assure that future planning activities adequately consider the full range of programs included in Chapter 161 and Florida's Coastal Zone Management Program.

Thank you for the opportunity to comment. Please call me if you have any questions.

cc. Michael Barnett, P.E.
Paden Woodruff

No.	Agency/ Commenter Name	Comment	Response	Action
1	NOAA- Office of Ocean and Coastal Resource Management	Page 103: the correct title of our office is Office of Ocean and Coastal Resource Management.	It is assumed that this comment refers to the agency list provided on page 88; no page 103 exists for the EIS.	The agency list was updated to provide the correct agency title.
2		Appendix L: NOAA regulations require that a consistency determination include a detailed description of the proposed activity, its expected effects on the coastal zone and an evaluation of the activity in light of the applicable enforceable policies of the state coastal management program. The requirements for a consistency determination are set forth in NOAA regulations at 15 CFR part 930 subpart C.	A description of the proposed project will be added to Appendix L (now Appendix N). It is believed that expected effects on the coastal zone and an evaluation of activity in light of applicable enforceable policies of Florida's coastal management program as outlined in 15 CFR Part 930 Subpart C.	A description of the proposed project was added to Appendix L.
3		The content of a consistency determination is located at 15 CFR S 930.39. The definition of coastal effects is located at 15 CFR S 930.11(e). OCRM notes that the application of "coastal effects in Appendix L may be incomplete for Florida Statutes: Chapters 253 and 258. While the disposal sites are not within state waters, if use of the disposal sites and/or the disposal materials would have reasonably foreseeable effects on the state's submerged lands, then the EPA must be consistent to the maximum extent practicable with the enforcement policies of Chapters 253 and 258 and those policies should be evaluated for consistency.	As detailed in Appendix N and the project EIS, no foreseeable significant impacts to state submerged lands are anticipated as a result of the proposed project. As such, the proposed project is believed to be consistent with Florida Statutes, Chapters 253 (State Lands) and 258 (State Parks and Preserves). Statements to this effect will be included in Appendix N.	Statements were added to Appendix L as indicated in the comment's response.
4		The EPA should fully apply the Coastal Zone Management Act federal consistency effects test and consult with the FL Coastal Management Program on whether the consistency determination is complete.	Noted.	None taken.
5	NOAA- NMFS	Five species of sea turtles, including the loggerhead, green, leatherback, hawksbill, and Kemp's ridley may occur in the action area. Non-hopper dredges are unlikely to adversely affect sea turtles. NOAA believes hopper dredging at Port Everglades Harbor falls within the scope of the general type of hopper dredging activities proposed, described, and analyzed in the September 25, 1997 Regional Biological Opinion (RBO).	Noted.	NOAA's opinion regarding project effects on the listed sea turtle species was added to the EIS.
6		The blue, finback, humpback, right, sei, and sperm whale are found in the SE Atlantic. The right whale has been documented to occur within 20 nm of the US coastline 80% of the time. The use of dredges and the disposal of dredged material using a near-instantaneous dumping barge/scow may not adversely affect whales, although the RBO requires dredges to maintain a lookout for right whales and carefully avoid them. Adverse effects to whales are unlikely to occur from the project.	Noted.	NOAA's opinion regarding project effects on the listed whale species was added to the EIS.

7	NMFS	The effects of the proposed activity are entirely comparable to those that have been previously analyzed by the RBO. Thus, taken in association with the use of hopper dredges from the proposed activity have been previously anticipated in the RBO and shall be charged to the annual incidental take statement (ITS) established in the RBO. All terms and conditions of the reasonable and prudent measures of the ITS must be adhered to during the implementation of the proposed activity. Only incidental takes that occur while these measures are in full implementation are authorized.	Noted.	None taken.
8		The endangered shortnose sturgeon may occur off FL. The smalltooth sawfish may also occur. However, the occurrence of these species has not been documented in the vicinity of the project area. No effects to these species are likely to occur from the project.	Noted.	NOAA's opinion regarding project effects on the shortnose sturgeon and smalltooth sawfish was added to the document.
9		Prior to proceeding with the proposed action, NOAA Fisheries' Habitat Conservation Division must be consulted pursuant the Magnuson-Stevens Fishery Conservation and Management Act's requirements for EFH consultation.	Noted. EFH consultation has been initiated between EPA and NMFS.	Consultation has been initiated between EPA and NMFS; an EFH assessment is in preparation for inclusion in the EIS.
10	Port Everglades Pilots Association	Currently there are 35% more ship arrivals at Port Everglades than 9 years ago, and the ships are significantly larger. The number and size of ships calling at PE are anticipated to increase in the future. The need to provide and maintain safe navigational conditions at PE is of paramount importance. Given the level of need for the offshore disposal site and the lack of adverse impacts, there is no reason to delay and every reason to move forward with designation.	Noted. The EPA and USACE concur with this comment.	None taken.
11	Department of Port Everglades	In order for the Port to maintain a safe and navigable harbor, it is of the utmost importance for us to be able to dispose of dredged material. As we undergo expansion, the only avenue for this material to be disposed of will be to an offshore disposal facility. Of the two areas under study, the Port prefers the site nearer to the shore be selected.	Noted.	None taken.
12	Crowley Liner Services	It is imperative to the continuation of safe navigational conditions that the designation of this ODMDS occurs as soon as possible.	Noted. The EPA and USACE concur with this comment.	None taken.
13	FL Dept. of Environmental Protection	The Department hereby notifies the EPA and USACE that the state, at this time, does not object to the consistency determination provided with the DEIS.	Noted.	None taken.
14		All subsequent environmental documents must be reviewed to determine the project's continued consistency with the FCMP.	Noted.	None taken.
15		The DEIS indicates, and FL strongly agrees, that where appropriate, beach re-nourishment is the preferred alternative for disposal.	Noted. The EPA and USACE concur with this comment.	None taken.

16	FDEP	To ensure that disposed materials remain within the designated site and do not affect resources adjacent to the sites, disposal should not occur during times of high currents such as eddy intrusions.	The Site Management and Monitoring Plans have accounted for the current varibility at the site. A disposal zone with a radius of 600 feet has been established to assure that disposed dredged material is deposited within the disposal site boundaries. The size of this zone is based on short-term fate modeling conducted by EPA of the disposal plumes under mutiple current regimes (including high currents) measured near the proposed ODMDSs. In addition, the modeling discussed in the Draft EIS (Appendix I) utilized exceedence velocities of 99% in its analysis. Efforts at the Miami ODMDS to restrict disposal during periods of onshore current events have indicated that these events are of short duration and occur at a frequency of 2.5% (Proni et. Al, 1998)	None taken.
17		An exhaustive review was completed of potential upland disposal sites; however, no consideration of alternative uses of non-beach quality material was included in the DEIS as requested in the Department's 1997 scoping notice response. The Department has recently been contacted about using intracoastal material as landfill cover indicating that a potential need for dredged material might exist. Options for beneficial use should be developed so that offshore disposal is unnecessary. Therefore, we recommend that the ports and USACE investigate possible beneficial uses of dredged material with nearby counties and municipalities and document in the FEIS.	Beneficial use of dredged material is always given primary consideration by the USACE for each dredging event. Every attempt will be made to find beneficial uses for material dredged from the two harbors in future dredging operations. However, beneficial use is such a project-specific option and specific beneficial uses depend on such a wide array of factors that an exhaustive accurate review of beneficial uses of dredged material is not possible for this EIS.	None taken.
18		Different spatial and temporal sampling regimes were carried out at the candidate sites and therefore the individual sites were not evaluated equally. It appears that the preferred sites were determined prior to completing detailed survey analysis. The DEIS should have clearly explained that information obtained in the broader surveys was used to identify those sites which are more environmentally acceptable and then more rigorous surveys were conducted.	The different spatial and temporal sampling regimes used in the various surveys are in part the result of changing decisions regarding the project since its inception in the 1980s. Initial surveys focused more heavily on the then-preferred sites. Later surveys included the other candidate sites to ensure that at least the minimum acceptable number of sampling stations were collected from each candidate site. Additional information will be added to the EIS providing summaries of the timing and methods for each referenced survey.	Text was added to the EIS providing summaries of timing and methods for all surveys referenced in the EIS.

19	FDEP	Video and still photography was collected at the PE site in 1986. Information was presented in the DEIS regarding PB photo documentation, but the timing of and methods for conducting the surveys are unclear. The state is concerned that photodocumentation of these sites may be outdated. EISs should include analyses of recent geophysical and visual surveys. The photodocumentation should also be used to verify the identification of specific targets in side scan sonar surveys.	See the response to comment 18 above regarding the timing and methods of the surveys. Photodocumentation of representative hard bottom and rubble areas detected in the sidescan sonar surveys was obtained (see Section 3.18). The additional sidescan sonar surveys conducted by EPA in 1998 verified the extent of the previously identified habitats. However, EPA does not believe there is any reason to believe that these habitats have changed since they were identified in the 1980's and there should be no concern that the photodocumention is outdated.	See the action to comment 18 above.
20		Photodocumentation results show no preferred habitat for Oculina varicose in the 4.5-mile PB site, but Oculina is known to occur within 1.7 nm of the site. Visual surveys of all areas potentially impacted by disposing of materials at the site, whether inside or outside the site, should be conducted to ensure that no preferred habitat exists within the impact area.	Sidescan sonar results (Appendix E figure 7) indicate hard bottom approximately 1.5 nm northwest of northwestern boundary of the Palm Beach Harbor 4.5-mile site. This area coincides with the depth contour of the Oculina within 1.7 nm of the 4.5-mile site identified by Reed (1980) and is therefore likely similar substrate. Consequently, the sidescan sonar survey is deemed to be of sufficient resolution to locate occurrences of Oculina or other corals in the project area. Analysis of the sidescan sonar results indicates that no other such areas are apparent in the vicinity of the study area. The data collected in the sidescan sonar and other previous surveys of the project area were deemed adequate by the EPA to ensure that Oculina and other corals would not be affected by the proposed project. Sidescan surveys extended at least one nm to the east and west of the alternative sites and 2 nm to the north and sourth. No further surveys are planned.	None taken.
21		The NEPA analyses should address the possibility of other deepwater coral resources such as black coral which have been noted in this area.	See the response to comment 20 above.	See the action to comment 21 above.

22	FDEP	In a 2002 letter to the EPA, the Dept. emphasized that site capacity requirements, project material dispersion and the LTFATE of deposited material should be based on the maximum volume of material expected to be disposed at each site. The determination of an annual average of 50,000 cy seems inadequate considering the total amount of dredging expected at each port. Modeling and planning at the site to avoid long-term impacts should consider the amount of dredged material expected to be placed in the ODMDS during its lifetime. The modeling completed for the DEIS used a mound site 10x the average annual amount (500,000 cy) to be deposited. This volume appears to be low since larger planned events, including 2 million cy at PB) may occur.	Text will be added to the document reflecting revised volumes for disposal at each site. The 2 million cy dredging event at PB is no longer planned. Feasibility studies will be conducted for any expansion projects at the harbors. These feasibility studies will determine what capacity is necessary to accommodate dredged material resulting from expansion activities, and will examine disposal options. Should ocean disposal be deemed appropriate, and should the designated ODMDSs prove to be of adequate capacity, then they may be used for the disposal of dredged material from expansion projects. Should the sites' capacities prove inadequate or ocean disposal be deemed inappropriate, other disposal or use options will be pursued.	Text was added to the EIS reflecting revised disposal volumes for each site.
23		The cumulative impacts analysis should provide the most up-to-date information for and thoroughly evaluate all projects being conducted in the area of impact. Projects evaluated in the DEIS that should be updated include AES Ocean Express and Tractebel Calypso pipelines; telecommunication cables; PE Harbor Deepening Project; and the Hillsboro Inlet dredging project. FEISs with updated information concerning locations and projected impacts of both proposed pipelines were recently released. Cumulative analyses should include this updated information. Where available, information about the telecommunication cables should also be updated. The discussion of the PEHDP should include an estimate of the amount of dredged material from the project and estimated disposal volumes for other dredging projects should also be included. Hillsboro Inlet dredging should be added into the analysis of past projects. In addition, NEPA analyses should address the cumulative impacts of using these sites along with other ODMDSs along the SE FL coasts.	The cumulative impacts section will be expanded to provide additional discussion on proposed pipelines, telecommunication cables, and other appropriate projects. The proposed project involves designation of ODMDSs in deepwater locations, and as such any cumulative impacts resulting from the project would only occur to deepwater areas. Consequently, a cumulative impact assessment inovlving the Hillsboro Inlet, which involved nearshore placement, is outside the scope of this project. Similarly, a cumulative impact assessment involving other ODMDSs in southeast Florida, which are significantly beyond the area of influence for the project, is likewise beyond the scope of the poject.	Information about proposed pipelines and telecommunication cables in the vicinity of the project area was incorporated into this section.
24		The FWCC requests clarificaiton of why the site modeling found the disposal sites to be non-dispersive despite persistent bottom currents.	Information on methodology and assumptions for dispersion studies of the project area is contained in Appendix I. The parameters used in the models were based on the best available information. The State of Florida was involved in the Scoping process for these studies and provided input on the models during this time.	None taken.

25	FDEP	The Treasure Coast Regional Planning Council indicates that the preferred offshore site for PB is not in conflict or inconsistent with the Strategic Regional Policy Plan provided that coral reefs and other environmentally sensitive marine resources are not impacted by the disposal operation. Monitoring should occur to ensure that dispersion and transport of disposed materials does not impact reefs and other sensitive marine resources. All opportunities to utilize the dredged material for beneficial uses such as beach nourishment or lagoon restoration should be considered prior to disposal.	Noted. Monitoring is planned for the proposed ODMDSs and is detailed in Appendix J. Concerns regarding beneficial use of dredged material are addressed in comment 17 above.	None taken.
26		South FL Regional Planing Council staff notes that while the project will further the council's goals for a more livable, sustainable, and competitive region, the project should be reviewed to ensure that it is consistent with the goals and policies of the Strategic Regional Policy Plan for South FL regarding protection of shoreline, estuarine and benthic communities, fisheries and associated habitats.	Noted. The EPA and USACE believe the project to be consistent with the council's goals and policies.	None taken.
27		Section 1.2.4, p. 4: The annual disposal volume to be placed in each proposed ODMDS is 50,000 cy. Will this volume be adequate considering the dredging projects using the ODMDS will need to dispose of volumes well in excess of 50,000 cy?	See the response to comment 22 above.	See the action to comment 22 above.
28		Section 2.3, Figures 1-2: These figures and subsequent figures in the text and on the CD are difficult to analyze. The CD maps cannot be enlarged to a readable size. NEPA documents should provide maps and figures that are clear and readable at most magnifications.	Enhanced figures will be provided in the Final EIS.	Enhanced figures have been provided.
29		Sections 3-4: There are several citations of recognized experts (Porter, 1987; Marshall, 1971) not included in the References section.	Missing citations will be included in the References section of the Final EIS.	Missing citations have been included in the References section of the EIS.
30		Section 3.4, p. 23: The EIS should clearly describe the date of, location, and methods used by CSA in conducting the video surveys.	See the response to comment 19 above.	See the action to comment 19 above.
31		Section 3.4, p. 23: According to the text, no preferential substrate for Oculina was found in the 4.5 mile PB site during the video surveys. While it appears that geophysical surveys were used to determine if this substrate was found within the impact areas calculated by the modeling, video surveys of the area should be conducted to confirm that no preferential substrate for Oculina would be impacted. The EIS should provide a map detailing the locations of known Oculina and the location of the ODMDS candidate sites.	See the response to comment 20 above. Known Oculina locations in the vicinity of the proposed Palm Beach Harbor site will be added to Figure 6 in the Final EIS.	Known Oculina locations were added to Figure 6.
32		Section 3.4, p. 23: The state is concerned that an increase in turbidity and/or sedimentation resulting from disposal activity in the ODMDS should affect Oculina habitat since it is not clear in the DEIS whether it could exist within the area of impact.	Concerns regarding the presence of Oculina and other corals in the project area are addressed in comment 20 above.	See the action to comment 20 above.

33	FDEP	The EIS should discuss information discerning whether substrates located in the sites or in proximity to the sites may be preferential to other species of coral besides Oculina. By specifically looking for Oculina in video surveys, other important species may have been overlooked. The Tractebel Calypso Pipeline Project documented the presence of deepwater corals including black coral offshore Broward County.	The video surveys did not specifically look for Oculina. A summary of the video surveys including species identified is presented in Section 3.18 of the Final EIS. The Tractebel Calypso Pipeline Project did not document the presence of any deepwater corals at the depth or distance offshore of the Port Everglades Harbor 4-mile site. (see Section 3.6 of the Tractebel Final EIS)	See the action to comment 20 above.
34		Section 3.5, p. 30: Fisheries data provided in tables 5 and 6 should be updated to include the most recently available version.	Tables 5 and 6 will be updated to include the most recently available information.	Tables 5 and 6 have been updated using NMFS' EFH Plan for the South Atlantic Region, updated February 2002.
35		Section 3.13.1, p. 44: More recent accounts of the recreational and commercial fisheries in the area should be included in the FEIS.	More recent data regarding recreational and commercial fisheries will be included in the FEIS.	More recent data regarding artificial reefs in the vicinity of the project area was included in the EIS. Additional data regarding fisheries in the area is available in the EFH assessment.
36		Section 3.17, p. 57: The discussion should be updated. Both the AES Ocean Express LLC and the Tractebel Calypso LLC natural gas pipeline proposals have a published FEIS. The document should also include information concerning present and future telecommunication and fiber optic cables in the area. The last sentence notes that the Tractebel Calypso pipeline's proposed route does not interfere with any of the PE ODMDS. When comparing maps in the Calypso FEIS with the DEIS, the site seems in close proximity of the pipeline route. The document should provide a map detailing the location of the ODMDSs in relation to the Tractebel Calypso pipeline or any other significant structure in the area.	Additional information regarding the Ocean Express and Calypso pipelines and telecommunication cables will be incorporated into this section. As recorded in the FEIS for the Calypso Pipeline, the Federal Energy Regulatory Commission, in its response to the EPA's letter dated 17 September 2003 regarding potential conflicts with the pipeline and the rpoposed sites, stated the the proposed pipeline alignment would not impact either Port Everglades Harbor site. Accurate information regarding the specific location and layout of the proposed pipelines is not currently available; consequently a map providing the locations of the pipelines with respect to the proposed ODMDSs would not provide meaningful data and such a figure is not intended for inclusion at this time.	Additional information regarding proposed pipelines and telecommunications cables was incoproted into this section.

37	FDEP	Section 3.18.1, p. 58: The EIS should include a more thorough discussion about biological activity in the area as described in the DEIS. Could the biological disturbances (mounds and depressions) found at the PB 4.5 mile site have been made by tilefish? Tilefish have become important fishery in this area and according to fishermen this species may only exist in certain types of sand habitats. Altering the sediments with dredge disposal may destroy EFH for this fishery.	Tilefish habitat (as well as that of other fish species) in relation to the project area has been addressed in the EFH assessment. The substrate at the PB 4.5 site appears to be too sandy and silty for tilefish. The tilefish require a malleable (clayey) substrate to create burrows.	Tilefish habitat was addressed in the EFH assessment.
38		Section 3.18.1, p. 58: The EIS should provide more detailed information concerning the surveys completed in the candidate sites including a map clearly showing the locations of the video and photography; descriptions of when the surveys were conducted and descriptions of survey methods used.	See the response to comment 18 above. No maps depicting survey locations are planned at this time as we believe the added narrative provides sufficient description of the scope of the surveys.	See the action to comment 18 above.
39		Section 3.18.2, p. 58: NEPA documents should be based on recently obtained information, including video/photography surveys necessary to verify the absence/presence of isolated corals and essential fish habitat. Based on the 1986 video, depressions, mounds, and other biological activity were noted in the area. This biological activity could be indicative of species now being utilized in a commercial fishery that were not in 1986 (e.g., tilefish).	See the response to comment 37 above.	See the action to comment 37 above.
40		Section 4.3.3, p. 60: In the discussion regarding 40 CFR 228.5(b), Oculina is noted as being found 1.7 nm west of the preferred PB ODMDS. The statement is then made that "at these locations, the likelihood of impacts to nearshore amenities is small." Is this statement applicable to Oculina, by referring to it as a nearshore amenity? If not, will there be a likelihood of impacts to Oculina from dispersion?	Oculina is considered a nearshore amenity in this case, and as such the statement is applicable to Oculina.	None taken.
41		Section 4.3.3, p. 60: The EIS should clearly discuss whether the completed surveys confirm that no other areas of Oculina or other possible coral habitat are in the range of turbidity and sedimentation impact that will result from disposal in the ODMDS. According to Appendix I, 2,400 m is the maximum distance for sand concentration to be 1 mg/l or less from the disposal location, yet it is unclear whether or not the surveys extended at least that far.	Concerns regarding the presence of Oculina and other corals in the project area are addressed in comment 20 above. The surveys provided coverage extending at least one nm (3700 m) from the western edge of the preferred sites, therby providng adequate coverage for disposal events within the disposal site.	None taken.
42		Section 4.3.3, p. 61: The discussion of dispersion modeling results refers to Section 5.07; however, no Section 5.07 could be found.	The reference will be corrected in the Final EIS.	The reference has been corrected.
43		Section 4.3.4, p. 62: The discussion in "location in relation to beaches and other amenity areas [CFR 228.6(a) 3]" does not discuss the Oculina habitat referenced in previous discussions [e.g., CFR 228.5(b)]. Oculina should be discussed in this section also.	Oculina will be discussed in this section in the Final EIS.	Text regarding Oculina in the vicinity of the project area was added to this section.
44		Section 4.3.4, p. 67: Specific Site Section Criteria 8 [40 CFR 228.6(a) 8] should be re-evaluated to include the tilefish fishery.	Specific Criteria #8 will be re-evaluated to include the tilefish fishery.	Specific Criteria #8 was reevaluated with respect to tilefish.

45	FDEP	Section 4.5, p. 74: The cumulative impact section in the NEPA documents should contain a thorough review of the effects of past, present and future projects and their possible cumulative effects with the proposed ODMDSs. Information concerning the telecommunication and fiber optic cables should be included in the EIS, along with any possible cumulative impacts. The Seafarer pipeline should be included in Section 4.5.3 Reasonably Foreseeable Future Projects. The Tractebel Calypso and AES Ocean Express pipeline projects should be updated to include information from their respective FEISs.	See the response to comment 23 above.	See the action to comment 23 above.
46		Section 4.11, p. 80: Please refer to comments from Section 3.4, p. 23.	See the response to comment 19, 20, 31, and 32 above.	See the action to comment 19, 20, 31, and 32 above.
47		The pages of all appendices should be numbered.	Numbering of appendices pages is not planned at this time. Colored dividers will be added to hard copies of the Final EIS to provide easier reference to the locations of the various appendices.	Colored dividers have been added to the appendices.
48		Appendix D, Section 2.0: The same side scan sonar resolution should be used to survey all potential ODMDSs. Employing different survey methods can result in the appearance that a preferred site was pre-determined instead of using the surveys to determine a suitable site.	A constant range setting and vessel speed was utilized for all of the alternate sites. All of the alternative sites received the minimum 100% coverage. Overlap was increased at the PE-4 and PB-5 due to the concern expressed by the State of Florida regarding possible presence of hardbottom in these areas.	None taken.
49		Appendix D, Section 2.0: The discussion notes that a wider transect spacing was used for secondary areas because these areas were expected to be outside the impact area. The discussion should include an explanation of how the size secondary area to be surveyed was determined. The side scan sonar surveys were conducted in August 1998, yet there report for the dispersion study was no dated until September 1998. Therefore, the assumption used to determine the impact area for the secondary surveys may have been flawed since the side scan surveys were completed before the modeling report which detailed the distance of impact was completed.	The size of the secondary areas was determined by modeling conducted by EPA prior to the 1998 dispersion study. The modeling conducted by EPA examined deposition patterns under multiple current regimes as measured by a nearby ADCP. The mound was found to extend up to 0.5 nmi from the disposal location at the PB-4.5 mile site and PE-4 mile site and up to 1 nmi from the disposal location for the PB-9 mile and PE-7 mile sites.	None taken.
50		Appendix D, Section 2.0: The EIS should include information about the transect lengths and the distance surveyed beyond the site boundaries. This is not clear from the text or from the referenced Appendix A figures.	A minimum of 0.5 nmi was surveyed to the east and west of each alternative site and 1 nmi to the north and south. Transects at the PE-4 mile and PB-4.5 mile sites were extended 2 nm in each direction with less overlap to address concerns raised by the State of Florida regarding potential hard bottom in the area.	Text was added to the main body of the EIS summarizing survey activities and methods.

51	FDEP	Appendix D, Section 2.0: The evaluation of ODMDSs should include still and video photography, geophysical and/or additional surveys which may be necessary to help characterize the significance of features at the ODMDS identified with side scan sonar. Side scan sonar results alone still leave questions as to the significance of features found by this survey method.	See the response to comment 20 above.	See the action to comment 20 above.
52		Appendix D, Table 1: Please clarify the terms used under heading survey area.	PE-A refers to the area encompassing and immediately surrounding (0.5nm) the Port Everglades Harbor 4 Mile alternative site. PB—A refers to the area encompassing and surrounding the Palm Beach Harbor 4.5 mile, 3 mile and interim site alternatives. PB-B refers to the area encompassing and surrounding the Palm Beach Harbor 9 Mile alternative site. PE-B refers to the area encompassing and surrounding the Port Everglades Harbor 7 mile alternative site. PE-C and PE-D refer to the down and up current areas of the Port Everglades Harbor 4 mile alternative site. PB-C and PB-D refer to the down and up current areas of the Palm Beach Harbor 4.5 mile site.	None taken.
53		Appendix I, Section 2: Table 4 states that the cohesive/non-cohesive behavior is not considered for the sand and are considered for the silt. The EIS should describe whether or not actual sediment samples were analyzed to justify these two assumptions. The discussion states that "if the sediment contains cohesive material, a combination of buoyancy and suspension may transport the cloud considerable distance from the point of disposal." A sensitivity test should be done to demonstrate how the sediment will behave if a considerable percentage is found to be cohesive.	The State of Florida was involved in the Scoping Process of this study and was invited to comment on the methodology of the study during this process. It was assumed that the final version of the study met with the approval of the State. No modifications of the study are planned at this time. However, the cohesive properties of the material were not measured. A conservative assumption that the silt fraction was cohesive was utilized. Sand cannot be cohesive.	None taken.
54		Appendix I, Section 2: Discussions note that the void ratio taken for silt-clay is 4.0. Please discuss whether sediment samples were analyzed to determine this value. A sensitivity test should be conducted (i.e., taking void ration as 2.0 and running the model set-up) to demonstrate the scenario as a result of the void ration being less than 4.0.	See the response to comment 53 above. Void ratio relates to the properties of the material once it has settled on the bottom and has no bearing on the dispersion characteristics of the suspended sediment plume.	See the action to comment 53 above.
55		Appendix I, Section 2: The time to empty the split-hull dredge is presented as 5 seconds. But in the STFATE model simulation, the model time step is taken as 375-750 seconds for PB and 300-600 seconds for PE (Table 7). Please discuss how a time step of more than 300 seconds simulates the effects of a 5 second disposal (time to empty) time. Also, please clarify any other assumptions you may have taken in this regard.	See the response to comment 53 above. The time step refers to the transport-dispersion phase and not the convective descent or dyanmic collapse. The time step for these initial phases is not an input parameter.	See the action to comment 53 above.

56	FDEP	Appendix I, Section 2: The EIS should provide the reference and other applicable information to justify the values of the model coefficients listed in Table 7 - specifically from CSTRIP down to AKYO.	See the response to comment 53 above. Typical values were used as site specific coefficients were not available.	See the action to comment 53 above.
57		Appendix I, Section 2: In the EIS Figures 36-51 should be drawn showing sediment concentrations up to the grid origin. For example, the higher concentrations in the Figure 41 (lower right), 43 (lower left and lower right), 48 (lower left and lower right), 49 (lower left and lower right), 50 (lower right) generate concerns because they show considerable higher concentrations and do not show the full distance of impact.	See the response to comment 53 above. EPA agrees with the comment, however, the data files are no longer available. The Model Simulation section of the report provides distances at which the concentrations fall below 1 mg/l.	See the action to comment 53 above.
58		Appendix I, Section 3: The appendix notes that LTFATE has the capability to simulate both non-cohesive and cohesive sediment transport. Then the section describes the effects of waves on non-cohesive sediment transport. Cohesive transport was not further discussed. Are cohesive sediments not as important as non-cohesive sediments? If cohesive sediment transport is important, it should be included in future modeling.	See the response to comment 53 above. Cohesive transport is very complex compared to non-cohesive transport. In general, cohesive sediments are more resistant to erosion. As a screening level model did not show that the non-cohesive materials would be significantly eroded, modeling of cohesive materials was not warranted.	See the action to comment 53 above.
59		Appendix I, Section 3: The DPR tidal constituents are used for LTFATE modeling. The EIS should discuss whether any observed time-series of the tidal levels were available for locations near or inside the model area.	See the response to comment 53 above. No observed tidal elevations are available for the project areas.	See the action to comment 53 above.
60		Appendix I, Section 3: The EIS should include discussions to justify the 0.12 mm value used as the mean grain size for the LTFATE modeling. The outer layer of the sediment mound usually consists of finer particles due to their slower settling velocities. These outer layers of finer particles may be more susceptible to ambient currents and turbulent diffusions, thus more prone to spreading.	See the response to comment 53 above.	See the action to comment 53 above.
61		Appendix I, Section 3: It is preferable for analyses to include a sensitivity study with finer grid spacing and smaller time steps demonstrating how the selected models behave with smaller spacing and how the results vary for both the locations.	See the response to comment 53 above.	See the action to comment 53 above.
62		Appendix I, Section 3: For the LTFATE initial screening, the depth average velocities are calculated for 170-200 m depth which is the depth near the ODMDS. The Department is more concerned about re-suspension of the deposits near to the hard bottoms. The higher concentrations shown in Figures 41 (lower right), 43 (lower right), 48 (lower left and lower right), 49 (lower left and lower right), 50 (lower right) etc. show that sediment may travel and/or be deposited near the hard bottom area during the dynamic collapse phase. The bathymetry near the hard bottom area is much shallower with mean depth of around 20 m, where storm surge may become higher due to the shallower depth and higher water velocities may be generated. Please note that Figure 4 shows shallower depths than the considered 170-200 m near the ODMDS site.	See the response to comment 53 above. EPA disagrees with these conclusions. The referenced figures show concentrations during the transport-dispersion phase 5,000 meters (2.7nm) from the reefs. The existence of suspended material does not indicate that measureable deposition will occur. Measurable deposition outside of the disposal site is not expected. Analysis of resuspension outside of the site boundaries is therefore not warranted.	See the action to comment 53 above.

63	FDEP	Appendix I, Section 3: The EIS should provide the reference and other applicable information to justify the values of the model coefficients listed in Tables 8-9.	See the response to comment 53 above. References are provided in the text of the report.	See the action to comment 53 above.
64		Appendix I, Section 4: The conclusions state that the primary concern when modeling dispersion was movement toward reefs 1-3 km offshore. The NEPA documents should address possible impacts to smaller discrete resources such as Oculina and other deepwater corals that could be in the impact area.	Noted. The EPA and USACE concur with this comment.	Text added to Section 4.3.4 Criteria #3.
65		Appendix I, Section 4 states twice that "the majority of the sand in the dredged material . . . but some remains in the water column for longer time/distances as indicated by these results." NEPA documents should use explicit/defined description and avoid the use of non-descript words such as "some" and "longer time/distances."	See the response to comment 53 above. Section 4 is the report conclusions. The terms are quantified in the results (figures 36-51).	See the action to comment 53 above.
66		Appendix I,J,K: The EIS should provide the site capacities of the ODMDSs. The capacity limit and an estimated mound size should be used in the LTFATE modeling.	Project size limits are detailed in the SMMPs (see Appendix J). The size limits are based on modeling performed by WES (now ERDC).	None taken.
67		The EIS should discuss how the annual average disposal rates are determined, expected use or past disposal events. The DEIS should reflect a disposal rate determined by the anticipated use, such as the proposed disposal of 2 million cy to improve PBH. It seems unrealistic to use such a low annual average disposal rate (50,000 cy) when much larger disposal projects have been forecast. The NEPA documents should also discuss the percentage of material in the planned dredging projects that will actually be disposed of in the ODMDS.	See response to comment 22 above.	See action to comment 22 above.
68		Appendix J, p. 4: The SMMP should include general guidelines to eliminate or minimize impact when dredging and disposal of dredged material should be avoided such as periods of strong currents or eddies as indicated by ADCP data.	See response to comment 16 above	None taken.
69		Appendix J, p. 8: The baseline monitoring surveys and environmental surveys should be overlapping covering the entire ODMDS, no data gaps. The surveys should continue at leat 0.5 mi or at least the maximum predicted impact area around the site, not 500 feet as suggested in the SMMP.	It is unclear as to whether the State is asking for additional baseline monitoring. The State will be consulted on revisions to the SMMPs. No data gaps exist in the baseline monitoring that EPA is aware of. As deposition outside of the disposal site boundaries is not expected, extension of bathymetry surveys 0.5 nm beyond the boundaries is not warranted.	None taken.

70	South FL Regional Planning Council	The DEIS should be reviewed for consistency with the following goals and policies: 1. Enhance and preserve natural system values of South FL's shorelines, estuaries, benthic communities, fisheries, and associated habitats. 2. Enhance and preserve natural shoreline characteristics through requirements resulting from the review of proposed projects and in the implementation of ICE through prohibition of structural shoreline stabilization methods except to protect existing navigation channels, maintain reasonable riparian access, or allow an activity in the public interest as determined by applicable state and federal permitting criteria. 3. Enhance and preserve benthic communities, including but not limited to seagrass and shellfish beds, and coral habitats, by allowing only that dredge and fill activity, artificial shading of habitat areas, or destruction from boats that is the least amount practicable, and by encouraging permanent mooring facilities. Dredge and fill activities may occur on submerged lands in the FL keys only as permitted by the Monroe County Land Development Regulations. It must be demonstrated pursuant to the review of the proposed project features that the activities included in the proposed project do not cause permanent, adverse natural system impacts. 4. Enhance and preserve habitat for endangered and threatened marine species by the preservation of identified endangered species habitat and populations. For threatened species or species or critical concern, on-site preservation will be required unless it is demonstrated that off-site mitigation will not adversely impact the viability or number of individuals of the species.	See the response to comment 25 above.	See the action to comment 25 above.
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75	NMFS	NOAA Fisheries is concerned the proposed work could adversely impact resources for which we have management and stewardship responsibilities pursuant to provisions of the Fish and Wildlife Conservation Act and the Magnuson-Stevens Act. The proposed project is located in areas identified as EFH by the SAFMC. EFH categories in the area include marine water column, coral, hardbottoms, sargassum, sand habitats, the US Continental Shelf, and the upper regions of the continental slope. Hardbottom areas are designated as EFH by the SAFMC for juvenile and adult red and gag grouper, gray and mutton snapper, white grunt, penaeid shrimp, tilefish, and spiny lobster. Coral reef habitat has been designated as EFH for juvenile and adult red and gag grouper, gray and mutton snapper, white grunt, and spiny lobster. The marine water column has been designated as EFH due to is importance as a nutrient and organism transport medium. Sargassum has been designated as EFH for sea bass, jack, and marbled grouper. Sand bottom has been designated as EFH for juvenile lane snapper and adult and subadult brown shrimp, juvenile and adult gag grouper.	Noted.	EFH Assessment developed.

75 (c.)	NMFS	NOAA fisheries has also identified EFH for highly migratory species that utilize the water column in this area including nurse, bonnethead, lemon, black tip, and bull sharks. Federally managed species associated with the US Continental Shelf and its upper regios include golden crab and royal red shrimp. See the 1998 comprehensive amendent to the SAR's FMP for more information.	(See above response.)	(See above action.)
76		Sargassum, coral, and coral reef (including Lophelia and Enallopsammia corals) and hardbottom habitats (including deepwater hardbottom habitats), which are located within the vicinity of the proposed ODMDSs, have been designated as HAPCs by the SAFMC. HAPCs are subsets of EFH that area rare, particularly susceptible to human-induced degradation, especially ecologically important, or located in an environmentally stressed area. Contrary to information in Section 4.9, HAPCs area located within the ODMDSs.	Noted.	Statement in section 4.9 removed and EFH Assessment developed.
77		The EFH assessment has not been made available for review. The EFH assessment should include a description of the proposed action; an analysis of the effects (including indirect and cumulative effects) of the action on EFH, managed species, and associated species by life history stage; EPA and USACE views regarding the effects of the action on EFH; and proposed mitigation. The EFH assessment should also include the results of site-specific studies, the views of recognized experts on impacts to habitats and species, a literature review, and any other relevant information.	An EFH Assessment has been prepared to address NOAA concerns regarding the projects compliance with the MSA.	EFH Assessment developed.
78		NOAA is especially concerned regarding the inadequacy of the asessment of potential impacts to deepwater habitats. In the absense of an adequate EFH assessment for these habitats, it would not be possible to determine whether the fishery conservation requirements of the Magnuson-Stevens Act would be met and NOAA Fisheries would have no recourse but to recommend withholding ODMDS approval. Consequently, it is of great importance that the EFH assessment contains the required contents and an adequate level of detail. It also should include quantitative impact estimates based on available information and ongoing and completed studies for each category of EFH. The EFH assessment should also include an evaluation of the deepwater survey results and information regarding efforts to avoid and minimize impacts to deepwater habitats. NOAA encourages providing the EFH assessment as a supplement to the DEIS.	See response to comment 77 above	See response to comment 77 above
79		Section 3.6 EFH: NOAA is concerned that the information provided is insufficient to demonstrate that avoidance and minimization of adverse impacts to EFH have been adequately addressed. To address this, an EFH assessment should be prepared and provided for NOAA Fisheries review.	See response to comment 77 above	See response to comment 77 above

80	NMFS	Table 1: In the absence of an EFH assessment, NOAA Fisheries does not concur with information in this table regarding the assertion that EPA is in full compliance with the Magnuson-Stevens Act.	An EFH assessment is being prepared to address NOAA concerns regarding the projects compliance with the MSA.	An EFH assessment has been prepared and was submitted to NMFS on 15 July.
81		Pages 20-23: The DEIS states that "no natural reefs have been observed within the proposed project area." Although this area may not support reef-like features, the deepwater hardbottoms and softbottoms, and shelf edge zone are inhabited by managed fishes, such as snappers, groupers, and porgies. Fish distribution is often diffuse in this zone, with fishes aggregating over broken bottom relief in associations similar to those formed at inshore live bottom sites. The lower shelf habitat has a predominantly smooth mud bottom, but is interspersed with rocky and coarse gravel substrates where groupers and tilefish may occur. This habitat and its associations of fishes roughly marks the transition between fauna of the Continental Shelf and fauna of the Continental Slope. Water depths within this habitat zone range from 110-183 m and bottom water temepratures vary from approximately 11-14 degrees C. Fishes inhabiting the deeper live or hardbottom areas are beleived to be particularly susceptible to heavy fishing pressure and environmental stress.	Noted. The EPA and USACE concur with this comment. This concern will be addressed in the EFH assessment.	See the action to comment 80 above.
82		Pages 20-23: Water depths at the ODMDSs are within the harvest range of blue-line tilefish. According to local fishers, tilefish prefer certain sediment types and NOAA Fisheries is concerned that alterations of the sediment type found in the ODMDSs could adversely affect the tilefish fishery in this region. Therefore, impacts to the tilefish habitat and other deepwater habitats should be evaluated in the EFH assessment.	Noted.	None taken.
83		Page 60: NOAA Fisheries recommends that General Criteria #1 be re-evaluated in the EFH assessment to address impacts to the existing tilefish fishery.	Based on the EFH Assessment (see Appendix I), no modification to General Criteria #1 is warranted.	None taken.
84		Page 67: NOAA Fisheries recommends that Criteria #8 be re-evaluated in the EFH assessment to address impacts to the existing tilefish fishery.	See the response to comment 44 above.	See the action to comment 44 above.
85		Pages 23 and 80: NOAA Fisheries concurs with information in the DEIS regarding acknowledgment that ahermatypic corals are found in deeper waters. According to the information provided, video surveys performed by CSA did not reveal the presence of deepwater corals at the preferred PB ODMDS. However, based on the information provided, NOAA Fisheries is concerned that this study may have been limited to the examination/identification of Oculina reefs. A summary of the methods used and survey findings should be provided in the EFH assessment. The findings appear to contradict information provided in Section 4.11 of the DEIS, regarding the identification of ahermatypic corals observed in scattered, isolated forms in the vicinity of the proposed PB site.	See the response to comment 20 above.	See the action to comment 20 above.

86	NMFS	Pages 23 and 80: NOAA notes that results of deepwater surveys offshore of Broward County performed in connection with the Calypso pipeline project, documented the presence of deepwater corals. Unbranched black corals are relatively common in 70-100 ft waters off Broward County; however, branched species are relatively rare and are substrate limited in water depths of 100-1000 ft. All species are characterized by slow growth, delayed first reproduction, limited larval dispersal, and low rates of recruitment, low natural adult mortality, and long life. Black coral colonies inhabit areas where few other species occur. They provide important habitat for invertebrates and fish, including commensal species dependant upon black coral for survival. Therefore, NOAA Fisheries considers avoidance of these resources as an important conservation biology issue and recommends that the ODMDS designation should be designed to avoid antipatharians and other sensitive deepwater habitats. Avoidance and minimization strategies for the aforementioned deepwater habitats should be clearly described in the EFH assessment.	Noted. The EPA and USACE concur with this comment.	See the action to comment 80 above.
87		Appendix D: NOAA Fisheries is concerned that the 250 m transect is too wide to provide the level of coverage needed to conclude that impacts to deepwater habitats would be avoided and minimized through use of the preferred site. Transects spaced 100 m apart are preferred for detection of deepwater habitats.	EPA disagrees. The transect spacing and range setting utilized provided 200% coverage (100% overlap). A range of 100 meter would have required flying the towfish at approximately 10 meters above the bottom. Due to the depths and currents at the sites, 10 meters was not sufficient clearance to assure the towfish would not be damaged due to impacts with the bottom. With the settings utlized, EPA was able to identify hard bottom habitats.	None taken.
88		Appendix D: Sidescan sonar mosaics of the route should be provided which show 1) the proposed ODMDS; 2) the locations of hardbottom that would be impacted; 3) the location of known fishery habitats and resources within the surveyed areas. This information is necessary to evaluate impacts to these resources.	EPA agrees that these maps would be useful.	Maps have been included with EFH Assessment.
89		Appendix D: While additional side scan sonar surveys may not be necessary, the EPA and USACE should reevaluate any possible features with photo or video at the preferred site (i.e., the ridge at the PE4 mi site and the possibility of Oculina within 1.7 nm of the PB 4.5 mi site).	The rubble and ridge features were previously photodocumented by CSA (1986). The Oculina has been previously documented by Reed (1980).	Additional discussion of the video surveys is provided in Section 3.18 of the EIS and in the EFH Assessment.

90	NMFS	Appendix D: The report does not define "low relief" as described in the PE 4mi site. These low areas could support important marine habitats. According to the survey, the PE 4 mi site and surroundings contained numerous unidentified highly reflective objects. NOAA believes these areas could support hardbottom habitats including deepwater corals. The level of information provided does not give reasonable assurance that impacts to federally managed resources would be avoided and/or minimized to the maximum extent possible.	Low relief is characterized as acoustic returns without sufficient shadows to determine an object height. This was estimated to be less than 0.5 meters. The highly reflective objects were located outside the disposal site boundaries.	Additional information is provided in the EFH Assessment.
91		The results of additional video-truth surveys should be provided in the EFH assessment. Low relief areas and highly reflective areas should also be quantitatively and qualitatively described in the EFH assessment.	Noted.	The EFH Assessments include additional descriptions of the survey results.
92		Page 36: NOAA concurs with EPA's concern regarding the fate of dredged material placed at the proposed ODMDSs due to their proximity to the Gulf Stream and spinoff eddies. Large numbers of marine species are concentrated along the frontal boundary of the Gulf Stream, which is important as a distribution mechanism, especially for early life stages, as are frontal zones and upwelling areas as foraging habitat.	Noted. The EPA and USACE concur with this comment.	None taken.
93		Page 36: It appears that time averaged and prevailing currents were used in the dredged material distribution studies. While this is useful, the EFH assessment should acknowledge and discuss eddies that may potentially redistribute this material to important marine habitats.	20 minute averaged currents were utilized. This is short considering the time scales of disposal plumes and should be sufficient for characterizing advection and dispersion during eddy events.	The EFH Assessments address the potential for eddy transport shoreward.
94		The EFH assessment should also address potential adverse effects to marine organisms that use the Gulf Stream for distribution or as foraging habitat. Associated measures that would be integrated into the project design to mitigate for such impacts also should be addressed.	Noted.	The EFH Assessments address potential impacts to marine organisms that use the Gulf Stream and discusses mitigation.
95		Page 60, General Criteria #2: NOAA is concerned that the response neglects consideration of spinoff eddies and we recommend that the response be reevaluated to address spinoff eddies and possible transport of sediments to important marine habitats. This information should be provided in the EFH assessment.	See the response to comment 16 above.	See the action to comment 16 above.
96		Page 3: The DEIS states that the suitability of dredged material destined for ocean disposal will be determined on a case-by-case basis. NOAA recommends that evaluation criteria be developed and provided for emergency review. This information should also be provided in the EFH assessment.	Evaluation criteria for review of suitability of dredged material for ocean disposal are clearly outlined in the EPA/USACE publication *Evaluation of Dredged Material Proposed for Ocean Disposal* (Office of Water Publication WH-556F). These criteria are always adhered to for disposal operations. Inclusion of these criteria in the EFH assessment is not deemed necessary.	None taken.

97	NMFS	P. 74-76: NOAA is concerned that the cumulative impacts section is overly narrow and omits several important projects in Broward and Palm Beach counties. The Hillsboro Inlet dredging project should be included in Section 4.5.1. Individual beach renourishment projects and associated offshore dredging and inshore filling activities should be described in this section also. The Seafarer Pipeline project should be listed in Section 4.5.3. Although the DEIS acknowledges that pipeline activities are proposed, it lacks discussion of effects to projects and potential synergistic or cumulative effects.	See response to comment 23 above. Associated offshore dredging at Port Everglades and Palm Beach Harbors will be discussed in this section. Beach renourishment projects involve nearshore placement and as such (as with the Hillsboro Inlet project) are outside the scope of this project.	See response to comment 23 above.
98		The EPA and USACE should prepare an EFH assessment for NOAA review. The assessment should contain: A. A description of the proposed action, including the proposed transport and disposal methods; B. An analysis of the effects of the action on EFH, managed species, and associated species by life history stage, including the following: i. Direct, indirect, and cumulative effects; ii. Effects of the proposed action on important marine habitats including deepwater habitats; iii. Effects on managed species including shellfish; iv. Effects on infauna and epifauna prey species of managed fisheries. C. EPA and USACE views regarding the effects of the action on EFH; D. Proposed mitigation; E. The results of site-specific studies, the views of recognized experts on the habitat or species effects, a literature review, and any other relevant information including: i. Side scan sonar video or photo identification and a reevaluation of side scan sonar surveys that quantify deepwater habitat impacts and define and characterize terms such as low relief and highly reflective areas; ii. An evaluation of spinoff eddies and associated potential sediment transport to important marine habitats; iii. A summary of the CSA deepwater video survey methods and findings.	Noted.	The EFH Assessment was developed.
99		The EPA and USACE should develop evaluation criteria in concert with NOAA and other agencies to determine the decision sequencing and suitability requirements of the materials to be disposed offshore.	See response to comment 96 above.	See action to comment 96 above.
100		EPA approval of ODMDS designation should be withheld pending receipt of an EFH assessment and other information needs as identified by NOAA. Based on our review of pending information, NOAA may provide additional EFH conservation recommendations.	EPA agrees.	Site designation (rulemaking) will not occur until EFH consultation has been completed.

101	NMFS	The Magnuson-Stevens Act and NOAA's implementing regulation require a written response to this letter within 30 days of receipt. An interim response should be provided if a substantive response is not possible. A detailed response must be provided at least 10 days prior to final approval of the action. The detailed response must include a description of measures proposed by your agency to avoid, mitigate, or offset the adverse impacts of the activity. If your response is inconsistent with our EFH conservation recommendations, you must provide a substantive discussion justifying the reason for not following the recommendation.	An interim response was provided within 30 days of receipt of NOAA comments.	An interim response was provided to NOAA.on June 2, 2004.
102		The project area is within distribution limits of federally listed species under purview of NOAA. It is the responsibility of the appropriate federal regulatory agency to review its activities and programs and identify any activity or program that may affect endangered or threatened species or their habitat. Determinations involving species under NOAA jurisdiction should be reported to our Protected Resources Division. If it is determined that the activities may adversely affect any species listed as endangered or threatened and under NOAA purview, then formal consultation must be initiated.	EPA agrees and has conducted such review. EPA determined that designation will not affect any threatened or endangered species. EPA sought comments from NOAA Fisheries regarding this determination. NOAA's response is included in the Final EIS.	None taken.
103	National Geodetic Survey	All available geodetic control information about horizontal and vertical geodetic control monuments in the subject area is contained on the NGS's website. This information should be reviewed for identifying the location and designation of any geodetic control monuments that may be affected by the project.	The NGS website will be queried for identification of any monuments in the vicinity of the preferred sites.	The NGS website was queried for any monuments within one mile of all boundaries of the PB 4.5-mile site and the PE 4-mile site. According to the website query, no monuments exist in the areas specified.
104		If any planned activities will disturb of destroy these monuments, NOS requires not less than 90 days' notification in advance of such activities in order to plan for their relocation. NOS recommends that funding for this project include the cost of any relocations required.	No monuments were identified by the NGS website query; therefore it is assumed that no monuments will be impacted by any project activities.	None taken.
105	Palm Beach County	PBC supports establishing ODMDSs in deeper water provided they are the last option used for disposal; however we are concerned and offer the below comments.	PBC's concern is duly noted.	None taken.
106		We are very concerned about the alternative disposal issue. It should be a requirement that any material that is beach compatible be used for beach nourishment or for building up nearshore berms. While the EIS indicated that beach compatible material would not be disposed offshore, we request that a clear definition of beach compatibility be included in the document.	The State of Florida's definition of beach compatibility material will be added to the EIS.	The State of Florida's definition of beach quality material has been added to the EIS.

107	Palm Beach County	The EIS compared offshore disposal to upland disposal and concluded in all cases that offshore disposal is cheaper. However, use of non-beach compatible material to fill dredged holes in Lake Worth Lagoon was not evaluated and we request that additional analysis be conducted. We are concerned that the lower cost of ocean dumping would preclude the use of dredged material for beneficial uses and request that environmental benefits of the beneficial use be included in the cost/benefit analysis. PBC is currently involved with the USACE in using PBH dredged material for environmental restoration and expects that similar projects would be feasible and desirable in the future. While these inshore restoration projects may be more expensive than offshore disposal, the environmental benefit would likely outweigh any additional costs.	See the response to comment 17 above.	See the action to comment 17 above.
108		The draft states that the rates of disposal of material is estimated at ~50,000 cy/year; yet elsewhere typical projects were described as ranging from 14,000-179,000 cy. Lastly, a maximum of 500,000 cy/project was set, and this amount is far larger than the estimated annual disposal amount. Are larger projects anticipated? Is this larger limit related to the statement that the disposal area will be opened up to other federal entities and private dredging projects? We are concerned as to what will be the amounts disposed offshore with this range of numbers provided.	See the response to comment 22 above.	See the action to comment 22 above.
109		The dispersal models provided information on the potential dispersal of materials of a given makeup. We recommend that if the characteristics of potential disposal material is not within the range of the parameters used for modeling, then the model should be rerun using the differing characteristics before decisions concerning disposal are made.	The EPA and USACE believe that the model runs accurately represent the material to be deposited at the sites. The model is conservative and used different parameters at each site to capture the variability of material in Palm Beach and Port Everglades Harbors.	None taken.
110		The data detailing the environmental resources that could be buried in the disposal site has a number of blank areas. Additional studies need to be conducted before concluding that there will be no reef impacts. Reef mounds of Oculina coral are in the deeper zones and are very productive communities. We recommend that the gaps in the 100 kHz sidescan sonar survey be filled in and that the disposal area vicinity also be scanned using 400 kHz sidescan for higher resolution. ROV video monitoring should be conducted in the vicinity of any sidescan anomalies to verify absence of reefs and corals.	The data gaps are only in the electronic record. The sidescan sonar surveys provide 100% overlap (200% coverage). Paper records are available for all electronic data gaps. Rubble areas within the PE-4 Mile site have been characterized by video and still camera surveys.	See the action to comment 18 above.
111		Appendix E should include recognition that PBC usually has the highest number of leatherback nests and the second highest number of loggerhead and green turtle nests in the continental US.	This information will be added to Appendix E.	The information was added to Appendix E.
112		Our recommendations are that additional sampling is required to ensure that coral reefs will not be impacted; alternative disposal on or near beaches and/or lake Worth Lagoon deep holes be required for all compatible material (regardless of cost) prior to approving offshore disposal.	See the response to comment 20 regarding sufficiency of existing survey data. See the response to comment 17 regarding beneficial use of dredged material.	None taken.

113	Palm Beach County	If offshore disposal occurs, then more safeguards for dumping should be required. Disposal 4.5 nm offshore can be influenced by speeds and directions of the current. We recommend that the disposal pattern be modified in that south half of the site be targeted for north currents (and v.v.) with the southernmost 1/4 being used for stronger north currents to allow for dispersal of materials within the dump site. This will require the vessel to slow upon approaching the dumping site to ascertain current condition before commencing dumping. In addition, by not focusing dumping on one spot, the potential for stacking the material on resources is minimized.	See the response to comment 16 above. In addition, surface currents are not always indicative of subsurface currents. Surface currents and vessel track could be influenced by wind. Relying solely on the vessel's interpretation of current velocity could result in material being deposited outside the disposal site boundaries. The large amount of dispersion at these depths and the current variability is expected to result in variablity of mound placement. However, it is also desirable to maintain the disposal mound within the disposal site. Therefore, disposal should occur near the center of the disposal site.	None taken.
114	SAFMC	The array of large-scale and long-term beach dredging projects and related disposal activities currently being considered for the US southeast together constitute a real and significant threat to EFH under SAFMC jurisdiction.	Noted.	None taken.
115		The cumulative effects of these projects have not been adequately assessed, including impacts on public trust marine and estuarine resources, use of public trust beaches, public access, state and federally protected species, state critical habitat, SAFMC-designated EHz and EFH-HAPCs.	Cumulative effects of projects on marine resources will be addressed in the EFH assessment.	See the action to comment 80 above.
116		Individual beach dredge and fill projects and related large-scale coastal engineering activities rarely provide adequate impact assessments or consideration of potential damage to fishery resources under state and federal management. Historically, emphasis has been placed on the logistics of dredging and economics, with environmental considerations dominated by compliance with the ESA for sea turtles, piping plovers and other listed organisms. There has been little or no consideration of hundreds of other species affected, many with direct fishery value.	Noted.	None taken.
117		Opportunities to avoid or minimize impacts of beach dredge and fill activities on fishery resources, and offsets for unavoidable impacts have rarely been proposed or implemented. Monitoring is rarely adequate to develop statistically appropriate impact evaluations.	The EPA and USACE disagree with this comment. Opportunities to avoid or minimize impacts to environmental resources resulting from federal projects area always proposed and considering. Serious consideration is given to monitoring with intent to develop impact evaluations.	None taken.
118		Large-scale beach dredge and fill activities have the potential to impact a variety of habitats across the shelf, including a) waters and benthic habitats near the dredging sites; b) waters between dredging and filling sites; c) waters and benthic habitats in or near the fill sites; d) waters and benthic habitats potentially affected as sediments move subsequent to deposition in fill areas.	Noted.	None taken.

119	SAFMC	Certain nearshore habitats are particularly important to the long-term viability of commercial and recreational fisheries under SAFMC management, and potentially threatened by large-scale, long-term or frequent disturbance by dredging and filling: a) the swash and surf zones and beach-associated bars; b) underwater soft-sediment topographic features; c) onshore and offshore coral reefs, hardbottom and worm reefs; d) inlets.	Noted.	None taken.
120		Large sections of S Atlantic waters potentially affected by these projects, both individually and collectively, have been identified as EFH or EFH-HAPC by SAFMC, as well as the MAFMC in the case of NC. Potentially affected species and their EFH under federal management include: summer flounder (various nearshore waters, including the surf zones and inlets; certain offshore waters); bluefish (various nearshore waters, including the surf zone and inlets); red drum (ocean high-salinity surf zones and unconsolidated bottoms nearshore waters); many snapper and grouper sp. (live hardbottom from shore to 600 ft, and for estuarine-dependent species [e.g., gag grouper and gray snapper] - unconsolidated bottoms and live hardbottoms to the 100 ft contour); black sea bass (various nearshore waters, including unconsolidated bottom and live hardbottom to 100 ft, and hardbottoms to 600 ft); penaeid shrimp (offshore habitats used for spawning and growth to maturity, and waters connecting to inshore nursery areas, including the surf zone and inlets); coastal migratory pelagics [e.g., king mackerel, Spanish mackerel] (sandy shoals of capes and bars, barrier island ocean-side waters from the surf zone to the shelf break inshore of the Gulf Stream; all coastal inlets); corals of various types (hard substrates and muddy, silt bottoms from the subtidal to the shelf break); areas identified as EFH for Highly Migratory Species (HMS) managed by the Secretary of Commerce [e.g., sharks] (inlets and nearshore waters, including pupping and nursery grounds)	Noted.	None taken.
121		Hundreds of species of crustaceans, molluscs, and annelids that are not directly managed, but form the critical prey base for most managed species, are killed or directly affected by large dredge and fill projects.	Noted. The proposed action is not a dredge or fill project.	None taken.

122	SAFMC	Beach dredge and fill projects also potentially threaten important habitats for anadromous fish species under federal, interstate and state management (in particular, inlets and offshore overwintering grounds), as well as essential overwintering grounds and other critical habitats for weakfish and other species managed by the Atlantic States Marine Fisheries Commission (ASMFC) and the states. The SAFMC also identified essential habitats of anadromous and catadromous species in the region (inlets and nearshore waters).	Noted. The proposed action is not a beach dredge or fill project.	None taken.
123		Many of the habitats potentially affected by these projects have been identified as EFH-HAPCs by the SAFMC. The specific fishery management plan is provided in parentheses: all nearshore hardbottom areas (SAFMC, snapper grouper) all coastal inlets (SAFMC, penaeid shrimps, red drum, and snapper grouper) nearshore spawning sites (SAFMC, penaeid shrimps, and red drum) benthic Sargassum (SAFMC, snapper grouper) from shore to the ends of the sandy shoals of Cape Lookout, Cape Fear, and Cape Hatteras, NC; Hurl Rocks, SC; Phragmatopora (worm reefs) reefs off the central coast of FL and nearshore hardbottom south of Cape Canaveral (SAFMC, coastal migratory pelagics) Atlantic coast estuaries with high numbers of Spanish mackerel and cobia from ELMR, to include Bogue Sound, New River, NC; Broad River, SC (SAFMC, coastal migratory pelagics) FL Bay, Biscayne Bay, Card Sound, and coral hardbottom habitat from Jupiter Inlet through the Dry Tortugas, FL (SAFMC, spiny lobster) Hurl Rocks (SC), the Phragmatopoma off the E coast of FL from Cape Canaveral to Broward County; offshore (5-30 m) hardbottom off the E coast of FL from PBC to Fowey Rocks; Biscayne Bay, FL; Biscayne National Park, FL; and the FL Keys National Marine Sanctuary (SAFMC, coral, coral reefs and live hardbottom habitat) EFH-HAPCs designated fro HMS species in the S Atlantic Region (NMFS, HMS)	Noted.	EFH Assessments have been developed that address effects to these habitats.
124		Habitats likely to be affected by beach dredge and fill projects include many recognized in state-level fishery management plans. Examples of these habitats include Critical Habitat Areas established by the NC Marine Fisheries Commission, either in FMPs or in Coastal Habitat Protection Plans.	Noted. The proposed action is not a dredge or fill project.	None taken.
125		Recent work by scientist in E FL has documented important habitat values for nearshore hardbottom habitats often buried by beach dredging projects, is used by over 500 species of fish and invertebrates, including juveniles of many reef fishes. Equivalent scientific work is just beginning in other S Atlantic states, but life histories suggest that similar habitat use patterns will be found.	Noted. The proposed action is not a beach dredgingl project.	None taken.

126	SAFMC	The SAFMC finds that beach dredge and fill activities and related large-scale coastal engineering projects (including inlet alteration projects) and disposal of material for navigational maintenance, threaten or potentially threaten EFH through the following mechanisms: direct mortality and displacement of organisms at and near sediment dredging sites direct mortality and displacement of organisms at initial sediment fill sites elevated turbidity and deposition of fine sediments down-current from dredging sites alteration of seafloor topography and associated current and waves patterns and magnitudes at dredging areas alteration of seafloor sediment size-frequency distributions at dredging sites, with secondary effects on benthos at those sites elevated turbidity in and near initial fill sites, especially in the surf zone, and deposition of fine sediment down-current from initial fill sites Alteration of nearshore topography and current and wave patterns and magnitudes associated with fill movement of deposited sediment away from initial fill sites, especially onto hardbottoms alteration of large-scale sediment budgets, sediment movement patterns and feeding and other ecological relationships, including the potential for cascading disturbance effects alteration of large-scale movement patterns of water, with secondary effects on water quality and biota alteration of movement patterns and successful inlet passage for larvae, post-larvae, juveniles and adults of marine and estuarine organisms alteration of long-term shoreline migration patterns (inducing further ecological cascades with consequences that are difficult to predict) exacerbation of transport and/or biological uptake of toxicants and other pollutants released at either dredge or fill sites	Noted. Some of these comments are not applicable to the project, notably the following: 1) direct mortality and displacement of organisms at and near sediment dredging sites; 2) elevated turbidity and deposition of fine sediments down-current from dredging sites	None taken.
127		The interactions between cumulative and direct (sublethal) effects among the above factors certainly triggers nonlinear impacts that are completely unstudied.	Noted.	None taken.
128		Projects should avoid, minimize, and where possible offset damage to EFH and EFH-HAPCs.	Noted. The EPA and USACE concur with this comment.	None taken.
129		Projects requiring expanded EFH consultation should provide detailed analyses of possible impacts to each type of EFH, with careful and detailed analyses of possible impacts to EFH-HAPCs and state CHAs, including short and long-term and population and ecosystem scale effects. Agencies with oversight authority should require expanded EFH consultation.	This action is concerned solely with the designation of ODMDSs and not with any actual dredging or disposal activities. As such, this comment is not applicable to the project.	None taken.

130	SAFMC	Projects requiring EFH consultation should provide a full range of alternatives, along with assessments of the relative impacts of each on each type of EFH, HAPC and CHAs.	See the response to comment 129 above.	See the response to comment 129 above.
131		Projects should avoid impacts on EFH, HAPCs and CHAs that are shown to be avoidable through the alternatives analysis, and minimize impacts that are not.	See the response to comment 129 above.	See the response to comment 129 above.
132		Projects should include assessments of potential unavoidable impacts, and should include compensatory mitigation for all reasonably predictable impacts to EFH, taking into account uncertainty about these effects. Mitigation should be local, up-front and in-kind, and should be adequately monitored, wherever possible.	See the response to comment 129 above.	See the response to comment 129 above.
133		Projects should include baseline and project-related monitoring adequate to document pre-project conditions and impacts of the projects on EFH.	See the response to comment 129 above.	See the response to comment 129 above.
134		All assessments should be based upon the best available science, and be appropriately conservative so follow and precautionary principles as developed for various federal and state policies.	Noted. EPA and the USACE concur with this comment.	The EFH assessment utilizes the best available science, and is appropriately conservative.
135		All assessments should take into account the cumulative impacts associated with other beach dredge and fill projects in the region, and other large-scale coastal engineering projects that are geographically and ecologically related.	See the response to comment 23 above.	See the action to comment 23 above.
136		The ODMDS sites as proposed will impact areas identified as EFH in the 1998 Comprehensive Amendment Addressing EFH in FMPs of the SAR prepared by the Council. These FMPs include coral, coral reef and live hardbottom habitat, red drum, shrimp, spiny lobster, coastal migratory pelagic species, and the snapper-grouper complex.	Noted.	EFH Assessments have been developed that address effects to these habitats.
137		The proposed activities could have potential adverse effects on areas designated as Efh and EFH-HAPCs by the Council. Categories of EFH found within proximity of the area of proposed activity include the water column, coral and coral reefs, hardbottom areas, Sargassum, sand and soft sediment habitats, the Continental Shelf and upper Continental Slope. The marine water column is important in the transport of nutrients, spawning, larval dispersal and migrating organisms. Coral and coral reef habitat constitutes EFH for juvenile and adult stages of species in the snapper grouper complex and spiny lobster. Hardbottom areas have been designated as EFH for snapper grouper species, including tilefish; spiny lobster and penaeid shrimp. Sargassum constitutes EFH for species in the snapper grouper complex, as well as dolphin. Sand habitats and soft sediments have been designated as EFh for species in the snapper grouper complex and penaeid shrimp. Species associated with the Continental Shelfand upper Slope include golden crab and royal red shrimp, respectively. EFH-HAPCs that would be impacted by the	Noted.	EFH Assessments have been developed that address effects to these habitats.

137 (c.)	SAFMC	proposed activity includeSargassum, coral and coral reefs (including deepwater corals such as Lophelia and Enallopsammia) and hardbottom habitats. The information provided in the DEIS is insufficient to demonstrate that the proposed activities will avoid and/or minimize impacts to EFH.	(See above response.)	(See above action.)
138		The proposed ODMDSs are within the depth range occupied by tilefish which are managed under the Council's snapper grouper FMP. However, no discussion of the potential impacts to the local tilefish fishery were included in the DEIS. According to local fishermen, tilefish prefer certain sediment types. The DEIS includes possible alterations in sediment texture, grain size, and/or chemical composition as one of the unavoidable adverse effects of the proposed activity. Thus the proposed activity has the potential of adversely affecting the local tilefish fishery. These impacts must be evaluated.	Noted.	EFH Assessments have been developed that evaluate effects to tilefish habitats.
139		The DEIS includes results of studies conducted to determine the fate of dredged material disposed at the proposed ODMDSs. These studies were deemed necessary due to the proximity of the proposed activity areas to the Gulf Stream and spinoff eddies. The Gulf Stream has been designated as EFH for many of the species managed by the Council, including those in the snapper grouper complex. It appears that time-averaged and prevailing currents were used in the fate studies and no discussion was included as to how eddies could potentially redistribute this material to other habitats such as nearshore reefs.	Time-averaged currents were not used in the fate studies. Other aspects of this comment are addressed in comment 93 above.	See the action to comment 93 above.
140		The cumulative impacts section of the DEIS is not complete in that it fails to discuss potential synergistic or cumulative effects of other ongoing and planned activities in Broward and Palm Beach Counties. The Council is aware of other projects in the area that were omitted from the DEIS.	See response to comment 23 above. A query was made of open projects in Palm Beach and Broward Counties using the DEP's website. No open projects that may result in cumulative impacts to the area in conjunction with the proposed project were found in the Clearinghouse's database.	See action to comment 23 above.
141		The sidescan sonar survey described in Appendix D was not of adequate resolution to detect the presence of deepwater habitats and evaluate impacts to these habitats. NOAA recommends 100 m transects. Furthermore, the survey indicated the presence of an east west low relief ridge but failed to investigate whether this area contained hardbottom habitat. Underwater videos off BC in the depth range of the proposed activity have shown sparse hardbottom. Also, the presence of numerous unidentified highly reflective objects should be further investigated. Ground truthing with underwater video should be conducted.	See the response to comments 87 to 91 above.	See the action to comments 87-91 above.

142	SAFMC	The Council's Policy for the Protection and Restoration of EFH from Beach Dredging and Filling and Large Scale Coastal Engineering identifies numerous threats to marine and estuarine resources from such activities. The unavoidable adverse effects from the proposed ODMDSs as described in the DEIS encompass many of these threats. The Council's Policy Statement Concerning Dredging and Dredge Material Disposal Sites establishes the Council's role in the designation, operation, maintenance, and enforcement of activities in the ODMDSs.	Noted. EPA encourages the Council and the Council's habitat and Environmental Protection Advisory Panel's review of the Site Management and Monitoring Plans. EPA and the USACE will consider any comments received.	None taken.
143	Bureau of Beaches and Coastal Systems	The Bureau has no specific objections to the designation of the sites. Side scan sonar was used to survey for hardbottom habitat and the modeling conducted by WES seems to assure that turbidity plumes will not affect any nearby reefs. The DEIS makes it quite clear that beach quality material will be placed on the adjacent beaches when included in any maintenance dredging event. Final decisions about where dredged materials will actually be placed will be based upon the descriptions of sediment quality submitted as part of the permit applications to the Bureau.	Noted.	None taken.
144		The DEIS does not include an investigation of other beneficial reuse options, as requested in the Dept.'s Nov 1997 scoping response letter. An exhaustive review was completed of potential upland disposal sites, but no consideration of alternative use of non-beach quality material was found in the document. We have recently been approached about the use of non-beach quality material for use as landfill cover, and recommend that the ports and the USACE discuss the possibility of use of maintenance of dredged material with nearby counties and municipalities as well as the DEP Southeast District office.	See response to comment 17 above.	See action to comment 17 above.
145		The DEP Southeast Office should be consulted on the most recent applications and status on the placement of fiber optic cables and gas transmission lines.	The DEP Southeast Office will be contacted regarding telecommunication cables, fiber optic cables, and gas transmission lines.	Jayne Bergstrom of the Southeast Office (561-681-6661) was contacted regarding locatoins of cables and pipelines in the vicinity of the project area. The information she provided has been incorporated into the appropriate sections of the EIS.
146		The terminology for beach placement should be standardized throughout the document; the Bureau's preferred term is "beach nourishment" as most if not all of the possible placement beaches have been "restored."	The preferred federal term for authorized deposition of dredged material on beaches is "placement." The preferred federal term for other beach deposition activities is "renourishment..	None taken.

147	Bureau of Beaches and Coastal Systems	The first sentence on p. 75 on nutrient loadings from wastewater treatment plant ocean outfalls needs to be revised to make the statement more meaningful, and an appropriate reference should be cited.	The sentence will be changed to address the comment.	The sentence was changed to "Recent studies on the impact of sewage outfalls on marine habitat indicate that nutrient loading would be the likely source of any impacts to the habitat (EPA, 1998)."
148		Some appendices are missing, notably the Biological Assessments, and others are included that are not cited in the TOC.	It is unclear why appendices would be missing from the provided document. All appendices included in the EIS were cited in the TOC. Future versions of the document will be checked to ensure that this remains the case.	The document was checked to ensure that all referenced appendices were included and all included appendices were referenced in the TOC.
149		We have previously requested that the USACE revise its statement on coastal zone consistency with Ch. 161, FL Statutes in all documents. Ch 161 is much more than the stated regulation of construction projects seaward of mean high water. It includes the state's long term Strategic Beach Management Plan and its associated inlet management plans, as well as authority with regard to activities proposed seaward of the Coastal Construction Control Line. We would be happy to meet with the USACE to revise this section to assure that future planning activities adequately consider the full range of programs included in Ch 161 and FL's Coastal Zone Management Program.	The consistency statement for Ch. 161 will be updated in the Final EIS to reflect the concerns stated in this comment. The concerns regarding other USACE documents are beyond the scope of this project.	The consistency statement for Ch. 161 was updated.
150	Mara Shlackman	The DEIS is only for the dumpsite, not for what is being put in the dumpsite. This raises concerns since they will be dredging the port and surrounding canals and dumping it in the ocean. Aspergillus and other diseases such as Pfisteria could be spread in the dredged mud. Large amounts of petroleum, chemicals, mercury and contaminated materials may be in port dredge materials.	See the response to comment 96 above.	See the action for comment 96 above.
151		Endangered species use the proposed dump area.	Consultation has been initiated with NMFS regarding endangered and migrant species. See comments 5 and 6 above and their responses.	See the actions to comment 5 and 6 above.
152		Cumulative water quality issues include sewer outfall, ocean dumping, and cruise ship dumping.	See the response to comment 23 above.	See the action to comment 23 above.
153		Upland disposal sites were not a viable option for the placement of dredged materials from Port Everglades; they were considered environmentally valuable.	Noted.	None taken.
154		Ocean dump sites were more cost effective than upland disposal.	Noted.	None taken.
155		The site may also be an option for dumping from other Federal or private dredging projects.	Noted. This issue is addressed in Sections 1.2.4 and 4.5.	None taken.

156	Mara Shlackman	Areas of controversy identified during the process include proximity to nearshore reefs and the potential for transport of fine-grained material to these reefs, proximity to other significant marine resources and the frequency and cost of monitoring effects of the disposal at the proposed sites.	Noted.	None taken.
157	SHPO	It is the opinion of this office that it is unlikely that selection of the two preferred ODMDSs above will affect archaeological or historical resources eligible for listing on the NRHP, or otherwise of significance; therefore the project appears to be consistent with the historic preservation aspects of Florida's Coastal Zone Management Act, the NHPA and NEPA.	Noted. EPA and the USACE concur with this comment.	None taken.