EIS
SUB-APPENDIX A

PERTINENT CORRESPONDENCE

FINAL
FEASIBILITY REPORT
AND ENVIRONMENTAL IMPACT STATEMENT
PORT EVERGLADES HARBOR NAVIGATION STUDY
BROWARD COUNTY, FLORIDA

United States Department of the Interior

OFFICE OF THE SECRETARY

Office of Environmental Policy and Compliance
Richard B. Russell Federal Building
75 Spring Street, S.W.
Atlanta, Georgia 30303

ER 13/0465
9043.1

August 13, 2013

Ms. Terri Jordan-Sellers
U.S. Army Corps of Engineers
701 San Marco Boulevard
Jacksonville, FL 32207

Re: Comments on the Draft Environmental Impact Statement (DEIS) for Port Everglades Harbor Navigation Improvements; Broward County, Florida

Dear Ms. Jordan-Sellers:

The U.S. Department of the Interior (Department) has reviewed the Draft Environmental Impact Statement (DEIS) for Port Everglades Harbor Navigation Improvements in Broward County, Florida. We have no comments at this time.

If you have questions or need additional information, I can be reached at (404) 331-4524 or via email at joyce_stanley@ios.doi.gov.

Sincerely,

Joyce Stanley, MPA
Regional Environmental Protection Specialist

cc: Jerry Ziewitz – FWS
Gary Lecain - USGS
Anita Barnett – NPS
Chester McGhee – BIA
OEPC – WASH

South
Florida
Regional
Planning
Council

August 13, 2013

Ms. Terri Jordan-Sellers
U.S. Army Corps of Engineers
701 San Marco Blvd.
Jacksonville, FL 32207

RE: SFRPC#13-0602, Army Corps of Engineers FL# 2013-0626-6640C, Feasibility Study and Draft Environmental Impact Statement for navigation improvements to the Port Everglades Harbor in Broward County.

Dear Ms. Jordan-Sellers:

The Port Everglades Harbor Feasibility Study was initiated in 2001 with a primary purpose of investigating improvements to the Federal navigation project at Port Everglades. Proposed improvements focused on ways to 1) decrease costs associated with vessel delays from congestion, channel passing restrictions, and berth deficiencies through the year 2060; 2) decrease transportation costs through increasing economies of scale for cargo and petroleum vessels through the year 2060; 3) increase channel safety for maneuverability for existing vessels as well as larger next generation vessels requiring more channel depth to operate efficiently; and, 4) comply with USACE environmental operating principles.

We reviewed the above-referenced Feasibility Study and Draft Environmental Impact Statement for the Port Everglades Harbor Channel Expansion Project and have the following comments:

- Port Everglades is a leading container port in Florida, among the most active cargo ports in the United States, and is the main seaport for petroleum products for South Florida. Additionally, the port is one of the three largest cruise ports in Florida; had an economic impact of nearly $26 billion of total business activity in 2012; and, generated $729 million in state and local taxes in 2012.

- The expansion projects at Port Everglades are expected to create 7,000 new jobs in South Florida and support 135,000 new jobs statewide. Today, Port Everglades impacts more than 143,000 Florida jobs, including 10,000 jobs who work directly for companies that offer services to Port Everglades.

- In March 2011, the Broward County Board of County Commissioners unanimously approved the Port Everglades 20-Year Master/Vision Plan that includes market projections and plans for increased berth space to support next generation vessels that require more channel depth to operate efficiently.

- The project should be consistent with the goals and policies of the Florida Department of Environmental Protection's Bureau of Beaches and Coastal Systems, as well as the Broward County's Comprehensive Master Development Plan and its corresponding land development regulations. It is important for the applicant to coordinate permits with all governments of jurisdiction.

3440 Hollywood Boulevard, Suite 140, Hollywood, Florida 33021
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- The project should be closely coordinated with the Broward County's Port Everglades Authority, Broward County Department of Environmental Resource Management, U.S. Fish and Wildlife Service, National Marine Fisheries Service, U.S. Environmental Protection Agency, and all other applicable agencies of jurisdiction.

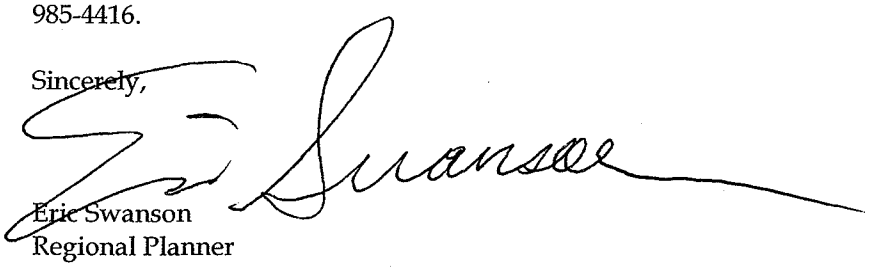
- Staff recommends that, if the Project is authorized: 1) impacts to the natural systems be minimized to the greatest extent feasible and 2) the permit grantor determine the extent of sensitive marine life and submerged communities in the vicinity of the project and require protection and/or mitigation of disturbed habitat. This will assist in reducing the cumulative impacts to native plants and animals, wetlands and deep-water habitat and fisheries that the Goals and Policies of the *Strategic Regional Policy Plan for South Florida (SRPP)* seek to protect.

- The Goals and Policies of the *SRPP*, in particular those indicated below, should be observed when making decisions regarding this project:

GOAL 7	**Protect, conserve, and enhance the Region's water resources.**
Policy 7.7	Require all inappropriate inputs into Natural Resources of Regional Significance to be eliminated through such means as redirection of offending outfalls, treatment improvements, or retrofitting options.
GOAL 16	**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, tropical hardwood hammocks, and the coral reef tract.**
Policy 16.3	Enhance and preserve coastal, estuarine, and marine resources, including but not limited to, tropical hardwood hammocks, mangroves, seagrass and shellfish beds and coral habitats.
Goal 17	**Maintain a competitive, diversified, and sustainable regional economy.**
Policy 17.4	Continue to seek and take advantage of global opportunities that increase diversification of the Region's economy.
Policy 17.5	Support efforts to solidify the role of international trade in the Region, including South Florida's role in the Free Trade Area of the Americas.

Thank you for the opportunity to comment. If you require further information, please contact me at 954-985-4416.

Sincerely,



Eric Swanson
Regional Planner

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

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RICK SCOTT
GOVERNOR

CARLOS LOPEZ-CANTERA
LT. GOVERNOR

HERSCHEL T. VINYARD JR.
SECRETARY

MEMORANDUM

TO: Lauren Milligan, Florida State Clearinghouse Coordinator
Office of Intergovernmental Programs

FROM: Mark Thomasson, P.E., Director, Division of Water Resource Management

Kevin Claridge, Director, Florida Coastal Office

Parks Small, Chief, Bureau of Natural and Cultural Resources
Division of Recreation and Parks

SUBJECT: Department of the Army, Jacksonville District Corps of Engineers
Draft Feasibility Report and Environmental Impact Statement, Navigation Study for Port Everglades Harbor – Fort Lauderdale, Broward County, Florida.
SAI # FL201306266640C

DATE: June 20, 2014

The *updated* Draft Feasibility Report and Draft Environmental Impact Statement (EIS) and the Biological Opinion for the Port Everglades Harbor Navigation Study have been reviewed by the **Division of Water Resource Management** (DWRM). The DWRM staff has been in communication with the U.S. Army Corps of Engineers (USACE) and the Florida Fish and Wildlife Conservation Commission, as well as the Department's Florida Coastal Office and Division of Recreation and Parks, regarding this project for quite a few years, and the Department agreed to become a Cooperating Agency in November of 2007. To date, our efforts to improve the environmental assessment of impacts and to agree on acceptable minimization and mitigation for those impacts have not been entirely successful. We understand the National Marine Fisheries Service (NMFS) has approved a conceptual mitigation plan and has committed to work with this agency to assist in converting their review and scoring to the state required format; however, that has not yet been done. Completion of that effort may satisfy some of the conditions below.

The USACE applied for a major modification to the existing maintenance dredging permit for Port Everglades to include this expansion on July 1, 2013 and subsequently withdrew the application on July 30, 2013. Staff review and comparison of the Draft EIS, permit modification application, and subsequent responses to the draft conditional concurrence determination have raised a number of issues. Previous comments, italicized below, addressed both federal consistency and permitting issues. However, as the modification was withdrawn, the remaining issues are limited to consistency review on the Draft EIS and Feasibility Report.

Since the proposed activities will require state water quality certification in the form of an Environmental Resource Permit and sovereignty submerged lands authorization from the DWRM, as well as the disposition of state-owned lands by the Board of Trustees of the Internal Improvement Trust Fund (Board of Trustees or Governor and Cabinet), the project must meet provisions of Chapters 253, 258, 373 and 403, *Florida Statutes* (F.S.). Should beach placement of sand from the inlet be considered, as proposed in the permit modification application, the provisions of Chapter 161, F.S., shall also apply and a Joint Coastal Permit would be required rather than an Environmental Resource Permit. The DWRM finds the updated Draft EIS and Feasibility Report to be "conditionally consistent" with the Florida Coastal Management Program and makes the following recommendations to provide reasonable assurance that the project will meet state water quality standards, will not be contrary to the public interest, and the use of sovereignty submerged lands and state-owned natural resource lands will meet the requirements for authorization by the Board of Trustees:

1. **Flooding and Flushing Model** – *Deeping the entrance channel, which essentially would increase the cross-sectional flow area, could affect the tidal hydraulics within the confined interior tidal body at a distance from the entrance channel. Should the propagation of the tide through the inlet have the properties of a shallow water wave, the tide range should not be reduced. The celerity of the tide wave would increase where deepened and the timing of the peak current and slack tide would occur earlier away from the entrance channel. Reasonable assurance is required to show that the project will not cause flooding of properties within the confined interior water body. Therefore, provide a flooding model and analysis to evaluate potential inland flooding impacts associated with deepening the channel. On the ebb tide, water is advected seaward through the entrance channel that contains higher concentrations of nutrients and other contaminates compared to levels in the open coast waters. Enlargement of the channel brings the possibility of increasing the flux of these substances out of the inlet and into the coastal waters. Furthermore, the vertical velocity and density structures of tidal flows may be stratified and dependent on the tidal phase. The RMA-2 is a depth averaged model not intended to resolve the vertical features of the channel water column. The field-measurements requested above are necessary to validate the applicability of the RMA-2 model as well as calibrate the model. [§ 373.414(1), F.S.]*

   The USACE responded to the Department's request for flood modeling with a statement that modeling is not required because such modeling for port expansions at Jacksonville, Palm Beach and Miami did not appreciably impact storm surge and, therefore, the USACE concluded that flooding due to port expansion at Port Everglades is not expected. The results of a hydrodynamic model that was not calibrated or verified was referenced as additional support for this expectation of no flooding.

   The DWRM does not agree that this conclusion can be made from the numerical modeling results at these other port projects because the physical site conditions are not similar. The results of the unverified hydrodynamic model are not adequate as

additional support for the USACE conclusion. Similarly, the USACE conclusion regarding the possibility of increasing the flux of nutrients and other contaminants out of the inlet and into the coastal waters is not supported by the hydrodynamic model.

To be consistent, the Department requests hydrodynamic modeling calibrated and verified for Port Everglades that provides adequate engineering data on flooding and flushing. The Department's guidelines for documenting numerical modeling studies can be located on our website, under "Engineering and Reporting Guidelines" at: http://www.dep.state.fl.us/beaches/publications/tech-rpt.htm#Discussion. Data other than numerical models may be considered on a case-by-case basis.

2. **Hardbottom Impacts** – *The Draft EIS does not clearly describe how the hardbottom impact areas were determined. The Draft EIS states that Dial Cordy mapped the area using towed video cameras and benthic assessments; however, no mapping protocols were provided to determine how the mapping was performed. Please provide the estimated acreage of all potential direct and secondary hardbottom impact areas (including the estimated acreage of hardbottom present on the west side slope of the second reef and the east and west side slopes of the third reef) using updated cartographic data (i.e., LADS survey of 2009). Please also provide a formal description of each potential direct and secondary hardbottom impact area with quantitative data on each major functional group (e.g., macroalgae, turf algae, sponges, corals, etc.) and species-indicators (e.g., scleractinian corals, octocorals, etc.), including cover, density, size class distribution, etc., and description of methods used to obtain these data. [§ 373.414(1), F.S.]*

   During permitting, the DWRM will need up-to-date data in sufficient detail for its staff to perform a Uniform Mitigation Assessment Method (UMAM) analysis. The data utilized in the impact assessments, especially in the deeper areas within the channel that were not surveyed (*i.e.*, slopes below -57 ft., and fragments of the third reef within the channel), yet are subject to both direct and indirect impacts, is not sufficient for a UMAM analysis. Although the USACE reports their staff cannot dive in the channel, the state has been to the site and has data showing the high diversity and value of the resources in the channel expansion areas. The impact and mitigation assessment should include these data.

   The applicant will also need to provide a thorough pre-construction survey to accurately classify the habitat and verify the predicted information and potentially adjust mitigation and / or compensatory mitigation allowances.

3. **Mangrove/Seagrass Impacts** – *A map depicting the mangrove and seagrass impact areas was provided in the Draft EIS (Figure 71); however, these areas are difficult to view and evaluate because the scale is small. Please provide a graphic representation of the mangrove and seagrass impact areas with a larger scale. Please show the*

boundaries of the project in relation to the mangrove and seagrass impact areas on the map.

Please provide a detailed description of each mangrove impact area that accurately characterizes the ecological values of the area and functions provided including: types of mangroves, coverage of each type of mangrove, height, general health of the mangroves, coverage and density of nuisance or invasive exotic plant species, wildlife utilization and type of use, and whether any portion of the assessment area has been used as mitigation for a previously-issued permit.

Please provide a detailed description of each seagrass impact area that accurately characterizes the ecological values of the area and functions provided including seagrass species, and the coverage and spatial distribution of each species. Please provide the methodology used to characterize the seagrass areas.

This information was provided in the response, and although the DWRM still has questions and recommendations, these issues could be worked out in the permitting phase.

Secondary Impacts – Identify any secondary impact areas where mangroves and seagrass are in close proximity to the project boundaries. If none are expected, provide an explanation as to how the secondary impacts to these communities will be prevented. [§ 373.414(1), F.S.]

A monitoring plan, designed to measure potential secondary impacts, and an adaptive management plan to cover the associated mitigation, if these impacts should occur, is needed to assure consistency.

4. **Biological Monitoring Plan** – *A detailed Biological Monitoring Plan will need to be provided and, if separate, a Sedimentation and Turbidity Monitoring Plan that measures the biological stress at fixed stations within seagrass and hardbottom resource areas adjacent to the proposed work sites that may experience significant amounts of impact due to turbidity, sedimentation, sloughing or direct physical effects (e.g., anchor or spud placement).*

The provided Miami Harbor monitoring plan is not sufficient to determine potential impacts at Port Everglades. The DWRM worked on and provided a detailed draft of monitoring items needed, including appropriate monitoring locations, appropriate sedimentation monitoring, and appropriate during-construction monitoring to detect potential impacts, including those resulting from excessive turbidity. Our recommendations were not incorporated. A more appropriate monitoring plan which enables accurate detection of project related impacts is required in order to obtain

consistency on this matter. The Department suggests referring to the monitoring plan draft mentioned above. [§§ 373.414(1) and 161.041(4), F.S.]

5. **Minimization of Impacts to Hardbottom and Coral Reef** – *DWRM acknowledges that scleractinian corals greater than 10 cm in height or diameter will be transplanted prior to dredging to minimize direct impacts. Corals of a size class 10 cm to 25 cm are the major reproduction pool, as they have achieved a stage of puberty, and they are two orders of magnitude greater in number than corals of class >25 cm, and an order more in diversity (number of species). To minimize the direct impacts to the greatest extent practicable, DWRM staff recommends that, in addition to transplanting all scleractinian corals greater than 10 cm in height or diameter, at least 2,000 octocorals greater than 15 cm in height and at least 300 sponges (Xestospongia muta, Geodia neptuni, Spheciospongia vesparium and Ircinia strobilina), which includes at least 200 sponges greater than 25 cm in diameter and at least 100 sponges greater than 40 cm in diameter, be transplanted as well. [§ 373.414(1), F.S.]*

   The DWRM documentation on species at the site supports inclusion of additional species in the transplantation plan. The USACE response indicates only transplantation of select coral species and did not include octocorals and sponges which, according to our analysis, does not provide adequate minimization measures for the project. The applicant is required to minimize impacts to natural resources, not exclusively corals. In order to obtain consistency with minimization requirements at the state level, the USACE transplantation plan needs to include corals, octocorals, and sponges of specific size / species.

6. **Mitigation** – *The Draft EIS described two potential mitigation options to offset direct impacts to hardbottom. One mitigation option (preferred by the USACE) involves creation of an artificial reef. The other mitigation option (preferred by the National Marine Fisheries Service) involves coral propagation. To mitigate for hardbottom impacts, DWRM staff prefers a combination of both mitigation plans to offset impacts to reef substrate, and creation of onshore and offshore nurseries for corals, octocorals and sponges to enhance the recruitment in natural hardbottom. Please provide a mitigation plan that incorporates both mitigation options. Please include a section for mitigation that is suitable to address impacts due to turbidity and sedimentation.*

   The mitigation plan needs to include functional offsets based on the Uniform Mitigation Assessment Method (UMAM) for both direct AND secondary impacts. Although UMAM will be conducted by the Department, the correct estimates of direct and secondary hardbottom impacts must be provided beforehand.

   In response to concerns about an all boulder mitigation plan being utilized, the USACE proposed a blended mitigation plan. Although the DWRM is in agreement with a blended mitigation plan, and acknowledges that the NMFS has reviewed the plan and

scored the plan with their Habitat Equivalency Analysis (HEA), we do not have enough information to show that the plan proposed by the USACE adequately offsets direct and secondary hardbottom impacts. We further understand that NMFS has committed to provide their expertise in assisting the DWRM with converting their HEA scoring analysis to the state required UMAM analysis; however, at this time it has not occurred. To obtain consistency on this matter, the mitigation proposal provided during permitting will have to include sufficient detail and proposed mitigation to adequately offset the project impacts. [§ 373.414(1), F.S.]

Degradation to natural communities adjacent to the project area is likely, due to turbidity and sedimentation. The DWRM recommends that the USACE consider up-front mitigation for degradation of a defined area adjacent to the excavation areas. Such a strategy would avoid any additional mitigation associated with time lag related to the post-construction monitoring period, and possibly avoid the additional costs of remobilization to create additional mitigation in the future.

The USACE addressed mitigation of secondary impacts to 2% of the resources adjacent to the channel and to 10% downslope of the -57 ft. dredge limits. For consistency purposes, an adequate monitoring and adaptive management plan that includes the entire area of secondary impacts will be necessary to assure that the predicted / contingency mitigation is adequate. Without these mitigation issues being fully addressed, the Department is concerned that there is not enough money allocated to mitigation and contingency mitigation to adequately offset the adverse impacts of the project, therefore, the USACE's proposed funding amount for mitigation does not adequately reflect the Department's requirement under Chapter 373, F.S., relating to the public interest.

The Draft EIS states that one mangrove functional unit will be created at West Lake Park to offset 1.16 acres of mangrove impacts, and three seagrass functional units will be created at West Lake Park to offset 4.01 acres of seagrass impacts. Please indicate how the amount of functional units was determined through the UMAM. Also indicate how many acres of mitigation will be provided by one mangrove functional unit and three seagrass functional units. Please provide a letter from either the South Florida Water Management District or Broward County authorizing the proposed mitigation at West Lake Park, and a statement that the proposed mitigation is consistent with the overall mitigation plan for West Lake Park. Please provide a detailed mitigation plan for both mangrove and seagrass impacts including maintenance, monitoring and construction sequence and techniques. Staff requires this information to conduct UMAM for each type of impact. [§ 373.414(1), F.S.]

The USACE has provided further details regarding the mitigation calculations. The DWRM still has questions and concerns on the proposed mitigation at West Lake Park, but can address these issues in the permit phase.

Please be advised that further detailed comments regarding coral and hardbottom impacts, assessment, monitoring and mitigation are provided on Pages 8 through 17 of this memorandum by the Department's Coral Reef Conservation Program.

Thank you for the opportunity to comment. For further information and assistance, please contact Dr. Lainie Edwards, Program Administrator, DWRM, at (850) 245-7617.

The Department's **Division of Recreation and Parks** also appreciates the opportunity to participate in the review of this important project. The following condition (provided by staff of the Bureau of Parks District 5, Office of Park Planning, and Bureau of Natural and Cultural Resources) must also be addressed to ensure compliance with the provisions of Chapters 253 and 258, F.S., regarding impacts to state park lands:

7. **John U. Lloyd Beach State Park Impacts:**

   The preferred alternative indicates that the submerged bulkhead would be installed on the east side of the channel. Based on the maps provided, the bulkhead appears to be recommended in a location that would cut across the park's office/shop area. The proposed location would be quite close to several park staff residences and the ground solar array in that same area. The response provided by the USACE on March 27, 2014, indicates that no further minimization or avoidance of impacts to park lands is possible. However, none of the proposed mitigation would provide on-site improvements to offset the impacts (direct and indirect) to the park. Please contact Division of Recreation and Parks staff to discuss opportunities to mitigate for losses to natural resources, visitor recreation experiences, and potential impacts to park facilities.

   If blasting is required during the dredging process or for the placement of sheet pile bulkhead, impacts to imperiled species, fragile submerged habitats, park resources and facilities, and the park visitor experience could occur. Please provide information on how these impacts will be avoided or minimized. If these impacts cannot be avoided or minimized, please provide information on mitigating the impacts.

   Board of Trustees Authorization – As noted in the Draft EIS, impacts to the state park must meet the Board of Trustees' 1988 POLICY FOR INCOMPATIBLE USE OF NATURAL RESOURCE LANDS. If the parties involved in the proposed disposition of state lands (*i.e.*, Board of Trustees, Division of Recreation and Parks, Broward County, and USACE) agree that Broward County should obtain fee-simple titled ownership of the affected bulkhead area, the County would apply to the Department's Division of State Lands to have the area designated as surplus and sold/deeded to Broward County. If it is determined that the Board of Trustees will retain fee-simple ownership, the County would either: apply for a lease from the Board of Trustees for the bulkhead area, apply for a sublease from the Division of Recreation and Parks, or apply for an easement from the Board of Trustees with the Division of Recreation and Parks' consent.

> Any application to use state land which would result in significant adverse impact to state land or associated resources shall not be approved unless the applicant demonstrates there is no other alternative and proposes compensation or mitigation acceptable to the Board of Trustees under § 18-2.018(2)(i), *Florida Administrative Code* (F.A.C.). Any requested use of state land which has been acquired for a specific purpose, such as conservation and recreation lands, shall be consistent with the original specified purpose for acquiring such land in accordance with § 18-2.018(2)(c), F.A.C. Applicants applying for a lease or easement across state land which is managed for the conservation and protection of natural resources shall be required to provide net positive benefit as defined in § 18-2.017(38), F.A.C., if the proposed lease or easement is approved. [§§ 253.03, 253.034 and 253.04, F.S.]

For further information regarding the above condition requirements, please contact Mr. Gregg Walker in the Division of Recreation and Parks at (850) 245-3104.

The Department's **Florida Coastal Office, Coral Reef Conservation Program** (CRCP) staff advises that the provisions of §§ 253.03 and 253.04, F.S., charge the Board of Trustees with the duty to administer and protect sovereignty submerged lands. Chapter 373, F.S., also contains several provisions relating to the public interest in maintaining fishing and recreational values as well as conserving fish and wildlife resources in surface waters and wetlands of the state [§§ 373.414(1)(a)2, 4 and 7, F.S.]. Rule 68B-42.009, F.A.C., explicitly prohibits the take, destruction or sale of marine corals and sea fans. Section 403.93345, F.S., the *Florida Coral Reef Protection Act*, provides for protection of coral reefs and associated reef resources on sovereignty submerged lands off the coasts of Martin, Palm Beach, Broward, Miami-Dade and Monroe Counties. Under this law, the Department is authorized to protect coral reefs through timely and efficient assessment of damages, including civil penalties, resulting from vessel impacts (*e.g.*, anchoring, cable drags, grounding) to coral reefs.

The CRCP finds the Draft EIS and Feasibility Report to be "conditionally consistent" with the Florida Coastal Management Program and makes the following recommendations:

1. **Analysis of Direct and Indirect Impacts.**

   a. **2006 USACE Reef and Hardbottom Survey:** Previously submitted comments regarding the 2006 reef, hardbottom surveys, and channel habitats remain unaddressed. Surveys conducted in the Port Everglades Outer Entrance Channel (OEC) by the Department's DWRM indicate a high species diversity and abundance of scleractinian corals presence in the channel and on the channel walls. Documentation and photos of rich coral community inside the OEC have been provided to the USACE. Without accurate surveys, benthic organism impacts cannot be accurately determined.

The Draft EIS states that, "*Little information has been collected on the biota of the channel and adjacent zones due to the hazard of sampling this area.*" Hazards listed include frequent vessel traffic and substantial currents, both of which could be overcome by a coordinated effort. Communication with the Port, vessel pilots, and U.S. Coast Guard (including topside support from the USCG Auxiliary), could be achieved and would reduce and mitigate vessel traffic issues.

While it is accurate that there are substantial currents in the area, they are frequent and considered to be standard working conditions for the entire region. Additionally, updated *in situ* habitat surveys need to be conducted, including sites that are actually within the Outer Reef direct impact area to accurately quantify the benthic organisms. As this area is not officially in the navigable channel, it is not clear why there are restrictions on USACE contractors being *in situ* to survey this area.

b. **Direct impacts adjacent to and below actual dredging depth:** In June 2008, the USACE informed the NOAA National Marine Fisheries Service (NMFS) that coral reefs located deeper than authorized dredging depth, but still within the proposed expansion to the federal channel would be considered indirect impacts. The Department's CRCP staff respectfully disagree with the USACE conclusion; we believe that coral reefs located within the federal channel that are not dredged but are immediately adjacent to (or below) the dredging depth would be severely and permanently injured through the physical processes of rubble movement and the consistent scouring from vessels transiting the channel. Additionally, these areas will be permanently impacted due to the proposed post-dredging operations and maintenance whereby, "*a drag bar, chain, or other item may be pulled along the channel bottom to smooth down high spots and fill in low spots.*"

These direct impacts are not precisely described in the Draft EIS and should not be included in the discussion of impacts from turbidity and sedimentation, which may be as severe and permanent by occurring through a different mechanism. However, the physical impact to coral reef structure and the biological response to these types of impacts would be different. Each coral reef impact area and type needs to be clearly identified as an impact polygon on a map with a narrative that explains how the impact area was calculated. This detail is needed in the Draft EIS, and similar detail is missing for indirect and direct impacts from anchoring and vessel operations.

The USACE states that the amount of Outer and Middle Reef area to be directly impacted above 57 ft. equates to 15.17 acres. NMFS has determined that impact to the Middle and Outer Reefs, when taking into account the amount of affected reef area below 57 ft., is a total of 21.65 acres – it is requested that this discrepancy in impact acreage be resolved.

c. **Indirect area perimeter and monitoring:** The Draft EIS states that, "*In order to address potential indirect impacts, USACE will monitor a perimeter up to 150 meters away from the dredge footprint (north and south of the channel), and mitigate for apparent effects directly linked to the dredging.*" CRCP staff do not agree that 150 meters surrounding the dredge footprint is sufficient in scope for monitoring (and potentially mitigating for) indirect impacts. The PIANC (2010) report states, "*In some cases, the impact may be confined close to the work area, [while] in others the prevailing currents may transport fine sediments over large distances, with documented cases of impacts occurring > 70 km [approx. 43.5 miles] from the work site.*" Without monitoring a larger area, it may be difficult/limiting to determine if the project has impacted the surrounding reef community and, accordingly, there would be no mitigation requirement for these impacts.

As a recent example, a 750-meter mixing zone variance was requested for the current Miami Harbor construction. While a mixing zone variance has not yet been requested for this project, CRCP staff suggest that the USACE use a similar mixing zone area to accurately plan monitoring and mitigation for indirect impacts.

The proposed sampling design does not provide enough detail nor does it provide a power analysis that will allow determination of sample size needed to detect significant differences. Additionally, a new study on the tidal velocity and flow of the water through the Port Everglades Inner Entrance Channel (IEC) has revealed a stratified water column – showing that it is possible for the upper part of the water column to flow in an opposite direction from the lower part of the water column (Stamates *et al.* 2013). This has major implications for turbidity and sedimentation transport, as well as impact monitoring, since previous monitoring protocols were likely not correctly designed to be able to detect changes or impacts. These results will need to be integrated fully into any indirect impact monitoring plans created for this project.

d. **Sub-lethal and lethal impacts:** Although healthy coral reef benthic organisms can often tolerate turbidity and sedimentation from short-term events, the coral reefs in the vicinity of Port Everglades are already under significant stress from other threats (*e.g.*, land based sources of pollution). While we support the USACE's effort to reduce these indirect impacts using Best Management Practices (BMPs) developed by the Southeast Florida Coral Reef Initiative (SEFCRI), CRCP staff are concerned that with such a relatively long-term dredging proposed for this project (estimated from 11 months to 3 years) there may be sub-lethal (*i.e.*, reduced growth rate, bleaching, reduced reproduction) and possibly lethal (mortality, change in species composition) impacts associated (PIANC, 2010). Stress monitoring is still evolving due to the intricacies of understanding individual colony and community stress reactions. As shown in Figure 1, scleractinian corals often have sub-lethal stress effects that can't be easily seen. It is recommended that the benthic monitoring plan take into account these impacts.

Additionally, as recommended by the SEFCRI BMPs document cited in the Draft EIS, dredging should be carefully scheduled to avoid sensitive resource periods such as coral spawning events.

2. Coral translocation/transplantation conditions.

While the Draft EIS states that conditions regarding the transplantation of scleractinian corals will be developed during the pre-construction, engineering and design (PED) phase, it is noted that there are inconsistencies in the sizes of the colonies that will be transplanted. We suggest consideration of the NMFS conditions that require the relocation of: all corals from impact areas listed under the Endangered Species Act, regardless of size; a subset of massive corals and all corals proposed to be listed under the Endangered Species Act that are 5 cm in diameter or larger; and all other corals greater than 10 cm diameter.

Additionally, we suggest consideration for transplanting of the dominant species in these habitats, specifically, octocorals and sponges. They both provide many bioservices including water purification, creating 3-dimensional habitat, and support for a multitude of other important organisms. Extensive dredging projects pose an environmental risk to these communities through increasing turbidity, reducing light, and smothering by sedimentation.

3. Habitat Equivalency Analysis (HEA).

One of the most important variables needed to conduct the HEA is an accurate impact area. As mentioned above, there have not yet been accurate direct and indirect impact areas provided by the USACE; therefore, the HEA presented in this Draft EIS cannot be adequately reviewed at this time. Reaching an agreement on impact assessment is crucial to informing compensatory mitigation. Once impact areas are determined, the HEA must be run again and reviewed by Resource Trustees.

CRCP staff has identified concerns regarding the way the current HEA was conducted, including the following:

a. **Inappropriate use of discount rate:** The USACE's decision to use no (or rather a 0%) discount rate is not an appropriate use of this economic model. Published literature on the HEA, specifically regarding coral impacts, supports the use of a 3% discount rate. As the USACE uses a discount rate of 3.75% in their Draft EIS Economic Analysis, it is unclear why it is being inconsistently applied in the 'Modified HEA.'

b. **Recovery rate:** As stated by the USACE, "*For the purpose of the Port Everglades HEA, the method employed by the Corps uses a Landscape HEA with stony corals as the representative proxy for the entire habitat affected. While stony coral coverage is <1% in the project footprint and vicinity (Gilliam et al. 2004, DC&A 2008), we did not use a proportional analysis to calculate the coral impacts. Instead, the losses are*

calculated as the amount of time it would take for the slowest-growing members of the ecosystem, in this case the stony corals, to recover to baseline, for the entire project footprint."

CRCP staff support the use of stony corals as the proxy in this model; however, the USACE's proposal to use a 50-year recovery rate for direct impacts and for the compensatory action (boulders) to reach maturity is likely underestimated given the age of the oldest corals in the vicinity is in excess of 100 years.

Dr. Richard Dodge, Dean of the NSU NCRI and HEA expert, conducted an independent technical review of the [US]ACE's HEA values and outputs. Notably, he was unable to replicate the HEA based on the input provided by the USACE. Working with NMFS, he used corrected values (*e.g.*, 3% discount rate, more accurate impact areas, etc.) and created an 'Alternate HEA' requiring an additional 32 acres of mitigation than the USACE's 'Modified HEA.' In addition to the same concerns stated above, his analysis found the following:

- "*The HEA inputs and results in Appendix E2 and not the same as those of the Cost Analysis.*
- *Many of the DEIS HEA input parameters used by the ACE are not supported by the best available science.*
- *The inputs chosen by the ACE for their HEAs underestimate amount of mitigation required.*
- *An Alternate HEA has been developed as part of these comments using: corrected direct impact areas for the Outer and Middle Reefs to include the area below 57'; 3% discount rate; and corrected equivalence that boulders upon maturity reach 50% of services of the natural reef.*
- *The ACE DEIS HEA for Scenario 2 in the DEIS Appendix E Cost Analysis requires 32 acres less mitigation than the more correct Alternate HEA.*
- *Accordingly ACE project mitigation costs are significantly underestimated by using the underestimated mitigation amount.*
- *Table 9 of the Cost estimate there is no justification given for using a much small $ amount for cost per acre of boulders with transplants.*
- *The ACE plan lacks input from the ACE's independent technical review performed by Battelle.*"

4. Alternative Mitigation Projects and Cost Estimates (Revised Plan – February 2014).

a. **Repair of grounding sites and subsequent coral installation (transfer from impact sites):** Please revise first sentence as the Southeast Florida Coral Reef Initiative is not related to these grounding sites. The Department's CRCP is the lead resource trustee for un-permitted reef injuries in the southeast Florida region, and is the appropriate entity to cite. Restoration of two of the grounding sites is currently underway. While

restoration efforts at the additional sites may be warranted, CRCP staff feel that 10.6 acres is an over estimate of these areas. Coordination with CRCP will be required if this alternative is selected. Additionally, the stated estimates of 30 years until 'substantial functional productivity' is reached after restoration – and 'shortened to 10-20 years if corals are transplanted' are unsupported. Please provide citations or remove.

b. **Artificial reef creation using of [sic] quarried or dredged rock:** Upon maturity, boulders themselves, even with stony coral transplants attached, may provide similar but not 100% full ecological services as those of the natural reef. In Miami-Dade County, a 20-year monitoring program was developed to assess the efficacy of an artificial reef project as mitigation for natural reef impacts through the evaluation of colonization and succession of assemblages on two types of artificial reef materials, as well as comparisons to the adjacent natural reefs (Sathe *et al.* 2011). The Year 12 Monitoring Report states, "*The similarity between [natural and artificial] sites does not appear to be converging over time, rather maintaining distinct separation after twelve years, and possibly showing divergence in similarity.*" A Department CRCP study conducted by Gilliam (2012) concluded the length of time boulder reefs require to mitigate lost reef resources in southeast Florida, assuming a total loss of the impacted community from events such as dredging, exceeds the age of the oldest boulder reef assessed in this study (17 years).

c. **Blending of components from various mitigation alternatives/"Reef Creation with Coral Outplants":** CRCP staff does not support the use of artificial boulder reefs as the only mitigation option; however, we do support their limited use as part of a suite of mitigation projects. We support this option [formerly the Preferred Reef Mitigation Alternative 2 (NMFS-Developed Plan)] as the primary way to mitigate for the lost ecosystem services of the benthic veneer. This, coupled with limited use of boulders to support the propagation nurseries (to mitigate for the volume of Outer Reef that will be permanently lost), is a more appropriate scale and type of mitigation.

We also support the statement that, "*decisions regarding which species to propagate and outplant (in addition to staghorn coral) and the balance (relative percent-cover, or relative population densities) among all species would be based on findings from the most recent coral restoration studies, historical survey data, and results of ongoing monitoring throughout the project area.*"

5. Construction/Initial Cost per Hardbottom Habitat Functional Unit.

The USACE's proposals underestimate the true cost of replicating the lost habitat which must take into account geological structural loss (*i.e.*, reef framework), biological structural loss (*i.e.*, size and types of benthic organisms), changes in habitat characterization (*e.g.*, depth, light penetration, temperature, etc.), and long-term (20+ years) monitoring to assess success of the project.

In 2014, as part of the Reef Injury Prevention and Response Program, the Department's CRCP awarded a contract for large scale, deep water reef restoration and coral relocation including the actual costs of engineering design, permitting, and construction implementation for primary restoration at two historic Broward County grounding sites – the *Spar Orion* and *Clipper Lasco.* Restoration costs included appropriate biological and habitat characterization surveys, construction of a limestone boulder reef (3 ft. x 3 ft. minimum) including grout, stony coral transplantation (over 5 cm), long-term monitoring, and all associated permitting and reporting requirements. The total costs were $3,254 per square meter ($m^2$) – roughly $12 Million (M) per acre. The value of coral reef resources designated by the Florida Legislature under the 2009 *Florida Coral Reef Protection Act* (§ 403.93345, F.S.) is $1,000 m^2 – approximately $4 M per acre.

The previously reviewed Interim Draft EIS (2012) stated that, "*The total cost of reef/ hardbottom mitigation is projected to be $32.44M.*" This was based on the USACE's 15.32-acre direct impact estimate – equating roughly $2.1 M per acre. However, the current Draft EIS states that the "*total estimated costs for this alternative, which includes the cost of coral translocation, is estimated at $20.13 M.*" Based on the currently proposed 15.17 acres, this effectively reduces the cost per acre to $1.33 M. This is further reduced if the additional 6.48 acres of direct impact below 57 ft. is taken into account.

6. Changes in Hydrology.

Extensive studies on changes to the sediment budget, changes to freshwater and saline water regimes, and hydrographic surveys were completed for the scoping of the feasibility of this project. However, this information was not used to inform the discussions on potential impacts that will occur to larval distribution or sedimentation on reefs and reef resources after project completion. The Draft EIS references how the sediment budget is not likely to have a cumulative adverse effect on the geology or coastal sediment budget/transfer for the area, but does not use this information in discussing the biological components that may potentially be impacted by these permanent changes.

a. **Impacts to nearshore water quality:** The Draft EIS states that, "*Water quality impacts would only be temporary due to construction activities, and the project would not result in any foreseeable future actions that would result in a cumulative effect.*" An independent technical review was conducted by Jack Stamates of NOAA's Atmospheric and Oceanic Meteorological Laboratory and he states the following:

"*On the ebb tide, water is advected seaward through the Port Everglades Inner Entrance Channel (IEC). Several studies have shown that this water contains higher concentrations of nutrients and microbial contaminates compared to levels typically seen in the coastal ocean [Stamates et al. 2013, Fusch et al., 2011]. There is concern that these substances have the potential to degrade the coastal environment.*

Enlargement of the channel brings the possibility of increasing the flux of these substances out of the inlet and into the coastal ocean."

b. **Potential loss of larval transport connectivity:** One such potential change is the transport of larvae. Although larval impacts are discussed within the Blasting impacts section, there doesn't seem to be any review of how the changes in hydrology from this project will impact their distribution and concentration. As the last remaining nearshore mangrove community in Broward County, the West Lake Park Mitigation Area is a nursery for many juvenile species that will eventually inhabit the offshore coral reef community. The seagrass habitats within the Port may act as stepping stones for these juveniles as they make their way offshore. Once the larvae and juveniles make their way into the IEC and OEC, the stratified water column presumably acts as a direct transport to the open reefs. Currently, the lower different layers of the water column are likely dispersed when they reach the Middle and Outer Reefs – allowing the larvae and juveniles to settle the local reef community. However, if wide swaths of Middle and Outer Reef are removed, the hydrology of the OEC will change substantially, and the larvae and juveniles may be washed out to sea.

Please contact Mr. Kevin Claridge, Director of the Florida Coastal Office, at (850) 245-2101 for additional information and assistance.

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	Sedimentation	Turbidity
STRESS		
Photo-physiological stress	• Reduced photosynthetic efficiency of zooxanthellae and autotrophic nutrition to coral	• Reduced photosynthetic efficiency of zooxanthellae and autotrophic nutrition to coral
Changes in polyp activity	• Extrusion of mesenterial filaments following severe stress • Increased ciliary or polyp activity, and tissue expansion in some species to remove sediment	• Extrusion of mesenterial filaments following severe stress • Increased ciliary or polyp activity to feed
Mucus production	• Mucus production or sheeting to remove sediment	• Evidence of mucus production
SEVERE STRESS		
Sediment accumulation	• Accumulation of sediment on tissue of susceptible growth forms due to failure of mechanisms of rejection	
Change in coral colour	• Change in coral colour arising from changes in the density of zooxanthellae and photosynthetic pigments • Paling of coral due to partial bleaching	• Change in coral colour arising from changes in the density of zooxanthellae and photosynthetic pigments • Darkening of coral in response to reduced light due to photoacclimation
Bleaching	• Considerable whitening of corals due to the expulsion of a large proportion of zooxanthellae from the colony	• Considerable whitening of corals due to the expulsion of a large proportion of zooxanthellae from the colony
PARTIAL MORTALITY		
	• Injury to coral tissue, loss of polyps and partial mortality of the colony • Decrease in (live) coral cover	• Injury to coral tissue, loss of polyps and partial mortality of the colony • Decrease in (live) coral cover
MORTALITY		
	• Mortality of small-sized colonies and partial mortality of large corals • Mortality of susceptible species and size classes. • Decreased density, diversity and coral cover • Changes in community structure • Widespread mortality of corals • Major decreases in density, diversity and coral cover • Dramatic changes in community structure, and shifts towards the dominance of non-coral species, such as sponges and algae	• Mortality of susceptible species and size classes. • Decreased density, diversity and coral cover • Changes in community structure • Wide-spread mortality of corals • Major decreases in density, diversity and coral cover • Dramatic changes in community structure, and shifts towards the dominance of non-coral species, such as sponges and algae

Figure 1: Response of corals to increasing levels and durations of sedimentation and turbidity (PIANC 2010).

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

AUG 13 2013

Colonel Alan M. Dodd, Commander
U.S. Army Corps of Engineers, Jacksonville District
PO Box 4970
Jacksonville, Florida 32232

Dear Colonel Dodd:

The National Oceanic and Atmospheric Administration (NOAA) has reviewed the U.S. Army Corps of Engineers (USACE) Draft Environmental Impact Statement (EIS) entitled *Navigation Improvements – Port Everglades Harbor, Broward County, Florida*. Comments are included from the National Marine Fisheries Service (NMFS), representing NOAA as a cooperating agency on the referenced EIS. NMFS was invited to cooperate on the EIS by the USACE in light of NMFS' jurisdiction over, and expertise in, essential fish habitat (as defined by the Magnuson-Stevens Fishery Conservation and Management Act) and threatened and endangered species (as defined by the Endangered Species Act).

In brief, NOAA believes that the referenced Draft EIS significantly understates the project's impacts to seagrass, coral reef, and mangrove habitat. We also believe that the EIS significantly underestimates the level of mitigation required to compensate for the project's effects. The EIS omits significant input that NMFS has provided and does not address questions that NMFS has raised.

Please see the attached NMFS letter for a full description of NOAA's concerns. Please direct any questions you have regarding these comments to Ms. Jocelyn Karazsia or Ms. Kelly Logan. Ms. Karazsia may be reached at:

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West Palm Beach, Florida 33401
561-249-1925
Jocelyn.Karazsia@noaa.gov

Ms. Logan may be reached at:

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Southeast Regional Office
263 13th Avenue South
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Sincerely,

Patricia A. Montanio
NOAA NEPA Coordinator

Enclosures

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AUG 12 2013

Colonel Alan Dodd, Commander
U.S. Army Corps of Engineers, Jacksonville District
PO Box 4970
Jacksonville, Florida 32232

Dear Colonel Dodd:

NOAA's National Marine Fisheries Service (NMFS) has reviewed the draft Environmental Impact Statement (EIS) dated June 14, 2013, entitled *Navigation Improvements, Port Everglades Harbor, Broward County, Florida.* The overall purpose of the project is to provide increased navigational safety, efficiency, and improved economic conditions while limiting impacts to the environment to the maximum extent practical. The U.S. Army Corps of Engineers (USACE) is the lead federal agency and Broward County is the non-federal cost sharing partner for the project. The draft EIS describes a tentatively selected plan (TSP) that includes deepening the Outer Entrance Channel (OEC) to -57 feet mean lower low water (MLLW), widening the OEC to 800 feet, and extending the channel seaward 2,200 feet; deepening the main turning basin to -50 feet MLLW and extending the southeastern boundary of the turning basin an additional 300 feet; widening and deepening the south access channel; and deepening the turning notch (following local sponsor dredging of the same area). Blasting may be needed to remove rocky substrate. Dredge disposal would occur at the existing Port Everglades Harbor Ocean Dredged Material Disposal Site (ODMDS). The draft EIS states the TSP would impact 4.01 acres of seagrass, 15.17 acres of coral reef, and 1.16 acres of mangrove habitat. As detailed below, NMFS believes the draft EIS significantly understates these impacts. These comments reflect the responsibilities of the NMFS under the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), Fish and Wildlife Coordination Act, and Endangered Species Act (ESA).

Service as a Cooperating Agency in Development of the EIS

By letter dated October 12, 2007, NMFS accepted the invitation from the USACE to participate as a cooperating agency in development of the EIS. In that letter, NMFS stated it would provide technical assistance on how impacts to threatened and endangered species and to essential fish habitat (EFH) would be identified and mitigated. However, NMFS does not have a NOAA federal action that requires us to adopt the EIS for our purposes (such as issuing an MMPA incidental take authorization).

While this is the third version of the EIS NMFS has reviewed, the draft EIS omits significant input NMFS has provided and does not address questions NMFS has raised. Attachment 1 is the detailed review NMFS provided USACE on July 7, 2011. In lieu of repeating the same comments in this letter, NMFS will focus on the major issues that have not been adequately

addressed in the draft EIS, including comments on calculation of impacts to coral reefs, characterization of indirect effects to coral reefs, calculation of seagrass impacts, and seagrass mitigation.

As a cooperating agency, NMFS has responded to requests from the USACE for technical assistance during development of the EIS, including preparation of a report, *Characterization of Essential Fish Habitat in the Port Everglades Expansion Area*, which is draft EIS Appendix H and is part of USACE's EFH assessment, and development of a compensatory mitigation plan for coral reefs that is technically sound and appropriately offsets the impacts to coral reef habitats through active propagation and outplanting of corals. USACE included this mitigation option in the draft EIS as Appendix E-4. In this regard, NMFS also prepared sections of the draft EIS and appendices that describe this mitigation alternative. Lastly, due to the USACE's reluctance to calculate coral reef impacts in the manner NMFS recommended in its comments on earlier versions of the draft EIS, NMFS completed a GIS analysis and technical report characterizing and quantifying the coral reef impacts that would result from the project (Attachment 2).

While NMFS remains hopeful an agreement can be reached on those issues affecting NOAA trust resources, if NMFS and USACE cannot agree on a mutually acceptable mitigation plan to be incorporated in the final EIS, NMFS is considering exercising the option under Section 50 CFR 600.920(k) to refer disputes to the Assistant Secretary of the Army. Further, NMFS may also evaluate the option of referring the matter to the President's Council on Environmental Quality pursuant to Part 1504 of regulations for implementation of the National Environmental Policy Act.

Characterization of Coral Reef Impacts

Calculation of Direct Impacts to Coral Reef Habitat

NMFS and Nova Southeastern University completed a GIS analysis and characterized the coral reef impacts that would result from the Port Everglades Expansion Project and concluded 21.66 acres of coral reef located in the federal channel will be severely impacted by the planned expansion (Attachment 2). This estimate of direct impacts is approximately 6.49 acres more than the estimate in the draft EIS. The USACE's estimate of direct impacts to coral reef habitats is based only on removal by the dredge and is estimated to total approximately 15.17 acres. Coral reef communities in the channel would be directly impacted through (1) removal by the dredge; (2) coral fragments and dredged material, including rubble and sediments, moving downslope or down current and shearing coral reef organisms from the substrate; and (3) fractures in hardbottom and lithified coral propagating into the reef framework, thereby destabilizing attachment of coral reef organisms. The latter two impacts create an unstable coral reef environment resulting in lower coral abundance and fewer large coral colonies. The steeply sloped, eastward facing spur-and-groove reef habitats are particularly at risk from the downslope movement of sediment and rubble. Stabilizing the seafloor following the dredging at Port Everglades may be the most significant measure that could minimize post-injury impacts on the surrounding reef communities and newly established reef organisms on uncovered substrate (Dial Cordy and Associates 2006); however, such stabilization is not proposed in the draft EIS.

Calculation of Potential Impact from Anchor Placement Outside the Channel

Depending on the type of dredge selected, anchoring may be required outside the channel in coral reef and hardbottom habitats. The USACE mitigation plan estimates the anchors would result in approximately 17.13 acres of additional impacts to coral reef and hardbottom habitats. NMFS believes this estimate is too low because the draft EIS uses maps created at a coarse regional scale to calculate the impacts. Brian Walker, Ph.D., of Nova Southeastern University, the cartographer of the maps used by the USACE in the draft EIS, provided NMFS updated acreage calculations based on finer scale maps more suitable for impact assessment at Port Everglades (Attachment 3). NMFS concurs with Dr. Walker's assessment that 19.31 acres (i.e., 2.18 acres more than USACE estimates) of coral reef and hardbottom habitats would be impacted by dredge anchors if this construction strategy is used.

Indirect Impacts to Coral Reef Habitat

The draft EIS describes indirect impacts to 130.37 acres of coral and hardbottom habitat within 150 meters of the channel; however, the draft EIS neither describes how this estimate was developed nor the severity of the impacts expected. While NMFS and Dr. Walker estimate 111.87 acres of indirect impacts to coral and hardbottom habitat would result within the 150 meter zone around the channel, NMFS does not agree that sedimentation and turbidity impacts would be limited to this zone. Chronically high levels of sedimentation and turbidity can be as damaging to coral reefs as acute stress (Rogers 1979).

In the July 2011 letter (Attachment 1), NMFS noted that permit SAJ-2003-00203 for the Key West Harbor dredging project included a more stringent turbidity limit (15 Nephelometric Turbidity Units, or NTUs) than what is normally required by the State of Florida. The basis for this requirement was research conducted by Telesnicki and Goldberg (1995) on two Florida coral species (*Dichocoenia stokesii* and *Meandrina meandrites*). The research measured the photosynthetic and respiratory responses of corals subjected in the laboratory to turbidity ranges of 7 to 9, 14 to 16, and 28 to 30 NTU. By day four for *D. stokesii* and day three for *M. meandrites*, corals exposed to 14 to 16 NTU significantly differed from controls. In both cases, this level of turbidity produced a photosynthesis to respiration (P:R) ratio very close to 1.0; the ratio then declined to a ratio of less than 1.0 after six days. The stress from this level of turbidity also induced mucus production. The researchers concluded, "while other species of scleractinians may have different reactions to turbidity, the data suggest that the standard of 29 NTU above background is not conservative and should be reevaluated." These researchers' findings are relevant to the Port Everglades project. Due to the presence of both corals within the project footprint (Dial Cody and Associates 2006), as well as the presence of designated critical habitat for elkhorn and staghorn corals, NMFS continues to recommend a more conservative turbidity standard for the Port Everglades project.

Should blasting be necessary to construct the channel, the draft EIS indicates sedimentation and turbidity monitoring would be done adjacent to the blast sites. NMFS notes conducting monitoring would not avoid or minimize the effects from blasting. The discussion of indirect impacts in the final EIS should provide a more thorough discussion of impacts from blasting that may occur outside the channel, including the size of material produced, amount of material produced, and locations of areas that may require blasting.

Additional Indirect Impacts to Coral Reef Habitat from Poor Water Quality

The vertical velocity and density structures of the Port Everglades inside channel are stratified and vary depending on the tidal phase (Stamates et al. 2013). The results from the Port Everglades Flow study indicate that it is possible for the upper part of the water column inside the inner entrance channel (the part of the water column most likely to contain excess nutrients and microbial contaminates) to flow in an opposite direction from the lower parts of the water column. Specifically, on the flood tide (as defined from tide tables), the lower part of the inner entrance channel may indeed be flooding but the upper part of the inner entrance channel may remain in ebb for a significant fraction of the time ascribed to the "flood tide." As stated in sub-appendix C, RMA-2 is a depth-averaged 2D model and will not resolve the vertical features of the channel water column. These features, however, may be important when considering impacts within the vicinity of the inlet.

Mitigation for Coral Reef Impacts

The draft EIS indicates the amount of coral reef mitigation is important to the USACE in determining what the draft EIS refers to as a "best buy" for mitigation and to develop an overall project construction cost. However, NMFS determines the Habitat Equivalency Analysis (HEA) presented in the draft EIS is flawed due to the input of assumptions that are not supported by the best available science. The amount of coral reef mitigation in the form of boulder piles is significantly underestimated and subsequently the costs for coral reef mitigation are also significantly underestimated. Replicating the approach presented in the draft EIS with more realistic assumptions for the HEA results in a mitigation requirement of an additional 32 acres (approximately 51 acres total) of boulder piles needed to offset impacts to coral reef habitats at an additional cost of $51M above the cost estimate the USACE developed (approximately $71M total).

The four main areas of disagreement with the way the HEA was used to determine the amount of mitigation are (1) amount of coral reef habitat to be impacted (described in the previous section), (2) equivalence of the impact area to the compensatory action, (3) recovery rate of the mitigation action, and (4) discount rate applied. Additionally, NMFS disagrees with the estimated costs for boulder pile construction, which is a major factor in the determination of a mitigation option as a "best buy." Furthermore NMFS believes the creation of boulder piles will not adequately mitigate for lost critical habitat for elkhorn coral and staghorn coral.

NMFS notes the independent technical reviews completed by Battelle Memorial Institute (Battelle 2011) for the USACE conclude that some assumptions made for the HEA are either unsupported or have not been clearly justified. Furthermore, a replication of the HEA and technical review of the USACE "best buy" mitigation plan was completed by an internationally recognized coral reef scientist, Richard E. Dodge, Ph.D, Dean of the Nova Southeastern University Oceanographic Center, and provided to NMFS on July 15, 2013 (Attachment 4). NMFS scientists have reviewed the HEA performed by Dr. Dodge and affirm its accuracy. The analyses of Dr. Dodge, Battelle (2011), and NMFS arrive at nearly identical conclusions

regarding the deficiencies in the HEA performed by USACE. Those deficiencies are described below.

Inadequacy of Boulder Piles as Mitigation

The HEA presented in the draft EIS assumes 100 percent equivalency between the coral reefs that would be impacted and the boulder piles created for mitigation. This is not supported by the best available science. For example, Miller et al. (2009) documented an overall lack of similarity between the benthic species at natural and artificial reefs. Gilliam (2012) concluded the length of time boulder reefs require to mitigate lost reef resources in southeast Florida exceeds the age of the oldest boulder reef examined in the study (17 years). Kilfoyle et al. (2013) showed nearshore natural and artificial hardbottom habitats have dissimilar usage by the early life stages of species managed under the fishery management plan for snappers and groupers with significantly higher abundances occurring on natural nearshore hardbottoms compared to artificial habitat. Battelle (2011) arrives at a similar conclusion. In particular, the USACE's independent panel review panel expressed concerned about the efficacy of mitigation boulders. A pile of boulders is not a coral reef and will not become a coral reef over time, and NMFS disagrees with USACE's determination that boulder piles are in-kind mitigation for coral reef habitat.

Ultimately, the boulders would provide a lower degree of ecosystem services compared to those of a natural coral reef. Battelle (2011) also concludes that some of the assumptions made for the HEA, especially regarding recovery service levels, have not been clearly presented or justified. Specifically, this report states that the assumed 100 percent recovery service level could be overly optimistic. The report acknowledges these values are critical to the HEA and significantly affect the outcomes for the required reef mitigation (Battelle 2011). In the separate analysis performed by Dr. Richard E. Dodge (Attachment 4), an alternative approach to determine equivalency of boulder piles and natural coral reefs is identified. This approach describes an assumption that upon maturity boulders would provide a fraction of the services of the natural reefs (services from structure). This approach is described in Attachment 4 and assumes (for purposes of illustration only) that the artificial reef will provide 50 percent of the services of a natural reef. Both Dr. Dodge and NMFS believe that 50 percent is overly optimistic and not based on the best available science. NMFS believes boulder placement should not be credited with any mitigation value beyond those services provided by the structural components of the reef which the boulders would replace.

The USACE's choice of mitigation is boulder placement with coral transplants. These measures will not provide services upon maturity equivalent to those of the natural reef. Information in the draft EIS states that the recovery rate of boulder piles is 50 years, whereas the cost estimate (draft EIS, Appendix E2) assumes 30 years. The USACE subtracted 20 years from the recovery rate as credit for the coral relocation to the boulder reefs. NMFS acknowledges the Port Everglades Reef Group (2004) discussed allowing a 10-year discount for relocated corals; however, this estimate does not reflect the amount of corals to be relocated by the USACE as project minimization, and this discussion occurred prior to the publication of the USACE and U.S. Environmental Protection Agency's (EPA) Mitigation Rule in 2008.

According to the draft EIS Appendix E2, the total number of corals to be dredged is 100,744. The draft EIS cost estimate indicates up to 12,235 corals would be removed. This would represent a 12 percent reduction in impact and therefore it is not appropriate to credit the boulder reef recovery by 20 years. Furthermore, NMFS does not support crediting the recovery of boulder reefs that have coral transplants, because the transplants are a project minimization measure, not a compensatory mitigation measure. The USACE and EPA's Mitigation Rule (2008) and the Clean Water Act 404(b)(1) Guidelines emphasize that mitigation is sequential: first avoid, then minimize, then perform mitigation for unavoidable impacts. The Mitigation Rule specifically states that compensatory mitigation is only for impacts that cannot be avoided or minimized (Federal Register, Volume 73, Number 70, page 19596, April 10, 2008). This impact minimization measure should be reflected in a corresponding reduction in compensatory mitigation requirements. Thus, it would not be appropriate to also give compensatory mitigation credit to the boulder reef recovery areas that will receive these same coral transplants. This amounts to asking for "credit" twice for the same action. NMFS confirmed this is an accurate interpretation of the Mitigation Rule with EPA headquarters staff via email on July 31, 2013.

Additionally NMFS does not support limiting the amount of relocation to 12,235 coral colonies. Rather, NMFS recommended that USACE establish a performance goal for the relocations of 90 percent for the coral species and size classes presented in Table 2 of the "NOAA Mitigation Alternative," which is located in draft EIS Appendix E-4.

Furthermore, NMFS agrees with the findings of Battelle (2011) that the USACE recovery projection is overly optimistic. In particular, Battelle expressed concern about the unsupported assumptions used in the HEA model analysis. Battelle notes the coral growth rate of *Siderastrea radians* does not support the assumption of the 50-year reef recovery projection. With the given 1.5 millimeters per year growth rate, it will take about 167 years, rather than 50 years, for this coral species to reach 25 centimeters (Battelle 2011). Separately, a NMFS analysis using the very high growth rate of 5 millimeters per year for stony corals suggests that numerous coral species would have a recovery period in excess of 50 years, and likely significantly longer considering the widespread coral recruitment failure documented in the Atlantic and Caribbean (Hughes and Tanner 2000; Williams et al. 2008).

<u>HEA/Resource Equivalency Analysis and the Discount Rate</u>

HEA/Resource Equivalency Analysis (REA) is an economic model. While NMFS agrees that HEA and REA are appropriate models to scale the mitigation requirements in some cases, NMFS notes the HEA is applied by the USACE in a manner in which it was never intended for use. Specifically, USACE applies a zero percent discount rate. A zero percent discount rate means the value of environmental services provided today is the same as the value of environmental services provided 1,000 or more years from now. A zero percent discount rate is contrary to the nearly universally accepted theory that there is a time rate of preference for goods of any kind, material or environmental. HEA is an economic model and is not designed to be used with a zero discount rate.

The application of a zero percent discount rate also significantly affects the mitigation requirement when the HEA presented in the draft EIS assumes the impact areas will recover in

50 years. The draft EIS acknowledges some coral reef habitat will only achieve 15 percent of natural reef services but the draft EIS stops the calculation clock at 50 years. If discounting were in place, this would not affect the mitigation requirement much; however, with a zero percent discount rate, continuing these losses beyond 50 years would result in a significant increase in mitigation requirements. While NMFS is aware the draft EIS stops at 50 years because that is the "project life," this is another example of HEA being applied in a manner inconsistent with its designed application.

The draft EIS states that USACE is prohibited from applying a discount rate due to guidance provided in the Office of Management and Budget Circulars A-4 and A-94 (Regulatory Analysis and Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs, respectively). NMFS disagrees with the USACE's interpretation of the Circulars. Specifically, Circular A-94 states, "Specifically exempted from the scope of this Circular are decisions concerning water resource projects (guidance for which is the approved Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies)." The Port Everglades Navigation Improvements study and all its components are water resource development projects exempt from Circular A-94. USACE Guidance Documents available for FY12 appear to indicate the USACE should use a discount rate of 4 percent for planning projects[1].

Cost of Boulder Piles

The mitigation plan states the cost per acre ranges from approximately $1M to $1.8M among the four alternatives identified in the plan. However, the draft EIS lists the cost to construct boulder piles in previously permitted artificial reef sites or borrow sites as $588,524 per acre in Table 8 and the cost per acre of boulder piles placed on top of tires as $1,225,000. The draft EIS does not make clear why there is so much variation in costs of different mitigation alternatives describing a similar action. NMFS agrees with Dr. Dodge's assessment (Appendix 4) that the $1.2M estimate per acre is a more appropriate cost. NMFS further notes that the HEA inputs and results in Appendix E2 of the draft EIS are not the same as those of the Cost Analysis.

Boulder Piles and *Acropora* Critical Habitat

NMFS and USACE have held multiple meetings and conference calls regarding the effects to *Acropora* critical habitat from this project. NMFS remains concerned that the USACE has not adequately addressed the direct, indirect, and cumulative effects on critical habitat from this project. Further, the draft EIS does not explain how the boulder reef mitigation plan would compensate for loss of critical habitat. NMFS does not believe that a boulder reef would satisfactorily address the lost functions and values of critical habitat within the project area over the lifetime of the project. Despite numerous discussions with the USACE on this subject, NMFS remains concerned that the project as proposed would not adequately preserve and protect designated critical habitat which is necessary for the conservation of the species.

[1] http://planning.usace.army.mil/toolbox/library/EGMs/EGM1201combined.pdf

NMFS Recommended Mitigation: Coral Nursery with Outplanting

Considering the unprecedented scale in the southeastern U.S. of the planned coral reef impacts, NMFS presented the USACE with a mitigation plan dated June 7, 2013. The plan consists of propagating corals at one land-based nursery and approximately six nursery sites located offshore of Broward County and then transplanting the reared corals to natural reefs to enhance those reefs or to restore degraded sites. NMFS' recommendation is based on careful evaluation of the expected losses of scleractinian coral and octocorals from the expansion of the Port Everglades OEC and the successes of coral propagation and enhancement programs in Atlantic and Caribbean waters. Because boulder reefs would not adequately offset the functions and values of the reef system which will be impacted as part of the Port expansion project, NMFS recommends this alternative approach using propagation. Furthermore, the NMFS recommended mitigation program is more cost efficient than the USACE "best buy" based on the replicated HEA performed by Dr. Dodge and validated by NMFS.

Elkhorn and Staghorn Coral and Their Designated Critical Habitat

NMFS continues to have significant concerns with the project's impacts to resources protected under the ESA. The most significant impacts are to critical habitat for threatened elkhorn coral (*Acropora palmata*) and staghorn coral (*Acropora cervicornis*). In 2008, NMFS designated critical habitat for these species to support a single, key conservation objective of increasing the frequency of successful sexual and asexual reproduction: staghorn and elkhorn coral reproduce sexually via broadcast spawning and asexually via fragmentation. The essential habitat feature to accomplish this objective is substrate of suitable quality and availability to support successful larval settlement, recruitment, and reattachment of fragments. NMFS defined "substrate of suitable quality and availability" as "natural consolidated hard substrate or dead coral skeleton that is free from fleshy or turf macroalgae cover and sediment cover" (73 FR 72210).[2] The coral reefs offshore Broward County provide suitable substrate for meeting this key conservation objective.

NMFS believes the draft EIS does not adequately assess the project's impacts to *Acropora* critical habitat. The USACE's analysis of impacts needs to focus on the project impacts on the overall ability of the critical habitat to meet the key conservation objective of supporting successful reproduction. NMFS recommends the analysis address three key issues in this assessment:

1) the direct and indirect impacts to coral reef habitat containing the essential feature,
2) hydrographic changes from the project and their effect on coral reproduction, and
3) beneficial impacts, if any, of the selected mitigation plan to the extent the mitigation plan is included in the USACE's proposed action.

[2] The draft EIS incorrectly characterizes the essential feature of *Acropora* critical habitat and references the status review which is not an appropriate reference for critical habitat. The final EIS should reference the critical habitat rule directly to accurately describe critical habitat.

In addition to the comments above on the project's impacts to reef areas, NMFS recommends the USACE provide a more complete characterization of the reef habitats associated with the project. Certain types of turf algae will still allow for settlement by *Acropora* larvae. Although the draft EIS states that NMFS has failed to provide a standard protocol for assessing critical habitat, assessing the amount of "substrate of suitable quality and availability" is a basic benthic type characterization which NMFS believes does not require any additional protocol. Even though these direct and indirect impacts lend themselves to expression as areas, the assessment of critical habitat impacts should not be limited to simple area comparisons of the percentage of the entire critical habitat unit being impacted. The analysis should be based on the conservation function lost.

The potential for the widening and deepening of the Port Everglades OEC to affect the functioning of critical habitat through physical changes in the bottom and in local currents remains a major concern. In the 2011 letter, NMFS requested the draft EIS evaluate the potential impacts of creating a "sink" or trench where coral fragments and larvae moving northward or southward along the reef line fall into the channel and become no longer viable. This type of impact not only affects the species directly, it also affects the adjacent critical habitat's ability to support the species. NMFS believes the draft EIS does not adequately respond to these concerns. The draft EIS states multiple times that the currents in the Port Everglades location are "highly unpredictable." The draft EIS discusses the natural reef breaks located in areas between Port of Miami and Port Everglades channels and specifically points out the width of these natural breaks, noting that they are much wider than the proposed cut as part of the Port Everglades channel expansion. However, there is no discussion in the DEIS concerning the depth of these natural breaks and the velocity of the currents through them. NMFS believes that a deeper, narrower "break" would produce a higher velocity current perpendicular to the natural south-north transport of larvae -- and possibly fragment -- transport resulting in the larvae/fragments being washed out of the natural transport pathway, preventing them from landing on suitable substrate, thereby reducing the species' reproductive success and the value of the critical habitat. Because of the need to fully understand impacts, the relative comparison to natural reef breaks is not illuminating. NMFS recommends the USACE provide a detailed hydrographic assessment of the predicted current flow changes post-construction.

The effects of the mitigation plan on the value of *Acropora* critical habitat also needs to be fully analyzed and included in the record of decision for the proposed project. As previously stated, NMFS does not believe the boulder reef mitigation alternative would replace the functions and values of critical habitat lost within the project area over the lifetime of the project. The NMFS recommended mitigation of coral nurseries with outplanting, however, could have significant beneficial impacts on the function of critical habitat. With proper design and operation, this mitigation method could create increased incidences of successful fertilization and fragmentation on both sides of the Port Everglades OEC and increase the conservation function of critical habitat in the vicinity of the project. The USACE needs to fully analyze the net impacts of the project, including the selected mitigation plan, on designated critical habitat, not only to do a thorough comparison of alternatives, but also to ensure the project does not destroy or adversely modify critical habitat, as required by the ESA.

Underestimate of Seagrass Impacts

The draft EIS describes how seagrass beds, in particular *Halodule wrightii, Halophila decipiens,* and *Halophila johnsonii,* expand and contract over time. The seagrass survey data from seven seagrass survey events illustrate this point and are described in Appendix H. In particular, the draft EIS points out this expansion and contraction may be a long-term survival strategy of *H. johnsonii* and other seagrass species (Virnstein et al. 2009). For impact assessment purposes, it is important to consider the broader seagrass habitat and not just the currently vegetated portions. However, the draft EIS describes impacts to seagrass based only on the vegetated portions of the beds documented in the 2009 survey. The draft EIS does not describe impacts to areas historically mapped and previously ground-truthed to contain seagrass. These areas represent the available expansion habitat that will no longer be available after the project is constructed. NMFS believes USACE significantly underestimates the amount of seagrass that would be impacted.

A GIS analysis was used to examine the changes in seagrass coverage between 2000 and 2009. NMFS determined that the cumulative seagrass habitat documented in these seven surveys is approximately 19.45 acres (draft EIS Appendix H), and approximately 8.45 acres of seagrass habitat impacts are proposed[3]. This impact estimate is more than double the seagrass impact described in the draft EIS.

Battelle (2011) also recommended USACE complete a bathymetric survey to identify the extent of potentially suitable seagrass habitat (the report used the more general term submerged aquatic vegetation or SAV). The specific water depths recommended were 0.0 feet to -6.0 feet NGVD. This survey would provide a more complete assessment of seagrass habitat versus seagrass acreage that could then be used as a baseline reference for future seagrass mapping and permitting activities since seagrass bed distribution can vary greatly at any point of time. Fully addressing this recommendation would contribute to resolving concerns NMFS has with the underestimate of seagrass impacts. In the review of a preliminary version of the EIS (Attachment 1), NMFS recommended the draft EIS clearly describe where seagrass impacts would occur and the amount of seagrass habitat present in these areas. The draft EIS does not address this comment.

Seagrass Mitigation

West Lake Park Seagrass Mitigation Credits

The restoration planned to be performed by Broward County at West Lake Park is proposed for use as compensatory mitigation for seagrass impacts associated with the port expansion. However, the restoration was not set up as a mitigation bank when NMFS completed its EFH review of the restoration work under SAJ-2002-0072 (IP-LAO). According to the ledger contained in this permit (Attachment 5), there are 2.2 seagrass credits available at West Lake Park. The USACE mitigation plan describes the need to use 2.4 seagrass credits. Using the

[3] NMFS requires the GIS shapefiles for the revised TSP in order to refine this estimate.

impact estimate that includes 8.45 acres of historically mapped and ground-truthed seagrass habitats and the Unified Mitigation Assessment Method (UMAM) scores applied by the USACE (which are in dispute per the section below), over 5 seagrass credits would be needed from West Lake Park. Thus, using either impact assessment, there are not enough seagrass credits available at West Lake Park.

Low Unified Mitigation Assessment Method Scores

Florida's UMAM was the type of functional assessment used to determine the mitigation amount and the USACE acknowledges in their permit that, "USACE UMAM scores on this project were done separately from those submitted by the applicant in conjunction with South Florida Water Management District, future scoring should be done in line with those values which can be found in the file." In July 2011 (Attachment 1), NMFS requested the functional assessments. The draft EIS does not contain the UMAM score sheets for the impacts or the mitigation so NMFS cannot verify the scoring was done in accordance with the permit. A summary table of the UMAM completed for the impacts is provided in the USACE mitigation plan. Notably, 14 out of the 16 seagrass polygons assessed were given a score of 4 or less (out of 10) by the USACE, which corresponds to the habitat providing "minimal level of support to [benthic community] functions" (Form 62-345.900(2), F.A.C.). Five of the 16 seagrass polygons scored 1 or 2 for benthic community. These scores do not reflect NMFS field observations. Additionally, the USACE did not assign higher landscape support functions to seagrass habitats closer to the inlet and clear oceanic waters. The seagrass UMAM scores also do not reflect the best available science or agency input that was obtained from the USACE in 2005 (Attachment 6).

Inadequacy of Seagrass Habitat Mitigation at West Lake Park

Another issue previously raised by NMFS (Attachment 1) relates to the location of the mitigation site with respect to the impacts. While it may be appropriate to mitigate for seagrass impacts along the south access channel in West Lake Park, seagrass habitats located closer to the Port Everglades Inlet provide different functions than seagrass habitats located in more interior areas of the Port. The seagrass habitats at West Lake Park, which is located further away from the inlet and coral reefs, would not provide the same ecological services as the seagrass impacted through the expansion.

The proximity of seagrass to the Port Everglades Inlet increases the value of the seagrass habitats located near the inlet for oceanic and estuarine spawners. Habitat value during growth to maturity for gray snapper (*Lutjanus griseus*) and bluestriped grunt (*Haemulon sciurus*) is a function of distance from an ocean inlet (Faunce and Serafy 2007). For example, the planktonic larvae of gag grouper (*Mycteroperca microlepis*) move into estuaries and settle in the first available habitat, such as polyhaline seagrass beds near inlets (Ross and Moser 1995). Based on work completed in the Indian River Lagoon, Gilmore (1995) determined that seagrass habitats near ocean inlets offer optimum physical conditions with low variation in temperature and salinity and other physical parameters, as well as proximity to ocean spawning sites for reef species. Seagrass habitats near inlets typically provide habitat for more fishery species than seagrass away from inlets. A faunal transition and fish community change takes place within 5 km (3.1 miles) of the ocean inlet to the lagoon as one proceeds away from the inlet (Gilmore 1995). Other studies (e.g., Bushon 2006; Turtora and Schotman 2010) have also linked species

distribution and life history stages as a function of proximity to a coastal inlet. The continuity of the seagrass beds between the mitigation site and the inlet is important to fishery species. The proposed port modifications would further isolate seagrass beds at West Lake Park from the inlet, limiting their value in larval migrations and settlement. Accordingly, NMFS believes the UMAM scores for the West Lake Park seagrass should be lower than what the USACE has provided.

Cumulative Impacts

Coral Reefs and Hardbottoms

As described in Attachment 3, the draft EIS minimizes previous losses of hardbottom due to port construction activities by equating the proposed impacted amount to a percent of all the hardbotttom located offshore Broward County. Equating the project impacts to a percent gives the appearance that impacts would be much less. The actual habitat loss is more relevant. Walker et al. (2012) published a peer-reviewed paper on the estimated historical losses of port and shipping activities in southeast Florida. They estimated that Port Everglades has historically dredged 58.5 acres of hardbottom and buried 178 acres of Outer Reef due to improper dumping of spoil material. Using county-wide mean coral density (2.6 per square meter) and percent cover (3.75 percent), Port Everglades development has historically impacted 6,149,000 corals equating to 180 acres of live tissue area. Using these same numbers and the impact scenarios presented in the draft EIS, scenario 1 (includes anchoring impacts outside the federal channel) would impact 380,000 corals with 1.36 acres of live cover, and scenario 2 (dredging coral reefs above -57 feet MLW and no anchoring impacts) would impact 177,000 corals with 0.63 acres of live cover.

The draft EIS does not describe any cumulative impacts for hardbottom. Although the effect of impacting six million corals is difficult to measure, it undoubtedly has some impact on surrounding communities. In addition, the burial of 178 acres of Outer Reef due to improper spoil disposal has a lasting effect on the system. This spoil remains in place today where rocks of all sizes are piled on the reef. These spoils likely shift during storms and continually impact the local community by scouring the substrate as evident in the Dial Cordy and Associates (2009) benthic assessment of previously impacted sites.

Water Quality

NMFS disagrees with the USACE determination that water quality impacts would only be temporary due to construction activities, and the project would not result in any foreseeable future actions that would result in a cumulative effect. On the ebb tide, water is advected seaward through the Port Everglades inner entrance channel. Several studies of this inlet have shown this water contains higher concentrations of nutrients and microbial contaminants compared to levels typically seen in the coastal ocean (Stamates et al. 2013; Futch et al. 2011). These substances have the potential to degrade the coastal environment. Enlargement of the channel brings the possibility of increasing the flux of these substances out of the inlet and into the coastal ocean.

Endangered Species Act Section 7 Consultation

NMFS continues to work with the USACE to obtain all the information necessary to conduct a Section 7 consultation for ESA-listed species and critical habitat under NMFS purview. Two comments on critical habitat are offered at this time. First, the draft EIS concludes that adverse effects to *Acropora cervicornis* and designated critical habitat from increased sedimentation would be insignificant. NMFS agrees that the findings and evidence reported in the paragraphs preceding that statement may support this finding for the species. However, it provides no basis for the determination about sediment effects to critical habitat. To evaluate that effect, the USACE would need to provide documentation regarding the duration of sediment residence (dependent on grain size and physical oceanography of the area) on adjacent hardbottoms (i.e., the essential feature) to be able to say the effect is insignificant for designated critical habitat. Second, NMFS requests clarification of the following point made in the draft EIS, "hardbottom communities exist in a dynamic environment . . . may be periodically covered and uncovered by sands." NMFS requests a reference for this statement and the periodicity that is being referred to.

Essential Fish Habitat Consultation

As a cooperating agency, NMFS prepared *Characterization of Essential Fish Habitat in the Port Everglades Expansion Area*, which is included in the draft EIS Appendix H. This report describes the EFH and fishery resources in the project area and summarizes the biological resource surveys that have been completed. For complete descriptions of EFH in the project area, NMFS refers to this report. The main categories of EFH and HAPC that would be adversely affected by this project include coral, coral reef, and hardbottom; seagrass; mangrove; the coastal inlet; and unvegetated soft bottom habitats.

The report requires the addition of a section characterizing the existing channel bottom due to review of a video from October 18, 2006, that documents corals in the existing channel bottom. Notably, this video confirms the presence of corals that not only are EFH but also proposed to be listed by NMFS under the ESA, including rough cactus coral (*Mycetophyllia ferox*).

Impacts to Essential Fish Habitat

The USACE provided an initial determination that the project may adversely affect EFH and HAPCs. The USACE determined the magnitude of the impacts varies from temporary and insignificant to substantial and permanent. NMFS believes the impacts of the proposed project, along with project components that have been removed from the federal project but are still being pursued by the Port (i.e., dredging 8.4 acres of mangrove to expand a turning notch), result in more adverse impacts to EFH than what are described in the draft EIS, questioning USACE's conclusion that the project's cumulative impacts are negligible.

Essential Fish Habitat Assessment Information Needs

NMFS has considerable disagreement with the USACE on how seagrass and coral reef impacts and mitigation requirements have been determined. NMFS also has significant disagreement with the USACE on how water quality degradation and cumulative impacts are described in the

draft EIS. These issues are identified in the preceding and warrant thorough consideration prior to completing the EFH consultation for this project.

EFH Recommendations

NMFS finds the project would adversely impact EFH. Section 305(b)(4)(A) of the Magnuson-Stevens Act requires NMFS to provide EFH conservation recommendations when an activity is expected to adversely impact EFH. Based on this requirement, NMFS provides the following:

EFH Conservation Recommendations

Prior to dredging seagrass or coral reef and hardbottom habitat to expand the Port Everglades Harbor, NMFS recommends the following:

1. The USACE shall provide a mitigation plan that assumes no less than 21.66 acres of direct impacts to coral reef and hardbottom habitats.
2. The USACE shall provide a mitigation plan that assumes no less than 19.31 acres of anchor impacts, in the case that the dredge equipment selected requires anchoring outside the federal channel.
3. The USACE shall provide a monitoring plan to evaluate physical and biological impacts that may occur outside the channel. This plan shall reflect substantial input by NMFS.
4. The USACE shall provide a mitigation plan that reflects no less than 111.87 acres of indirect impacts that would occur in the 150 meter zone surrounding the federal channel. The final EIS should clearly describe how the amounts of indirect impacts to coral reefs are determined.
5. In the case that blasting is required, USACE shall work with NMFS and other resource trustees to develop a monitoring program. Substantial input from NMFS shall be reflected in the final blasting monitoring plan.
6. The USACE shall update the HEA with scientifically defensible inputs on equivalency of natural coral reefs and boulder piles, recovery rates of dredged coral reef habitat, recovery rates of boulder piles, and discount rates. The final HEA shall reflect actual costs of boulder piles with substantial input from NMFS.
7. The USACE shall adopt a compensatory mitigation plan that is the most technically sound approach to offsetting the loss of coral, coral reef, and hardbottom habitat. The final coral reef mitigation plan shall not take credit twice for coral relocation. The final coral reef mitigation plan shall reflect input from NMFS.
8. As a project minimization measure, the USACE shall relocate all corals in accordance to Table 2 in the draft EIS Appendix E-4. Coral relocation shall occur in expansion areas and previously dredged areas. The coral relocation plan should include clearly defined performance standards, monitoring protocols, and schedule.
9. The USACE shall update the EIS to evaluate the potential for the deepening and widening of the OEC to create a "sink" or trench whereby coral fragments and larvae moving northward or southward along the reef line fall into the channel and become no longer viable. This update to the EIS shall reflect significant input from NMFS.
10. The USACE shall update the EIS to describe no less than 8.45 acres of seagrass habitat impacts. The EIS shall be updated to include historically mapped and ground-truthed

seagrass habitat areas that would be eliminated by dredging and no longer available as contraction and expansion habitat.

11. The USACE shall update the EIS to describe indirect impacts to seagrass habitat. This update shall reflect input from NMFS. Specifically, NMFS requests USACE update the EIS to identify each seagrass impact polygon on a map and provide a narrative that explains how the impact area was calculated for each seagrass impact area.
12. The USACE shall develop supplementary compensatory mitigation for seagrass impacts to account for the loss of all seagrass habitat that has been historically mapped and ground-truthed and will become unavailable as habitat after the dredging occurs. The additional mitigation shall appropriately address seagrass impacts that occur closer to or within the inlet. The plan shall address how the site selection for mitigation locations is supported by the best available literature. This plan should include clearly defined performance standards, monitoring protocols, and schedule. The mitigation amounts shall be based on a functional assessment that reflects NMFS and other resource trustee input.
13. The USACE shall update the cumulative impacts section and description of cumulative impacts to coral reefs and water quality. The EIS should be updated to acknowledge the findings of Walker et al. (2012) that Port Everglades has historically dredged 58.5 acres of hardbottom and buried 178 acres of Outer Reef as dredged material disposal, which resulted in the loss of over six million corals and approximately 180 acres of live coral tissue area.
14. The USACE shall require use of best management practices (BMP) to avoid and minimize the degradation of water quality and minimize impacts to hardbottoms and seagrass habitat, including the use of staked turbidity curtains around the work areas, marking of seagrass and hardbottom habitat to facilitate avoidance during construction, and prohibiting staging, anchoring, mooring, and spudding of work barges and other associated vessels over seagrass and hardbottom. These BMPs shall be coordinated with NMFS for approval prior to commencement of any work.

Section 305(b)(4)(B) of the Magnuson-Stevens Act and implementing regulation at 50 CFR Section 600.920(k) requires the USACE 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, in accordance with NMFS's "findings" with the USACE Jacksonville District, an interim response should be provided to NMFS. A detailed response must then be provided prior to final approval of the action. The detailed response must include a description of measures proposed by the USACE to avoid, mitigate, or offset the adverse impacts of the activity. If USACE's response is inconsistent with the EFH conservation recommendations, the USACE must provide a substantive discussion justifying the reasons for not following the recommendation.

Thank you for the opportunity to provide comments. Related questions or comments should be directed to the attention of Pace Wilber, Ph.D., or Ms. Cathy Tortorici. Dr. Wilber can be reached at 219 Fort Johnson Road, Charleston, SC, 29412, by telephone at 843-762-8601, or by e-mail at

Pace.Wilber@noaa.gov. Ms. Tortorici can be reached at the letterhead address. Ms. Tortorici may also be reached by telephone at 727-209-5953 or by e-mail at Cathy.Tortorici@noaa.gov.

Sincerely,

for Roy E. Crabtree, Ph.D.
Regional Administrator

Enclosures: Attachment 1: NMFS comments, dated July 11, 2011, on interim draft EIS
Attachment 2: Acreage analysis by NMFS
Attachment 3: Acreage analysis by Dr. Brian Walker, July 15, 2013
Attachment 4: HEA review by Dr. Richard Dodge, July 21, 2013
Attachment 5: West Lake Park mitigation credit ledger
Attachment 6: USACE UMAM scores

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Attachments to the NOAA letter are from previous review of draft EIS documents, are included in the administrative record of the project and are available upon request.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
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August 13, 2013

Mr. Eric Summa, Chief
Environmental Branch,
Planning Division,
Jacksonville District Corps of Engineers
P.O. Box 4970
Jacksonville, FL 32232-0019

SUBJECT: Port Everglades Harbor Navigation Improvements Draft Environmental Impact Study and Feasibility Study, CEQ No. 20130178, ERP No. COE-E32085-FL

Dear Mr. Summa:

To fulfill EPA's Clean Air Act (CAA) § 309 and National Environmental Policy Act (NEPA) § 102(2)(C) responsibilities, EPA reviewed the above draft SEIS. Under § 309, EPA is directed to review and comment publicly on the environmental impacts of Federal activities.

EPA's primary concerns involve potentially significant impacts to public water supplies, water quality, aquatic ecosystems including corals and hardbottoms, mangrove wetlands, seagrasses, associated mitigation. Our detailed technical comments are enclosed to assist with the preparation of the final SEIS. EPA is willing to work with USACE to address our significant concerns. Based on our review, we have rated this draft EIS as "Environmental Concerns" (EC-2) rating (EPA's rating criteria can be found at (http://www.epa.gov/compliance/nepa/comments/ratings.html)

Thank you for the opportunity to review this draft SEIS. If you wish to discuss this matter further, please contact Beth Walls, 404-562-8309 or walls.beth@epa.gov, of my staff.

Sincerely,

Heinz J. Mueller, Chief
NEPA Program Office
Office of Environmental Accountability

Enclosures: EPA's Technical Comments

EPA Technical Comments on Draft EIS and Feasibility Study for Port Everglades Harbor Navigation Improvements, Broward County, FL, CEQ No. 20130178

Background

Port Everglades Harbor is located within the cities of Hollywood, Dania Beach, and Fort Lauderdale. Its entrance is approximately 27 nautical miles north of Miami Harbor and 301 nautical miles south of Jacksonville Harbor, Florida.[1]

Port Everglades originally started as a petroleum port[2] and is one of three Florida ports receiving petroleum.[3] It is the main entry and delivery center for petroleum, gasoline and jet fuel for 12 South Florida counties. Nearly one-fifth of Florida's energy requirements and one-fifth of Port Everglades' total revenues comes from petroleum and its byproducts stored and distributed through the Port.[4]

Port Everglades is nationally ranked number 35 for tonnage passing through the port. The Port documented 4,079 vessel calls in 2010.[5] Port tenants include more than 30 shipping lines calling on over 150 ports in 70 countries.[6] Additionally, Port Everglades has a growing cruise ship/passenger vessel presence being a major homeport/destination port for major cruise ship lines. It is one of the world's busiest cruise ports in terms of the number of passengers served. Total annual cruise calls are projected to remain around 2,000 annually.[7]

The Port has access to rail, air, and road transport and land available for storage. It is comprised of three main berthing areas: 1) Northport, which services cruise ships, vessels, tankers, barges, and cargo, 2) Midport, which services cruise ships and cargo, and 3) Southport, which services predominantly container ships with the largest area for growth.[8]

To the east of the Port is a barrier island where a U.S. Navy facility, the Nova Southeastern University Oceanographic Center, a U.S. Coast Guard facility, and the John U. Lloyd Beach State Park and its adjacent beaches are located. South of the Dania Cutoff Canal is the West Lake Park area, the proposed mangrove wetland and seagrass mitigation bank. West of the Port is US Highway 1 flanked by the Fort Lauderdale/Hollywood International Airport. North of the Port is a mixture of small craft waterways and commercial and residential development.[9] The federal Intercoastal Water Way transits through the Port in a north – south direction and serves both barges and recreational vessels.[10] On the ocean side of the barrier island is sandy beach and an offshore reef system.[11]

Purpose & Need: The primary objectives are, through the year 2060, to decrease costs associated with vessel delays from congestion, channel passing restrictions, and berth deficiencies; decrease transportation costs by increasing economies of scale for cargo and petroleum; and increase channel safety and maneuverability for existing and potentially future larger vessels while complying with USACE environmental operating principles.

Alternatives: The proposed action is comprised of the following components: outer and inner entrance channel, three existing turning basins, creating a fourth turning basin, creating a widener, south access channel, and turning notch.[12] USACE looked at a number of depth and

widening alternatives for the outer and inner entrance channel, a number of depth alternatives for the remaining features, and some widening options.

The Tentatively Selected Plan requires the removal of approximately 5.47 million yd^3 of dredged material necessitating the expansion of the existing Port Everglades Offshore Dredged Material Disposal Site,[13] which is being addressed in a separate NEPA action pursuant to the Marine Protection, Research and Sanctuaries Act.[14] The Plan will deepen the outer entrance channel from 45 to 57 feet, extend it 2,200 feet into the ocean, and widen it to 800 feet.[15] Both the inner entrance channel and the main turning basin will be deepened from 42 to 50 feet.[16] The widener, an area of shallow water, will be deepened to 50 and widened to 300 feet.[17] Modifications to the south access channel include widening the "knuckle" area by 250 feet causing the relocation of the US Coast Guard facility, shifting the channel 65 feet to the east to effect a transition from the "knuckle" south to the federal channel, deepening from 42 to 50 feet, and widening a 1,845 foot section by 100 feet and widening by130 feet a section north of the turning notch.[18] The turning notch is to be deepened from 42 feet to 50 feet after the federal sponsor has widened the turning notch by removing 8.6 acres of mangrove wetlands and deepened it to 42 feet.

***Affected Environment*:**

The entrance to the harbor is in the vicinity of three reef tracts: inner (located approximately 100 to 2,000 feet from shore and cresting at 26 feet), middle (located approximately 3,000 to 6,000 feet from shore and in 49 feet of water), and outer (located approximately 8,000 feet from shore and cresting at 52 feet) where all the coral and hardbottom and impacts will occur. These are high-latitude reefs, existing near the northern limit of reef growth in the continental United States.[19] While no longer a growing system, the reef complex provides storm protection, hardbottom habitat for invertebrates and fish species, and recreational uses resulting in economic benefits to South Florida.[20]

The harbor is habitat for seagrasses and mangrove wetlands serving as an estuary for a number of animal and fish species including those protected under the Endangered Species Act. The 287-acre John U. Lloyd State Park is located directly across and parallel to the southport access channel.[21] The State Park's harbor portion includes estuarine tidal swamp (mangroves), estuarine and marine unconsolidated substrates, marine consolidated substrates, and a rare, tropical coastal hammock ecosystem (maritime hammock).[22] These maritime hammocks have become increasingly valuable for their ability to act as "refugia" because of South Florida's near total loss of this plant-community type.[23]

The Florida Department of Environmental Protection designated the waters within the Port as Class III, acceptable for recreation, fish, and wildlife and the waters adjacent to State Park, the Atlantic Ocean, as Outstanding Waters of the State.[24]

***Environmental Impacts*:**

Corals/hardbottom: The most significant impact associated with dredging the outer entrance channel is the permanent removal of coral and hardbottom habitat. The draft EIS indicates the permanent removal of approximately 5.58 acres of the middle reef and approximately 11.09 acres of the outer reef to create the entrance channel flare for vessel safety purposes to address variable and unpredictable cross currents resulting from eddies spinning off the Gulf Stream.[25] It also indicates the potential for another 17.13 acres of reef and nearshore hardbottom could be

impacted associated anchoring the cutterhead dredge equipment. EPA notes these estimates do not include direct impacts to the remaining coral associated with the actual construction activity, e.g., cutterhead dredge and confined blasting effects. EPA also notes a discrepancy in defined impacts exists between the USACE and the National Marine Fisheries Service.

Seagrasses: The draft EIS indicates dredging will permanently remove up to 3.57 acres of mixed or monoculture Johnson's seagrass where it occurs along the south access channel and widener and impede post-dredging recolonization as the seagrasses require shallow, 13-14 foot habitats.[26] Again, EPA notes a discrepancy in defined impacts exists between the USACE and the National Marine Fisheries Service.

Mangrove wetlands: The draft EIS indicates the proposed action will only impact 1.6 acres of jurisdictional mangrove wetlands located along the east side of the south access channel along J. Lloyd State Park's western shore.[27] EPA finds a greater wetlands impact (8.59 acres) associated with the close linkage between the turning notch component of the proposed action to be done by the USACE and that being done by the sponsor.[28]

EPA's Technical Comments

Aquatic Ecosystems – *Impacts to corals*

- EPA recommends the final EIS address the discrepancy between National Marine Fishery Service and USACE's findings regarding the occurrence of *A. cervicornis* within the study area.[29] According to NMFS, *A. cervicornis* has been documented within 150 meters of the channel whereas the draft states no *A. cervicornis* colonies have been identified within the channel or border area.
- EPA recommends the final EIS address NMFS findings the USACE coral reef impacts estimates are too low, by approximately 8.16 acres. A concern, NMFS raised back in 2011 which has not been addressed in the 2013 draft.
  - EPA recommends the USACE use the appropriate mapping scale to determine impacts associated with the proposed outer entrance channel deepening and widening component. The County appears to have demonstrated the importance of these coral resources by expending the necessary resources to appropriately characterize impacts. The proposed action represents a significant impact to the County/State's coral resources and the UACE may be able to use and build upon the County's improved mapping efforts.
    - In 2008, Broward County resurveyed the areas using updated lidar technology having higher resolution and better processing capabilities[30] to realize enhanced seafloor depictions over the 2001 survey. According to NSU, a visual inspection of these data showed that several apparent hardbottom features were not depicted in the original 2004 NSU maps made from the 2001 lidar survey data.
  - EPA notes in the mid-2000s the Florida Fish and Wildlife Conservation Commission and Nova Southeastern University, both members of the Port Everglades Research Group, recommended the offshore reefs within the proposed action's footprint be mapped at a finer scale. EPA recommends the construction impacts be re-considered consistent with NFMS determinations as supported by the corresponding State agency. EPA recognizes these entities to be the appropriate expertise for determining hardbottom/reef impacts.

- The impacts associated with construction equipment and activities do not appear to have been considered in the direct impact assessment. In addition to permanent removal, dredging is expected to dislodge coral fragments and rubble causing them to slide down the existing steep slopes to impact down slope the spur-and–grove reef habitats lying outside the dredging footprint. Moreover, it is reasonably foreseeable for the confined blasting to fracture the hardbottom, existing corals and their substrate. The ultimate likely result is an unstable reef substrate. Further increasing the difficulties to recover a damaged coral habitat and detrimentally impacting the resilience of the designated critical coral habitat.
- EPA also recommends the final EIS address NMFS concern regarding the draft's underestimation of cutterhead-dredge impacts within the outer entrance channel. NMFS estimates 19.31 acres of potential impacts compared to USACE's 17.31 acres.
- EPA recommends the final EIS provide coral/hardbottom impact information associated with the use of explosives and a mechanical excavator which is lacking in the draft.
- EPA further recommends the final EIS add a column to Table 18[31] to indicate the potential additional impacts associated with dredging/excavation equipment used.
  - For example, the draft indicates 10 additional reef impacts, plus an additional 7.13 acres assuming the worst case scenario,[32] may be associated with the use of a cutterhead dredge.[33]
  - The draft also indicates an option to cutterhead dredge is the mechanical excavator with the use confined underwater blasting with explosives to break the rock to facilitate dredging.[34] No data has been given regarding the impacts associated with a mechanical excavator or confined blasting.
  - The draft also indicates a hopper dredge has the highest likelihood of adverse turbidity and/or sedimentation effect.[35]
- EPA recommends the final EIS discuss the appropriateness of using cutterhead dredge, with its associated anchoring and cable operation in a sensitive coral reef area.
  - EPA notes the USACE indicated it *cannot dictate types of dredging equipment that a contractor may use (per the Competition in Contracting Act), so the potential remains for all of the potential contractors to propose to use a cutterhead dredge with the traditional anchor cable configuration.*[36] USACE states it can only request the selected contractor to implement an anchoring and vessel operation plan to effectively minimize anchor and cable impacts to hardbottom habitat through its Request for Proposal process, which will include incentives to encourage potential contractors to avoid reef impacts.[37]
- EPA recommends the final EIS discuss potential reef impacts associated with dredge equipment when the 5 – 7 year dredging period is interrupted by storms. As the draft noted, Florida's weather is very dynamic ranging from nor'easters associated with arctic fronts and the tropical depressions and hurricanes from the South Atlantic Ocean.[38]

- EPA recommends the final EIS address NMFS concern for the proposed action's potential to create a gap or vacuum of sufficient dimension it prohibits floating coral fragments and larvae's ability to cross and land in suitable habitat to grow and reproduce. Moreover the documented highly unpredictable offshore currents and eddies combined with the proposed deep and narrow channel may sweep larva out into the deeper waters or into the harbor,

ultimately reducing the existing designated critical coral habitat's resiliency. Another concern NMFS raised in 2011, which this 2013 draft does not address.

- EPA recommends the final EIS clarify the appropriateness of the draft's characterization of the percent of the designated critical habitat permanently removed by channel extension as an expression of the significance of the proposed action's impacts to coral habitat.
  - The draft states [g]*iven the percentage of available NMFS-defined colonizable habitat less than 0.006% (0.02 sq km) of the FL DCH unit would be permanently removed by the TSP's construction.*[39]
  - EPA finds this characterization does not adequately reflect the nature of the complex reef dynamics, these reefs exist near the northern limit of reef growth, nor appropriately characterize their value, both economically and ecologically. Moreover, it is inconsistent with the impact determinations and associated mitigation protocol.
- EPA recommends the final EIS clarify the draft's explanation of the methodology used to calculate impacts for mitigation purposes.
  - Several different hardbottom/reef impact acreage numbers appear throughout the draft and its appendices. The Executive Summary indicates 15.23 acres.[40] Direct dredging impacts are indicated to total 16.66 acres.[41] Appendix E-2 refers to 16.64 acres.[42] While Appendix E refers to 15.17.[43] It is unclear where these numbers come from. It was stated without any discussion or explanation, the revised lower number of 15.17 resulted from engineering modifications and better mapping.
  - The discussion of impact scenario 2 is very confusing. The first paragraph indicates no impacts would occur associated with cables and anchors. Then the following paragraph indicates anchor-cable impacts were calculated at 7.40 acres.[44] It is unclear whether anchor and cable impacts will occur under Scenario 2.
  - The draft mentions USACE's contractor, Dial Cordy and Associates, mapped the area[45] using video cameras[46] and benthic assessments, but no mapping protocols were provided to describe how the mapping was performed.
  - Figure 59 cites the habitat maps but no discussion was provided to explain how the polygons were drawn, their criteria, or purpose.[47]
  - Appendix E is unclear whether the calculations were for a 57 or 59 foot depth.[48]
- EPA recommends the final EIS discuss how it derived its *Species specific impact* as depicted in Tables 2-5.[49]
- EPA recommends the final EIS change the word "buffer" to different word because it is being to reference the cutterhead dredge anchor placement: 150 meters from the channel's edge.[50] This identified "buffer" area is the area being directly impacted by the proposed action's potential use of a cutterhead dredge and its associated anchors. Moreover, its use is inconsistent with the draft's proper use of *buffer*, e.g., marine mammal protection zone from confined underwater blasting,[51] a buffer against poor recruitment years,[52] and mangrove buffer in context of sawfish habitat.[53]
- EPA recommends the final EIS clarify the draft's position the USACE revised the reef impact amount based upon refined engineering analysis, higher resolution habitat maps, refined construction timelines to modified the project's duration, and indirect effects associated with vessel movements as a result of the economic analysis. The draft provided no explanation how these factors revised the number of injured areas depicted in Tables 6 – 10.[54]

Aquatic Ecosystems – *Impacts to Seagrasses*

- EPA recommends the final EIS clarify the draft's seagrass impacts identified as 4.01 acres when it is our understanding the cumulative impacts associated with the Tentatively Selected Plan is approximately 9.492 acres.[55]
  - EPA recommends the final EIS clarify why the draft[56] does not include:
    - The 1.06 acre of seagrass, and corresponding mitigation, National Marine Fisheries Service's identified in the outer entrance channel in its assessment area number 1.[57]
    - The 2.071 acres of seagrass, and corresponding mitigation, NMFS' identified in the harbor in its assessment area number 2.[58]
  - EPA recommends the final EIS clarify why the draft[59] is inconsistent regarding seagrass acreage impact calculations with NMFS.
    - USACE's 0.08-acre determination for the inner entrance channel is inconsistent with NMFS' 0.698 acre determination in its corresponding assessment area number 3.
    - USACE's 5.01-acre determination for both the widener and south access channel is inconsistent with NMFS' 5.681 acre determination for its corresponding assessment areas number 4 and 5.
    - USACE's 3.26-acre determination for the widener is inconsistent with NMFS' 4.647 acre determination.
  - EPA further recommends the seagrass impacts be re-considered consistent with NFMS determinations as supported by the corresponding State agency. EPA recognizes these entities to be the appropriate expertise in the science of fisheries and their associated habitats, i.e., seagrasses.
    - EPA recommends the final EIS clarify why the USACE's snapshot approach to assessing seagrass impacts is based upon the best available science and should be used over NMFS' cumulative cover approach, which NMFS' maintains is best supported by the available science.

Aquatic Ecosystems – *Impacts to Mangroves*

- EPA recommends the final Feasibility Study describe which the draft does not, how impact acres to mangrove and reef/hardbottom habitat were determined.[60]
- EPA recommends the final SEIS clarify the draft's statement *the USACE has determined that although no filling of jurisdictional wetlands will occur as a part of the proposed action....*[61] The draft EIS indicates the proposed installation of *environmentally friendly bulkheads* will impact jurisdictional wetlands.[62]

Aquatic Ecosystems - *Impacts*

- EPA recommends the final EIS address its independent technical review panel[63] concerns the draft does not address all the requirements of the Endangered Species Act, National Environmental Policy Act,[64] and Water Resources Development Act.[65]
- EPA recommends the final EIS discuss port and beach renourishment projects located in the two adjoining coastal counties as part of the cumulative impact analysis.
- EPA recommends the final EIS discuss the sponsor's dredging of the turning notch and the Dania Canal Cutoff,[66] which outside sources report started in July of 2013[67] as part of the

cumulative impact analysis, including impacts upon the proposed mitigation bank, West Park Lake.

Aquatic Ecosystems - *Mitigation – corals/hardbottom*

- EPA recommends the USACE further address the National Marine Fisheries Service's mitigation coral nursery proposal to propagate coral and support active coral reef enhancement for the benefit identified in the draft: *... it is designed to maximize the chances of successful natural coral reproduction; larval transport; settling and colonization into new areas; and genetic mixing required for survival and recovery of the species*[68] combined with the USACE proposal to create boulder reefs, i.e., substrate for NMFS to colonize using nursery stock.
  - NMFS' proposal when compared to the USACE's passive, boulder reef approach has environmental data to support its potential for success. However, the question remains as to whether the proposed action's impacts to coral reefs will ever be appropriately mitigated. As noted in the draft, these are high-latitude reefs, existing near the northern limit of reef growth,[69] not in optimal growing conditions, and they exist in a higher stress environment making mitigation efforts challenging at best.
  - The draft presents only a few papers supporting the use of boulders as appropriate mitigation for lost natural reef habitat. However, a number of studies refute the effectiveness of the proposed mitigation and its purported equivalency to natural habitat. There are few long term studies of artificial reefs pertaining directly to the issue of compensation for function and services of a natural reef.
- EPA recommends the final EIS clarify the draft's apparent misstatement of Port Everglades Reef Group's compensatory mitigation recommendations. PERG's recommendation appears to be for a minimum advisable size of 12-15 cm colonies.[70] However the draft indicated states [o]*ne notable recommendation of PERG that will be implemented is the transplantation of corals larger than 25 cm in diameter/height to the mitigation site.*[71]
  - EPA recommends the transplanting of corals should be consistent with NFMS determinations as supported by the corresponding State agency. EPA recognizes these entities to be the appropriate expertise for addressing coral mitigation.
- EPA recommends the final EIS address both the National Marine Fishery Service's and USACE's independent own independent technical peer review findings[72] regarding the use of boulder piles and its assumption they will reach 100 percent equivalency with natural coral reefs in 30 years. The USACE's use of Habitat Equivalency Analysis to make this 100 percent equivalency finding introduces potentially significant uncertainty regarding the actual achievement of 100 percent.
  - USACE in its HEA determinations inappropriately used a "0" discount rate and indicated it did so in compliance with OMB Circulars and Corps regulations and guidance. [73]
    - However, the referenced OMB Circular specifically exempts from its scope water resource projects.[74] It does not prohibit the proposed action from the use of discount rates greater than "0." Nor does the guidance for the exempted water resource projects[75] prohibit the use of discount rates.
    - EPA recommends some discount rate greater than 0 percent be used in USACE's HEA analysis in order to attempt to provide sufficient mitigation because the value or services provided by the habitat and communities removed and injured by dredging will

be lost for decades[76] by all estimates and may never achieve 100 percent recovery to present value.

- For example, a 3-percent discount rate with the assumption the USACE's proposed boulder mitigation will upon maturity reach 50 percent, not 100, of the natural reef services has been proposed.
- EPA recommends the discount rate should be re-considered consistent with NFMS determinations as supported by the corresponding State agency. EPA recognizes these entities to be the appropriate expertise for calculating the appropriate HEA.

o Additionally, USACE's underestimation of impact acreage to corals and hardbottom, as discussed in the above comments on impacts, further adds to the significance of the HEA analysis' uncertainty.

o EPA recommends the final EIS discuss how the HEA input parameters were selected and whether agreed to by all parties. According to the draft, much appears to have been decided at meetings without clear documentation for those not present at these deciding meetings. No justification has been provided in the draft to justify the actual parameters used.

- EPA recommends the final EIS identify appropriate compensatory mitigation for the "best buy" mitigation plan[77] as proposed should the transplant survival rate be lower than the performance criteria value for the transplantation of stony coral colonies to boulder reefs or alternate locations.
- EPA recommends the final EIS clarify and provide a scientific basis for the drafts' statement the transplantation of corals onto mitigation reefs will reduce the time to *substantial functional productivity* by as much as 20 years.[78] Functional productivity requires the octocorals, sponges, reef fishes and other reef biota be present with community structure similar to pre-impact conditions.
- EPA recommends the final EIS clarify the drafts' apparent double counting of mitigation credits for one action. According to the draft EIS,[79] the total number of corals to be dredged is 100,744. Its cost estimate indicates the relocation of up to 12,235 corals outside of the impact area to boulder- reef recovery areas, a 12% reduction in impact. EPA recommends this impact minimization measure be reflected in a corresponding reduction in compensatory mitigation requirements. It would be inappropriate to also grant compensatory mitigation credit to the boulder reef recovery areas receiving the coral transplants.[80] The effect is getting credited twice for the same action.
- EPA recommends the final EIS clarify during the proposed five year monitoring period how it will be determined that 100% equivalency of natural reef habitat has been achieved when it is expected take decades after boulder reef construction to achieve 100 percent, assuming 100 percent can be achieved. EPA believes it is unlikely in five years to achieve *75% of species found in the impact site shall be present in the mitigation site by the time of the completion of the monitoring period; and percent cover by the major groups of organisms in the mitigation site shall be no less that it was in the impact site.*[81]

Aquatic Ecosystems - *Mitigation – mangrove wetlands*

- EPA recommends the final EIS fully account for all aquatic ecosystem impacts and clarify the draft EIS' allegations of avoidance and minimization of mangrove wetlands and seagrasses. The USACE show cases dropping the turning notch and Dania Cutoff Canal

projects from the proposed action as example of its mitigation avoidance[82] in response to stakeholder concerns.[83] EPA encourages the USACE to explain how these wetlands and seagrasses impacts will be *avoided* when the sponsor will likely have destroyed them prior to the proposed action's initiation. EPA also encourages USACE to explain how its proposed avoidance effectively addressed the concerns of its stakeholders.

- The USACE takes credit for avoiding impacts to 8.59 acres of red and black mangrove wetlands[84] by dropping the turning notch widening/deepening component for economic reasons[85] while knowing the federal sponsor will remove these same wetlands[86] to implement the original, federally proposed, turning-notch widening proposal and to deepen up to 42 feet of the original 50 foot design. The draft EIS indicates the sponsor already has initiated permitting discussions and held a pre-application meeting in August, 2012. Moreover after being deepened to 42 feet by the sponsor, USACE intends take action to further deepen the notch to 52 feet.[87]
  - EPA notes the draft EIS describes these mangroves to be removed as: [t]*his mangrove area is mitigation for previous wetland impacts associated with the Turning Notch Project (DC&A 2001). During the interagency site visit in May 2008, it was noted this area contains a mature mangrove community and the riprap revetment between the mangroves and open water appears to provide sufficient spacing to allow for detrital exchange and fishery resource access."*[88]
- The USACE also takes credit for avoiding significant impacts to mature red and black mangrove wetlands,[89] by dropping the Dania Cutoff Canal component for economic reasons.[90] Hence avoiding18.49 acres of mangrove wetlands.[91] The Dania Cutoff Canal component is now considered to be a non-federally sponsored project,[92] for which dredging commenced in July of 2013.[93] The draft EIS did not discuss USACE's approval of the sponsor's permit for this project.[94] EPA notes the dredged material is being disposed of in a landfill instead of being disposed into the Port Everglades offshore dredged material disposal site.
  - EPA notes the proposed mitigation for removing these 8.6 acres by the sponsor remain undetermined.[95]
- EPA recommends the final EIS clarify the draft's claim [t]*he tentatively selected plan now proposes to impact only approximately 1.16 acres of mangroves.*[96] The Turning Notch project will impact an additional 8.59 acres. And the Dania Cutoff Canal project impacted an additional 18.49 acres for a total 28.4 acres of mangrove impacts for which mitigation is only being proposed for 1.16 acres.
- EPA recommends the final EIS clarify whether the proposed action's mangrove impacts will affect habitat created by the Port as mitigation for previous impacts to native areas of mangrove.[97]

Aquatic Ecosystems - *Mitigation – seagrasses*

- EPA recommends the final EIS clarify the proposed action's seagrass impacts and associated mitigation. The draft states mitigation to offset impacts to 4.01 acres of seagrass will occur at West Lake Park.[98] EPA understands seagrass impacts may exceed 9 acres. See Aquatic Ecosystem – impacts comments below.
- EPA recommends the final EIS clarify how West Lake Park creates sufficient seagrass mitigation credit to offset 4.01 to 9.49 acres of seagrass impacts associated with the proposed action.

- EPA recommends the final EIS clarify how the best available science and scientific literature supports mitigation of seagrasses at the West Lake Park and is consistent with the federal mitigation rule's requirements.[99]
- EPA recommends the final EIS address the National Marine Fishery Services' concern regarding Port Everglades seagrasses habitat value to two federally managed species: the gray snapper and blustriped grunt, which is a function of distance from the ocean and inlet which West Lake Park cannot adequately compensate.
- EPA recommends the final EIS identify how many mitigation credits are available at West Park Lake.
  - The draft states [t]*o offset impacts due to implementation of the TSP, 2.4 seagrass functional units* ... will be provided by West Park Lake.[100] This is to mitigate the draft's identified 4.01 seagrass acres impacted.
  - However, USACE permit SAJ-2002-0072 has authorized only 2.22 seagrass credits.
  - Moreover, NMFS has identified 9.492 acres of seagrass impacts requiring 5.25 seagrass credits.

- EPA recommends the FEIS identify and discuss alternative mitigation plans should West Lake Park provide insufficient mitigation to offset proposed action's impacts.
- EPA recommends the FEIS explain how the seagrass UMAM scores were determined.[101]
- EPA recommends the final EIS clarify the draft EIS' claim it avoided 0.66 acres of seagrasses associated with dropping the Dania Canal Cutoff component since the sponsor currently is dredging this canal.[102]

Aquatic Ecosystems - *Mitigation*

- EPA recommends the final EIS clarify the Port Everglades Navigation Project Mitigation Plan[103] will be in compliance with the *Federal Compensatory Mitigation Rule*, dated April 2008.[104]
- EPA recommends the final EIS address its peer review panel concerns, as the draft did not, regarding the adequacy of the draft's discussion on avoidance, minimization, and mitigation measures for unavoidable impacts to identified resources and ESA-listed species such as the federally threatened Johnson's seagrass (*Halophila johnsonii*).[105]
- EPA recommends the final EIS discuss additional avoidance and minimization measures in accordance to the Clean Water Act[106] because the mangroves, sea grass and coral/hardbottom communities in the area are aquatic resources of national importance. EPA agrees with the Corps finding in the draft EIS: [m]*any of the natural resources in the project area are considered significant under the Corps planning guidance.*[107]
- The EPA requests the final EIS clarify the draft's use *adopted primary* mitigation plan as presented in Table 35.[108] This language appears to be a final statement on proposed mitigation for project impacts when significant doubt exists regarding the proposed mitigation's adequacy.

Water Quality – *public water supplies*

- EPA recommends the final EIS discuss the ground-water related studies conducted to determine the potential impacts to potential public groundwater supplies associated with the proposed construction.

- The draft's conclusion no substantial impacts to water supplies is expected[109] does not appear to have been supported by a ground water study, which has been done for other port deepening projects, e.g., Savannah and Jacksonville Harbors.
  - For example, there is no information on the whether the cone of depression associated with the nearest municipal water-supply well-field will be impacted. For large municipal wells, cones of depression can extend many miles from the pumped well. The four-mile distance of the nearest municipal water supply well field does not preclude impacts associated with the proposed action's construction.[110]
    - Moreover, the fact that the shallow aquifer is not now used for public water supply does not preclude its current use for private water supplies or for future use as public water supply.
  - One concern is the proposed blasting may facilitate increased porosity and transmissivity of seawater into ground-water dependent public water supplies, particularly during storm events and high tides by fracturing associated with the proposed blasting.[111, 112, 113, 114] South Florida's geology is extensive karst limestone which is very hydraulically conductive. The USACE proposes each blasting charge to be placed in a drilled hole 5-10 feet deep **below** the desired depth,[115] e.g., 57 feet. This blasting may facilitate increased porosity and transmissivity of seawater into ground-water dependent public water supplies, particularly during storm events and high tides.

- EPA recommends the final EIS describe the proposed action's construction impacts to the surficial-aquifer system. The draft does not provide information on how the proposed action will cumulatively affect previous harbor dredging impacts to the surficial aquifer. Nor does it provide any rock-removal volume estimates. No discussion has been provided describing rock-removal impact's the aquifer's porosity and ability to transmit sea water associated with public water supply well-draw downs.

Water Quality – *nutrients*

- EPA recommends the final EIS provide environmental information regarding the proposed action's impacts to nutrient concentrations of the coastal waters. As the existing deepest channel in the vicinity, the Port Everglades Inlet represents the largest source of potential pollutant loads from inlets to the coastal ocean in Southeast Florida.[116] Moreover, Figure 62 depicts the inner and outer entrance channel as a point source of fecal coliforms, enterococci, and *Clostridium perfringens*.[117, 118] EPA notes the referenced USGS study only sampled for microbial constituents of human sewage, and did not include sampling for nutrients.
- EPA recommends the final EIS address those studies indicating the water in the inner entrance channel contains higher concentrations of nutrients compared to levels typically seen in the coastal ocean.[119, 120] Enlargement of the channel may potentially increase the flux of these substances out of the inlet and into the coastal ocean. Moreover, the proposed blasting will potentially significantly increase the groundwater –surface water interface potentially increasing the nutrient enriched ground water to discharge into surface water.
  - The Port Everglades Flow study results indicate the possibility for the upper water column inside the inner entrance channel (the part of the water column most likely to contain excess nutrients and microbial contaminates) to flow in an opposite direction from the lower water column. As stated in sub-appendix C, RMA-2 is a depth-averaged 2D model

and will not resolve the vertical features of the channel water column. These features, however, may be important when considering impacts within the vicinity of the inlet, e.g., nutrient enrichment concerns.

Water-Quality Impacts - *Turbidity*

- EPA recommends the final EIS evaluate the potential turbidity effects to water quality during the estimated five-seven years of dredging and blasting. Without information to support its conclusions, the draft states water quality impacts are expected to be inconsequential,[121] temporary, and no foreseeable future actions resulting in a cumulative effect.[122]
- EPA recommends the final SEIS fully evaluate the long-term turbidity effects associated with larger ships using a deeper navigational channel. Larger ships are expected to create larger wakes, potentially increasing shoreline erosion effects, and potentially disturbing and re-suspending bottom sediments. Additionally the widening effect associated with the proposed deepening may expose more surface area of unconsolidated sediments to erosion.
- EPA recommends the USACE consider avoidance and minimization techniques to reduce these potential environmental consequences and identify appropriate mitigation to address this concern.

Offshore Dredged Material Disposal Site (ODMDS) Impacts

- EPA recommends the final EIS clarify the deepening and expansion material has not been tested or evaluated pursuant to the Marine Protection, Research and Sanctuaries Act. By stating [i]*mpacts associated with disposal activities at the USEPA designated and authorized ODMDS have been reviewed and addressed in USEPA's 2005 EIS for the designation of the Port Everglades ODMDS. The USACE ... hereby incorporates those analyses into this EIS ...* .,[123] the draft implies the dredged material to be disposed offshore is suitable for ocean disposal without further analysis, study, or testing, which is not a factual determination. See ODMDS comments below.
- EPA recommends the final EIS discuss the impacts to the proposed action should a significant volume of dredged material be unable to meet the required ocean dumping criteria, prohibiting the use of the preferred disposal option, ocean disposal off shore.[124] It remains unknown whether any of this material will meet ocean dumping criteria, require special management practices, or a non-ocean disposal site.
- EPA recommends the final EIS clarify the deepening and expansion material has not been tested or evaluated pursuant to the Marine Protection, Research and Sanctuaries Act. The draft EIS states: [s]*ediments sampled within the OEC, IEC, NTB, MTB, and STB have been tested and found suitable for ocean disposal ...* [125] which appears to imply the material associated with the proposed action has been tested and found in compliance with the ocean disposal criteria. The sediments tested in 2004 were the maintenance material dredged and disposed of in 2006, which is no longer in the basin. Additionally, the harbor has been maintenance dredged at least twice since 2004.
- EPA recommends the final EIS clarify the draft's inconsistent statements. It states, [n]*o sources of pollutants or contaminants have been identified within the construction or disposal areas.*[126] However, it also states, [a]*lthough industrial facilities exist in the area that may have a potential for release of toxic materials, the materials most likely to be discharged are petroleum hydrocarbons, small, undocumented chemical spills, and stormwater runoff from large container and freight yards.*[127] EPA agrees the latter describes potential pollution

and contaminant sources within the construction area, which might impact the material to be dredged and its potential compliance with the ocean disposal criteria.

- EPA recommends the final EIS provide the Tier I analysis Appendix J. The draft indicates it has been performed and is in Appendix J,[128] which it is not. Moreover, Appendix J does not address the requirements of the MPRSA or follow any national or regional guidance for performing a Tier I evaluation.
  - o EPA requests the USACE provide it an appropriate Tier I analysis for review prior to the final EIS, since EPA was unable to determine from the draft EIS whether it was consistent with national and regional testing guidance.
- EPA recommends the final EIS clarify it is Section 103, not Section 102 of the MPRSA authorizing the USACE to designate a one-time use of a disposal site.[129]
- EPA recommends the final EIS describe the proposed artificial mitigation site to facilitate the appropriate CWA Section 404 compliance determination. It is not described in the draft.[130] At a minimum, the description should include the site's location and the substrate's characteristics. It is impossible to make a factual determination of compliance without an appropriate description of the proposed disposal site.
- EPA recommends the final EIS clarify the decision not to incorporate the site designation into this draft Port Everglades EIS was a joint EPA/USACE, not solely EPA's.[131]
- EPA recommends the final EIS clarify the ocean dumping criteria are based on a suite of tests including chemical and biological tests, not just chemical testing as implied in the draft.[132]
- EPA recommends the final EIS clarify the dredged material disposed at the ODMDS is not regulated under the Clean Water Act and therefore the CWA's Section 404(b)(1) evaluation guidelines are inapplicable to the ODMDS' use.[133]
- EPA recommends the final EIS define what part of the approximately six million cubic yards is expected to be rock removed (i.e., from the surficial aquifer). The draft indicates a significant quantity of rock will require blasting; approximately 40-50% of the material in the main, south, and north turning basins.[134]

Sea Level Rise

- EPA recommends the final SEIS discuss the effects of anticipated sea-level rise over the 50-year project life in context of the need to construct the proposed action to the proposed depth to accommodate the design vessels. Whether sea-level rise may naturally provide some increased water depth to facilitate deep-draft vessel passage without going to the full TSP depth.
- EPA recommends the final SEIS discuss how the proposed action will incorporate any revisions to the USACE's existing guidance,[135] which expires on September 30, 2013, to reflect updated scientific findings over the proposed action's life.

Storm Surge

- The FEIS should discuss how the storm-surge impact analysis was performed, the assumptions made, and confidence in any model derived results. The draft indicates no storm-surge modeling or analysis was performed.
  - o EPA recommends this analysis discussion include worst case scenarios, e.g., slow moving, category 5 hurricane occurring at a high tide with the three sea-level rise

scenarios: baseline, intermediate, and high over the 50-year project life consistent with current USACE guidance.[136]
  - EPA recommends this analysis discussion indicate whether the ADCIRC storm surge simulations were used. E.g., the USACE's Sabine Neches study.[137]
  - EPA recommends this analysis discussion indicate where the changes in peak surge occur in the area associated with the proposed action and what is being impacted. Infrastructure? Residential Areas? The Barrier Island?
  - EPA recommends this analysis discussion describe the cumulative effect of storm-surge and sea level impacts based upon the USACE's existing sea level rise guidance: the three sea-level rise scenarios: baseline, intermediate, and high over the 50-year project life.
- EPA recommends the final SEIS discuss the effects of a deepened channel allowing a greater volume of seawater to penetrate the harbor upon the surrounding areas including environmental justice communities, public water supply facilities, wastewater treatment facilities, and other public infrastructure.
  - Flooding, erosion, and salt-water intrusion through the porous limestone unit of the surficial aquifer are potential concerns associated with storm surges. The proposed action could possibly breach up to ten[138] or more feet of the surficial aquifer creating extensive fractures facilitating new dissolution areas within the existing karst.
  - A concern exists for impacts associated with large, slow moving storm events upon areas already susceptible to storm-surge flooding. It is unclear whether the proposed action may exacerbate the storm-surge impacts and associated flooding risk of smaller storms than under existing conditions.
  - EPA recommends the final SEIS discuss storm-surge impact in context of low and high tides, previous histories of major storm-surge impacts, and sea-level rise.
  - EPA recommends the final SEIS' discuss the effects of a deepened channel allowing a greater volume of seawater to penetrate the harbor upon the J.U. Lloyd Beach State Park, the harbor's mangrove wetlands and seagrasses.
  - EPA recommends the final SEIS consider appropriate mitigation measures (e.g., informing the local county's public utilities and emergency management program to allow them to update their storm surge maps, evacuation procedures, increasing storm-water retention areas, etc.).

Air Quality –

- EPA recommends the USACE continue to explore with the applicant additional measures to reduce fossil-fuel use during construction. Additionally, the USACE and applicant should consider mitigative measures for port operations, such as additional repower/electrification of container handling equipment, improved logistics related to container movement, port locomotive idle and shut-off policies, use of biodiesel blends, etc.[139]

- EPA recommends the final EIS identify any sensitive receptors within 1,500 feet (approximately 500 meters) from all air-toxics emission sources because the draft EIS did not address air toxics. Sensitive receptors include hospitals, daycares, nursing homes, schools and other at risk populations. EPA recognizes a substantial area around the port is industrialized. Based upon a cursory review of the study area on EPA's NEPAssist program, no schools or hospitals could be identified within 1,500 feet of major port facilities. EPA

requests the USACE identify any potential near-facility sensitive receptors and confirm this information in the final EIS.

Environmental Justice & Children's Health

- Environmental Justice
  - EPA recommends the final EIS provide more information on how it meets Executive Order 12898.[140] The draft generally states the project would benefit shipping and general economy including low –income and minority populations, no identified minority or low income populations were identified in the study area or that would be affected by the project, and stakeholder involvement approach provided a variety of opportunities for affected communities to be involved.[141] No supporting information was provided regarding the above conclusions.
  - EPA recommends the final EIS include demographic information and maps to support its statements made regarding the lack of minority and low-income population in the study area and surrounding community. If the demographic analysis identified any minority and low-income populations, efforts made to meaningfully engage these populations in the decision-making process should be identified including a brief summary of any EJ comments or concerns identified along with USACE's response. In addition, any potential environmental and human health impacts should be identified along with any efforts to avoid, minimize or mitigate the effects. Furthermore, if the project benefits are anticipated for communities with EJ concerns, supporting information should be provided.
- Children's Health
  - EPA recommends the final EIS address impacts to children pursuant to Executive Order 13045[142] pertaining to children's health and safety which directs each Federal agency to make it a high priority to identify and assess environmental health and safety risks disproportionately affecting children and to address these risks.
  - EPA recommends the final EIS include an analysis of impacts to children if there is a possibility of disproportionate impacts related to the proposed action. The analysis and disclosure of potential effects under NEPA is important because physiological and behavioral traits of children render them more susceptible and vulnerable to environmental health and safety risks. Children may have higher exposure levels to contaminants because they generally have higher inhalation rates, eat more food, and drink more water, and relative to their body size. In addition, a child's neurological, immunological, digestive, and other bodily systems are also potentially more susceptible to exposure-related health effects. It is well documented that children are more susceptible to many environmental factors that are commonly encountered in NEPA projects, including exposure to mobile source air pollution, diesel emissions, particulate matter and heavy metals. As mentioned in the Air Quality comments above, the final EIS should identify sensitive receptors such as schools, daycares, and hospitals located near the proposed project area and clearly describe the potential direct, indirect, and cumulative environmental and human health impacts to children.

Editorial Comments –

- EPA recommends the final EIS clarify Figure 13, in the draft EIS, it shows a proposed channel depth at 56 feet[143] but the action proposes an effective 57 foot depth.[144]
- EPA recommends the final EIS clarify the draft EIS' inconsistencies in the turning notch depths. The draft SEIS text indicates USACE plans to deepen the turning notch from 42 to 52 feet[145] but Figure 5 indicates the USACE will deepen to 48 feet.[146]
- EPA recommends the final EIS clarify the projected number of vessel calls for the no action and the proposed action and be consistent throughout the text.
  - The draft EIS indicates the 2060 no action projects are for a minimum of 5,193 vessels calling annually, an increase from the pre-2012 baseline of more than 1,163 vessels annually.[147]
  - The draft EIS indicates the No Action analysis estimates 5,163 vessel calls in 2060, an increase in the 2012 level of 1,646 calls.[148]
  - The draft also states *with* project vessel calls in 2060 are estimated to be 8,693, one call less than estimated *without* project.[149]
  - The draft also states *with* project vessel calls in 2060 are estimated to be equal to or less than the without-project vessel calls.[150]
  - The draft also states the 2060 no action projects 8,984 vessel calls; an increase of 3,691 from 2012 baseline, and 1 call less than with the TSP, 8,983 and the proposed action 2060 calls are projected to be 8,983, one less call than the no action.[151]
  - The draft also states the no action, 2060 vessel project is 5163 while the proposed action's 2060 vessel projection is 5,067.[152]
  - The draft also states the estimated vessel calls *without project* – 8,983 in 2060 and *with project* – 8,983 in 2060.[153]
  - The draft also states the no-action alternative would involve a continued increase in ship calls from the 4,000 vessel call 2012 baseline. The future 2060 *without project* estimate is 5,163 vessel calls an increase of 1,646.[154] EPA's calculator finds 4,000 + 1,646 does not equal 5,163.
- EPA recommends the final EIS clarify Figure 62 as the draft EIS references it for two different figures.[155]
- EPA recommends the final EIS improve on the draft EIS' Figure 64 to make it readable.[156]
- EPA recommends the final EIS make Figure 74 readable.[157]
- EPA recommends the final Feasibility Study clarify where the UMAM calculations are provided. They were not provide in Appendix B of the draft EIS as indicated in the draft Feasibility Study.[158]
- EPA recommends the final Feasibility Study clarify where PERG's Draft Compensatory Mitigation Recommendations can be found. They were not provide in Appendix B of the draft EIS as indicated in the draft Feasibility Study.[159]
- EPA recommends the final EIS reflect updated population numbers as the draft EIS states Florida's 2010 population was 1,748,066.[160]
- EPA recommends the final EIS add TSP to the Acronyms/Definitions of terms list.[161] For example, the draft EIS' Table 18 provides information regarding the habitat impacts of the TSP by plan component but TSP is undefined.[162]
- EPA recommends the final EIS reflect the correct spelling of artificial in the Section 7.2.3 header.[163]

- The draft EIS states [m]*angrove mitigation requirements were determined using the State of Florida's Uniform Mitigation Assessment Method (UMAM) assessment.*" It should be Seagrass, not Mangrove.[164]
- EPA recommends the final EIS clarify the draft's statement [u]*navoidable impacts to mangrove wetlands will be mitigated by using credits (functional units) generated by habitat improvements at West Lake Park.*[165] It should be seagrass, not mangrove.

Region 4 EPA Contacts:

Consistent with EPA/USACE discussions, EPA offers its assistance to address our identified concerns with this draft SEIS prior to publication of the final. The following is a list of staff, their contact information, and expertise areas.

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[1] Section 1.2, p. 2.
[2] Section 3.14, p. 167.
[3] Section 3.18, p. 166.
[4] Section 3.14, p. 167.
[5] Section 3.18, p. 166.
[6] Section 3.18, p. 166.
[7] P. Section 3.8, p. 167.
[8] E.S., p.1.
[9] Section 1.2, p. 2.
[10] Section 1.4, p. 9 – FS.
[11] Section 1.4, p. 8 – FS.
[12] Section 2.2.2, pp. 19 – 22.
[13] Section 2.3.2, p. 27.
[14] 16 USC § 1431 et seq. and 33 USC §1401 et seq. (1988).
[15] Section 2.3.2, p. 27.
[16] Section 2.3.2, p. 27.
[17] Section 2.3.2, p. 27.
[18] Section 2.3.2, p. 27.
[19] Section 3.6.2, p. 108.
[20] Section 3.6.2, p. 108.
[21] Section 2.5.5, p.40.
[22] Section 3.17, p. 162.

[23] Section 3.17, p. 162.
[24] Section 3.9.1, p. 147.
[25] Section 4.5.10.2.2, p. 209.
[26] Section 4.4.1.2., p. 176 and Section 4.5.2.2, p. 191.
[27] Section 4.3.2, p. 172.
[28] Section 2.7.1, p. 44.
[29] Section 4.5.10.2.1, p. 208.
[30] Guilford, J.; Robertson, W.; Ramsay, S., 2008. Evolution of the LADS MkII ALB System: A Comparison of the 2001 and 2008 Broward County Lidar Surveys. Available at http://www.thsoa.org/hy09/0512P_04.pdf.
[31] Section 4.3.2, p. 173.
[32] Section 4.5.10.2.2, p. 211.
[33] Section 4.4.2.2, p. 179.
[34] Section 2.9.1, p. 47.
[35] Section 4.5.10.2.3, p. 213.
[36] Appendix E-2, Section 4.51, p. 12.
[37] Section 4.5.10.2.2, p. 211.
[38] Section 3.3, p. 87.
[39] Section 4.5.10.2.4, p. 220.
[40] P. iv.
[41] Section 4.4.2.2, p. 177.
[42] Section 4.5.1 , p.12.
[43] Section 6.1, p. 22, Table 8, p. 33, and Table 11, p. 37.
[44] Appendix E-2, Section 4.51, p. 12.
[45] Appendix E, Section 1.0, p. iv.
[46] Section 3.6.2, p. 111.
[47] Section 3.7.2.13, p. 137 and p. 140.
[48] Appendix E, Section 6.3.5, p. 34, and Table 10, p. 35.
[49] Appendix E-2, Section 4.5.1.1.1, pp. 13-15.
[50] Section 4.5.10.2.2, p. 211.
[51] Section 2.9.3.2.3, p. 72.
[52] Section 3.6.3.3, p. 117.
[53] Section 3.7.2.2, p. 121.
[54] Appendix E-2, Section 4.6, pp. 17 - 21.
[55] Section 4.3.2, Table 18, p 173.
[56] Section 4.3.2, Table 18, p 173.
[57] Section 3.6.1.1, Figure 49, p. 101.
[58] Section 3.6.1.1, Figure 49, p. 101.
[59] Section 4.3.2, Table 18, p 173.
[60] Section 8.11, p. 138 – FS.
[61] Section 4.7.1, p. 221.
[62] Section 2.7.1, p. 44.
[63] Final Independent External Peer Review Report, Science Reports for the Port Everglades Harbor, Florida, Feasibility Study and Environmental Impact Statement (EIS), by Battelle for USACE Ecosystem Restoration Planning Center of Expertise Rock Island Division (August 17, 2011).
[64] NEPA documents shall use data and incorporate findings from analysis required by other environmental laws (e.g., ESA and the Clean Water Act) to assess the project's effects on listed species and wetland resources and to evaluate avoidance or minimization measures.
[65] WRDA 2007 (Section 2036), projects under the USACE Civil Works program need to ensure that *all significant impacts to ecological resources have been avoided and minimized ...and, unavoidable impacts compensated to the extent practicable.*
[66] Section 4.29.2, Table 38, p. 249 does not include the Dania Cutoff Canal project.
[67] Dania Cutoff Canal Deepening Project Kicks Off, July 10, 2012, see:
http://www.dredgingtoday.com/2012/07/10/dania-cutoff-canal-deepening-project-kicks-off-usa/
[68] Section 5.2.3, P. 260.

[69] Section 3.6.2, p. 108.
[70] *Recommendations of the Port Everglades Reef Group Regarding Compensatory Mitigation for Navigational Improvements at Port Everglades Harbor* (May 2005) Section 7.6, p. 25.
[71] Appendix E, Section 6.2, p. 23. See also Section 7.2.3, p. 123 – FS.
[72] Final Independent External Peer Review Report, Science Reports for the Port Everglades Harbor, Florida, Feasibility Study and Environmental Impact Statement (EIS), by Battelle for USACE Ecosystem Restoration Planning Center of Expertise Rock Island Division (August 17, 2011).
[73] Appendix E, Section 1.0, p. iv.
[74] OMB Circular A-94.
[75] Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies (1983), available at ftp://ftp-fc.sc.egov.usda.gov/Economics/priceindexes/Data/PrinciplesAndGuidelinesLocalSite.pdf
[76] The draft EIS indicates, without supporting data or studies, [t]he interval required to reach substantial functional productivity of this alternative is estimated to be 30-50 years. And also states without supporting data or studies, its proposed mitigation will shorten this interval to 23-30 years. See: Section 5.2.2, p. 259.
[77] Appendix E, Section 6.3.4, p. 34, and draft EIS, Section 5.2.2, p. 258.
[78] Section 5.2.2, p. 259.
[79] Appendix E2.
[80] Compensatory Mitigation for Losses of Aquatic Resources; Final Rule, 40 CFR Part 230 (2008).
[81] Appendix E-5, Monitoring Plan, p. 19.
[82] ES, p. iv.
[83] Section 1.6, p. 16 – FS.
[84] Section 2.7.1, p. 44.
[85] Section 2.5.5, p. 40 and Figure 9, p. 40.
[86] Section 2.2.2, Figure 5, p. 20.
[87] Section 2.5.5, p. 40.
[88] Section 3.5.2, p. 93.
[89] Section 2.5.5, p. 40.
[90] Section 2.5.5, p. 40.
[91] Section 2.7.1, Table 7, p. 45.
[92] Section 1.4.6, p. 10 - FS.
[93] Dania Cutoff Canal Deepening Project Kicks Off, July 10, 2012, see: http://www.dredgingtoday.com/2012/07/10/dania-cutoff-canal-deepening-project-kicks-off-usa/
[94] Section 4.29.2, Table 38, p. 249 does not include the Dania Cutoff Canal project.
[95] Section 4.29.2, Table 38, p. 249.
[96] Section 7.2.1, p. 122 – FS.
[97] Section 3.5.2, p. 95.
[98] Section 5.0, p 260.
[99] Compensatory Mitigation for Losses of Aquatic Resources; Final Rule, 40 CFR Part 230 (2008).
[100] Section 5.3, p. 260.
[101] Appendix E, Table 2, p. 10.
[102] Section 2.7.1, Table 7, p. 25.
[103] Appendix E, Section 3.0, p. 7-8.
[104] Compensatory Mitigation for Losses of Aquatic Resources; Final Rule, 40 CFR Part 230 (2008).
[105] Final Independent External Peer Review Report, Science Reports for the Port Everglades Harbor, Florida, Feasibility Study and Environmental Impact Statement (EIS), by Battelle for USACE Ecosystem Restoration Planning Center of Expertise Rock Island Division (August 17, 2011).
[106] Section 404(b)(1) Guidelines.
[107] Section 2.3, p. 22 – FS.
[108] Section 7.2.3, p. 124 – FS.
[109] Section 4.7.2, p.222.
[110] Section 4.7.2, p.221.
[111] Section 2.9.2, p. 48.
[112] Section 2.9.3.2.1, p. 67.
[113] Section 2.9.3, p. 65.

[114] Section 4.0, p. 235.
[115] Section 2.9.3.2.2, p. 67.
[116] http://newspaper-edit.wunderground.com/data/hurricane/mwrscrape/www.aoml.noaa.gov/themes/CoastalRegional/projects/FACE/PtEverg.htm
[117] Section 3.9.1, p. 147 - 148.
[118] *Clostridium perfringens (C. perfringens)* is one of the most common causes of food poisoning in the United States. http://www.foodsafety.gov/poisoning/causes/bacteriaviruses/cperfringens/
[119] For example, Stamates, S J, J R Bishop, T P Carsey, J F Craynock, M L Jankulak, C A Lauter, and M M Shoemaker. Port Everglades flow measurement system. NOAA Technical Report, OAR-AOML-42, 2013, 22 pp.
[120] Futch, J.C., D.W Griffin, K. Banks, and E.K. Lipp. 2011. Evaluation of sewage source and fate on southeast Florida coral reefs. *Marine Pollution Bulletin*. 62: 2308-2316.
[121] Section 4.4.3.2, p. 184.
[122] Section 4.29.5, p. 252.
[123] Section 4.7.1, p. 221.
[124] Section 2.9.4, p. 80.
[125] Section 3.1.
[126] Appendix B.
[127] Section 3.10, p. 151.
[128] Section 3.1
[129] Appendix B.
[130] Appendix B.
[131] Section 1.8.
[132] Section 2.9.4.
[133] Appendix B.
[134] Section 2.9.3.2, p. 67.
[135] *Sea-Level Change Considerations for Civil Works Programs*, EC 1165-2-212 (1 October 2011).
[136] ER1165-2-212.
[137] *Surge Sensitivity Analysis for Sabine Neches Water Way Navigation Project* by Ty V. Wamsley, Mary A. Cialone, and Tate O. McAlpin, March 2010, available at http://ww3.swg.usace.army.mil/pe-p/SNWW/Doc/2Sabine%20Surge%20Final%20Draft%203-22-10.pdf
[138] Section 2.9.3.2.2, p. 67.
[139] Section 4.9.5, p. 228.
[140] Executive Order 12898 entitled *Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations.*
[141] Section 6.23, p. 265 – 266.
[142] Protection of Children From Environmental Health Risks and Safety Risks.
[143] Section 2.3.5, p. 37.
[144] Table 31, f.n. 1, p. 117.
[145] Section 2.5.5., p. 40.
[146] Section 2.2.2, Figure 5, p. 20.
[147] Section 2.4, p. 28.
[148] Section 4.5.4.1, p. 194.
[149] Section 4.5.6.2, p. 201.
[150] Section 4.5.9.2, p. 207.
[151] Section 4.9.6, p. 229.
[152] Section 4.9.6, Table 36, p. 230.
[153] Section 4.9.10, p. 234.
[154] Section 4.9.11, p. 234.
[155] Section 3.9.1, p. 147 and Section 3.9.2, p. 148.
[156] Figure 64, p. 150.
[157] P. 182.
[158] Section 7.2.1, p. 123.
[159] Section 7.2.1, p. 123.
[160] Section 3.4, p. 46.

[161] I.e., pp. vii and viii.
[162] Section 7.2, p. 121.
[163] Section 7.2.3, p. 123.
[164] Appendix E, Section 4.1, p-8.
[165] Appendix E, Section 4.4, p. 14.

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August 12, 2013

Alan M. Dodd, U.S Army, District Commander
U.S. Army Corps of Engineers
701 San Marco Boulevard
Jacksonville, FL 32207

RE: Navigation Study for Port Everglades Harbor
Draft Feasibility Report and Environmental Impact Statement – June 2013
Broward County Comments

Dear Colonel Dodd:

On behalf of Broward County, I am pleased to forward the attached comments on the draft documents listed above. We appreciate the opportunity to review and provide input on this critically significant project for Broward County, the South Florida Region, the State of Florida, and the Nation.

In reviewing the document it was evident that the U.S. Army Corp of Engineers (ACOE) conducted a thorough analysis through the draft Feasibility Report and Environmental Impact Statement. The comments provided are intended to bring further clarification to certain items within the draft documents, with the goal off adding value to the overall project as these documents are made final.

Broward County looks forward to our continued partnership as this project moves toward completion of the feasibility phase and into planning, engineering and design. Please contact David Anderton, Assistant Director of Port Everglades, at 954-468-0144 if you have any questions or require additional information on the comments.

Sincerely,

Bertha Henry
County Administrator

Attachment

Cc: Steve Cernak, BC Port Everglades Department, Chief Executive/Port Director
Glenn Wiltshire, BC Port Everglades Department, Deputy Director
David Anderton, BC Port Everglades Department, Assistant Director
Cynthia Chambers, BC Environmental Protection and Growth Management Department, Director
David Hobbie, ACOE
Jerry Scarborough, ACOE
Cynthia Perez, ACOE
Terry Jordan-Sellers, ACOE

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Navigation Study for Port Everglades Harbor
Draft Feasibility Report and Environmental Impact Statement
June 2013
Broward County Comments

This document contains comments on behalf of Broward County on the Draft Feasibility Report and EIS. Comments are organized by report section, beginning with the Draft Feasibility Report, then the EIS, and finally the report appendices.

Draft Feasibility Report Comments

Executive Summary, 3rd paragraph, 1st sentence. "*...Port Everglades is one of three ports in Florida receiving petroleum, is ranked 35th nationally in tonnage, and has a growing cruise ship/passenger vessel presence...*"

The italicized sentence, and paragraph, grossly understates the importance of Port Everglades in terms of both cargo and cruise, as well as its economic significance to the regional economy. We believe it is important that the Executive Summary make a reasonably compelling case for Federal investment in the Port Everglades project. More compelling text to demonstrate the importance of Federal investment in improvements at Port Everglades should include the following:

1) As a cargo port, Port Everglades is ranked 31st nationally in total tonnage, is ranked second among Florida port in terms of foreign trade tonnage and domestic trade tonnage, and is the largest Florida Atlantic coast ports in terms of total tonnage (source: Waterborne Commerce Statistics Center, 2011 data).
2) Port Everglades is an internationally important cruise port. It is the 3rd busiest cruise port in the world and U.S., as measured by total annual multi-day passengers;
3) The cruise industry is vitally important to the port. In 2012, Port Everglades had 838 cruise ship calls, including 199 calls by cruise ships longer than 1,000 feet and 344 calls by Post-Panamax size cruise ships. Port Everglades also homeports the largest cruise vessels in the world, RCI's Oasis Class, with lengths of nearly 1,200 feet, passenger capacities of 6,300 and a crew of more than 2,000.
4) Port Everglades is a major regional economic engine, generating (in FY 2012):
    a. 28,100 direct, indirect and induced jobs,
    b. $1.7 billion in personal income,
    c. $2.9 billion in business activity,
    d. $0.59 billion in local purchases, and
    e. $160 million in state and local taxes.
5) In addition, related port users throughout Florida generate substantial economic activity. These include manufacturers and wholesale and retail distribution firms, which use Port Everglades but may also use other ports and therefore are not totally dependent on Port Everglades. These related port users generate:
    a. 173,300 jobs,
    b. $6.1 billion in personal income,
    c. $22.8 billion in business activity, and
    d. $0.57 billion state and local taxes.

Source: The Local and Regional Economic Impacts of Port Everglades – FY 2012 Final Report

Executive Summary, Page iii, last paragraph, "Discussions include assessed impact acreages, functional assessment output, *and potential compensation derived from the proposed mitigation alternatives."*

The meaning of the italicized clause is not clear.

Executive Summary page iii: Costs and Benefits of the Tentatively Selected Plan

The benefit-cost ratio for the TSP of 1.59 is inconsistent with the 1.57 on page 73 of the Economics Appendix.

Executive Summary page iv: Table A

The B/C ratio of 1.59 and AAEQ Benefits of $24,820,000 are inconsistent with the 1.57 and $24, 480,000 on page 73 of the Economic Appendix.

Executive Summary, Table A: Tentatively Selected Plan Costs and Benefits

There are several aspects of this Table that are confusing / potentially misleading:

1) Not all the line items listed as included in the subtotal GNF are General Navigation Features (e.g., LERRRDs are not GNF)
2) Expansion of the ODMDS is specifically mentioned in the text but cost is shown as $0 in the table. This needs to be further explained.
3) Not sure why utility relocations are listed below the cost sharing subtotal rather than shown earlier in the table where allocation to either Federal or non-Federal costs can be clearly displayed (this is a 100% non-Federal cost).
4) Construction management (S&I) costs of $1.3 million (0.5%) look extremely low relative to the total project first costs ($282 million). Since S&I costs typically range from 5 to 7.5% of project first costs, this bears explaining.

1.3 STUDY PURPOSE AND SCOPE (GOALS AND OBJECTIVES)

This section should mention the impacts of channel width restrictions on large cruise ships.

Page 6, 1.4.2 Adjacent Facilities ...The port has adequate access to the Florida East Coast Railway links, *with future plans for an intermodal container transfer facility and railway lines.*

The italicized statement is out of date. Construction of the ICTF is underway and will be completed in July 2104 prior to implementation of the TSP.

Page 11, Table 6: Port Everglades Federal Navigation Reports

Study Type column contains "PE" entries, while footnote defines as "PA"

Page 11, *1.5.2 Previous Alternative Formulation Briefings*. An Alternative Formulation Briefing (AFB) was conducted in 2001 and 2005 for the Feasibility Study but resulted in a recommendation to conduct further study. *Several factors contributed to the need for re-formulations including changing conditions in the methodology for calculating transportation benefits, which resulted in the need for a new economic analysis.*

Note AFBs should be plural, not singular. More importantly, is the italicized rationale an accurate reason for both the 2001 and 2005 reformulations? Also, should the most recently completed economic reanalysis also be mentioned?

Page 16: 2.1 General, first paragraph

Need to update to FY 2012 economic benefits of Port Everglades of approximately $26.7 billion annually, supporting almost 201,400 jobs.

Page 16, 2.1 GENERAL...*"Port Everglades is the second busiest multi-day cruise port in Florida with approximately 42 different cruise ships visiting in 2012, representing 15 cruise lines."*

This gives a somewhat misleading impression. Port Everglades is also the 2nd busiest multi-day cruise port in the world, since the top 3 busiest cruise ports in the world are all located in Florida. To give a proper impression of the intensive use of Port Everglades by the cruise industry you may also wish to mention that those 42 different cruise ships had 838 calls in 2012, 344 of which were by Post-Panamax size cruise ships.

Page 19: 2.2.9 Salinity

Update name to Broward County Environmental Protection and Growth Management Department (BCEPGMD).

Page 20: 2.2.10 Littoral Processes

Recommend that the discussion of the Sand Bypass Project be updated to its current status.

Page 20, 2.2.11 *Historic Conditions*

The discussion in this section is disjointed. It starts in 1927, moving through 1940s, then shifting back to the 19th century, then back to the 1920s. It also shifts from Port history to region, then back to Broward County. It also stops in the 1950s. As a result, it does not portray a coherent image of the Port or the region it serves.

Page 21, Federal Navigation Project, "...Maintenance dredging occurred in 2013 and the next *even...*" *"The estimated volume above design depth is approximately 160,000 cy."*

Italicized word should be "event" not "even".

Add what volume was dredged during the 2013 maintenance dredging. Also, what is meant by the sentence *"The estimated volume above design depth is approximately 160,000 cy."?* Does this mean that the project is not currently being dredged to its full design depth and width?

Page 25, 2.3.3 *Local Areas of Particular Concern. "...(mostly owned by the state but mangaged by the county)"*

Correct spelling to *"managed"*

Page 39: Last paragraph

Description of Midport is outdated. Revise to: "Along with berthing, Midport provides: 1 Panamax gantry crane, one mobile harbor crane, a refrigerated warehouse, several acres of open yard area for containers and neobulk storage, and 8 dockside buildings (Terminals 18, 19, 21, 22, 24, 25, 26, and 29)

that are used for passenger facilities. The berth areas adjacent to these terminals are used for both cruise and cargo operations."

Page 41, *2.4.2 Cargo Movements and Fleet Composition.* "Total vessel calls during the period of 1993 to 2010 have declined primarily due to a reduction in passenger cruise ship calls."

To put this reduction in perspective, however, it is suggested that you add: "There are a couple of factors related to this. First, is the elimination of daily cruises to nowhere and second is that the total number and proportion of post-Panamax vessel calls has significantly increased over this same period, reflecting a shift over time to fewer but significantly larger vessels within the port complex."

Pages 41-42: 2.4.2 Cargo Movements and Fleet Composition

Update last paragraph to reflect current cruise line use as follows: "Multi-day cruises include Princess Cruises, Holland America Line, Carnival Cruise Line, Cunard Lines, Celebrity Cruises, Royal Caribbean Cruise Line, Cunard, Seabourn, and Silversea Cruises. Daily cruises include the Balearia Caribbean service to Freeport, Bahamas."

Page 42, top paragraph, "... Cruise ship trends at Port Everglades are changing and are trending toward larger capacity vessels on the order of *3,000 passengers*

Reflecting the size of RCI's Oasis Class, change italicized to *"3000 to 6000 passengers"*

Page 42, 2nd paragraph, *"The cruise market has been shifting from day trips to longer voyages and larger vessels. As such, this is not a sign in market decline, but rather a market shift in the type of cruising, and thus a decrease in daily vessel calls."*

Suggest change to:

"The cruise market has been shifting from day trips by smaller cruise ships to longer voyages by larger vessels. As such, this decrease in daily vessel calls is not a sign of market decline, but rather a market shift in the type of cruising to higher value, multi-day cruises on the largest, newest vessels deployed in the cruise industry."

Page 42, last paragraph, "There is a trend for container vessels calling at deeper sailing drafts inbound and outbound. For example, container vessel calls with 35-foot sailing draft or greater increased from 35 inbound in 2004 *to 104 inbound in 2008*. The increase in deeper draft vessels correlates with the increase in number of *larger Panamax container vessels* calling the port."

This paragraph is out of date. Please update to more current 2011 or 2012 vessel calls and include both Panamax and post-Panamax container vessels.

Page 43, first paragraph, The major global services for container vessels calling on Port Everglades are deployments to and from Australia (AUST), the Far East (FE), Europe (EU), the Mediterranean (MED), and South America (SA). Most of the larger container vessels' calls were either associated with services for the Far East or South America. The FE and MED calls *declined in number from 2006 to 2008 due to the global recession*. The AUST calls in the same time period remained the same, and the SA calls increased

This paragraph is also out of date. Please update to more current 2011 or 2012 vessel calls to reflect recovery in vessel calls since the 2006-2008 recession.

Page 43, 2nd paragraph, "Analysis of Port Everglades compound annual growth rates from 1998 to

2012 showed petroleum tonnages peaking in 2005 and then declining after 2005. Cement peaked in 2006 and then declined. *Table 14 provides more details."*

"The growth in cargo tonnage is indicative of south Florida population growth over this temporal period of analysis."

Table 14 does not provide details on historic growth rates – it displays the CAGR projections for future years. A table showing historic growth rates for different commodity types would be useful, however; and should be added to the document.

"tonage" should be "tonnage"

Also, please review data and revisit the last statement. We believe that growth rates for tonnage, esp. containerized tonnage, have significantly exceeded growth rates for south Florida population (rather than being indicative of..). This is significant in projecting future growth rates, esp. in the out years, if population is to be used as a predictive variable.

Page 45, Table 15: Cruise Passangers and Total Tonnage by Type (2012)

"Passangers" should be "Passengers". Also, TEUs or tonnage inbound and outbound should be shown.

2.4.2 Cargo Movements and Fleet Composition

General Comment. Overall, this section is somewhat disjointed. More importantly, it does not give a coherent and comprehensive view of commodity movements at Port Everglades. Critical items not presented include:

- Description of hinterlands for primary commodities, including competitor ports
- Description of primary commodities on each of the major container services (origins and destinations) and historic growth of same
- Description of cargo recovery & growth since end of 2006-2008 recession
- How generic "economies of scale" paragraph applies in particular to Port Everglades
- Interaction between cruise and cargo at Port Everglades (port operations, joint use facilities)
- Key factors affecting future cargo and fleet growth

3.4 ECONOMIC CONDITIONS.

Page 46, 2nd paragraph of Section: *"The population of Florida in 2010 was 1,748,066."*

1,748,066 was the 2010 population of Broward County. The 2010 population of Florida was 18,801,310 (Economics Appendix, Table 7).

"The urbanized counties that make up Port Everglades' south Florida hinterland have projected growth rates that are close to one-half of the rates for the whole state."

Check your math and revisit this statement. According to population projections in Economics Appendix, Table 7, south Florida hinterland projected growth rates appear to be 98-99% of projected state growth rates. If the statement is intended to mean that the anticipated growth in south Florida population represents nearly one half of the total expected state growth, then that figure is closer to one third and the sentence should be rewritten to clarify that meaning.

3rd paragraph of Section: *"Container tonnage continued to grow through 2008, but too has since declined. The container tonnage historical growth rates, further discussed in the Economic Appendix section 2.0, were generally more conservative than other major U.S. container ports such as Savannah Harbor, reflecting that Port Everglades is a regional hinterland largely confined geographically to the southern part of Florida."*

The referenced container tonnage historical growth rates are not presented either in this section or in the referenced section 2 of the Economic Appendix. The conclusion drawn – that Port Everglades is a regional port with a regional hinterland, and therefore likely to experience lower growth - is a critical assertion and should be supported with data and analysis that lends credibility to this conclusion. The historic growth rates should also be presented in order to provide a basis of comparison with the projected future growth rates presented later in the report.

Page 47, 1st paragraph, *"The projected growth rate for containerized cargo is three percent* as outlined in the Port Master Plan (2006). A factor that will affect this rate is the resumption of discontinued container services by Panamax vessels with one service expected to begin in 2010. The Port is projected to attract additional Post-Panamax service in 2016, greatly increasing the volume of containerized cargo.

This paragraph is out of date and appears to be a holdover from a much earlier, pre-2010 version of the draft Feasibility Report. Projected container growth rates presented in the Economic Appendix, Table 23, for 2017 to 2029 range from 3.81% to 4.24%. There are both Panamax and Post-Panamax services currently calling at the Port in 2013. Also note misspelling of "serice" – should be "service".

Page 47, 3.5 WITHOUT PROJECT CONDITIONS. 5th bullet "...as *futher* described

Misspelling. Should be "further"

Also, please update description of the status of the turning notch project.

Page 49, First Paragraph, "Mediterranean Shipping Company's MSC Maeva..."

This paragraph seems to be out of place. It would fit more appropriately within 3.4 Economic Conditions, as an indicator of the size of vessels in the future containership fleet; rather than in Section 3.5 Without Project Conditions, following a discussion of the turning notch project.

Also, it would bear mentioning that this is a 8,100 TEU capacity vessel and that vessels of this class are now calling (rather than is projected to call) on Port Everglades on a regular basis.

Page 51, 4.2 PROBLEMS AND OPPORTUNITIES. Existing problems include:

> **• navigational safety concerns: inadequate width and depth of the channel to accommodate future vessel fleets, leading to potential collisions, *allisions*, and groundings, and"**

Note that there is inadequate depth and width for the existing vessel fleet, not just the future fleet. This leads to operational inefficiencies and increased transportation costs in addition to the other problems listed. Also, most readers will not know what "*allisions*" means. This is not defined until page 57.

Existing problem definitions in this section are somewhat vague and difficult to follow. Suggest you replace these with the problem definitions contained in the Economic Appendix Section 3.4.

Page 58, The primary problems at Port Everglades are related to container ship operations in the Federal navigation channel leading to the Southport container terminal and cruise ship operations in the Federal navigation channel leading to two of the Port's cruise terminals.

Mention should be made of petroleum cargo vessel light loading problems as well, since a significant portion of the benefits to be described later in the report come from petroleum vessels.

Page 59, 2nd paragraph, 2nd sentence: "There are by-passing restrictions on vessels transiting the South Access Channel, which stop all Panamax and Post-Panamax vessel traffic in the South Access Channel, when Panamax vessels are moored alongside.

After "alongside" add "berths 25, 26/27, and 29."

Page 61, Table 17: Study Objectives Objective 1 Decrease costs associated with vessel delays from congestion, channel passing restrictions, and *berth deficiencies* at Port Everglades through the year 2067.

Do not believe "berth deficiencies" belongs in this objective. Any berth deficiencies are being resolved by Port Everglades as part of capital improvements under the without project conditions.

Page 62, 4th paragraph, The unpredictable cross-currents are an existing problem as presented earlier in this section and *is considered a planning constraint.*

Unpredictable cross-currents are a problem that needs to be addressed in the formulation of alternatives, but is not a constraint that limits formulation.

Page 65, 4. Trucking. Vessels that cannot be accommodated at the port would be redirected to other ports. The commodities would then be trucked to Port Everglades as needed or other locations as needed. This measure could reduce port congestion so it met objective 1.

Trucking is really a misnomer for this non-structural alternative. It is really vessels bypassing Port Everglades to load/offload at another, less cost effective, port. Commodities are then transported to their ultimate hinterland origin/destination by whatever land-based transportation method is appropriate from the alternative port. You can note that this alternative is currently being implemented on container services that have recently left Port Everglades due to channel depth restrictions.

Page 65, 5. Off-Loading Cargo. It would increase port congestion *because at least two vessels would be entering rather than the original, larger vessel*...It is not likely to decrease costs *because two vessels have to be used* which increases delays and operating expenditures

Note that the italicized statements about requiring at least two replacement vessels is only true in cases where the larger vessel would be loading/unloading its entire cargo at a non-depth constrained Port Everglades. Typically, this would be the case for point-to-point bulk services only. The typical container vessel (at least ones large enough to require increased channel depth) is on a liner service that only loads/unloads a portion of their cargo at any given port on its rotation. For these container vessels, this alternative would take the form of transshipping all or a portion of their Port Everglades-bound cargo at another port onto a smaller (but less efficient) vessel.

Page 66, 6. Light-Loading Vessels. *This measure would limit the capacity of the vessels that could enter the port*.

Suggest rewording italicized sentence to "This measure would limit the ability of vessels entering the port to load to their full capacity.

Page 66, 7. Lightering Vessels. The two main commodities that would require lightering at Port Everglades are *containers and petroleum. Petroleum lightering is a more common practice in the Gulf of Mexico and not in the Atlantic.*

The concept of off-shore lightering is typically not applied to container vessels. Transshipment of containers to smaller vessels typically occurs at alternative transshipment ports (such as Jamaica or Manzanillo).

Also, please note that petroleum lightering is common in the north Atlantic, and occurs most notably in the Delaware Bay, New York Harbor, Long Island Sound, Narragansett Bay, and Chesapeake Bay. Lightering is typically done at a designated anchorage or protected off-shore or near-shore area however, none of which are available in close proximity to Port Everglades.

Also note that the larger vessel that is lightered is still required to enter the harbor, as is the smaller lightering vessel, resulting in congestion problems from additional vessels and safety issues associated with the larger tankers, similar to those problems discussed for container vessels under 6. Light Loading .

Page 66, 8. Off-Shore Petroleum . This measure would build an off-shore facility for the petroleum vessels. ... This measure meets objective 2 to *decrease transportation costs.*

While this measure might decrease the waterborne leg of transportation costs, it would significantly increase the landside leg, and very likely increase total transportation costs, as well. There is also an increased environmental risk of oil transfers offshore.

Page 66: 9. Alternate Rail

The paragraph incorrectly indicates that there are no rail cars designed to transport petroleum related products. While it is accurate that some of the refined petroleum products entering Port Everglades are not normally shipped by rail, the primary reason that use of rail to provide petroleum products to south Florida is not feasible is due to the volumes required and the lack of rail infrastructure to deliver those volumes.

Page 76, Plan NS-3: Clear Bearthed Vessels

Misspelling. "Bearthed" should be "Berthed"

Plan NS-6: Light-Loading Vessels
Carrying less cargo per transit equates to increased transportation costs due to increased transit for delivery of the goods. As such, Plan NS-6 was eliminated as a viable option.
Plans NS-4 (Trucking), NS-7 (Lightering Vessels), and NS-8 (Off-Shore Petroleum) were carried into the next level of detailed analysis and are evaluated in section 4.7.1.

The logic for inclusion and exclusion is not consistent. If the rationale for the elimination of Plan NS-6 is increased transportation costs, then Plans NS-4, NS-7 and NS-8 should also be eliminated for the same reason. Trucking increases transportation costs by landing cargo at a less cost effective port location. Lightering increases transportation costs due to a second cargo handling and use of an additional vessel. Off-shore petroleum increases transportation costs due to the additional construction costs of vessel unloading and piping/pumping infrastructure.

Page 82: Disposal Options

The temporary disposal site for dredged material between Slips 2 and 3 no longer exists. Recommend deletion of the last 2 sentences of that section and replace it with: "A temporary site for upland material not suitable for offshore disposal that could be staged, dried, and then transported offsite for landfill capping or other use is located on the port in the southwest corner of Southport. That site has been used by the port for maintenance dredging material."

Page 82, 3rd paragraph. An Environmental Assessment (EA) is being prepared in coordination with the Environmental Protection Agency (EPA) to address the ODMDS expansion. The final report is scheduled to be completed winter 2013.

Is an incomplete DMMP without an approved disposal area sufficient to accommodate project dredge volumes and O&M quantities considered sufficient for approval of the Feasibility Report? Since upland sites are no longer available, what is the alternative if the ODMDS expansion is not approved? Has that possibility been factored into the cost risk analysis?

Lightering Plan: Lightering vessels is when part of the commodity is off-loaded outside of the port onto smaller vessels for entry into shallower ports. The two main commodities that would require lightering at Port Everglades are containers and petroleum. *Petroleum lightering however, is more common practice in the Gulf of Mexico and not in the Atlantic,* and is thus further evaluated

See earlier comment regarding Atlantic Coast lightering.

Page 83: Utility Relocations in Port Everglades

Revise the first sentence to "Utility investigations indicate that Florida Power and Light (FPL) cables are laid on the existing channel bottom along the SAC." FPL has confirmed that the cable across the IEC was removed in 1987.

Page 90-105, 4.8 FINAL ARRAY OF ALTERNATIVE PLANS

General Comment: We find this section of the report to be very confusing and unnecessarily complicated. Specific concerns include the following:

- **The structural measures were grouped into six different plans based on structural characteristics, environmental impacts, and *economic units*.** What is meant by an "economic unit"? Does this mean project segments that are independent and so should be incrementally justified?
- Table 24 is understandable, however, the un-numbered Figure on page 92 is not, without additional description. The text provided on Page 91 confuses more than it elucidates.
- Page 94. What is the intent of the list of features beginning with Plan 1B, some of which are **highlighted** and others light shaded? Are the light shaded items not included in this (and later) alternatives? If so, please state at the beginning of this section.

Page 106, 4.9.1 Environmental Operating Principles

"The USACE Environmental Operating Principles (EOP's) were developed in ... These EOP's were revisited in 2012 with more emphasis on proactively *implimenting* these *principals.*"

Italicized words are misspelling and wrong word. Should be "implementing" and "principles"

Page 106, 5. Consider the environment in employing a risk management and systems approach throughout life *cylcles* of projects and programs.

Italicized word should be "cycles"

Page 108, 5.1 2nd paragraph, With each foot of increased depth at Port Everglades, containership costs increase as more cargo is moved per call. However, the gross cargo volume increases at a greater rate than the increased voyage related costs, and therein lies the benefit to deepening, as mentioned before.

Suggested rewrite, "With each foot of increased depth at Port Everglades, the costs per containership

increase as more cargo is moved per call. However, the gross cargo volume increases at a greater rate than the increased voyage related costs, resulting in a lower cost per TEU transported and fewer ships are required to deliver the same total volume of cargo to the Port. This is the source of the deepening benefits."

Pages 113 and 116: Table 29 and Table 30

The Average Annual TCS Benefits of $24,480,000 for the TSP 48'+Widening alternative in Table 29 doesn't match the AAEQ Benefits of $24,820,000 in Table 30. These should be the same.

Page 114, Table 29: Alternative Depths Analysis

How is it that Interest During Construction (IDC) increases as a percentage of total first costs as depth increases, from 7.8% (46') to 12.9% (51'). Is the length of the construction period consistently greater as depth increases?

Why are there no TCS benefits beyond 49 feet? What is the maximum vessel operating draft restriction that gives rise to this result? If the TPV of TCS is the same for 49 – 51 feet, how is it that the Avg. Annual TCS benefits increase (albeit slightly)?

Page 116: Table 30

The B/C ratio of 1.59 and AAEQ Benefits of $24,820,000 are inconsistent with the 1.57 and $24, 480,000 on page 73 of the Economic Appendix.

Page 119, Table 33: Construction Phasing

How is the 8 year construction start phasing consistent with the project base year of 2017 cited earlier in the report? Schedule should be aligned with the ACOE target for completion of construction in 2017.

Page 121, 7.1 OPERATIONS AND MAINTENANCE CONSIDERATIONS, 2nd paragraph, The increase in maintenance costs over the existing O&M was determined using FY 11 costs and a 4.375% interest rate over the 50-year period of analysis. The existing project has an AAEQ cost of $183,106 and the proposed project AAEQ cost is $218,385. The annual O&M costs increases by $35,279. This increase in cost is based on the increase in material needing to be removed from the channel. The existing project needs approximately 217,000 cubic yards removed every 10 years while the proposed project will need approximately 274,400 cubic yards removed.

The calculation of incremental O&M costs appears to be out of date, based on prior years' price levels and discount rates. The costs cited for incremental O&M are not consistent with totals shown in Table 29.

Page 149 11.0 REFERENCES

The list of references seems very short and incomplete. Missing (among others) are the most recent Port Everglades Master/Vision Plans.

Draft Environmental Impact Statement (EIS) Comments

1. The diameter threshold for coral relocation should be 10cm in accordance with typical permitting criteria. The EIS alternately states the diameter threshold for coral relocation is 10 cm or 25 cm. It is recommended that all corals 10 cm in diameter or greater be relocated in accordance with typical permitting criteria.

2. Downslope reef impacts should be included in the EIS if clamshell dredging is an option for the third reef. The EIS does not account for downslope reef impacts that may occur during dredging of the upper part of the reef. Discussions with USACE staff indicate that downslope reef impacts were initially considered; they were ultimately excluded from the EIS analysis based on monitoring reports from the Miami dredging project demonstrating no downslope impacts from the use of a suction dredge. However, the EIS provides for clamshell dredging as a possible construction methodology; therefore, the potential for downslope reef impacts should be addressed unless the EIS is revised to specify the use of a suction dredge. In addition:

    - Other federal agencies and/or local regulatory/resource agencies may disagree with USACE's analysis of the extent of hardbottom/reef habitats (Section 4.4.2.2 of the Draft EIS), and which impacts could result in additional compensatory mitigation (possibly, rock/rubble habitat within the existing federal channel). There may be large rock/rubble features within the existing channel that are colonized by corals; discernible via sidescan sonar or other means. The loss of these hardbottom habitats should be accounted for, and if they are impacted, mitigation should be provided.

    - Broward County Natural Resources Planning and Management Division conducted an independent review of the project's reef impact assessment based on the GIS habitat classification mapping and anticipated project impact area. The outcome of this review essentially verified the project impacts are consistent with what is shown and discussed in the Feasibility Study and DEIS. However, as discussed above the potential for downslope reef impacts was apparently discounted by the USACE in the DEIS and needs to be discussed in the development of the final EIS document.

3. Direct and indirect impacts that may occur from turbidity/sedimentation as a result of construction practices are not fully accounted for in the EIS. The use of best management practices is mandated in the EIS to ensure proper control of turbidity / sedimentation and the USACE definition of environmental success for this project is for indirect impacts to be both minimal and indiscernible (July 23, 2013 1:00 pm public meeting). However, historic long-shore currents in the project vicinity and tidal changes at the inlet will make sediment and turbidity control difficult. Staff recommends that a contingent mitigation plan be

developed to help ensure mitigation requirements that may result from unintentional impacts are accounted for, and budgeted, in the planning phases of the project.

4. A detailed pre-construction seagrass survey should be performed to ensure that seagrass impacts are properly identified and mitigated. The EIS includes assumptions regarding impacts to seagrasses based on seagrass surveys performed by various entities from 1999 to 2009. These historic surveys may not be representative of current conditions as it is common for seagrass beds to change shape and size over time. We encourage an updated survey be completed so that the precise extent of impacts, and resulting potential mitigation burden on the ongoing West Lake Park (WLP) habitat improvement project, can be determined prior to construction. A contingency plan for mitigation should also be provided in case WLP cannot accommodate all of the required seagrass mitigation.

5. The estimates for mitigation acreages are based on assumptions and the methodology is not fully documented in the EIS. Required mitigation acreage tables for seagrass & mangrove impacts do not include the necessary Uniform Mitigation Assessment Method (UMAM) worksheets. Discussion with USACE staff at the July 23 public meeting indicated that the preliminary estimates were based on historic knowledge from permitting agencies and that a detailed analysis with UMAM worksheets and backup documentation would be performed in a later phase. The wetland delineation for the mangrove habitats in the impact area and adjacent areas (Section 3.5.6 in the Draft EIS) is out-of-date. Broward County recommends these areas be delineated as soon as possible in order to better determine the precise extent of impacts, and resulting potential mitigation burden on the ongoing WLP habitat improvement project.

6. The cost estimates for coral mitigation are not consistent with costs incurred by the County for similar projects. The mitigation plan (Table 8, page 33) lists the cost for artificial reef creation, without coral transplantation, as $588,524 per acre. In 2003, Broward County implemented a shallow water reef creation project without coral transplantation at a cost of $675,000/acre. Staff recommends consulting with local marine contractors to obtain a more accurate estimate to help ensure mitigation requirements may be properly accounted for, and budgeted, in the planning phases of the project. A more likely range of per acre mitigation costs is between $800,000 and $1 million. Staff is aware of a project currently underway in St. Lucie County where the unit cost is approximately $833,000/acre.

7. The HEA input parameters are inconsistent with typical resource recovery. The HEA inputs assume that the damaged reef will recover to a 15% level of service in 50 years and the artificial boulder mitigation will recover to a 100% level of service. However, the proposed dredging project will remove the reef framework and in the case of the outer reef, create rubble bottom, therefore making full recovery unlikely. In addition, mature artificial reefs do not provide the same services as a natural reef. Therefore, staff recommends changing

recovery time inputs for outer reef impacts from 50 years to "in perpetuity" and adjusting recovery service level inputs for boulder mitigation to less than 100%.

8. Coral Reef mitigation sites may inhibit future County projects. The Mitigation Requirements for Hardbottom Resources Associated with Port Everglades Harbor Navigation Improvements (page 36, section 6.4.2, 2nd paragraph) contemplates utilizing existing artificial reef sites permitted by Broward County's Natural Resource Planning and Management Division (NRPMD). Obtaining permits for these existing artificial reef sites required considerable effort by NRPMD; therefore, staff is concerned that their use by this project may entail the repetition of past permitting efforts in order to obtain new mitigation sites and/or possibly require the relocation of previously required mitigation. In addition, an alternative (Figure 8, page 39) proposes the use of sand borrow sites for mitigation which may adversely affect future beach nourishment projects. Staff recommends that the USACE coordinate with local and state regulatory agencies to identify additional sites for proposed mitigation.

9. The EIS uses a Discount Rate of 0% rather than the previously agreed upon 3%. The Draft Comprehensive Mitigation Plan (Appendix E-2, page 23, section 4.6.3) uses a discount rate of 0% with the explanation that no discounting should occur on a federal water resources project as indicated in OMB circulars A-4 and A-94. Staffs review of the referenced circulars and "Economic and Environmental Principles and Guidelines..." found no mention of the required 0% discount rate. Rather 3% and 7% were used often as examples of acceptable discount rates. The National Oceanic and Atmospheric Administration (NOAA) (*1999 Discounting and the Treatment of Uncertainty in Natural Resource Damage Assessment. Damage Assessment and Restoration Program, Damage Assessment Center, Resource Valuation Branch. Technical Paper 99-1. Silver Spring, MD, February*) uses a discount rate of 3%. This represents the public's preference toward having a restoration project in the present year, rather than waiting until next year. In meetings for previous drafts of the EIS, the USACE agreed that 3% was appropriate while some agency staff argued for 6%.

10. Recommendation for Hardbottom/Reef Mitigation. The USACE-preferred type of mitigation proposed for impacts to hardbottom and reef habitats may not be the preferred option by other federal agencies or local regulatory/resource agencies (Section 6.2, Item 8, of the CMP/ICA). The type and amount offered by USACE appears to have the best benefit-to-cost ratio but this evaluation may be based on an underestimate of the costs for mitigation per acre as outlined in comment #6 above. Broward County, as the local project sponsor, may be liable for any costs beyond those of the "Best Buy" option if another option is selected, including that presented by NOAA/NMFS in the DEIS.

    - It is Broward County's opinion that portions of the presented NOAA/NMFS mitigation plan in the DEIS may not be considered appropriate in-kind project mitigation; however, some of the concepts could be considered in the final

mitigation plan wherein various mitigation options are considered. It is our recommendation that the final selected coral mitigation strategy include a blend of various mitigation options, such as, artificial reef creation using rock/boulder and modules along with coral transplants; artificial reef placement on the existing "tire reef"; the potential restoration of historic grounding sites using coral transplants; and the possibility of including a test site for coral propagation from in-water and land-based nurseries.

Minor Error and Omissions

List of acronyms needs to be expanded since there are more than noted above that are not included in the Acronym List including TEU's, FONSI, TTS, NAAQS, DERA and ROI

Reference to numbers of vessels (baseline and projected) are inconsistent throughout the document

Page XV, List of Figures

Figure 39 is not listed on the index. Figure 56 is on page 127 not page 128.

Page 81, Figure 38

Legend should indicate size of areas

Page 105, 3.6.1.3

Suggest a figure here to show areas 1-7

Page 115, Last Paragraph

Should include Strombus gigas since it is a protected CITES II species.

Page 118, Section 3.6.4.3

Paragraphs above and below "3.6.4.3" are the same

Page 127, Figure 56

Figure is not labeled

Page 145, Section 3.7.3.14, sentence at top of page

Delete "sand" add period and begin new sentence with "Dustan".

Page 145, Section 3.7.3.14, 4th sentence

"Cogeners" is more commonly spelled "congeners"

Page 145, last sentence

"was" should be "were"

Page 148, Section 3.9.2, Second Paragraph, 1st sentence

"Count" should be "County"

Page 148, Section 3.9.2

Text is wrong, figure is right. Should be Figure 63.

Page 148, Section 3.9.2

Text is wrong, figure is right. Should be Figure 64.

Page 195, 1st paragraph, last sentence

Mentions sea turtles in the crocodile discussion, should be in 4.5.5

Appendix E, Page 33, Table 8

Typo on the "all others habitats row. "0.0 should be 0.0*.

Appendix E, Page 33/34, Table 8 & 9

Both tables contain the same information

Appendix E, Page 41, 2nd paragraph, last sentence

Should provide reference to appendix

Appendix E-2

The legends for Figures 1-2 should indicate acreages

Appendix E-2, Page 30, Table 14

"Vales" should be "Values"

Appendix J

Note title page, author, date, and pages are not numbered

Appendix J, Section 1.6

Stops mid-sentence

Sub-Appendix E

No author shown on title page

Sub-Appendix G

No author or date shown on title page

Acronyms are not defined

Sub-Appendix G, Title Page: Estimate for National Economic Development Plan of 48'

Referenced 1816 days which equals 4.97 years for the project, DEIS indicates project will last 3 years.

Engineering Appendix Comments

Need to ensure that the bulkhead cost in the without and with-project conditions are accurate. The Port will be implementing several bulkhead related projects prior to the with-project condition and those cost should not be included in the overall cost estimate for the project.

Page A-10: Figure A-2 Port Layout and Berthing

The map in this figure is out of date and should be replaced with our current port map.

Page A-12: Paragraph 19

In the 5th line, the FAWN station is 7 miles "west" of the port, not "east."

Page A-29 and A-30: Paragraph 68

The last maintenance dredging occurred in 2013, not 2005. The year and quantity of material from that dredging should also be added to Table A-8.

Page A-121: Table A-19

While the ACOE may want to include this table to show a consecutively constructed project, should also add a timeline that shows the sequencing for project construction being completed within two years as was indicated during the public meetings

Pages A-124 and A-125: Figure A-79

While the ACOE may want to include this Figure to show a consecutively constructed project, should also add a Figure with a timeline that shows the sequencing for project construction being completed within two years as was indicated during the public meetings.

Page 101, Section 3.8.4

This should be revised to reflect that the only FPL cable is the one located in the Southport Access Channel.

Pages 120/121, Section 4.4

This section and associated tables should be revised to indicate a non-sequential more realistic implementation schedule that aligns with the with-project condition date of 2017.

Socioeconomics Appendix Comments

Section 4.1: Intermodal Container Transfer Facility - last sentence.

Comment: Is it necessary to take the most restrictive view of the potential impact of the ICTF on future Port Everglades cargo? The ICTF will provide a substantial competitive advantage to Port Everglades. Construction is ongoing, so there is no question of whether the facility will be operational in the base year. The Port and FEC have projections for future cargo movements. These projections should be included in the analysis.

Section 5.1 Commodity Forecast Methods and Assumptions – first paragraph

Comment: South Atlantic ports used in the analysis should be identified.

Section 6.1 Future Without-project Vessel Fleet – first paragraph, last sentence

Comment: Has the Port been consulted concerning the size of future cruise ships? As one of the world's premier cruise ports, Port Everglades often homeports the newest vessels in the world's fleet. The trend is for these vessels to be larger than their predecessors. The port is also improving landside facilities to accommodate more very large cruise ships. It may be the case that the future fleet will include a larger proportion of very large container ships than are in the existing fleet.

Section 6.1 Future Without-project Vessel Fleet – second paragraph

Comment: This paragraph could also be interpreted to indicate that Port Everglades will lose containership services and cargo in the without-project condition. The loss of services and cargo under without-project conditions is the logical result of larger vessels and alternative ports with deeper channel. This should be addressed in the analysis.

Section 7.1 Description of Final Array of Alternatives – Planning Objective #3

Comment: Planning objective #3 reads as if the objective is to increase channel safety and maneuverability for future vessels. It should be noted that all analyses are conducted on the existing fleet and not on larger future vessels, which and will likely use the port in the future under with-project conditions.

Section 8.1 Transportation Cost Savings – last sentence

Comment: Tug cost and fuel cost reductions identified earlier in the document are consistent with ER 1105-2-100. They should be included as transportation cost savings. Further, the spreadsheet models and economic analysis for these additional benefits that was provided to the U.S. Army Corps of Engineers on June 20, 2013 should immediately begin the review process so that these additional benefits may be included in the Benefit Cost Ratio as soon as possible.

Section 9 Future With-project Fleet Forecast – containership bullets

Comment: A table showing what's in and what's out (as described in the bullets) would help the reader understand and compare the fleet composition for each trade route.

Section 10 Evaluation of Alternatives via HarborSym – second sentence

Comment: This sentence is incorrect. HarborSym does not calculate total transportation costs. HarborSym calculates a sub-set of total transportation costs – for example, tug assist costs are not included, which are a component of total transportation costs.

Section 10.2 Modeling Assumptions – Table 31

Comment: Please explain how the values in Table 31 were calculated and how they are used in the model. For example, does every vessel call on the ECUS-WCSA route arrive and depart with 24.7% empty TEUs and 6.5% vacant slots? If so, what constrains the carrier to maintain these averages?

Section 10.3 Model Setup and Calibration – last paragraph

Comment: What is "Existing Condition ()". Is that a typo?

Section 10.3.1 Vessel Types – third paragraph

Comment: Is EGM 11-05 the most recent version of operating costs? Also, summary values such as hourly operating costs by class should not be proprietary because they cannot be traced back to a single user. It would be helpful to the reader, if a table of costs were provided so that economies of scale could be pointed out ($/TEU/thousand miles, for example).

Section 10.5 Model Outputs – first paragraph

Comment: Suggest changing "total transportation costs" to "HarborSym-transportation costs" to avoid the incorrect presentation of HarborSym-calculated costs as total costs.

Section 11 National Economic Development Benefits – first paragraph

Comment: The discussion of NED benefits should be caveated by stating that tug assist reduction benefits and fuel consumption reduction benefits are not included in the HarborSym analysis.

Section 12 Regional Economic Development Benefits – first paragraph

Comment: Some mention should be made concerning the temporal nature of these benefits. Are they projected to occur only during construction? Two years, three years, etc?

Section 13 Sensitivity and Scenario Analyses – first paragraph

Comment: The baseline analysis is very conservative in its approach and assumptions, therefore why are only more conservative assumptions used for the sensitivity analyses? Suggest including additional cargo in without-out and with-project conditions due to ICTF, and loss of container services and cargo under without-project condition associated with increased services and cargo under with-project conditions.

Dredged Material Management Plan Appendix Comments

Page 9: First paragraph

Update economic impact sentence to read "With an annual economic impact of almost $25.7 billion and 201,700 Florida jobs, the port offers great value to the community."

Page 11: Figure 1

Update waterborne commerce tonnage to FY 2012 data. Also suggest deleting the 2007 commoditioes and passengers pie chart since it combines different units of measure (passenger counts and cargo tonnage) in the same graph. Suggest using data in table format from the Port FY Waterborne commerce chart that shows tonnage and passenger counts separately.

DEPARTMENT OF THE NAVY
NAVAL SEA SYSTEMS COMMAND
NAVAL SURFACE WARFARE CENTER
CARDEROCK DIVISION

9500 MACARTHUR BOULEVARD
WEST BETHESDA, MD 20817-5700

IN REPLY REFER TO:
3354
Ser 71/08019
20 Feb 08

From: Commander, Naval Surface Warfare Center, Carderock Division
To: Planning Division, Plan Formulation Branch, Department of The Army, Jacksonville District Corps of Engineers, P.O. Box 4970, Jacksonville, FL 32232-0019

Subj: PORT EVERGLADES ENTRANCE CHANNEL ALIGNMENT

Ref: (a) Ltr of 18 Jul 07, Jacksonville District Corps of Engineers, Plan Formulation Branch

Encl: (1) Sketch of the Navy Restricted Area

1. Reference (a) requested a review and response to the proposed Army Corp of Engineer's development of an Integrated Feasibility Study and Environmental Impact Statement for improvements at the Port Everglades Federal navigation project. The Naval Surface Warfare Center Carderock Division (NSWCCD), appreciates the opportunity to provide comment on the proposed project and alternatives.

2. These alternatives, all of which shift the entrance channel/shipping traffic south of the current alignment, are unacceptable to the Navy and directly impact our operations, both from a vessel safety stand point and the direct potential for the destruction of our facilities' underwater infrastructure.

3. All of the proposed alternatives have vessel traffic transiting directly into the Navy's Restricted Area. This action, if implemented, creates potential vessel conflicts between commercial and U. S. Navy vessels. Enclosure (1) provides an illustration of the location of the Navy's restricted area and the Naval Surface Warfare Center Carderock Division-South Florida Testing Facility (NSWCCD-SFTF) range (green box) in relationship to the proposed options.

4. During testing operations, naval vessels can and do operate throughout the restricted area. As apparent, the proposed

option(s) places commercial vessel traffic in opposition to naval vessels operating within the restricted area thus jeopardizing the safety of both vessels.

5. As discussed in Reference (a), the Navy exercises jurisdiction over these waters as provided for in 33CFR § 334.580. Jurisdiction over this area is intended to protect the Navy's submerged infrastructure and assets. Infrastructure, consisting of numerous cable runs, multitude of underwater sensors and other structures are all required for the successful and safe operation of the facility. The Federal regulations further state that in the naval restricted area "anchoring, trawling, dredging, or attaching any object to the submerged sea bottom shall be prohibited…" Hence, the proposed alternatives involving dredging and/or placement of objects on the ocean's bottom within the restricted area would directly and severely impact the operations of this facility with the potential destruction of the infrastructure.

6. In summary, due to the potential of vessel safety issues and the destruction of our infrastructure, the NSWCCD-SFTF can not endorse any of the three proposed options. Your cooperation in this matter is respectfully requested. If you would like to discuss this issue in more detail please contact our South Florida Test Facility Site Director, Douglas Garbini, at (954)926-4005, or douglas.garbini@navy.mil.

MARK W. THOMAS

02/22/2008 11:08 9549264031 NSWC:SFTF PAGE 02

U.S. Department of Homeland Security

United States Coast Guard

Commander
United States Coast Guard
Sector Miami

100 MacArthur Causeway
Miami Beach, FL 33139
Staff Symbol: spw
Phone (305) 535-8724
Fax: (305) 535-8740

16670 /07-1762
January 23, 2008

Marie G. Burns
Acting Chief, Planning Division
Jacksonville District Corps of Engineers
Department of the Army
P.O. Box 4970
Jacksonville, FL 32232-0019

Dear Ms. Burns:

I am writing in response to your letter dated November 5, 2007. The U.S. Coast Guard is charged with ensuring the safe navigation of vessels and the protection of the environment. Having reviewed the proposed entrance channel alignments for Port Everglades, Florida, I am providing the following preliminary comments for the Feasibility Study that will be included in the National Environmental Protection Agency document:

1. Outer Entrance Channel Alternative 1

   USACE comment: "...would avoid dredging but would require placement of buoys/markers at the entrance of the gap and would require two 90-degree turns to access the existing entrance channel. This approach may also require the dredging of a turning basin to safely allow the incoming ships to enter the channel."

   USCG comment: The two required 90-degree turns would elevate the navigational risk for deep draft vessels that routinely call at this port to an unacceptable level. The narrow corridor and short turning basins this channel would create would restrict maneuverability thus increasing the risk of grounding.

2. Outer Entrance Channel Alignments #2 and #3

   USACE comment: "...would require direct impacts to the 2nd and 3rd hardground relic reef terraces by dredging, as well as placement of channel alignment buoys/markers to mark the entrance channel for deep draft vessel access."

   USCG comment: The addition of two turns in alternative #2 and one turn in alternative #3 also elevate the navigational risk for deep draft vessels that routinely call on the port. Strong North/South prevailing currents, often times unpredictable in terms of force, coupled with greater exposure to other risk factors such as submerged breakwaters, spoil areas, small craft congestion and Naval restricted areas, make these alternatives problematic.

3. Outer Entrance Channel Alignment #4

USACE comment: "...would avoid dredging but would require placement of channel buoys/markers at the entrance and on the transit route. This alignment would require the transit of the vessels entering the port for up to three miles from the southern reef gap, northward between the 2nd and 3rd relic reef terraces, to the current entrance channel alignment, and then a 90-degree left turn into the entrance channel. This turn would probably require widening to allow safe transit into the existing entrance channel."

USCG comment: Again the two required 90-degree turns would elevate the navigational risk for deep draft vessels that routinely call at this port to an unacceptable level. This option would require vessels to transit the entire Naval restricted area and lengthen their exposure to the reefs.

Other hazards may also arise with the construction of the proposed liquefied natural gas deepwater port, and from larger vessels that will soon begin calling on Port Everglades. For example, Royal Caribbean is building the world's largest cruise ship that will measure 1,180 ft in length, displace 220,000 tons and carry 8000 passengers/crew. This is one of nine new cruise ships scheduled for delivery in 2009. Many, if not all, of these ships will visit Port Everglades.

In regards to the installation and servicing of navigational aids that would be needed for the new channel alignments, expenses could reach upwards of $1.3 million for initial placement and approximately $42,000 for recurring costs.

My overall concern is to help prevent marine accidents that may ultimately cause harm to life and/or the environment. At this time I cannot recommend any of the aforementioned alternatives. For further info please contact LT Chaning Burgess - Waterways Division Chief at 305-535-8724 or by email at chaning.d.burgess@uscg.mil.

Sincerely,

KARL L. SCHULTZ
Captain, U.S. Coast Guard
Captain of The Port

Planning Division
Environmental Branch

SEP 1 1 2007

Ms. Janet Llewellyn
Florida Department of Environmental Protection
Division of Water Resources Management
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Dear Ms. Llewellyn:

In accordance with regulations pertaining to the National Environmental Policy Act (NEPA) Title 40 of the Code of Federal Regulations, part 1501.6), I am formally inviting your agency to become a cooperating agency for the Feasibility Study and Integrated Environmental Impact Statement (IEIS) on the Port Everglades Harbor at Fort Lauderdale, Florida. The purpose of the project is to evaluate potential project designs to provide increased safety, efficiency and lower costs for future port navigation and utilization, while protecting the environment to the maximum extent practicable while meeting the stated goals of the study.

Cooperating agency status involves actions and responsibilities beyond that normally associated with a commenting or permitting agency. In the case of Port Everglades, we believe that cooperating agencies shall assist U.S. Army Corps of Engineers, (Corps) authors and contractors in developing language for the IEIS, reviewing and providing edits to draft language and providing comments on those sections of the IEIS where an agency has either regulatory authority or specialized expertise (CEQ Regulations §1051.6(a)2). This review and editing process will take place earlier than the typical review and comment associated with a Draft EIS. As part of the Port Everglades external Project Delivery Team, your staff has been providing review and comments on the environmental studies that the Corps is using to develop the impact assessments and mitigation plans for the IEIS. We are now taking this opportunity to formalize your participation in the NEPA process as a cooperating agency. If you choose not to become a cooperating agency, we will continue to coordinate as we have done in the past.

The formulation of the project, alternatives and mitigation will be in accordance with Engineer Regulation ER 1105-2-100 and will fully consider a range of environmental, economic and social factors. Your participation as a cooperating agency will help us fully consider the views, needs and benefits of competing interests. For additional information on becoming a cooperating agency, please see the enclosed "Rights and Responsibilities of Lead and Cooperating Agencies" (Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations, Council on Environmental Quality, 1981). The complete list of Forty FAQs can be found at http://www.nepa.gov/nepa/regs/40/40p3.htm.

We would appreciate a response to this invitation to become a cooperating agency (as described above) within 30 days of the date of this letter. If you have any questions, please contact Ms. Terri Jordan, Biologist, at 904-232-1817 or Terri.L.Jordan@saj02.usace.army.mil.

Sincerely,

Marie G. Burns
Acting Chief, Planning Division

Enclosure

Copies Furnished:

Mr. Martin Seeling, Florida Department of Environmental Protection, Bureau of Beaches and Coastal Systems, 3900 Commonwealth Boulevard, MS 300, Tallahassee, Florida 32399
Mr. Michael Barnett, Florida Department of Environmental Protection, Bureau of Beaches and Coastal Systems, 3900 Commonwealth Boulevard, MS 300, Tallahassee, Florida 32399

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Dugger/CESAJ-PD-E
Powell/CESAJ-PD-PN
Schwictenberg/CESAJ-PD-P
Ross/CESAJ-DP-I
Scarborough/CESAJ-DP-C
Burns/CESAJ-PD

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Planning Division
Environmental Branch

SEP 1 1 2007

Mr. Paul Souza
Field Supervisor
U.S. Fish and Wildlife Service
1339 20th Street
Vero Beach, Florida 32960-3559

Dear Mr. Souza:

In accordance with regulations pertaining to the National Environmental Policy Act (NEPA) Title 40 of the Code of Federal Regulations, part 1501.6), I am formally inviting your agency to become a cooperating agency for the Feasibility Study and Integrated Environmental Impact Statement (IEIS) on the Port Everglades Harbor at Fort Lauderdale, Florida. The purpose of the project is to evaluate potential project designs to provide increased safety, efficiency and lower costs for future port navigation and utilization, while protecting the environment to the maximum extent practicable while meeting the stated goals of the study.

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We would appreciate a response to this invitation to become a cooperating agency (as described above) within 30 days of the date of this letter. If you have any questions, please contact Ms. Terri Jordan, Biologist, at 904-232-1817 or Terri.L.Jordan@saj02.usace.army.mil.

Sincerely,

Marie G. Burns
Acting Chief, Planning Division

Enclosure

Copies Furnished:

Mr. Spencer Simon, U.S. Fish and Wildlife Service, 1339 20th Street, Vero Beach, Florida 32960-3559
Mr. Jeff Howe, U.S. Fish and Wildlife Service, 1339 20th Street, Vero Beach, Florida 32960-3559

Ltr to Sept 07
Jordan/CESAJ-PD-EC/1817/als 6 Sep 07
Dugger/CESAJ-PD-E
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Schwictenberg/CESAJ-PD-P
Ross/CESAJ-DP-I
Scarborough/CESAJ-DP-C
Burns/CESAJ-PD

L: group/pdec/Jordan/Cooperating Agency Letters

Planning Division
Environmental Branch

SEP 1 1 2007

Mr. Miles Croom
National Marine Fisheries Service
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701-5511

Dear Mr. Croom:

In accordance with regulations pertaining to the National Environmental Policy Act (NEPA) Title 40 of the Code of Federal Regulations, part 1501.6), I am formally inviting your agency to become a cooperating agency for the Feasibility Study and Integrated Environmental Impact Statement (IEIS) on the Port Everglades Harbor at Fort Lauderdale, Florida. The purpose of the project is to evaluate potential project designs to provide increased safety, efficiency and lower costs for future port navigation and utilization, while protecting the environment to the maximum extent practicable while meeting the stated goals of the study.

Cooperating agency status involves actions and responsibilities beyond that normally associated with a commenting or permitting agency. In the case of Port Everglades, we believe that cooperating agencies shall assist U.S. Army Corps of Engineers, (Corps) authors and contractors in developing language for the IEIS, reviewing and providing edits to draft language and providing comments on those sections of the IEIS where an agency has either regulatory authority or specialized expertise (CEQ Regulations §1051.6(a)2). This review and editing process will take place earlier than the typical review and comment associated with a Draft EIS. As part of the Port Everglades external Project Delivery Team, your staff has been providing review and comments on the environmental studies that the Corps is using to develop the impact assessments and mitigation plans for the IEIS. We are now taking this opportunity to formalize your participation in the NEPA process as a cooperating agency. If you choose not to become a cooperating agency, we will continue to coordinate as we have done in the past.

The formulation of the project, alternatives and mitigation will be in accordance with Engineer Regulation ER 1105-2-100 and will fully consider a range of environmental, economic and social factors. Your participation as a cooperating agency will help us fully consider the views, needs and benefits of competing interests. For additional information on becoming a cooperating agency, please see the enclosed "Rights and Responsibilities of Lead and Cooperating Agencies" (Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations, Council on Environmental Quality, 1981). The complete list of Forty FAQs can be found at http://www.nepa.gov/nepa/regs/40/40p3.htm.

We would appreciate a response to this invitation to become a cooperating agency (as described above) within 30 days of the date of this letter. If you have any questions, please contact Ms. Terri Jordan, Biologist, at 904-232-1817 or Terri.L.Jordan@saj02.usace.army.mil.

Sincerely,

Marie G. Burns
Acting Chief, Planning Division

Enclosure

Copies Furnished:

Mr. Pace Wilber, Atlantic Branch, Charleston (F/SER47), Southeast Regional Office, NOAA Fisheries, Post Office Box 12559, Charleston, South Carolina, 29422-2559
Ms. Jocelyn Karazsia, NOAA Fisheries –HCD, 400 North Congress Avenue, Suite 120, West Palm Beach, Florida 33401

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als 6 Sep 07
Jordan/CESAJ-PD-EC/1817
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LW Ross/CESAJ-DP-I
Scarborough/CESAJ-DP-C
Burns/CESAJ-PD

L: group/pdec/Jordan/Cooperating Agency Letters

Planning Division
Environmental Branch

SEP 1 1 2007

Mr. David Bernhart
NOAA Fisheries, Protected Resources Division
263 13th Avenue South
St. Petersburg, Florida 33701

Dear Mr. Bernhart:

In accordance with regulations pertaining to the National Environmental Policy Act (NEPA) Title 40 of the Code of Federal Regulations, part 1501.6), I am formally inviting your agency to become a cooperating agency for the Feasibility Study and Integrated Environmental Impact Statement (IEIS) on the Port Everglades Harbor at Fort Lauderdale, Florida. The purpose of the project is to evaluate potential project designs to provide increased safety, efficiency and lower costs for future port navigation and utilization, while protecting the environment to the maximum extent practicable while meeting the stated goals of the study.

Cooperating agency status involves actions and responsibilities beyond that normally associated with a commenting or permitting agency. In the case of Port Everglades, we believe that cooperating agencies shall assist U.S. Army Corps of Engineers, (Corps) authors and contractors in developing language for the IEIS, reviewing and providing edits to draft language and providing comments on those sections of the IEIS where an agency has either regulatory authority or specialized expertise (CEQ Regulations §1051.6(a)2). This review and editing process will take place earlier than the typical review and comment associated with a Draft EIS. As part of the Port Everglades external Project Delivery Team, your staff has been providing review and comments on the environmental studies that the Corps is using to develop the impact assessments and mitigation plans for the IEIS. We are now taking this opportunity to formalize your participation in the NEPA process as a cooperating agency. If you choose not to become a cooperating agency, we will continue to coordinate as we have done in the past.

The formulation of the project, alternatives and mitigation will be in accordance with Engineer Regulation ER 1105-2-100 and will fully consider a range of environmental, economic and social factors. Your participation as a cooperating agency will help us fully consider the views, needs and benefits of competing interests. For additional information on becoming a cooperating agency, please see the enclosed "Rights and Responsibilities of Lead and Cooperating Agencies" (Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations, Council on Environmental Quality, 1981). The complete list of Forty FAQs can be found at http://www.nepa.gov/nepa/regs/40/40p3.htm.

We would appreciate a response to this invitation to become a cooperating agency (as described above) within 30 days of the date of this letter. If you have any questions, please contact Ms. Terri Jordan, Biologist, at 904-232-1817 or Terri.L.Jordan@saj02.usace.army.mil.

Sincerely,

Marie G. Burns
Acting Chief, Planning Division

Enclosure

Copies Furnished:

Mr. Bob Hoffman, NOAA Fisheries, Protected Resources Division, 263 13th Avenue South, St. Petersburg, Florida 33701
Ms. Audra Livergood, NOAA Fisheries, Protected Resources Division, Miami Field Office, 11420 North Kendall Drive, Suite 103, Miami, Florida 33176

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Burns/CESAJ-PD

L: group/pdec/Jordan/Cooperating Agency Letters

Planning Division
Environmental Branch

SEP 1 1 2007

Ms. Stephanie Bailenson, Director
Florida Department of Environmental Protection
Office of Coastal and Aquatic Managed Areas
3900 Commonwealth Boulevard
Douglas Building MS 235
Tallahassee, Florida 32399-3000

Dear Ms. Bailenson:

In accordance with regulations pertaining to the National Environmental Policy Act (NEPA) Title 40 of the Code of Federal Regulations, part 1501.6), I am formally inviting your agency to become a cooperating agency for the Feasibility Study and Integrated Environmental Impact Statement (IEIS) on the Port Everglades Harbor at Fort Lauderdale, Florida. The purpose of the project is to evaluate potential project designs to provide increased safety, efficiency and lower costs for future port navigation and utilization, while protecting the environment to the maximum extent practicable while meeting the stated goals of the study.

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We would appreciate a response to this invitation to become a cooperating agency (as described above) within 30 days of the date of this letter. If you have any questions, please contact Ms. Terri Jordan, Biologist, at 904-232-1817 or Terri.L.Jordan@saj02.usace.army.mil.

Sincerely,

Marie G. Burns
Acting Chief, Planning Division

Enclosure

Copies Furnished:

Ms. Ellen McCarron, Assistant Director, Florida Department of Environmental Protection, Office of Coastal and Aquatic Managed Areas, 3900 Commonwealth Boulevard, Douglas Building, MS 235, Tallahassee, Florida 32399-3000
Ms. Chantal Collier, Florida Department of Environmental Protection, Biscayne Bay Environmental Center, 1277 NE 79th Street Causeway, Miami, Florida 33138

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Burns/CESAJ-PD

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Planning Division
Environmental Branch

SEP 1 1 2007

Mr. Mark Latch, Assistant Bureau Chief
Bureau of Natural and Cultural Resources
Florida Park Service
3900 Commonwealth Boulevard
Mail Station 530
Tallahassee, Florida 32399

Dear Mr. Latch:

In accordance with regulations pertaining to the National Environmental Policy Act (NEPA) Title 40 of the Code of Federal Regulations, part 1501.6), I am formally inviting your agency to become a cooperating agency for the Feasibility Study and Integrated Environmental Impact Statement (IEIS) on the Port Everglades Harbor at Fort Lauderdale, Florida. The purpose of the project is to evaluate potential project designs to provide increased safety, efficiency and lower costs for future port navigation and utilization, while protecting the environment to the maximum extent practicable while meeting the stated goals of the study.

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We would appreciate a response to this invitation to become a cooperating agency (as described above) within 30 days of the date of this letter. If you have any questions, please contact Ms. Terri Jordan, Biologist, at 904-232-1817 or Terri.L.Jordan@saj02.usace.army.mil.

Sincerely,

Marie G. Burns
Acting Chief, Planning Division

Enclosure

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Planning Division
Environmental Branch

SEP 1 1 2007

Ms. Mary Ann Poole, Director
Florida Fish and Wildlife Conservation Commission
Office of Policy and Stakeholder Coordination
620 South Meridian Street
Tallahassee, Florida 32399-1600

Dear Ms. Poole:

In accordance with regulations pertaining to the National Environmental Policy Act (NEPA) Title 40 of the Code of Federal Regulations, part 1501.6), I am formally inviting your agency to become a cooperating agency for the Feasibility Study and Integrated Environmental Impact Statement (IEIS) on the Port Everglades Harbor at Fort Lauderdale, Florida. The purpose of the project is to evaluate potential project designs to provide increased safety, efficiency and lower costs for future port navigation and utilization, while protecting the environment to the maximum extent practicable while meeting the stated goals of the study.

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Sincerely,

Marie G. Burns
Acting Chief, Planning Division

Enclosure

Copies Furnished:

Mr. Mark Robson, Director, Florida Fish and Wildlife Conservation Commission, Division of Marine Fisheries Management, 620 South Meridian Street, Tallahassee, Florida 32399-1600
Ms. Lisa Gregg, Florida Fish and Wildlife Conservation Commission, Division of Marine Fisheries Management, 620 South Meridian Street, Tallahassee, Florida 32399-1600

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Planning Division
Environmental Branch

SEP 1 1 2007

Mr. Eric Myers
Broward County ERP
Biological Resources Division
1 North University Drive
Suite 301
Plantation, Florida 33324-2038

Dear Mr. Myers:

In accordance with regulations pertaining to the National Environmental Policy Act (NEPA) Title 40 of the Code of Federal Regulations, part 1501.6), I am formally inviting your agency to become a cooperating agency for the Feasibility Study and Integrated Environmental Impact Statement (IEIS) on the Port Everglades Harbor at Fort Lauderdale, Florida. The purpose of the project is to evaluate potential project designs to provide increased safety, efficiency and lower costs for future port navigation and utilization, while protecting the environment to the maximum extent practicable while meeting the stated goals of the study.

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We would appreciate a response to this invitation to become a cooperating agency (as described above) within 30 days of the date of this letter. If you have any questions, please contact Ms. Terri Jordan, Biologist, at 904-232-1817 or Terri.L.Jordan@saj02.usace.army.mil.

Sincerely,

Marie G. Burns
Acting Chief, Planning Division

Enclosure

Copy Furnished:

Mr. Ken Banks, Broward County ERP, Biological Resources Division, 1 North University Drive, Suite 301, Plantation, Florida 33324-2038

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Burns/CESAJ-PD

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Planning Division
Environmental Branch

SEP 1 1 2007

Mr. Heinz Mueller
Environmental Protection Agency Region IV
Environmental Policy Section
61 Forsyth Street
Atlanta, Georgia 30303-3104

Dear Mr. Mueller:

In accordance with regulations pertaining to the National Environmental Policy Act (NEPA) Title 40 of the Code of Federal Regulations, part 1501.6), I am formally inviting your agency to become a cooperating agency for the Feasibility Study and Integrated Environmental Impact Statement (IEIS) on the Port Everglades Harbor at Fort Lauderdale, Florida. The purpose of the project is to evaluate potential project designs to provide increased safety, efficiency and lower costs for future port navigation and utilization, while protecting the environment to the maximum extent practicable while meeting the stated goals of the study.

Cooperating agency status involves actions and responsibilities beyond that normally associated with a commenting or permitting agency. In the case of Port Everglades, we believe that cooperating agencies shall assist U.S. Army Corps of Engineers, (Corps) authors and contractors in developing language for the IEIS, reviewing and providing edits to draft language and providing comments on those sections of the IEIS where an agency has either regulatory authority or specialized expertise (CEQ Regulations §1051.6(a)2). This review and editing process will take place earlier than the typical review and comment associated with a Draft EIS. As part of the Port Everglades external Project Delivery Team, your staff has been providing review and comments on the environmental studies that the Corps is using to develop the impact assessments and mitigation plans for the IEIS. We are now taking this opportunity to formalize your participation in the NEPA process as a cooperating agency. If you choose not to become a cooperating agency, we will continue to coordinate as we have done in the past.

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We would appreciate a response to this invitation to become a cooperating agency (as described above) within 30 days of the date of this letter. If you have any questions, please contact Ms. Terri Jordan, Biologist, at 904-232-1817 or Terri.L.Jordan@saj02.usace.army.mil.

Sincerely,

Marie G. Burns
Acting Chief, Planning Division

Enclosure

Copies Furnished:

Mr. Richard Harvey, Environmental Protection Agency, 400 North Congress Avenue, Suite 120
West Palm Beach, Florida 33401
Mr. Ron Mediema, Environmental Protection Agency, 400 North Congress Avenue, Suite 120
West Palm Beach, Florida 33401

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Florida Fish and Wildlife Conservation Commission

Commissioners
Rodney Barreto
Chair
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Kathy Barco
Jacksonville
Ronald M. Bergeron
Fort Lauderdale
Richard A. Corbett
Tampa
Dwight Stephenson
Delray Beach
Kenneth W. Wright
Winter Park
Brian S. Yablonski
Tallahassee

Executive Staff
Kenneth D. Haddad
Executive Director
Victor J. Heller
Assistant Executive Director
Karen Ventimiglia
Deputy Chief of Staff

Office of Policy and Stakeholder Coordination
Mary Ann Poole
Director
(850) 410-5272
(850) 922-5679
FAX

Managing fish and wildlife resources for their long-term well-being and the benefit of people.

620 South Meridian Street
Tallahassee, Florida
32399-1600
Voice: (850) 488-4676
Hearing/speech impaired:
(800) 955-8771 (T)
(800) 955-8770 (V)
MyFWC.com

October 10, 2007

Ms. Marie Burns
Acting Chief, Planning Division
U. S. Army Corps of Engineers
Jacksonville District
P.O. Box 4970
Jacksonville, FL 32232-0019

Re: Florida Fish and Wildlife Conservation Commission, Cooperating Agency Participation

Dear Ms. Burns:

The Florida Fish and Wildlife Conservation Commission (FWC) graciously accepts your offer to become a cooperating agency for the Feasibility Study and integrated Environmental Impact Statement (IEIS) on the Port Everglades Harbor at Ft. Lauderdale, Florida.

It is our understanding that our participation as a cooperating agency would be limited to providing assistance to the U.S. Army Corps of Engineers (USACE) authors and contractors in developing language for the IEIS, reviewing and providing edits to draft language, and providing comments on those sections of the IEIS where the FWC has regulatory authority or specialized expertise.

It is important that the scope of our participation be limited to the above-stated activities due to limited staff resources. Should the USACE request any change in the scope of participation expected from the FWC, we would require 30 days advanced notice with the understanding that we may not be able to accommodate the request.

We appreciate the opportunity you are providing the FWC in becoming a cooperating agency, and look forward to working with your staff on the development of the IEIS for very important project. Please contact Lisa Gregg, our point person on this project, at 850-488-6058 or by email at lisa.gregg@MyFWC.com if you or your staff have any questions.

Sincerely,

Mary Ann Poole

Mary Ann Poole, Director
Office of Policy and Stakeholder Coordination

map/lg

Florida Department of Environmental Protection

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

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

November 5, 2007

Ms. Marie G. Burns
Acting Chief, Planning Division
U. S. Army Corps of Engineers
Jacksonville District
Post Office Box 4970
Jacksonville, Florida 32232-0019

Dear Ms. Burns:

Thank you for your letter of September 11, 2007, inviting the Florida Department of Environmental Protection (Department) to become a cooperating agency in the development of the Feasibility Study and Integrated Environmental Impact Statement (EIS) on the Port Everglades Harbor at Ft. Lauderdale, Florida. A copy of your letter is attached. I understand that the Department's Division of Recreation and Parks (Parks), Office of Coastal and Aquatic Managed Areas (CAMA), and other Department program areas also received invitations. I have discussed the matter with representatives of those offices and send you this unified Department response.

The Department accepts your invitation to become a cooperating agency and looks forward to working with your team on the Port Everglades Harbor Feasibility Study and Integrated EIS. To streamline communications between our agencies, the Office of Intergovernmental Programs will be the Department's point of contact during preparation of the Feasibility Study and Integrated EIS. Mr. Chris Stahl will be the direct contact. He can be reached at (850) 245-2169 or Chris.Stahl@dep.state.fl.us.

It is our understanding that as a cooperating agency, the Department will have the opportunity to review and comment on preliminary draft documents and will retain all final decision-making authorities to grant or deny future permits, water quality certifications, state lands easements, or sovereignty submerged lands authorizations, as well as to issue comments and consistency concurrences or objections through the Florida State Clearinghouse.

As a cooperating agency, the Department is prepared to devote to the scoping and draft EIS stages, the level of staff resources normally used to review and comment on a Draft EIS *after* its preparation, as required by 40 C.F.R. § 1501.6. To assist us in determining the personnel and budgetary allocations necessary to fulfill this commitment, however, we request that your team clearly outline its expectations for the Department in terms of specific tasks and schedules. The extent of our participation is naturally subject to budgeting and staff constraints.

If you have any questions or concerns, please contact Mr. Chris Stahl at (850) 245-2163, or by e-mail to Chris.Stahl@dep.state.fl.us. Otherwise, we will look forward to receiving from you the information requested on tasks and timeframes anticipated for the project.

Yours sincerely,

Sally B. Mann

Sally B. Mann, Director
Office of Intergovernmental Programs

cc: Michael W. Sole, Secretary, Department of Environmental Protection
Kelly Layman, Chief of Staff, Department of Environmental Protection
Colonel Paul L. Grosskruger, Jacksonville District Commander, U. S. Army Corps of Engineers, Jacksonville District
James E. Boone, State Liaison, U. S. Army Corps of Engineers, Jacksonville District
Janet Llewellyn, Director, Water Resource Management
Lynn Griffin, Coastal Program Administrator (OIP)
Chris Stahl, Environmental Specialist III (OIP)
Stephanie Bailenson, Director, Coastal and Aquatic Managed Areas
Mark Latch, Asst. Bureau Chief, Natural & Cultural Resources, Florida Park Service
Michael Barnett, Bureau Chief, Beaches and Coastal Systems

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

RECEIVED
NOV 1 9 2007

November 15, 2007

Ms. Marie G. Burns
Acting Chief, Planning Division
U.S. Army Corps of Engineers
Jacksonville District
P.O. Box 4970
Jacksonville, Florida 32232-0019

Subject: EPA Cooperating Agency Status; Feasibility Study and Integrated Environmental Impact Statement; Port Everglades Harbor; Broward County, Ft. Lauderdale, FL

Dear Ms. Burns:

The U.S. Environmental Protection Agency (EPA) has received your letter dated September 11, 2007, inviting this Agency to be a cooperating agency to the COE for its proposed Port Everglades Harbor Feasibility Study and EIS. We note from your letter that "[t]he purpose of the project is to evaluate potential project designs to provide increased safety, efficiency and lower costs for future port navigation and utilization, while protecting the environment to the maximum extent practicable while meeting the stated goals of the study."

Subject to resource limitations, EPA Region 4 accepts the offer to be a cooperating agency for the proposed Port Everglades Feasibility Study and EIS. EPA's cooperating agency status and level of involvement does not, however, preclude our independent review and comment responsibilities under the Section 102(2)(C) National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, or our authorities under Section 404 of the Clean Water Act. As a cooperator, we can offer early review and comment of COE EIS draft sections in areas of EPA mandates and expertise, as well as participation in selected meetings or teleconferences. EPA has already been involved with Port Everglades work through our South Florida Office.

EPA's NEPA contact for the NEPA review will be Chris Hoberg (404/562-9619 or hoberg.chris@epa.gov), while our South Florida Office contact regarding waters of the U.S. issues will be Ron Miedema (561/616-8741 or miedema.ron@epa.gov).

Sincerely,

Heinz J. Mueller, Chief
NEPA Program Office

PD-EC
Jordan

ENVIRONMENTAL PROTECTION DEPARTMENT – Biological Resources Division
Mailing Address: 115 South Andrews Avenue, Room A-240 • Fort Lauderdale, Florida 33301
954-519-1230 • FAX 954-519-1412

October 8, 2007

Ms. Marie Burns
Acting Chief, Planning Division
Environmental Branch
Department of the Army
Jacksonville District, Corps of Engineers
PO Box 4970
Jacksonville, Florida 32232-0019

Dear Ms. Burns:

Thank you for your letter of September 11, 2007 inviting the Broward County Environmental Protection Department, Biological Resources Division to participate as a cooperating agency for the Feasibility Study and Integrated Environmental Impact Statement (IEIS) on the Port Everglades Harbor at Fort Lauderdale, Florida. We accept the invitation to serve as a cooperating agency with the clarification that our contributions will be limited to environmental issues. Also please be aware that, due to staffing constraints, our participation may be limited to reviews and comments on technical documents, teleconferences, and occasional travel. The point of contact for this assistance will be Kenneth Banks. He may be reached by telephone at (954) 519 1207, or by email at KBanks@broward.org. Again, we look forward to participating in this process and anticipate a successful outcome.

Sincerely,

Eric Myers

Eric Myers
Director

Cc: Phil Allen, Director, Port Everglades Department
Pam Madison, Director, Office of Public and Governmental Relations
Rick Wilkins, Director, Environmental Protection Department

Broward County Board of County Commissioners
Josephus Eggelletion, Jr. • Sue Gunzburger • Kristin D. Jacobs • Ken Keechl • Ilene Lieberman • Stacy Ritter • John E. Rodstrom, Jr. • Diana Wasserman-Rubin• Lois Wexler
www.broward.org

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

Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701-5511
(727) 824-5317; FAX (727) 824-5300
http://sero.nmfs.noaa.gov/

October 12, 2007 F/SER4:JK/pw

Marie G. Burns
Acting Chief, Planning Division
Jacksonville District
Department of the Army Corps of Engineers
PO Box 4970
Jacksonville, Florida 32232

Dear Ms. Burns:

NOAA's National Marine Fisheries Service accepts your invitation, dated September 11, 2007, to participate as a cooperating agency for the Feasibility Study and Integrated Environmental Impact Statement (IEIS) for Port Everglades Harbor. The purpose of the study is to evaluate alterative project designs to increase safety and efficiency of port operations while protecting essential fish habitat (EFH), coral, and other marine resources.

Due to competing priorities, our role as a cooperating agency will need to be limited to providing technical assistance on how impacts to threatened and endangered species and to EFH should be appropriately identified and mitigated. In this regard, we will be able to attend a reasonable number of meetings directed towards identifying and mapping areas likely to be impacted, assessing the affects of those impacts on NOAA trust resources, and examining options for mitigating those impacts. We also will be able to review and comment on drafts of the IEIS in advance of its release to the public and to develop limited amounts of text that describe NOAA's roles within the review process. Our service as a cooperating agency for the IEIS will be separate from our authorities and responsibilities under section 7 of the Endangered Species Act, Section 101(a)(5)(A) of the Marine Mammal Protection Act, and Section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act.

We appreciate the opportunity to serve in this capacity for this important project. Related correspondence with our Protected Resources Division should be directed to the attention of Ms. Audra Livergood at our Miami office, 11420 North Kendall Drive, Suite 102, Miami, Florida 33176. Ms. Livergood may be reached by telephone at (305) 595-8352, or by e-mail at Audra.Livergood@noaa.gov. Related correspondence with our Habitat Conservation Division should be directed to the attention of Ms. Jocelyn Karazsia at our West Palm Beach office, which

is co-located with the US Environmental Protection Agency at USEPA, 400 North Congress Avenue, Suite 120, West Palm Beach, Florida, 33401. She may be reached by telephone at (561) 616-8880, extension 207, or by e-mail at Jocelyn.Karazsia@noaa.gov.

Sincerely,

Pam Willer

/ for

Miles M. Croom
Assistant Regional Administrator
Habitat Conservation Division

cc: (via electronic mail)

CESAJ, Terri.L.Jordan@usace.army.mil
EPA, WPB
FWS, Vero Beach
FWC, Tallahassee
FDEP OBCS, Tallahassee
FDEP, CAMA
SAFMC
Broward County, EPD
F/SER, Keys
F/SER3, Livergood, Hoffman
F/SER4
F/SER47, Karazsia

DP-C

Florida's Deepest Harbor

PORT EVERGLADES PILOTS, INC
Post Office Box 13017
Port Everglades, Florida 33316
Telephone (954) 522-4491/7
Fax (954) 522-4498

March 22, 2007

U.S. Army Corps of Engineers
Jacksonville District
Attn: Richard Bonner
Deputy District Engineer
701 San Marco Blvd.
Jacksonville, FL 32207-8175

Dear Mr. Bonner:

In response to your continued request for our professional opinion on the various alternative channel designs, we would like to take this opportunity to expound on a previous letter sent to your office on August 15, 2006. These designs have been presented to us as alternatives to the straight design proposed years ago. While not professional channel designers, our job is to safely conduct the movement of vessels in and out of the port. We have experience in the movement of large vessels and consequently, we have consistently provided our input where appropriate to ensure that a viable channel design is achieved.

On at least five separate occasions over the last twelve years, we have participated in ship simulations of the channel at the Star Center. Through this process we have significantly whittled down the size and scope of the original proposed channel design. Our opinion emphatically remains that the straight channel design is the safest approach for the large deep draft containerships that intend to call at Port Everglades. We consider this channel design, specifically the 800 foot wide straight channel, to be the minimum size required for the targeted vessels and believe all of the Star Center simulations support this conclusion. A straight channel of this width would require sufficient depth to account for sea conditions and squat for a post-Panamax vessel transiting at a minimum of 12 knots. Anything other than a straight channel design would require significantly wider channels, wideners at the turns, and additional aids to navigation. Each of the alternative channel designs, using something other than a straight channel, would likely result in restrictions on vessel movements in periods of severe weather and extreme currents.

During the numerous simulations, actual transits with ACOE representatives, meetings, letters and conversations that we have participated in previously, we have continually

pointed out the hazards of shifting currents and weather conditions that make the outer channel challenging as it presently exists. Those hazards increase dramatically with anything other than a straight channel. It should be noted that we currently have the option and ability to approach the existing channel obliquely, but elect not to since we feel it introduces an excessive amount of risk. Instead, we dramatically increase risk to our person by boarding large vessels in the rougher offshore seas a significant distance from the sea buoy. This affords us the opportunity to maneuver in deep open water and line up on the ranges well in advance to timely evaluate the set and drift.

When trying to turn a vessel within a narrow channel, the probability of going aground is exponentially increased with the amount of rotation required. Additionally, the hydrodynamic effects of a vessel nearing the limits of a channel are significantly magnified with greater draft due to the increase of both inertia and shallow water effect. "Restricted bottom clearance in shallow water impedes the flow of water underneath the ship, causing a restricted lateral motion of the aftship. The less bottom clearance, the more build-up of water on the side of the ship that the stern moves toward and the lower the water level on the side the ship moves away from, leading to a smaller drift angle and consequently a wider turn in shallow water."[1] In simpler terms, ships do not turn as well or as quickly when they are experiencing Shallow Water Effect, which begins when the depth of the water equals 1.5 times the draft of the vessel, with Full Shallow Water Effect achieved when the depth of the water equals 1.2 times the draft of the vessel.[2] When turning a large, deeply laden vessel in such a channel , "the depth under the keel will cause the turning diameter to increase until, in shallow water, it may be as much as twice the diameter found for the same ship in deep water." [3] Additionally, the impact of shallow water effects on the handling characteristics of the vessels is exacerbated by the open ocean exposure to wind and sea experienced at Port Everglades. Consequently, construction of a channel with turns, permanently introduces a dramatic increase in risk due to the diminished ability to precisely position the ship within the dredged channel.

None of the proposed alternatives provides sufficient maneuvering space required by the larger, deeper draft vessels for which the dredging is being proposed. In two of these alternatives, the radius of each turn is less than that of the deep water turning circle of the targeted vessel. As outlined in previous paragraphs, the dimensions of these turning circles can not be relied upon in shallow water. This puts the third alternative into significant question.

When a ship maneuvers in shallow water, more of the ship's power is absorbed by the water due to increased friction. The ship's speed decreases. "Larger waves and troughs are formed and the ship sinks closer to the bottom than she would do at the same speed over the ground in deep water. At the same time, the ship's trim changes, changing the directional stability of the vessel. The turbulence caused by the limited bottom clearance interferes with the rudder and propeller effectiveness and the turning circle increases."[4] Since these vessels will only be able to maneuver within the confines of the channel, failure to complete the turn will result in grounding with potentially significant environmental and economic impacts.

While these general statements can be accurately applied to all vessels, the ability to transit a particular channel is different for each ship. Factors such as stopping power, ship's maneuverability, directional stability, draft, trim, cargo load, ship's physical construction, maintenance condition, current, wind, sea, traffic, visibility, bottom clearance and bottom contour all play an important role in the ability of a ship to remain within the channel. The larger the vessel in relation to the channel size, the more each of these factors has an effect on the success of the transit.

As we have discussed, the outer channel of Port Everglades is exposed to very strong and unpredictable currents from the Gulfstream. These currents run both north and south in the approaches to the channel. It is not uncommon for a large vessel to be experiencing a current acting in one direction at the bow and in an opposing direction at the stern. Under this situation, a couple is applied to the vessel which may be contrary to the desired direction of a turn. The force on the hull of a vessel is multiplied by the square of the actual current velocity. The effect of this current increases dramatically when bottom clearance decreases.[5] The resulting force can quickly exceed the turning force of the rudder and the total combined bollard pull of all six tugs at Port Everglades. It should be noted that the ability of a tug to render assistance decreases dramatically as the ship's speed increases. The tugs at Port Everglades have a top speed of 12-14 knots. Therefore, if a ship is making 10-12 knots of headway, the tug is already using the majority of its available horsepower merely to motivate itself. This leaves little reserve horsepower left to apply to the ship.

An additional consideration is that anything other than the straight channel design will require substantial additions of aids to navigation. Each of the channel options will absolutely require additional range lights and markers for each leg (Alternative channel design #1 and #2 will require two sets of additional range lights), as well as additional buoyage. The range towers will either have to be constructed on the reefs themselves, or in some cases on prime property along Fort Lauderdale beach. They would have to be of sufficient size and intensity to be visible from a bridge height of at least 130 feet and be able to be distinguished from the oftentimes intense background lights. Further complications will arise from alternatives #2 and #3 that pass through the Navy restricted area south of the channel. There are significant scientific research projects and exercises involving national security conducted in this area.

At its inception, the channel design was targeting the Susan Maersk, although the targeted depth of the channel was never sufficient to bring in this vessel at its designed draft. In 1996, the Susan Maersk was under construction as the largest container vessel in the world. At that time, the dredge project could have been considered forward looking and progressive. Since then, significantly larger containerships have been built and even larger ones are in the design phase. The question we should be addressing today is not how we can minimize the construction impact in order to barely fit the Susan Maersk into Port Everglades, but rather how the project should be expanded to address the subsequent generations of vessels which currently operate on the east coast of the United States and would likely call at Port Everglades if there was sufficient room.

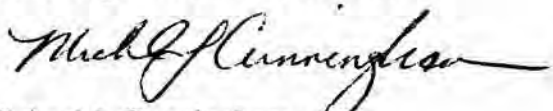
More than 30% of the world's container tonnage capacity is on vessels as large, or larger than the design vessel. In fact, 70% of new container ship construction is of vessels larger than the design vessel. **The Panama Canal will begin expanding to handle vessels of 12000 TEU's by the end of 2009. This is nearly double the size of the Susan Maersk. The originally accepted 800' wide straight channel design is already undersized for what are the largest containerships of today. The channel may be inadequate for vessels which will be common in the near future. Even to a casual observer, it should be apparent that** worldwide container traffic is increasing and will continue to increase. There is simply insufficient land mass available at a single South Florida port to accommodate the anticipated future container traffic, thus necessitating several options for ships to call upon ports in Florida.

The Port Everglades Pilots have already rejected requests by companies wishing to immediately begin container services with post Panamax vessels in Port Everglades. These companies already operate services in our port and are currently operating post Panamax vessels of this size into Freeport, Bahamas and Savannah, Georgia. The new large vessel services were rejected pending completion of the dredge project. The entire Master planning process of Port Everglades depends on the completion of this dredging which seems to be at a standstill. It is increasingly likely that the Susan Maersk will be scrapped before any of the dredging begins.

When considering the current world fleet, and the economic projections for South Florida ports, we question the wisdom of the process which seeks to limit channel size and alter the configuration of the channel as these alternatives propose. We believe the straight channel design offers the best alternative and represents the safest approach for the large deep draft containerships that intend to call at Port Everglades.

Sincerely,

Port Everglades Pilots Association



Michael J. Cunningham

Cc: Allan Sosnow – Environmental Project Manager, Port Everglades

[1] Behavior and Handling of Ships by Henry H. Hooyer, pg 35

[2] Shiphandling for the Mariner, Third Edition, by Daniel H. MacElrevey, pg 8

[3] Shiphandling for the Mariner, Third Edition, by Daniel H. MacElrevey

[4] Port Revel Shiphandling Manuel, 1999, Jean Graff, p.65

[5] Port Revel Shiphandling Manuel, 1999, Jean Graff, p.64

Florida's Deepest Harbor

PORT EVERGLADES PILOTS' ASSOCIATION
Post Office Box 13017
PORT EVERGLADES, FLORIDA 33316
Telephone (954) 522-4491 / 7
Facsimile (954) 522-4498
E-mail: pilots@bellsouth.net

August 15, 2006

Ms. Terri Jordan
Biologist, Environmental Branch – Planning Division
Jacksonville District – SAD
US Army Corps of Engineers
701 San Marco Blvd.
Jacksonville, FL 32207

Dear Ms. Jordan:

The Port Everglades Pilots' Association has reviewed the alternative channel designs as depicted in OEC-Alt1.jpg, OEC-Alt2.jpg, OEC-Alt3.jpg that were emailed to us on July 26th of this year. I would like to remind you that we have already addressed these alternative plans and others during the original simulation phase and rejected them.

Our concerns are for the high level variations in current magnitude (many times in the 3-5 knot range) and direction which are frequently encountered in the areas surrounding the sea buoy, "PE", and the entire Outer Bar Cut. Some of the vessels that presently call at Port Everglades are frequently challenged by these cross-currents which often REVERSE direction at least once, if not TWO or THREE more times during the transit from the entrance to the jetties. The introduction of additional obstacles for even larger, heavier, less maneuverable vessels is not prudent. Any design other than a straight channel will be imposing a permanent risk of groundings that will forever increase as vessels get larger.

Since our only recommendation is a straight channel approach, it is not necessary to address (in any detail) the necessity of additional permanent, fixed structure aids to navigation that would themselves have significant environmental, economic and aesthetic impact, as well as presenting an additional allision danger.

We are charged by the State of Florida and the Federal Government to provide the safest possible transit of vessels in and out of Port Everglades. Undoubtedly, the straight channel approach that is in the current design study is the safest and therefore the most environmentally sound choice. It is the only option that we can endorse.

Thank you for your consideration in this matter.

Sincerely,

Port Everglades Pilots' Association

Captain Thomas G. Hackett
Co-Managing Pilot

Captain Bruce Cumings
Co-Managing Pilot

TGH:ljb

C:\Personal\Managing Pilot Info.ACOE Alternative Channels.ltr

Department of Environmental Protection

Jeb Bush
Governor

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

David B.
Secret

September 26, 2001

Colonel James G. May
U.S. Army Corps of Engineers
Post Office Box 4970
400 West Bay Street
Jacksonville, Florida 32232-0019

Dear Colonel May:

Since February 2000, staff from the Department's Division of Recreation and Parks has been working closely with the Corps' project manager on the development of the Port Everglades Feasibility Study to expand the port. We have been extremely pleased with the communication and cooperation that has been extended to the department throughout the course of the study. While the initial proposal for the expansion anticipated as much as 54 acres of impact to John U. Lloyd Beach State Park, the proposals presented at the Alternative Feasibility Briefing on August 28 anticipated only one to three acres of loss to the park, depending on the design.

Although we appreciate the efforts to date to reduce the anticipated impacts to the park, I ask that further effort be made to eliminate or minimize the impacts.

If any of the alternatives that are chosen require taking of state land, approval from the Board of Trustees will be required. As part of the process to evaluate the taking of state land, the Board of Trustees will utilize their "Incompatible Use" policy (copy enclosed) in evaluating the request.

We look forward to continuing the cooperative efforts concerning this project.

Sincerely,

David B. Struhs
Secretary

DBS/mls

Enclosure

cc: Mr. Bob Ballard, Deputy Secretary
Ms. Eva Armstrong, Director, Division of State Lands
Mrs. Wendy Spencer, Director, Division of Recreation and Parks
Mr. Benji Brumberg, Ombudsman

Printed on recycled paper.

POLICY

INCOMPATIBLE USE OF NATURAL RESOURCE LANDS

APPROVED BY

BOARD OF TRUSTEES OF THE INTERNAL IMPROVEMENT TRUST FUND

ON AUGUST 9, 1988

(1) The Trustees may authorize the use of natural resource lands if it determines that:

(a) The use is in the public interest. The public interest determination will be based on a careful weighing of the likely adverse impacts of the use on natural resource lands against the public benefits of the proposed use. Factors to be assessed in the public interest determination include but are not limited to conservation, environmental concerns, wetlands, fish and wildlife, historic and archaeological resources, economics and aesthetics, land use, water quality and quantity, navigation, public safety, and degree of public use and enjoyment of the natural resources lands;

(b) The use is not incompatible with the major or primary purpose for which the lands are held or were acquired, and will not have an unacceptable adverse effect, either individually or in combination with other known uses, on the natural resource lands nor substantially interfere with public recreational use and enjoyment of such natural resource lands;

(c) There is no practicable alternative to the proposed use that would have less adverse impact on such lands or public use of them; and

(d) If the use is to be located on state forests, parks, EEL, CARL, LATF or other state natural resource lands, it will provide a net positive benefit to the particular lands on which the use will be located and if the use is to be located on EEL lands, it must be in strict accord with the public purpose for which the land was acquired.

The management plan for the lands and the conceptual state lands management plan shall be considered in the above determinations.

(2) If the trustees decide to authorize the use of natural resource lands, it may impose conditions to mitigate or minimize the adverse impact of the use on the natural resources and the public use and enjoyment of the lands. Those impacts may be minimized through:

(a) Proper location of the use, and by limiting the size of the areas authorized for such use;

(b) By selecting a site that has already been impacted, is less sensitive than other sites, or experiences less public use;

(c) Placing restrictions on construction and operation activities and practices that are designed to reduce adverse impacts;

(d) Designing access roads and site preparation to avoid interference with water circulation and fluctuation and impacts on other natural resources and public use and enjoyment;

(e) Avoiding sites with unique wildlife habitats, natural aquatic areas, wetlands, or other valuable natural resources, and locating the use at the periphery of the land;

(f) Selecting sites to prevent or minimize damage to scenic vistas and other aesthetically pleasing features;

(g) Selecting sites that will not increase incompatible human activity;

(h) Imposition of best management practices;

(i) Requiring the acquisition of mitigation lands adjacent to or within the boundaries of the affected natural resource lands.

(3) For the purpose of this policy:

(a) "Beach" means the zone of unconsolidated material that extends landward from the mean

low water line to the place where there is marked change in material or hysiographic form, or to the line of permanent vegetation (usually the effective limit of storm waves). Unless other wise specified, the seaward limit of a beach is the mean low water line.

(b) "Natural resource lands" includes those lands acquired with funds from the CARL Trust Fund LATF or EEL program and lands managed as state parks, state recreation areas, state archaeological sites, state historic sites, state preserves, state sanctuaries, state wilderness areas, state forests, state owned wildlife management areas, and state owned beaches.

(c) "Incompatible use" means any use of natural resource lands that would jeopardize the integrity of the natural resource, or diminish the primary utility of such lands relative to the purposes for which they were acquired. Incompatible use does not include minor and temporary activities such as volleyball, sail gliding, art events, running events, music events, holiday activities or other customary recreational activities and associated support facilities; provided that these activities do not involve the placement of any major structures that will remain in place for more than 72 hours and will not substantially or unreasonably interfere with public access to and use of natural resource lands.

(d) "Natural resources" means wetlands, lakes, rivers, streams and other waterbodies, flora, fauna, fish and wildlife habitat, historical and archaeological resources, scenic vistas, and aesthetic values.

(e) "Net positive benefit" means any effective action or transaction which promotes the overall characteristics of a particular parcel of natural resource lands. It is compensation over and above the market values of affected parcel to offset any requested use or activity which would preclude or affect, in whole or in part, current of future uses of the natural resource lands. Net positive benefit shall not be solely monetary compensation, but shall include mitigation and other consideration related to environmental or management development or restoration that produces a new or modified environment that is more

productive or is ecologically more valuable.

(f) "Practicable alternatives" means the use of an alternative location if such location is capable of accommodating the proposed use and could be reasonably obtained in a timely manner.

(g) "Substantially interfere with" means the use would significantly diminish the public use and enjoyment of the natural resource lands.

(h) "Trustees" means Board of Trustees of the Internal Improvement Trust Fund.

(i) "Unacceptable adverse affect" means impact on natural resources that is likely to result in significant degradation, impairment or loss of these resources.

(j) "Use means the customary and acceptable use of natural resource lands for purposes other than the conservation of natural resources or public recreational use and enjoyment of the lands.

SEP 0 8 2001

Planning Division
Environmental Branch

Mr. Jay Slack
Field Supervisor
U.S. Fish and Wildlife Service
1339 20th Street
Vero Beach, Florida 32960

Dear Mr. Slack:

Pursuant to the Endangered Species Act, as amended, the U.S. Army Corps of Engineers, Jacksonville District, is requesting a list of threatened or endangered species and critical habitat for species under the jurisdiction of the Fish and Wildlife Service in the vicinity of Port Everglades, Broward County, Florida (See enclosed map).

The point of contact for this project is Mr. Rea N. Boothby at 904-232-3453.

Sincerely,

James C. Duck
Chief, Planning Division

Enclosure

RNB 9/4/01
Boothby/CESAJ-PD-EA/3453/slw
McAdams/CESAJ-PD-EA
Dugger/CESAJ-PD-E
Schmidt/CESAJ-PD-PN
~~Fore/CESAJ-DP-I~~
Strain/CESAJ-PD-P
Duck/CESAJ-PD

Port Ev. FWS Sect 7 2001

SEP 0 8 2001

Planning Division
Environmental Branch

Mr. Charles A. Oravtez
Chief, Protected Species Management Branch
National Marine Fisheries Service
9721 Executive Center Drive North
St. Petersburg, Florida 33702

Dear Mr. Oravetz:

Pursuant to the Endangered Species Act, as amended, the U.S. Army Corps of Engineers, Jacksonville District, is requesting a list of threatened or endangered species and critical habitat for species under the jurisdiction of the National Marine Fisheries Service in the vicinity of Port Everglades, Broward County, Florida (See enclosed map).

The point of contact for this project is Mr. Rea N. Boothby at 904-232-3453.

Sincerely,

James C. Duck
Chief, Planning Division

Enclosure

Boothby/CESAJ-PD-EA/3453/slw 9/4/01
McAdams/CESAJ-PD-EA
Dugger/CESAJ-PD-E
Schmidt/CESAJ-PD-PN
~~Fore/CESAJ-DP-I~~
Strain/CESAJ-PD-P
Duck/CESAJ-PD

W/boothby/Port Ev.NMFS Sect 7

FLORIDA
TRANSPORTATION
SERVICES, INC.

Post Office Box 22696 • Fort Lauderdale, FL 33335-2696

May 16, 2001

Mr. Bradd Schwichtenberg
U.S. Army Corps of Engineers
Jacksonville District
Planning Division
P.O. Box 4970
Jacksonville, FL 32232

RE: Port Everglades

Dear Mr. Schwichtenberg:

We are writing in support of the Feasibility Study on the possible expansion of Port Everglades's waterways. As long time stevedores, terminal operators and steamship agents in Port Everglades, we have witnessed first hand the increasing congestion in berthing due to the increased size and number of vessels calling the port.

We are especially interested in any improvements proposed to the Dania Cutoff Canal, as such improvements may lead to the development of additional berthing there.

It is vital to South Florida that Port Everglades stay competitive. To do so, its infrastructure must be improved. This cannot be accomplished without the simultaneous improvement of its waterways.

Sincerely,

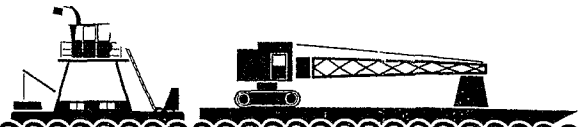
Florida Transportation Services, Inc.

John C. Gorman, Jr.
President

cc: Mr. Allan D. Sosnow, Port Everglades

GRADY MARINE CONSTRUCTION, INC.

General Marine Contractors "We Barge Right In"



May 11, 2001

Mr. Bradd Schwichtenberg
U.S. Army Corps of Engineers
Jacksonville District
Planning Division
P.O. Box 4970
Jacksonville, FL 32232

Dear Mr. Schwichtenberg:

We are Port Everglades users and long time tenants. We support any efforts on your part to conduct a Feasibility Study of the Port's waterways.

It is apparent that to maintain our Port leadership role on the East Coast, we must continue to improve our facilities to accommodate larger, deep draft vessels.

Please feel free to call on us for additional information or assistance from the local level.

Respectfully,

John J. Grady Jr.

CONTINENTAL

Port Everglades Terminal: Slip 3 Eisenhower Boulev
Port Everglades, Florida
Phone: (954) 523-8442
Fax: (954) 523-0156

Mailing Address: P.O. Box 13128
Port Everglades, Florida

May 11, 2001

Mr. Bradd Schwichtenberg
U.S. Army Corps of Engineers
Jacksonville District
Planning Division
P.O. Box 4970
Jacksonville, FL 32232

Dear Mr. Schwichtenberg,

Our Company, Continental Florida Materials Inc./Lehigh Portland Cement is in favor of the proposed expansion project at the Port of Jacksonville.

Deeping and widening the Port will make it possible for us to use bigger and wider ships.

Regards,

Lars Alm
VP Operations

6500 North Andrews Avenue, Suite 200
Fort Lauderdale, Florida 33309
Phone: (954) 351-1800

2100 SOUTH OCEAN LANE, APT. 706 • FORT LAUDERDALE, FLORIDA 33316 • (954) 463-3875 • FAX (954) 463-9509

May 8, 2001

Mr. Bradd Schwichtenberg, Planning Division
U.S. Army Corps of Engineers, Jacksonville District
P.O. Box 4970
Jacksonville, FL 32232

Dear Mr. Schwichtenberg:

I write in support of the proposed dredging project at Port Everglades, Florida.

I am a former Port Everglades Commissioner and Chairman and have been closely associated with various businesses at the port, including Tracor Marine Inc., of which I was president, and Hvide Marine Incorporated (now Seabulk International), of which I was recently chairman, president, and chief executive officer. I am a co-founder of the Port Everglades Association, the business group at the port.

In my 25 years of close association with Port Everglades I have watched with pleasure the port's growth and development. What not long ago was a quiet, sleepy seaport whose business was more than ninety per cent dependent on petroleum imports is now a bustling, vigorous, highly diversified seaport whose major businesses include petroleum, container, and cruise. Today, Port Everglades is rightly described as *the* engine of Broward County's commerce and industry, employing directly or indirectly thousands of men and women and bring millions of dollars into the local economy annually.

But the port's progress is jeopardized by the continuing increase in the sizes of container and cruise ships and the realities of navigation in the existing harbor. Deeper water in the entrance channel, the turning basin, and elsewhere at Port Everglades is absolutely necessary if the port is to continue to provide modern services to the world maritime industry.

Accordingly, I strongly urge your support of the planned dredging project at Port Everglades, with the hope that the project can be moved expeditiously through the approval and appropriations processes and promptly get underway. The planned dredging is vital if the port's full potential is to be realized.

Sincerely,

Jean Fitzgerald

SOUTH STEVEDORING, INC.
2550 EISENHOWER BLVD., BLDG. 611, OFFICE 211/212
FORT LAUDERDALE, FL 33316
TELEPHONE: (954) 525-4204
FAX: (954) 522-6463

SOUTH FLORIDA TERMINAL SERVICES
3800 MCINTOSH ROAD
FORT LAUDERDALE, FL 33316
TELEPHONE: (954) 768-0660
FAX: (954) 524-3859

May 7, 2001

Mr. Bradd Schwichtenberg
U.S. Army Corps of Engineers
Jacksonville District
Planning Division
P.O. 4970
Jacksonville, Florida 32232

Dear Mr. Schwichtenberg,

As a long time tenant of Port Everglades, my company South Stevedoring, Inc. and I are very much in favor of the Feasibility Study for the global Expansion of the Port Everglades Harbor. We are much aware of the potential to bring post-panamax vessels to the Port and this event can only be accomplished with deep water and a channel wide enough to accommodate the safe passage of vessels through the Southport Access Channel.

As a new terminal facility at Port Everglades, we are also looking forward to the improvements scheduled for the Turning Notch and the proposed improvements to the Dania Cutoff Canal.

If there is any way my company or I can assist you or the Port in the speedy development of the Port's new facilities, please do not hesitate to call on me.

Sincerely,

Arthur Scott

Arthur Scott
President Terminal Operations

cc: Stephen C. Harrington

TECMARINE LINES, INC.

5/4/01

Mr Bradd Schwichtenberg
U.S. Army Corps of Engineers
Jacksonville District
Planning Division
PO Box 4970
Jacksonville, Florida 32232

Subj: Port Everglades Expansion Plans, Feasibility Study

Dear Mr Schwichtenberg:

Tecmarine is a moderate sized liner operation operating and based in Port Everglades. We have been proponents and clients of the port since 1989. During that time we have seen the progress and growth of this port.

We feel that the result of the Feasibility Study must show that the widening and deepening of the port is not only a good plan but frankly essential to the health of the port in the future and directly impacting us, one of the port users. Any benefit that allows healthy economic growth and therefore the growth of the port user community is vital.

We support the dredging of the Southport Access Channel, Turning Notch and Dania Cutoff Canal. This step is only a first step in the long range needs and plans for the port and it simply must happen if we are to be successful in Port Everglades and I refer the "we" as a member of the por community.

I hope you can support our position and we do indeed see this dredging come about in timely order.

Thank you for taking the time to review our position.

Robert "Bob" Callahan
Senior Vice President
Marine Operations

Telephone Building 2051 S.E. 35th Street • Port Everglades, Florida
Telephone: (954) 331-2000 or (305) 597-7000 • Fax: (954) 331-1950 or (305) 594-4446

STATE OF FLORIDA

DEPARTMENT OF COMMUNITY AFFAIRS

"Dedicated to making Florida a better place to call home"

JEB BUSH
Governor

STEVEN M. SEIBERT
Secretary

April 27, 2001

Mr. James C. Duck
Department of the Army
Jacksonville District Corps of Engineers
Post Office Box 4970
Jacksonville, Florida 32232-0019

RE: Department of the Army - District Corps of Engineers - Notice of Intent to Prepare Draft Environmental Impact State (DEIS) - Port Everglades Harbor - Feasibility Study of Navigation Improvements - Broward County, Florida
SAI: FL 200103150126C

Dear Mr. Duck:

The Florida State Clearinghouse, pursuant to 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, 14 U.S.C. §§ 4321, 4331-4335, 4341-4347, as amended, has coordinated the review of the above-referenced project.

The Department of Environmental Protection (DEP) offers an number of comments and concerns relating to the project's waste cleanup and petroleum storage methods and their environmental impacts to the Port Everglades vicinity. Please refer to the enclosed DEP comments for more detail.

The Florida Fish and Wildlife Conservation Commission (FWC) offers a list of concerns regarding the project's environmental impacts. These include how increased lighting and dredged materials placement will affect nesting turtles, how the project will impact seagrasses and other nearshore and hard bottom habitat, how reducing navigational width of the Dania Cutoff Canal will impact manatees and recreational boaters, and how the project's dredging methods (including blasting) will impact manatees and other marine mammals. Please refer to the enclosed FWC comments for more information.

Finally, the South Florida Regional Planning Council (SFRPC) has identified goals and policies in its Strategic Policy Plan which may apply to the project. We have enclosed the SFRPC's comments for your review and consideration.

Based on the information contained in the notice of intent and the enclosed comments provided by our reviewing agencies, we have determined that the referenced project is, at this stage, consistent with the Florida Coastal Management Program (FCMP). All subsequent environmental documents prepared for this project must be reviewed to determine the project's continued consistency with the FCMP. The state's continued concurrence with this project will be based, in part, on the adequate resolution of any issues identified during this and subsequent reviews.

Thank you for the opportunity to review this project. If you have any questions regarding this letter, please contact Ms. Jasmin Raffington at (850) 414-6568.

Sincerely,

Joseph F. Myers, Acting Executive Director
Florida Coastal Management Program

JFM/hv

Enclosures

cc: Robert Hall, Department of Environmental Protection
Brian Barnett, Fish and Wildlife Conservation Commission
Eric Silva, South Florida Regional Planning Council
Jim Golden, South Florida Water Management District

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

April 26, 2001

James C. Duck, Chief
Planning Division, Environmental Branch
Jacksonville District Corps of Engineers
P.O. Box 4970
Jacksonville, Florida 32232-0019

Dear Mr. Duck:

The National Marine Fisheries Service (NMFS) attended the March 29, 2001, Scoping Meeting for the development of an Environmental Impact Statement (EIS) for the Port Everglades Harbor Navigation Channel Improvements project. The proposed project is located in the vicinity of Dania Sound, Broward County, Florida. The draft EIS being prepared for this project is expected to be available in September 2001. At the request of the Army Corps of Engineers (COE), Planning Division, the NMFS provides the following preliminary comments for your consideration.

According to information provided during the referenced meeting, several navigational improvements to the Port are being investigated. These include: widening and deepening the Outer and Inner Entrance Channel, the Southport Access Channel, Turning Notch, and Dania Cutoff Canal; deepening the Main Turning Basin and adjacent turning basins; constructing bulkheads along the Southport Access Channel; moving the existing Coast Guard facilities east to accommodate the new channel configurations; and, creating a new turning basin at the south end of the Southport Access Channel. Some of the stated objectives of the project include providing access to the Port for larger vessels such as post-Panamax cargo and Eagle Class cruise ships. Several spoil disposal options are being considered including beach disposal at John U. Lloyd Park and on-site, upland disposal. Mitigation options for impacts to estuarine and marine resources are being developed, but are expected to include wetland creation/restoration at West Lake Park in Broward County.

Based on the description of the activities under consideration, the NMFS is concerned that the proposed project may have significant adverse impacts to Essential Fish Habitat (EFH) as defined by 1996 amendment to the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA). Based upon information provided at the EIS Scoping Meeting, potential impacts to EFH and NMFS-trust resources include:

- Approximately 5 acres of dredging within areas supporting seagrasses (including approximately 1 acre of Johnson's seagrass);
- Approximately 23 acres of dredging and/or filling activities within mangrove wetlands;
- Approximately 63 acres of dredging impacts to hard bottom habitat (based upon mapping used in the Coast of Florida Study in 1996. New video surveys scheduled for May 2001

are expected to indicate a lesser amount of hard bottom in this area); and,

- Approximately 0.7 acre of dredging impacts to coral reef habitat.

Seagrasses, estuarine scrub/shrub mangroves, live/hard bottoms, coral and coral reefs, estuarine mud bottom, and the estuarine and marine water column have been identified as EFH by the South Atlantic Fishery Management Council (SAFMC). In addition, submerged aquatic vegetation, hermatypic coral reefs, hard bottoms, and mangroves 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.

Rock blasting may be proposed in the area of the Outer Entrance Channel, within the Main Turning Basin, and possibly along the Dania Cutoff Canal. We are concerned that blasting within these areas may have additional adverse impacts to fish and sea turtles that utilize these areas for foraging and shelter. In particular, blasting within the Outer Entrance Channel may effect organisms associated with hard bottom and coral habitats adjacent to the channel.

It is our understanding that several areas within the Southport Channel contain environmental conservation easements that would be impacted by several of the proposed alternatives. We are concerned with the loss of areas designated as environmental conservation easements.

Preliminary information has indicated that mitigation for impacts to marine and estuarine habitats could be provided by wetland creation and restoration at West Lake Park in Broward County. According to information provided at the EIS Scoping Meeting, there are approximately 55 acres of land at the Park that may be available as mitigation areas. The NMFS has also reviewed an EIS for the Fort Lauderdale-Hollywood Airport Expansion, which is expected to impact approximately 38.2 acres of fresh water emergent and mangrove wetlands. The proposed mitigation area for the airport expansion project is also the West Lake Park, and we have some concern that sufficient area may not be available at this site to accommodate mitigation for these two projects.

Considering the potential impact from the proposed project on EFH, HAPC, and other NMFS-trust resources, we recommend that the following should be addressed in the draft EIS:

1. An EFH Assessment should be completed that identifies and describes EFH resources in the vicinity of the project, assess the impacts to EFH associated with each action alternative, the COE's views regarding the effects of the action on EFH, and the proposed mitigation to fully offset any losses of EFH;

2. Alternatives to blasting should be fully analyzed and considered to reduce adverse impacts to NMFS trust resources, including EFH and HAPC, within the project vicinity;

3. Potential impacts to environmental conservation easements should be fully analyzed including the need to affect these areas, practicable alternatives to affecting these areas, and the type and amount of mitigation that is would be necessary to fully compensate for the loss of these areas; and,

4. A comprehensive mitigation plan should be included with a complete analysis of the

proposed locations, and availability, for wetland restoration and/or creation for this project. In-kind mitigation should be provided for all habitat types impacted from the proposed project and long-term monitoring should be included to ensure that complete recovery and compensation is ultimately provided.

We look forward to the opportunity to provide additional comments to the draft EIS upon its availability. If we can be of further assistance, please advise. Related comments, questions or correspondence should be directed to Mr. Michael R. Johnson, in Miami, at 305/595-8352.

Sincerely,

for Andreas Mager, Jr.
Assistant Regional Administrator
Habitat Conservation Division

cc:
EPA, WPB
DEP, WPB
FFWCC, Tallahassee
FWS, Vero Beach
F/SER3
F/SER4
F/SER43-Johnson

Coastal
The Energy People

April 26, 2001

Mr. Brad Schwichtenberg
U. S. Army Corps of Engineers
Jacksonville District
Planning Division
P. O. Box 4970
Jacksonville, FL 32232

Subject: Port Everglades Expansion and Environmental Impact Study

Dear Sir:

The El Paso Corporation fully supports the global expansion of the Port Everglades waterway. The Port has witnessed dramatic growth in all business sectors throughout its history by continually looking to the future and finding ways to better serve the needs of its customers. The Petroleum, Cruise and Cargo industries are the three main revenue sources for the Port and all three will begin utilizing larger vessels in the near future to remain competitive.

For these larger vessels to bring their goods and services to Port Everglades, the Port must explore widening and deepening the Outer and Inner Entrance Channels, the three turning basins, the Southport Access Channel, the Turning Notch and improvements to the Dania Cutoff Canal. However, due to the vast environmentally sensitive areas within the confines of the Port, we believe a thorough environmental assessment needs to be completed before any dredging is initiated. To this end, we support the Draft Environmental Impact Study proposed by the Army Corps of Engineers (COE), Jacksonville District.

I would appreciate a copy of the study when completed. My forwarding address is:

Terminal Manager
El Paso Corporation
P. O. Box 13124
Port Everglades, FL 33316

Please call me at (954) 355-4245 if you have any questions or need additional information.

Sincerely,

Karl H Bernard

Karl Bernard
Terminal Manager

PORT EVERGLADES TERMINAL • P.O. BOX 13124 • 2401 EISENHOWER BLVD • PORT LAUDERDALE FL 33316-0130 • 954.355-4245

CROWLEY
LINER SERVICES
A Subsidiary of Crowley Maritime Corporation

April 24, 2001

Mr. Brad Schwichtenberg
U. S. Army Corps of Engineers
Jacksonville District Planning Division
P. O. Box 4970
Jacksonville, FL 32232

Dear Mr. Schwichtenberg:

Crowley Liner Services is a major user of the Port Everglades facilities. We average in excess of 430 ship calls per year serving our customers in the Virgin Islands, Windward and Leeward Islands, Dominican Republic, Bahamas, Jamaica, Guatemala, Honduras, Costa Rica, Panama and Mexico.

Improvement of the port facilities, including dredging and widening the channels and turning basins is of considerable importance to our company. Projects such as improvements to the Dania Cutoff Canal are strongly supported to provide additional dockage. Berthing congestion is an ongoing problem for the Port Everglades Harbormaster.

Crowley Liner Services strongly supports expansion of Port Everglades and improvement of existing facilities to better support current requirements and provide the opportunity to enhance the utility of the port and economic growth.

Very truly yours,

Thomas Morin
Manager, Vessel Operations

TM/ao

SEABULK INTERNATIONAL

Seabulk International, Inc. • 2200 Eller Drive • P.O. Box 13038 • Fort Lauderdale, FL 33316
www.seabulkinternational.com

Alan R. Twaits
Senior Vice President
and General Counsel

Phone: (954) 524-4200 Ext. 801
Fax: (954) 527-1772
E-mail: alan.twaits@sbulk.com

April 23, 2001

Mr. Bradd Schwichtenberg
U.S. Army Corps of Engineers
Jacksonville District/Planning Division
PO Box 4970
Jacksonville, FL 32232

RE: Port Everglades

Dear Mr. Schwichtenberg:

It has come to our attention that the U.S. Army Corps of Engineers is conducting a Feasibility Study on widening and deepening entrance channels, turning basins, access channels, the turning notch and the cutoff canal at Port Everglades. Seabulk International, Inc. ("Seabulk") (f/k/a Hvide Marine Incorporated) strongly supports the Port Everglades project, which would allow needed expansion and improvement to ship operations at the port. As holder of the tug franchise at Port Everglades, Seabulk operates a fleet of five state-of-the-art tug vessels at Port Everglades. Seabulk and its tug captains know the characteristics of the port as well as any other group. We work hand in hand with the pilots and vessel operators to guide and berth tankers, container ships, bulk carriers, roll on roll off ships, special purpose ships and cruise ships. Seabulk also operates a fleet of ten of its own U.S. flag petroleum and product tankers, five of which are state of the art double hulls. Some of our tanker fleet are regular visitors to Port Everglades, so we are also intimately aware of the tight confines of the port and its channels and berths as vessel owners and operators.

Port Everglades is a unique port, with narrow confines, bends and turns, and narrow channels and berths. Nowhere else is the mix of cruise vessels, cargo vessels, recreational yachts, small boats, the intercoastal waterway, and pristine beaches and natural areas in such close proximity. They conspire to create uniquely compelling reasons for widening and deepening at Port Everglades.

(1) Vessels are continuing to get larger. Cruise ships and container ships at Port Everglades have already grown with cruise ships over 110,000 dwt and 3,000 passengers, and 1,000 foot container ships with over 4,500 TEU capacity. And larger ones are on the way.

If the port is going to stay competitive and continue to be a safe place to operate the big ships, the port and the Army Corps need to anticipate and plan for the future to be able to handle them. The current tightness and minimal tolerances in

the port would be alleviated by the project, providing easier and safer access. The presence of large amounts of yacht and pleasure boat traffic at the port accentuates the need.

(2) Widening and deepening will enhance and expedite safe arrivals, departures and shifting of port traffic. For example, this will reduce the number of loaded tankers waiting at the sea buoy to enter the port, consequently reducing traffic and the possibility of incidents there.

(3) An accident in the current narrow channels and berths could impede ship traffic flow. Widening and deepening will reduce the threat of accidents and resulting bottlenecks.

(4) Dredging projects are inherently slow and time-consuming. We need to begin this project as soon as possible.

(5) Port Everglades is the largest petroleum storage port south of New York City, the world's second or third largest cruise port, and a major container gateway to the Caribbean and Central and South America. It has grown fast and, with the right infrastructure mix, can continue to grow to meet the import and export needs of the economy of the southeast U.S., including, on the import side, vital energy needs. To continue to meet these needs, as well as to remain competitive with new, special purpose terminals in the Bahamas and elsewhere, Port Everglades needs the widening and deepening project.

Seabulk appreciates the opportunity to make its views heard. Our experts at the port, where we also have our corporate headquarters, stand ready to assist with any questions or issues which you would like us to address. Please contact the undersigned should you require additional input from Seabulk.

Sincerely,

Alan R. Twaits

Cc: Paul DeMariano, Port Director, Port Everglades
Gerhard E. Kurz, President and CEO, Seabulk International, Inc.
William R Ludt, President, Towing Division, Seabulk International, Inc.
Bob Turpin, Director, Seabulk Towing Operations, Port Everglades

FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION

BARBARA C. BARSH, Jacksonville
QUINTON L. HEDGEPETH, DDS, Miami
H.A. "HERKY" HUFFMAN, Deltona
DAVID K. MEEH, St. Petersburg
JULIE K. MORRIS, Sarasota
TONY MOSS, Miami
EDWIN P. ROBERTS, DC, Pensacola
JOHN D. ROC, Jacksonville

ALLAN L. EGBERT, Ph.D., Executive Director
VICTOR J. HELLER, Assistant Executive Director

OFFICE OF ENVIRONMENTA
BRADLEY J. HARTMAN,
(850)488-6661 TDD (8
FAX (8

April 19, 2001

Ms. Jasmine Raffington
Florida State Clearinghouse
2555 Shumard Oak Blvd.
Tallahassee, Florida 32399-2100

Re: SAI #FL200103150126C,
USACOE Notice of Intent to Prepare Draft Environmental Impact Statement-Port Everglades Harbor-Feasibility Study of Navigation Improvements, Ft. Lauderdale, Broward County

Dear Ms. Raffington:

The Office of Environmental Services of the Florida Fish and Wildlife Conservation Commission (FWC) has reviewed the referenced project, and offers the following comments.

This project involves the development of a Draft Environmental Impact Statement (DEIS) for the Port Everglades Harbor, Feasibility Study of Navigation Improvements. These improvements involve proposed deepening and widening of channels and turning basins at the port. FWC staff has attended several meetings, organized by the Army Corps of Engineers, of all interested agencies regarding the feasibility of the port improvements. We continue to have the same concerns about issues potentially associated with this project that we have expressed at those meetings, and expect they will be addressed in the DEIS. They are as follows:

1. Increased lighting from the port impacting sea turtle nesting at John U. Lloyd State Park.
2. Placement of any dredged material on the beach.
3. Impacts to seagrasses that serve as manatee and sea turtle foraging habitat.
4. Impacts to nearshore hard bottom habitats utilized as developmental habitat by juvenile green turtles.
5. The potential reduction in the available navigational width in the Dania Cutoff Canal due to increased vessel mooring, thus reducing the amount of waterway available for manatees and boaters to use.
6. Proposed dredging methods, including blasting, and the risks posed to manatees and sea turtles from these methods.

RECEIVED

We will also be reviewing this project when it is submitted as a permit and can provide specific recommendations at that time. If you have any questions regarding these comments, please contact me or Ms. Carol Knox at (850) 922-4330.

Sincerely,

Brian Barnett, for

Bradley J. Hartman, Director
Office of Environmental Services

BJH/CAK
ENV 7-2/1/3/2
cc: U.S. Army Corps of Engineers, Jacksonville
USFWS-Vero Beach, Chuck Sultzman

A:\sai0126c.doc

RECEIVED
APR 23 200

850 Eller Drive □ Port Everglades, Florida 33316 □ (954) 463-2801 □ Fax (954) 467-5418

PORT EVERGLADES ASSOCIATION, INC.

April 18, 2001

Mr. Bradd Schwichtenberg
US Army Corps of Engineers
Jacksonville District
Planning Division
PO Box 4970
Jacksonville, FL 32232

Mr. Schwichtenberg:

The Port Everglades Association Board of Directors is aware of the Environmental Impact Study currently underway as a part of the Feasibility Study on the expansion of the Port Everglades waterway.

It is imperative that this port be able to accommodate the anticipated growth in the near and distant future. Therefore we are very much in favor of the expansion program and the generation of this Environmental Impact Statement draft.

As Executive Director of the 75-member Port Everglades Association I can assure that the members are extremely supportive of this expansion proposal.

Sincerely,

Margaret Kempel

Margaret Kempel
Executive Director

DISCOVERY CRUISE LINE®

April 10, 2001

Mr. Bradd Schwichtenberg
U.S. Army Corps of Engineers
Jacksonville District
Planning Division
P.O. Box 4970
Jacksonville, FL 32232

Dear Mr. Schwichtenberg:

Discovery has been a daily Port user in Port Everglades since the 1980's and we are planning to operate from Port Everglades for many years to come.

However, as of late, the growth of the Port increasingly necessitates for our unique Ro-Ro Cruise Ferry Operation to be shifted to Port locations not equally conducive.

It is therefore with great expectations that we applaud the Ports Global Expansion Movement and the feasibility study to be conducted by the COE is a major step in that direction. While environmental impact remains one of the major concerns when targeting the immense project of widening and deepening an entire Port, the ultimate necessity of the project deserves to be awarded equal concern however. In this spirit, Discovery is looking forward to a swift and favorable completion of this feasibility study.

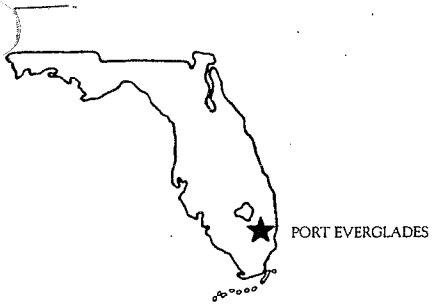
Thank you and best regards,

Hanns J. Kahn
General Manager

Cc: Allan D. Sosnow

Administration\tamara\memos 2001\Port Everglades Schwichtenberg

1775 N.W. 70th Avenue Miami, Florida 33126-1341 Phone (305) 597-0336 Fax (305) 477-2867/476-9712



Florida's Deepest Harbor

PORT EVERGLADES PILOTS' ASSOCIATION
Post Office Box 13017
PORT EVERGLADES, FLORIDA 33316
Telephone (954) 522-4491 / 7
Facsimile (954) 522-4498

April 9, 2001

Mr. Bradd Schwichtenberg
U.S. ARMY CORPS OF ENGINEERS
Jacksonville District
Planning Division
P.O. Box 4970
Jacksonville, FL 32232

Re: Draft Environmental Impact Study

Dear Mr. Schwichtenberg:

On behalf of the Port Everglades Pilots' Association, please note that we are very much in favor of the dredging project for Port Everglades.

The benefits to the people of Florida and our country's economy cannot be underestimated.

We stand ready to offer any and all assistance that you may require.

Yours truly,

Brian F. Hanley

Captain Brian F. Hanley, Co-Managing Pilot

Michael J. Cunningham

Captain Michael J. Cunningham, Co-Managing Pilot
Port Everglades Pilots' Association

BFH:ljb

cc: File

President Arthur Coffey

Secretary/Treasurer Cornelius Vanderwyde
Vice President Gerardo Becerra

Local 1922
1610 PORT BOULEVARD
MIAMI, FLORIDA 33132
Telephone: 305-379-8694

REG. U. S. PATENT OFFICE

International Longshoremen's .... Association ....

Affiliated with AFL-CIO and Canadian Labour Congress

April 5, 2001

Mr. Bradd Schwichtenberg
U.S. Army Corps of Engineers
Jacksonville District
Planning Division
P.O. Box 4970
Jacksonville, FL 32232

Dear Mr. Schwichtenberg:

This is to inform you that the International Longshoremen's Association Local 1922 does support your study of Port Everglades of the Outer and Inner Entrance Channels, the three (3) Turning Basins and the Southport Access Channel. We feel that any improvement to Port Everglades to make the facilities more compatible of the world's shipping entrance will promote jobs and a wider future to the port.

Thanking you for your time and attention.

Sincerely,
ILA Local 1922
(AFL-CIO)

Arthur Coffey
President

South
Florida
Regional
Planning
Council

April 16, 2001

RECEIVED
APR 19 2001
FLORIDA COASTAL
MANAGEMENT PROGRAM

Ms. Cherie Trainor
Florida Coastal Management Program
Department of Community Affairs
2555 Shumard Oak Boulevard
Tallahassee, FL 32399-2100

RE: SFRPC #01-0332, SAI #FL200103150126C - Request for comments on the Notice of Intent to prepare a draft Environmental Statement for the Port Everglades Harbor Feasibility Study of Navigation Improvements, Department of the Army. Broward County.

Dear Ms. Trainor:

We have reviewed the above-referenced notice and have the following comments:

- Council staff finds that the Notice of Intent to prepare a draft Environmental Statement for the Port Everglades Harbor Feasibility Study of Navigation Improvements is generally consistent with the goals and policies of the *Strategic Regional Policy Plan for South Florida*, specifically the following:

Strategic Regional Goal

3.1 Eliminate the inappropriate uses of land by improving the land use designations and utilize land acquisition where necessary so that the quality and connectedness of Natural Resources of Regional Significance and suitable high quality natural areas is improved.

Regional Policies

3.1.1 Natural Resources of Regional Significance and other suitable natural resources shall be preserved and protected. Mitigation for unavoidable impacts will be provided either on-site or in identified regional habitat mitigation areas with the goal of providing the highest level of resource value and function for the regional system. Endangered faunal species habitat and populations documented on-site shall be preserved on-site. Threatened faunal species and populations and species of special concern documented on-site, as well as critically imperiled, imperiled and rare plants shall be preserved on-site unless it is demonstrated that off-site mitigation will not adversely impact the viability or number of individuals of the species.

3.1.2 Direct inappropriate uses of land that are not consistent with the protection and maintenance of natural resource values away from Natural Resources of Regional Significance and suitable natural resource areas.

3.1.3 Continue to identify and evaluate the resources of the region, including regional mitigation areas, through project reviews and required monitoring so that additional Natural Resources of Regional Significance may be designated, defined and mapped. Propose new natural resources for inclusion in, and designation by, the SRPP as they are identified, or by 1999.

e-mail sfadmin@sfrpc.com

3.1.9 Degradation or destruction of Natural Resources of Regional Significance, including listed species and their habitats will occur as a result of a proposed project only if :

a) the activity is necessary to prevent or eliminate a public hazard, and
b) the activity is in the public interest and no other alternative exists, and
c) the activity does not destroy significant natural habitat, or identified natural resource values, and
d) the activity does not destroy habitat for threatened or endangered species, and
e) the activity does not negatively impact listed species that have been documented to use or rely upon the site.

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 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 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.

3.8.3 As a result of proposed project reviews, include conditions that result in a project that enhances and preserves marine and estuarine water quality by:

a) improving the timing and quality of freshwater inflows;
b) reducing turbidity, nutrient loading and bacterial loading from wastewater facilities and vessels;
c) reducing the number of improperly maintained stormwater systems; and
d) requiring port facilities and marinas to implement hazardous materials spill plans.

3.8.4 Enhance and preserve commercial and sports fisheries through monitoring, research, best management practices for fish harvesting and protection of nursery habitat and include the resulting information in educational programs throughout the region. Identified nursery habitat shall be protected through the inclusion of suitable habitat protective features including, but not limited to:

a) avoidance of project impacts within habitat area;
b) replacement of habitat area impacted by proposed project; or
c) improvement of remaining habitat area within remainder of proposed project area.

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.

3.8.6 Development of meaningful best management practices for fish harvesting.

Thank you for the opportunity to comment. We would appreciate being kept informed on the progress of this project. Please do not hesitate to call if you have any questions or comments.

Sincerely,

Eric Silva
Senior Planner

ES/jg

cc: Steve Somerville, BC-DPEP
The Honorable Jim Naugle, Cityof Fort Lauderdale
Jaye Epstein, City of Hollywood Community Development

COUNTY: Broward

DATE: 03/15/2001
COMMENTS DUE DATE: 04/13/2001
CLEARANCE DUE DATE: 04/27/2001
SAI#: FL20010315C

Message:

STATE AGENCIES	WATER MANAGEMENT DISTRICTS	OPB POLICY UNITS
Community Affairs Environmental Protection Fish & Wildlife Conserv. Comm State X Transportation	South Florida WMD	Environmental Policy/C & ED

The attached document requires a Coastal Zone Management Act/Florida Coastal Management Program consistency evalutation and is categorized as one of the following:

___ Federal Assistance to State or Local Government (15 CFR 930, Subpart F). Agencies are required to evaluate the consistency of the activity.

_X_ Direct Federal Activity (15 CFR 930, Subpart C). Federal Agencies are required to furnish a consistency determination for the State's concurrence or objection.

___ Outer Continental Shelf Exploration, Development or Production Activities (15 CFR 930, Subpart E). Operators are required to provide a consistency certification for state concurrence/objection.

___ Federal Licensing or Permitting Activity (15 CFR 930, Subpart D). Such projects will only be evaluated for consistency when there is not an analogous state license or permit.

Project Description:

Department of the Army - District Corps of Engineers - Notice of Intent to Prepare Draft Environmental Impact Statement (DEIS) - Port Everglades Harbor - Feasibility Study of Navigation Improvements - Fort Lauderdale, Broward County, Florida.

To: Florida State Clearinghouse
Department of Community Affairs
2555 Shumard Oak Boulevard
Tallahassee, FL 32399-2100
(850) 922-5438 (SC 292-5438)
(850) 414-0479 (FAX)

EO. 12372/NEPA

☑ No Comment
☐ Comments Attached
☐ Not Applicable

Federal Consistency

☑ No Comment/Consistent
☐ Consistent/Comments Attached
☐ Inconsistent/Comments Attached
☐ Not Applicable

From:
Division/Bureau: FDOT, D4

COUNTY: Broward

DATE: 03/15/2001
COMMENTS DUE DATE: 04/13/2001
CLEARANCE DUE DATE: 04/27/2001
SAI#: FL2001031501

Message:

STATE AGENCIES	WATER MANAGEMENT DISTRICTS	OPB POLICY UNITS
Community Affairs Environmental Protection Fish & Wildlife Conserv. Comm State Transportation	X South Florida WMD	Environmental Policy/C & ED

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MAR 22 2001
ERR - 4210

The attached document requires a Coastal Zone Management Act/Florida Coastal Management Program consistency evalutation and is categorized as one of the following:

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_X_ Direct Federal Activity (15 CFR 930, Subpart C). Federal Agencies are required to furnish a consistency determination for the State's concurrence or objection.

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Project Description:

Department of the Army - District Corps of Engineers - Notice of Intent to Prepare Draft Environmental Impact Statement (DEIS) - Port Everglades Harbor - Feasibility Study of Navigation Improvements - Fort Lauderdale, Broward County, Florida.

To: Florida State Clearinghouse
Department of Community Affairs
2555 Shumard Oak Boulevard
Tallahassee, FL 32399-2100
(850) 922-5438 (SC 292-5438)
(850) 414-0479 (FAX)

E.O. 12372/NEPA

- ☐ No Comment
- ☐ Comments Attached
- ☐ Not Applicable

Federal Consistency

- ☐ No Comment/Consistent
- ☐ Consistent/Comments Attached
- ☐ Inconsistent/Comments Attached
- ☒ Not Applicable

UNDER THE OPERATING AGREEMENT BETWEEN DEP AND THE SFWMD, THIS PROJECT WILL BE REVIEWED BY DEP.

From:
Division/Bureau: ERR

Department of Environmental Protection

Jeb Bush
Governor

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

David B. Stru
Secretary

April 13, 2001

RECEIVED
APR 19 2001
State of Florida Clearinghouse

Ms. Jasmin Raffington
Florida State Clearinghouse
Department of Community Affairs
2555 Shumard Oak Boulevard
Tallahassee, Florida 32399-2100

Re: Department of the Army, District Corps of Engineers, Notice of Intent to Prepare Draft Environmental Impact Statement (DEIS), Port Everglades Harbor, Feasibility Study of Navigation Improvements, Ft. Lauderdale, Broward County

SAI: FL 200103150126C

Dear Ms. Raffington:

The Department has been working extensively with the Corps of Engineers and providing comments an concerns related to environmental impacts in the vicinity of Port Everglades. The following comments a in addition to those already communicated, and noted in the public record. These additional comments are offered to further assist the Corps in its preparation of the Environmental Impact Statement.

Waste Cleanup Issues:

According to the Notice of Intent, the project is to "Widen and deepen every major Federal channel and basin within the project and develop (widen and deepen) the Dania Cutoff Canal." In addition to the general issues already identified, the Department has additional concerns relative to the sediments in areas to be dredged.

The EIS should outline the intended methods of testing sediments for contamination with identification of evaluative criteria. It is anticipated that some areas will be contaminated with fuel and metal related contaminants which can have varying effects on environmental resources. It is recommended that the Department's report entitled "1994 Florida Sediment Quality Assessment Guidelines (SQAGs)" be used as a reference for sediment analysis. This report was prepared to provide the Florida Department of Environmental Protection with biological effects-based sediment quality assessment guidelines (SQAGs) for Florida coastal waters.[1]

[1] A variety of approaches were reviewed and evaluated for deriving numerical SQAGs. Preliminary SQAGs for 34 priority substances in Florida coastal waters were derived and evaluated using an approach recommended by Long and Morgan (1990; National Oceanic and Atmospheric Administration). These SQAGs are intended to assist sediment quality assessment applications, such as identifying priority areas for non-point source management actions, designing wetland restoration projects, and monitoring trends in environmental contamination. Sediment information can be viewed at the following wel http://www.dep.state.fl.us/dwm/ documents/sediment/default.htm.

The EIS will need to describe how the dredged sediments will be managed. The proposed disposal area needs to be identified and described, and in the event that sediment contamination exceeds acceptable criteria, a plan of action will need to address how the disposal issues will be resolved. The Department's Southeast District Office Waste Cleanup Section believes that contamination sources exist near the Dania Cut off canal, in the vicinity of the marina near I-95 and the Southwest portion of the Fort Lauderdale/ Hollywood International Airport. The EIS will need to discuss the method of dealing with this contamination, if encountered.

The EIS should also describe how this project will be coordinated with the proposed expansion of the Fort Lauderdale/Hollywood International Airport. The department provided extensive comments on the proposed airport expansion and potential groundwater contamination that could impact the expansion project (see attached letter, dated March 20, 2001). As that project develops, there may be additional comments and concerns revealed by the required groundwater assessment and cleanup program. Questions and information related to groundwater contamination issues should be directed to Mr. Paul Wierzbicki at 561/681-6677, Suncom 226-6677.

Petroleum Storage Issues:

The major concern of the Bureau of Petroleum Storage Systems (BPSS) at the Port Everglades Harbor is the integrity of the sea wall adjacent to the petroleum terminal facility area. Those facilities are in proximity to, and bordering along, the Florida Power and Light Company canal, and extend northward to include Slip Numbers 1, 2 and 3. The ability of the sea wall to act as a barrier to contaminated groundwater movement is part of a Risk Assessment Approval Order, dated June 6, 1995. That Order acts as a mechanism that specifies Alternative Cleanup Target Levels used for site closure in accordance with Rule 62-770.650, F.A.C. Therefore, consideration should be given to any construction activity that may prevent the sea wall from acting as a barrier to retain contaminated substances. Activities of concern are those that would allow groundwater movement through or under the sea wall. Please contact Mr. Matthew McCoy at (850) 921-9038 if you have questions related to petroleum storage and cleanup.

If you have questions regarding this letter, or if we may be of further assistance at this time, please give me a call at (850) 487-2231.

Sincerely,

Robert W. Hall
Office of Intergovernmental Programs

Attachment
cc: Cheryl McKee
Paul Wierzbicki
Linda Frohock
Tom McCoy
Tom Seal
Mark Latch
Roxane Dow

Department of
Environmental Protection

Jeb Bush
Governor

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

David B. Stru
Secretary

March 20, 2001

Ms. Cherie Trainor
Florida State Clearinghouse
Department of Community Affairs
2555 Shumard Oak Boulevard
Tallahassee, Florida 32399-2100

Re: U.S. Department of Transportation, FAA, Draft Environmental Impact Statement, Expansion of Runway 9R-27L, Ft. Lauderdale – Hollywood International Airport, Broward County.

SAI: FL 200102090064C

Dear Ms. Trainor:

We have reviewed the above-referenced project and offer the following comments.

Air Resources:

The statement on page 5-22 related to the two NOx budgets, indicating that aircraft and vehicle emissions can be combined to offset exceedances to meet the SIP budget, is somewhat misleading. While this may be true, there is no documentation showing that the current projected NOx vehicle emissions will remain as projected. The county's transportation system is undergoing many changes and the projected NOx surplus that is needed to offset the potential aircraft NOx exceedance may not be available. Compliance with the SIP budget should be through a conformity determination by the Metropolitan Planning Organization (MPO).

This draft document presents underestimates of the VOC, NOx, and CO emissions. The figures presented in the 1997 Emissions Inventory for this particular airport were:

VOC	2,589 lbs/day
NOx	5,237 lbs/day
CO	10,352 lbs/day

The information provided in the draft document is for years 2005 and 2015. The applicant needs to explain how these projections were derived. The baseline year, numbers and sources of information need to be identified.

Using the same 44% increment in emissions that have been estimated from year 2005 to 2015 and using 1997 emissions inventory estimates from Broward County, the projections are within 88% of the VOC SIP budget for year 2015. The NOx projections are within 97% of the SIP budget

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be exceeded. These conclusions are based on the Summary of Impacts table presented in page xxi.

If there has been an Air Quality Analysis presented for the entire airport site it is not apparent. Such analysis needs to be included in the evaluation report. Also, staff would like to review the supporting documentation used to derive Air Quality as well as the numbers from the different models that were used for emissions projections.

The figures on page 5-23 based on the aircraft emissions inventory for 1997, provided in the Florida DEP 1993 Revisions to the SIP, do not agree with the numbers presented in the 1997 Emissions Inventory for Broward County." This discrepancy should be clarified.

Waste Cleanup Comments:

In addition to the description given in the third paragraph, the reference to 62-520.400, Florida Administrative Code (F.A.C.) regarding Minimum Criteria for Ground Water, is also applicable.

Figure 5-17 should be supplemented with the latest Broward County wellfield protection map, which is available through the Broward County Department of Planning and Environmental Protection.

The applicant needs to characterize the current and historic water quality of the discharges "through the various drainage ditches and culverts" to the Dania Cut-off Canal as well as discharges from the northwest area of the airport, and other areas of discharge. Of particular concern would be fuel related and metals parameters. The applicant needs to identify the agency or Department that has been historically responsible for the permitting, collection, and review of sampling data. If not already accomplished, a plan needs to be developed for the collection of "background" surface water quality samples.

On Page 5-35, last paragraph, the legend of Figure 5-21 states that "...known contamination at FLL has been or is properly being addressed with respect to the requirements of the regulatory agencies" is not correct. The Department has significant outstanding issues with the completion of the assessment follow-up, subsequent monitoring as well as the need for remedial action. The Department will be seeking a Consent Order or other administrative remedy that will commit the Broward County Aviation Department to fully assess alleged on and off-site contamination at the West and South sides of the airport as referenced on Figure 5-21. Our experience shows that environmental contamination assessment and cleanup issues may take several years to resolve. Therefore, any potential environmental contamination issues must be part of construction planning.

Prior to any construction and during any planning effort, it is important to determine the historic uses of buildings or areas at the airport in order to accurately assess environmental contamination issues. For example, without adequate controls, it is not acceptable to begin a demolition and dewatering project. Dewatering and construction demolition has the potential of spreading contamination to previously uncontaminated areas or exacerbating an existing cleanup. Unfortunately, this was not the strategy practiced by Miami International Airport in the early

stages in its expansion project, and considerable time delays and funding considerations complicated their construction plans. In addition, there is a potential public and worker expos liability when constructing in areas of known contamination. Detailed historic plans for the airport should be obtained, including the locations of suspected hazardous materials handling areas, drain fields, pipelines, fuel lines, storm water conveyances, storage tanks, treatment tanks, weapons ordinance, and other potential sources of contamination in the area.

We are aware of facility diagrams related to the former Fort Lauderdale Naval Air Station that show the existence of storage tanks, treatment tanks, maintenance areas, and other areas of potential contamination. These specific areas should be given some level of follow-up for sampling and assessment. It should not be assumed that just because the facilities are 50 years old, that remnants of previous operations and sources of contamination no longer exist. It is recommended that a figure with sufficient detail be prepared which overlays prior Navy operations with the current facility diagram, as well as a diagram of the proposed facility expansion project.

Please describe the status of the suspected Navy dump site shown in Figure 5-29, and explain why it was not included in Figure 5-19. It is DEP's position that the current landowner is responsible for the assessment and cleanup of hazardous materials contamination on lands owned, especially if there is a potential to affect surface and groundwater quality. The Broward County Aviation Department needs to identify potentially contaminated sites, and initiate preliminary contamination assessments, through either the Broward County Department of Planning and Environmental Protection or the Department of Environmental Protection.

Please describe specific steps that are now being taken to plan for the "finding" of environmental contamination when construction is initiated. For example, what plans will be in place when a previously unknown storage tank or drainfield is located during building remodeling or demolition?

Please locate the old landfill areas that are east of US 1 on a facility map or diagram. To reiterate, dewatering would be restricted in areas of known or suspected groundwater contamination.

General Comments and Recommendations:

Although the environmental resource permit (ERP) application will be processed by the South Florida Water Management District (SFWMD), pursuant to our interagency agreement, it is recommended that the SFWMD confer with this Department's ERP staff in the Southeast District office in West Palm Beach. Such consultation would help provide continuity on the historical perspective of previous airport activities and expansion efforts. The project appears to have the potential to adversely impact environmental resources, and the applicant will be required to avoid and minimize those impacts to the greatest extent practicable. After avoidance and minimization has been exhausted, the applicant will need to propose mitigation that will offset those impacts.

Based on the concerns outlined above, it is recommended that the applicant confer with the department's Southeast District Office on air and waste management issues, and provide the requested information that will allow a more accurate assessment of the proposed project. The

issues raised above will be important considerations as the project design is developed. The project will be re-evaluated for consistency with the Department's authorities in the Florida Coastal Management Program on review of any subsequent reports, studies or environmental documents.

We appreciate the opportunity of commenting on this proposal. Questions related to the management of potential air pollution exceedances should be referred to Mr. Bruce Offord in our Southeast District Office at 561/681-6600 or Suncom 226-6677. Questions of a waste management nature should be referred to Mr. Paul Wierzbicki at 561/681-6677 or Suncom 226-6677. If you have questions regarding this letter please give me a call at (850) 487-2231.

Sincerely,

Robert W. Hall
Office of Intergovernmental Programs

cc: Jim Golden
Cheryl McKee
Bruce Offord
Paul Wierzbicki
Don Keirn

DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
P. O. BOX 4970
JACKSONVILLE, FLORIDA 32232-0019

REPLY TO
ATTENTION OF
Planning Division
Environmental Branch

MAR 0 5 2001

TO WHOM IT MAY CONCERN:

Pursuant to the National Environmental Policy Act and the U.S. Army Corps of Engineers Regulation (33 CFR 230.12), this letter constitutes the Notice of Intent to prepare a Draft Environmental Impact Statement (DEIS) for the Port Everglades Harbor, Feasibility Study of Navigation Improvements, Fort Lauderdale, Broward County, Florida. This letter also constitutes announcement of a public scoping meeting to be held at 7 p.m., Wednesday, March 28, 2001. The public scoping meeting will be held at the Commission Chambers, in downtown Fort Lauderdale, located at 115 South Andrews Avenue. A location and vicinity map for the public scoping meeting is enclosed. The purpose of the meeting is to help to determine the scope of the EIS that will be prepared for this project. Public comments will be recorded by a Court reporter and comments may be submitted in writing for 30 days following the meeting.

Sincerely,

James C. Duck
Chief, Planning Division

Enclosures

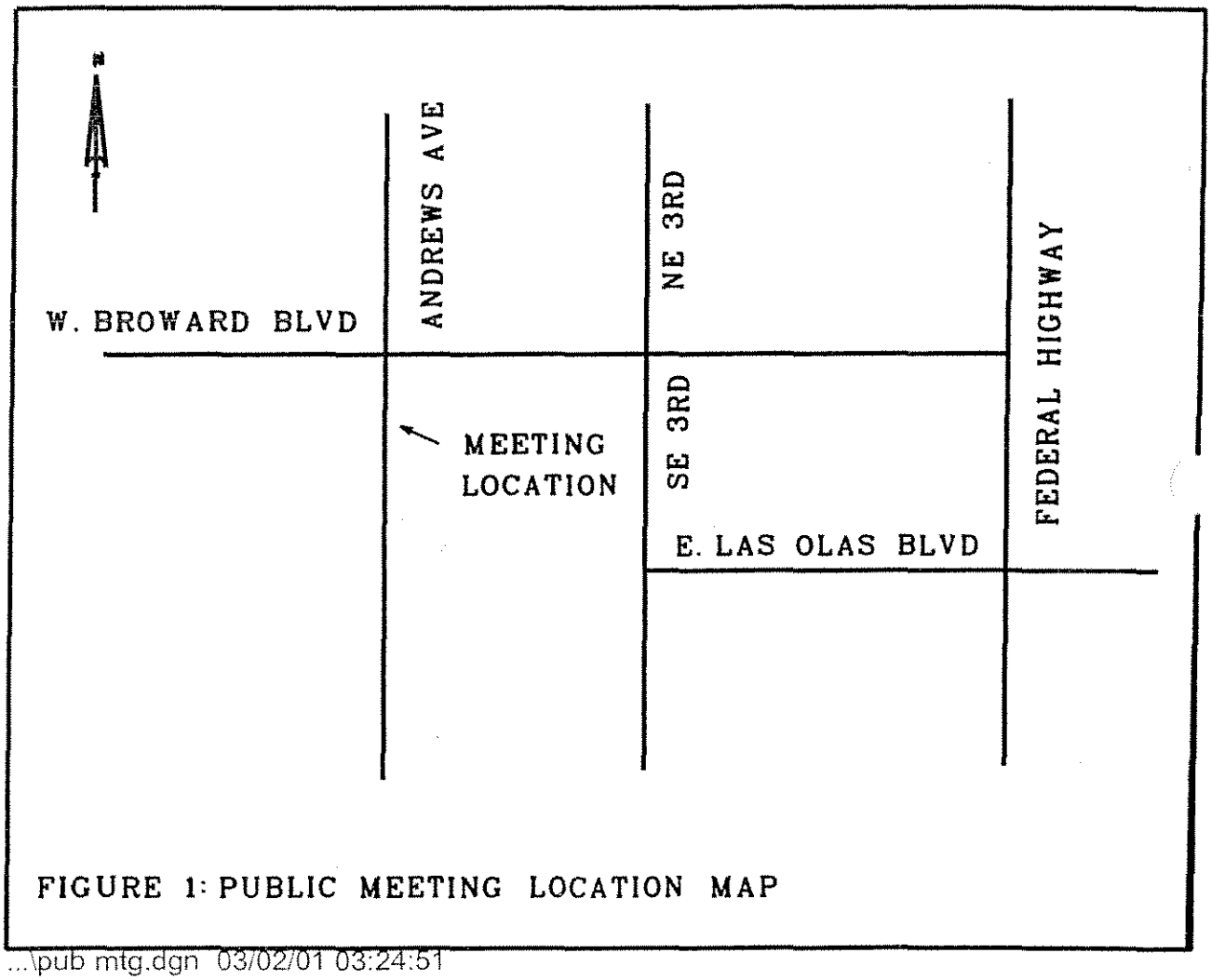


FIGURE 1: PUBLIC MEETING LOCATION MAP

...\pub mtg.dgn 03/02/01 03:24:51

Scoping Meeting on
Port Everglades
Commission Chambers
115 South Andrews Avenue
Ft. Lauderdale, Florida

The Miami Herald

www.herald.com
www.elherald.com

PUBLISHED DAILY
MIAMI-DADE-FLORIDA

STATE OF FLORIDA
COUNTY OF DADE

Before the undersigned authority personally appeared:

JEANNETTE MARTINEZ

who on oath says that he/she is

CUSTODIAN OF RECORDS

of The Miami Herald, a daily newspaper published at Miami in Dade County, Florida; that the attached copy of advertisement was published in said newspaper in the issues of:

March 16, 2001

Affiant further says that the said The Miami Herald is a newspaper published at Miami, in the said Dade County, Florida and that the said newspaper has heretofore been continuously published in said Dade County, Florida each day and has been entered as second class mail matter at the post office in Miami, in said Dade County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspapers(s).

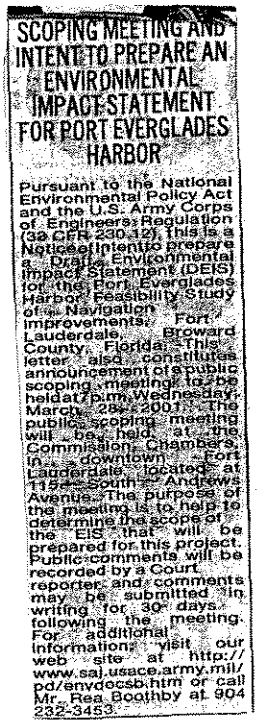
Jeannette Martinez

Sworn to and subscribed before me this
16th day of March, 2001

My Commission
Expires: May 12, 2002
Silvia Acosta

Notary

OFFICIAL NOTARY SEAL



SCOPING MEETING AND INTENT TO PREPARE AN ENVIRONMENTAL IMPACT STATEMENT FOR PORT EVERGLADES HARBOR

Pursuant to the National Environmental Policy Act and the U.S. Army Corps of Engineers Regulation (33 CFR 230.12), this is a Notice of Intent to prepare a Draft Environmental Impact Statement (DEIS) for the Port Everglades Harbor Feasibility Study of Navigation improvements, Fort Lauderdale, Broward County, Florida. This letter also constitutes announcement of a public scoping meeting to be held at 7 p.m. Wednesday, March 28, 2001. The public scoping meeting will be held at the Commission Chambers, in downtown Fort Lauderdale, located at 119 South Andrews Avenue. The purpose of the meeting is to help to determine the scope of the EIS that will be prepared for this project. Public comments will be recorded by a Court reporter, and comments may be submitted in writing for 30 days following the meeting. For additional information, visit our web site at http://www.saj.usace.army.mil/pd/envdocsb.htm or call Mr. Rea Boothby at 904 232-3453.

SUN-SENTINEL

PUBLISHED DAILY
FORT LAUDERDALE, BROWARD COUNTY, FLORIDA
BOCA RATON, PALM BEACH COUNTY, FLORIDA
MIAMI, MIAMI DADE COUNTY, FLORIDA

STATE OF FLORIDA
COUNTY OF BROWARD/PALM BEACH/MIAMI DADE
BEFORE THE UNDERSIGNED AUTHORITY, PERSONALLY APPEARED

CHRIS BULL WHO, ON OATH, SAYS THAT HE/SHE IS A DULY AUTHORIZED REPRESENTATIVE OF THE CLASSIFIED DEPARTMENT OF THE SUN-SENTINEL, DAILY NEWSPAPER PUBLISHED IN BROWARD/PALM BEACH/MIAMI DADE COUNTY, FLORIDA, AND THAT THE ATTACHED COPY OF ADVERTISEMENT, BEING A:

NOTICE

IN THE MATTER OF:

Public Scoping Meeting

IN THE CIRCUIT COURT, WAS PUBLISHED IN SAID NEWSPAPER IN THE ISSUES OF:

3/17,1d 10291949

AFFIANT FURTHER SAYS THAT THE SAID SUN-SENTINEL IS A NEWSPAPER PUBLISHED IN SAID BROWARD/PALM BEACH/MIAMI DADE COUNTY, FLORIDA, AND THAT THE SAID NEWSPAPER HAS HERETOFORE BEEN CONTINUOUSLY PUBLISHED IN SAID BROWARD/PALM BEACH/MIAMI DADE COUNTY, FLORIDA, EACH DAY, AND HAS BEEN ENTERED AS SECOND CLASS MATTER AT THE POST OFFICE IN FORT LAUDERDALE, IN SAID BROWARD COUNTY, FLORIDA, FOR A PERIOD OF ONE YEAR NEXT PRECEDING THE FIRST PUBLICATION OF ATTACHED COPY OF ADVERTISEMENT; AND AFFIANT FURTHER SAYS THAT HE/SHE HAS NEITHER PAID, NOR PROMISED, ANY PERSON, FIRM, OR CORPORATION, ANY DISCOUNT, REBATE, COMMISSION, OR REFUND, FOR THE PURPOSE OF SECURING THIS ADVERTISEMENT FOR PUBLICATION IN SAID NEWSPAPER.

Chris Bull
(SIGNATURE OF AFFIANT)

SWORN TO AND SUBSCRIBED BEFORE ME
ON: **17-March-2001** , A.D.

Tara L. Bezak
(SIGNATURE OF NOTARY PUBLIC)

Tara L. Bezak
MY COMMISSION # CC638935 EXPIRES
July 20, 2001
BONDED THRU TROY FAIN INSURANCE, INC.

(NAME OF NOTARY, TYPED, PRINTED, OR STAMPED)

PERSONALLY KNOWN _____ OR

PRODUCED IDENTIFICATION _____

NOTICE OF PUBLIC SCOPING MEETING AND INTENT TO PREPARE AN ENVIRONMENTAL IMPACT STATEMENT FOR PORT EVERGLADES HARBOR

Pursuant to the National Environmental Policy Act and the U.S. Army Corps of Engineers Regulation (33 CFR 230.12), this is a Notice of Intent to prepare a Draft Environmental Impact Statement (DEIS) for the Port Everglades Harbor, Feasibility Study of Navigation Improvements, Fort Lauderdale, Broward County, Florida. This letter also constitutes an announcement of a public scoping meeting to be held at 7 p.m. Wednesday, March 28, 2001. The public scoping meeting will be held at the Commission Chambers in downtown Fort Lauderdale, located at 115 South Andrews Avenue. The purpose of the meeting is to help to determine the scope of the EIS that will be prepared for this project. Public comments will be recorded by a Court reporter and comments may be submitted in writing for 30 days following the meeting. For additional information, visit our web site at http://www.saj.usace.army.mil/pd/envdocsb.htm or call Mr. Rea Boothby at 904-232-3456. March 17, 2001

MAILING LIST - GENERAL

FEDERAL AGENCIES

Director
Office of Federal Activities
Environmental Protection Agency
401 M Street S.W.
Washington, D. C. 30034-2610 (5 cys)

Director
Office of Environmental Project Review
Department of the Interior
Room 4241
18th and C Streets, NW
Washington, D.C. 20240 (12 cys)

Executive Director
Advisory Council on Historic Preservation
The Old Post Office Building
1100 Pennsylvania Avenue N.W.
Washington, D.C. 20004-2590

National Marine Fisheries Service
Southeast Regional Office
9721 Executive Center Drive N
St. Petersburg, Florida 33702

Mr. Tom Grahl
Acting Field Supervisor
U.S. Fish and Wildlife Service
P.O. Box 2676
Vero Beach, Florida 32961-2676

Commander
Seventh Coast Guard District
909 SE 1st Avenue
Miami, Florida 33131-3050

Environmental Policy Section
U.S. Environmental Protection Agency
Region IV
Atlanta Federal Center
100 Alabama St., S.W.
Atlanta, Georgia 30303-3104 (2 cys)

National Marine Fisheries Service
Environmental Assessment Branch
3500 Delwood Beach Road
Panama City, Florida 32407-7499

National Marine Fisheries Service
Chief, Protected Species Branch
9721 Executive Center Drive N
St. Petersburg, Florida 33702

Mr. David Hankla
Field Supervisor
U.S. Fish and Wildlife Service
6620 Southpoint Drive S
Suite 310
Jacksonville, Florida 32217

Office of Environmental Assessment
U.S. Environmental Protection Agency
EPA Region IV
Attn: Gerald Miller
61 Forsyth Street
Atlanta, Georgia 30303-3104 (3 cys)

STATE AGENCIES

Florida State Clearinghouse
The Dept. of Community Affairs
2555 Shumard Oak Blvd.
Tallahassee, Florida 32399-2100 (16 cys)

w/boothby/maillist

St. Johns River Water Management District
P.O. Box 1429
Palatka, Fla. 32178-1428

OTHER AGENCIES AND ORGANIZATIONS

Florida Chapter, Sierra Club
927 Delores Drive

Florida Wildlife Federation
P.O. Box 6870

Tallahassee, Florida 32301-2929

Florida Audubon Society
1101 Audubon Way
Maitland, Fla. 32751-5451

The Nature Conservancy
222 S. Westmonte Dr.
Suite 300
Altamonte Springs, Fl. 32714-4269

Mr. David Roach
F.I.N.D.
1314 Marcinski Rd.
Jupiter, Fl. 33477

Capt. Don Stratmann
Florida Marine Patrol
2510 Second Avenue N.
Jacksonville, Fl 32250

Tallahassee, Florida 32314-6870

Isaac Walton League of America, Inc.
5314 Bay State Road
Palmetto, Fla 33561-9712

Wilderness Society
4203 Ponce DeLeon Blvd.
Coral Gables, Florida 33416

W/boothby/maillist

Coordination Act consultation procedures. Consultation will also be accomplished with the USFWS and the National Marine Fisheries Service concerning threatened and endangered species. All other necessary environmental compliance will be obtained before a Record of Decision on the EIS is signed. Other compliance requirements include a Clean Water Act Section 404(b)(1) evaluation, a Louisiana Coastal Resources Program Consistency Determination, and a State Water Quality Certification. The draft EIS or a notice of its availability will be distributed to all interested agencies, organizations, and individuals.

7. *Estimated Date of Availability.* The draft EIS is expected to be available in mid-2003.

Gregory D. Showalter,

Army Federal Register Liaison Officer.

[FR Doc. 01–7260 Filed 3–22–01; 8:45 am]

BILLING CODE 3710–84–U

DEPARTMENT OF DEFENSE

Department of the Army, Corps of Engineers

Intent To Prepare a Draft Environmental Impact Statement (DEIS) for a Feasibility Study of Navigation Improvements at Port Everglades, Broward County, FL

AGENCY: U.S. Army Corps of Engineers, DoD.

ACTION: Notice of intent.

SUMMARY: The Jacksonville District, U.S. Army Corps of Engineers intends to prepare a Draft Environmental Impact Statement (DEIS) for the Feasibility Study of Navigation Improvements, Port Everglades Harbor, Broward County, Florida. The study is a cooperative effort between the U.S. Army Corps of Engineers and the Broward County Department of Port Everglades.

FOR FURTHER INFORMATION CONTACT: Questions about the proposed action can be directed to Rea Boothby at (904) 232–3453, Environmental Branch, Planning Division, P.O. Box 4970, Jacksonville, Florida 32232–0019.

SUPPLEMENTARY INFORMATION:

1. *Project Background and Authorization.* Port Everglades was originally constructed by local interests between 1925–1928, and was authorized for Federal maintenance by the River and Harbor Act of 1930 and subsequent Acts.

2. *Need or Purpose.* Improvements, including channel deepening and widening, are required to accommodate future commercial fleet and to more effectively transit the existing fleet.

3. *Proposed Solution and Forecast Completion Date.* Widen and deepen every major Federal channel and basin within the project and develop (widen and deepen) the Dania Cutoff Canal. Construction is forecast to begin around March 2003.

4. *Prior Environmental Assessments (EAs) EISs.* An EA was prepared in 1990 to accommodate dredging in the Southport access channel and Turning Notch.

5. *Alternatives.* Alternatives currently considered include no action, and 9 structural alternatives.

6. *Issues.* The EIS will consider impacts on seagrasses (including Johnson Seagrass, a threatened species), mangrove and hardbottom communities, other protected species, shore protection, health and safety, water quality, aesthetics and recreation, fish and wildlife resources, cultural resources, energy conservation, socio-economic resources, and other impacts identified through scoping, public involvement, and interagency coordination.

7. *Scoping Process.*

a. A scoping letter was sent to interested parties in June 1997. In addition, all parties are invited to participate in the scoping process by identifying any additional concerns on issues, studies needed, alternatives, procedures, and other matters related to the scoping process.

b. Public Meeting. A public scoping meeting will be held on March 28, 2001 at 7 P.M. in the Broward County Commission Chambers located at 115 South Andrews Avenue, Ft. Lauderdale, FL. An agency scoping meeting will be held on March 29, 2001 at Port Everglades.

8. *Public Involvement:* We invite the participation of affected Federal, state and local agencies, affected Indian tribes, and other interested private organizations and parties.

9. *Coordination.* The proposed action is being coordinated with the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS) under Section 7 of the Endangered Species Act, with the FWS under the Fish and Wildlife Coordination Act, with the NMFS concerning Essential Fish Habitat and the State Historic Preservation Officer.

10. *Other Environmental Review and Consultation.* The proposed action would involve evaluation for compliance with guidelines pursuant to Section 404 (b) of the Clean Water Act; application (to the State of Florida) for Water Quality Certification pursuant to Section 401 of the Clean Water Act; certification of state lands, easements, and rights of way; and determination of the Coastal Zone Management Act consistency.

11. *Agency Role.* The Corps and the non-Federal sponsor, Broward County Department of Port Everglades, will provide extensive information and assistance on the resources to be impacted, mitigation measures, and alternatives.

12. *DEIS Preparation.* It is estimated that the DEIS will be available to the public on or about September 2001.

Gregory D. Showalter,

Army Federal Register Liaison Officer.

[FR Doc. 01–7257 Filed 3–22–01; 8:45 am]

BILLING CODE 3710–AJ–U

DEPARTMENT OF EDUCATION

Notice of Proposed Information Collection Requests

AGENCY: Department of Education.

SUMMARY: The Leader, Regulatory Information Management Group, Office of the Chief Information Officer, invites comments on the proposed information collection requests as required by the Paperwork Reduction Act of 1995.

DATES: Interested persons are invited to submit comments on or before May, 22, 2001.

SUPPLEMENTARY INFORMATION: Section 3506 of the Paperwork Reduction Act of 1995 (44 U.S.C. chapter 35) requires that the Office of Management and Budget (OMB) provide interested Federal agencies and the public an early opportunity to comment on information collection requests. OMB may amend or waive the requirement for public consultation to the extent that public participation in the approval process would defeat the purpose of the information collection, violate State or Federal law, or substantially interfere with any agency's ability to perform its statutory obligations. The Leader, Regulatory Information Management Group, Office of the Chief Information Officer, publishes that notice containing proposed information collection requests prior to submission of these requests to OMB. Each proposed information collection, grouped by office, contains the following: (1) Type of review requested, e.g. new, revision, extension, existing or reinstatement; (2) Title; (3) Summary of the collection; (4) Description of the need for, and proposed use of, the information; (5) Respondents and frequency of collection; and (6) Reporting and/or

US Army Corps
of Engineers
Jacksonville District

News Release

Release No. 0114
For Release: March 13, 2001
P.O. Box 4970 Jacksonville, FL 32232-0019

Contact: Jacquelyn Griffin, Public Affairs Officer
Phone: 904-232-1650 FAX: 904-232-2237
Email: jacquelyn.j.griffin@saj02.usace.army.mil

FOR IMMEDIATE RELEASE

CORPS SCHEDULES PUBLIC SCOPING MEETING ON DRAFT ENVIRONMENTAL IMPACT STATEMENT ON PORT EVERGLADES HARBOR

JACKSONVILLE, Fla. – The Army Corps of Engineers will hold a public scoping meeting to gather information in their preparation of a Draft Environmental Impact Statement (EIS) for the Port Everglades Harbor Feasibility Study of Navigation Improvements. The port is located in Fort Lauderdale. The study is a cooperative effort between the Army Corps of Engineers and the Broward County Department of Port Everglades

The meeting will be held at 7 p.m. on Wednesday, March 28, 2001, in the Broward County Commission Auditorium, Room 422, of the Broward County Governmental Center, 115 South Andrews Ave., Fort Lauderdale, Fla. The Corps will accept written comments for 30 days following the meeting.

The purpose of the meeting is to help determine the scope of the EIS that will be prepared for this project.

The EIS will address improvements to the harbor, including channel and basin deepening and widening, that may be required to more efficiently handle current and future shipping demands.

-MORE-

The proposed action is being coordinated with the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS) under Section 7 of the Endangered Species Act; the FWS under the Fish and Wildlife Coordination Act; the NMFS concerning Essential Fish Habitat and the State Historical Preservation Officer.

For further information about this meeting, the public is welcome to call Rea Boothby at 904-232-3453 or toll free at 800-291-9405. The media may call Ms. Jacquelyn Griffin, Public Affairs Officer, at 904-232-1667.

-30-

US Army Corps
of Engineers
Jacksonville District

News Release

Release No. **0122-Nr2**
For Release: March 22, 2001
P.O. Box 4970 Jacksonville, FL 32232-0019

Contact: Jacquelyn Griffin, Public Affairs Officer
Phone: 904-232-1650 FAX: 904-232-2237
Email: *jacquelyn.j.griffin@saj02.usace.army.mil*

FOR IMMEDIATE RELEASE

PORT EVERGLADES DRAFT ENVIRONMENTAL IMPACT STATEMENT SUBJECT OF MARCH 28 MEETING

JACKSONVILLE, Fla. – In a cooperative effort by the Broward County Department of Port Everglades and the Army Corps of Engineers, a public scoping meeting will be held to gather information in the preparation of a Draft Environmental Impact Statement (EIS) for the Port Everglades Harbor Feasibility Study of Navigation Improvements.

The public scoping meeting is scheduled to begin at 7 p.m. on Wednesday, March 28, 2001, in the Broward County Commission Auditorium, Room 422, of the Broward County Governmental Center, 115 South Andrews Ave., Fort Lauderdale, Fla. Written comments concerning the meeting will be accepted by the Corps for 30 days following the meeting.

The Corps and the County will use the information gathered at this meeting to help determine the scope of the EIS that will be prepared for this project.

The EIS will address channel improvements, including channel and basin deepening and widening, that may be required to more efficiently handle current

-MORE-

For more information about Jacksonville District's activities, visit our website at: http://www.saj.usace.army.mil

The proposed actions is being coordinated with the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS) under Section 7 of the Endangered Species Act; the FWS under the Fish and Wildlife Coordination Act; the NMFS concerning Essential Fish Habitat and the State Historical Preservation Officer.

The public may contact Rea Boothby at 904-232-3453 or toll free at 800-291-9405 for more details about this meeting. The media is welcome to call Ms. Jacquelyn Griffin, Public Affairs Officer, at 904-232-1667.

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NOVA SOUTHEASTERN UNIVERSITY

Statement to the US Army Corps of Engineers & Port Everglades

By: Nova Southeastern University Oceanographic Center
Dr. Richard E. Dodge, Dean

Presentation At Port Everglades Screening Meeting
Thursday Sept. 21, 2000

Mission - The mission of the Oceanographic Center of Nova Southeastern University is to carry out innovative basic and applied research, and to provide high-quality graduate and undergraduate education in a broad range of marine science and related disciplines. The Center also serves as a community resource for information, education, and research on oceanographic and environmental issues.

Background: Founded in 1966, the Oceanographic Center has been located on a 10-acre site at Port Everglades, 8000 North Ocean Drive for over 30 years. This site was deeded to NSU by Broward County. The Oceanographic Center has a distinguished history of conducting outstanding scientific ocean research ranging from characterization of the Florida Current and Gulf Stream, El Nino causes and effects, coral reef studies, fish ecology, sea turtle renesting, plankton studies, and mangrove and wetlands investigations. Research productivity has been coupled with excellence in education in oceanography, marine biology, coastal zone management, and marine environmental studies.

Screening Criteria: Eleven preliminary alternative plans for Port Everglades deepening and widening were presented at the July 25, 2000 meeting in Jacksonville, Florida. From NSU's perspective, an alternative is acceptable for implementation if:

1) There are no adverse impacts to terrestrial and submerged land, property, and facilities (planned and existing) of Nova Southeastern University.
2) There are no adverse impacts to the ecology of the construction area. Our neighboring Park and its associated environments serve a valuable social and ecological function.

SUMMARY: The NSU Oceanographic Center conducts extensive marine biological and physical oceanographic research and educational programs. Our buildings, marina, and associated facilities provide faculty, staff, and students with offices, laboratories, classrooms, a library, and sophisticated information technology. We have plans for extensive new research and education facilities. Consequently, any channel deepening and widening alternatives which do not adversely impact the Oceanographic Center, or which do not prevent us from accomplishing our mission and realizing our vision, are acceptable. We seek an optimum configuration so that we may continue our programs of research and education and our planned growth and development.

Department of
Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

June 14, 2000

James C. Duck, Chief
Planning Division
Department of the Army
Jacksonville District Corps of Engineers
Post Office Box 4970
Jacksonville, Florida 32232-0019

Dear Mr. Duck:

I am in receipt of your letter of June 5, 2000, regarding the Port Everglades feasibility team. This Office supports the effort to improve early coordination between our agencies on project development. To that end, we have assigned Lauren Milligan to the Port Everglades feasibility team. Unfortunately, she will not be available for today's meeting.

Please contact Ms. Milligan directly when you schedule your next meeting. You can reach her by phone at (850) 487-4471, ext. 141, or by e-mail at lauren.milligan@dep.state.fl.us.

Sincerely,

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

ABD/ms/p
cc: Martin Seeling
Lauren Milligan

DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
P. O. BOX 4970
JACKSONVILLE, FLORIDA 32232-0019

REPLY TO
ATTENTION OF

June 5, 2000

Planning Division
Coastal/Navigation Section

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

Dear Dr. Devereaux:

A conference call was recently held between our respective staffs to discuss ways to improve Corps/FDEP project development /permit decision process for Federal Civil Works projects. It was suggested during the call that a member of your staff become a member of the Port Everglades feasibility team and actively participate in the study, including attending study team meetings.

The Port Everglades Feasibility Study was initiated in 1997. Originally the study focused on removal of two shoal areas. On April 4, 2000 the study scope was amended to include investigation of widening and deepening all of the ports channels and basins. There are numerous environmental issues related to possible expansion, deepening and/or widening of the Federal navigation project. Attached is the study schedule and project study plan. The next study team meeting is scheduled for 0930-1130 June 14, 2000 in Room G-13, Federal Building, Jacksonville, FL.

We invite your active participation in the study, and look forward to working together on this important effort.

Sincerely,

James C. Duck
Chief, Planning Division

Enclosure

Copy Furnished:

Mr. Allan Sosnow, Broward County Department of Port Everglades