

## **APPENDIX C – SCOPING LETTER AND RESPONSES**

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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

18 AUG 2004

TO WHOM IT MAY CONCERN:

The U.S. Army Corps of Engineers (Corps), Jacksonville District, is requesting your assistance in gathering information that will help define issues and concerns to be addressed in a Supplemental Environmental Assessment (EA) being prepared for the Canal 51 (C-51) West End Flood Control Project, Palm Beach County, Florida (enclosure 1).

The C-51 West End Flood Control Plan was authorized in Section 315 of the Water Resources Development Act (WRDA) of 1996. Authorized components included, but were not limited to, construction of the following: Stormwater Treatment Area 1 East (STA1E) Works, pump stations 319 and 362, C-51 enlargement and gated structure 155A. The project was designed to enhance the level of flood protection that exists in C-51 basin; provide additional clean water to Water Conservation Area 1 (WCA-1), otherwise known as the Arthur R. Marshall Loxahatchee National Wildlife Refuge (Refuge) and reduce harmful discharges of freshwater to Lake Worth Lagoon. The authorized plan as well as several alternatives for achieving these goals was analyzed in a Final Environmental Impact Statement (FEIS) dated February 1998. STA1E is currently under construction by the Corps. The scope of the supplemental study is to evaluate alternative means to diminish the potential impacts of pump station 362 (S-362) discharge to the Levee 40 borrow canal (L-40BC) on WCA-1.

U.S. Fish and Wildlife Service (FWS) Refuge officials have identified new concerns as to the potential impact of discharge from L-40BC entering WCA-1. Once the STA1E is fully operational as authorized, S-362 will discharge treated water into the L-40BC, which bounds WCA-1 to the east. L-40BC overflow would spread water across the interior of the Refuge. FWS concern centers on the possibility that discharges from S-362 will cause muck material to be dislodged from the bottom of L-40BC and transported to the Refuge by any flow that exceeds the bank. Migration of muck material could potentially cause damage to indigenous plant species and create an environment favoring exotic plants.

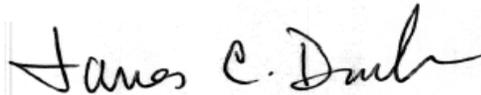
Based on these newly identified concerns, an analysis was performed to test the L-40BC's capacity to prevent overflow into the Refuge. It has been determined that the L-40BC is unable to convey the entire capacity of S-362 within its banks.

The proposed plan to address the concerns identified above incorporates the construction of an approximately 1000 foot berm at the junction of the S-362 discharge canal and L-40BC, widening the L-40BC for approximately 3000 feet downstream of the S-362, and dredging approximately 8,200 feet of the L-40BC (enclosure 2). Alternatives being considered include no action and various scales of dredging and berm construction along L-40BC.

Anticipated benefits of the proposed plan include reducing the impact of STA1E discharge on the Refuge interior marsh. Consideration will be given to the proposed project effects on resources including fish and wildlife habitats, water quality, water supply, endangered and threatened species, aesthetics, recreation, historical or archeological resources, and wetlands. In addition, costs and compatibility with ongoing programs will be taken into account.

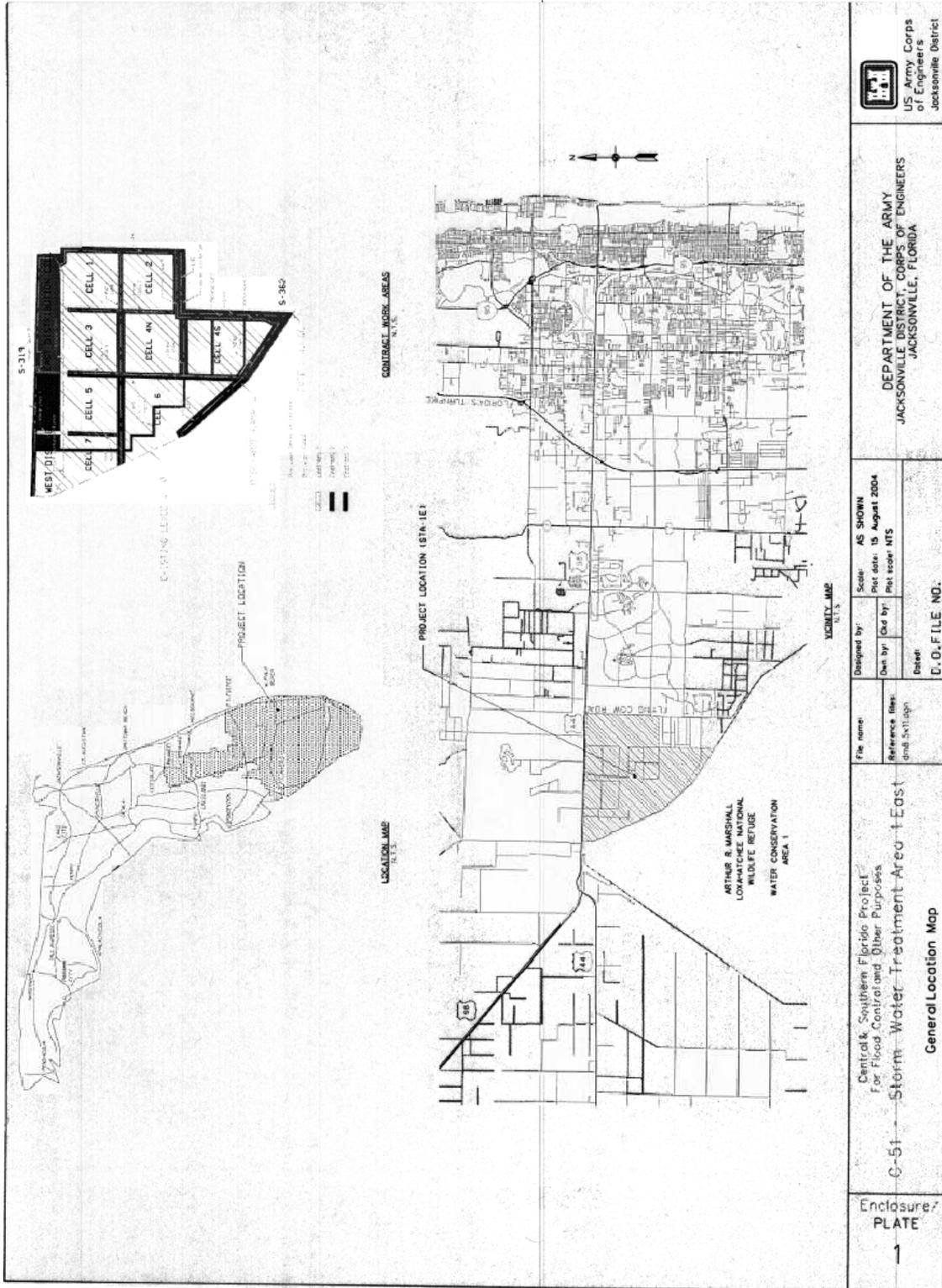
We welcome your views, comments, concerns and information about environmental and cultural resources and important features within the area shown as well as any suggested improvements. Letters of comment or inquiry should be addressed to the letterhead address to the attention of the Planning Division, Environmental Branch, South Florida Section, and be received by this office within 30 days of the date of this letter. If you have any questions, please contact Mr. Ernie Clarke by telephone at 904-232-1199 or by electronic mail at Ernest.Clarke@saj02.usace.army.mil.

Sincerely,

A handwritten signature in black ink that reads "James C. Duck". The signature is written in a cursive style with a vertical line to the left of the first few letters.

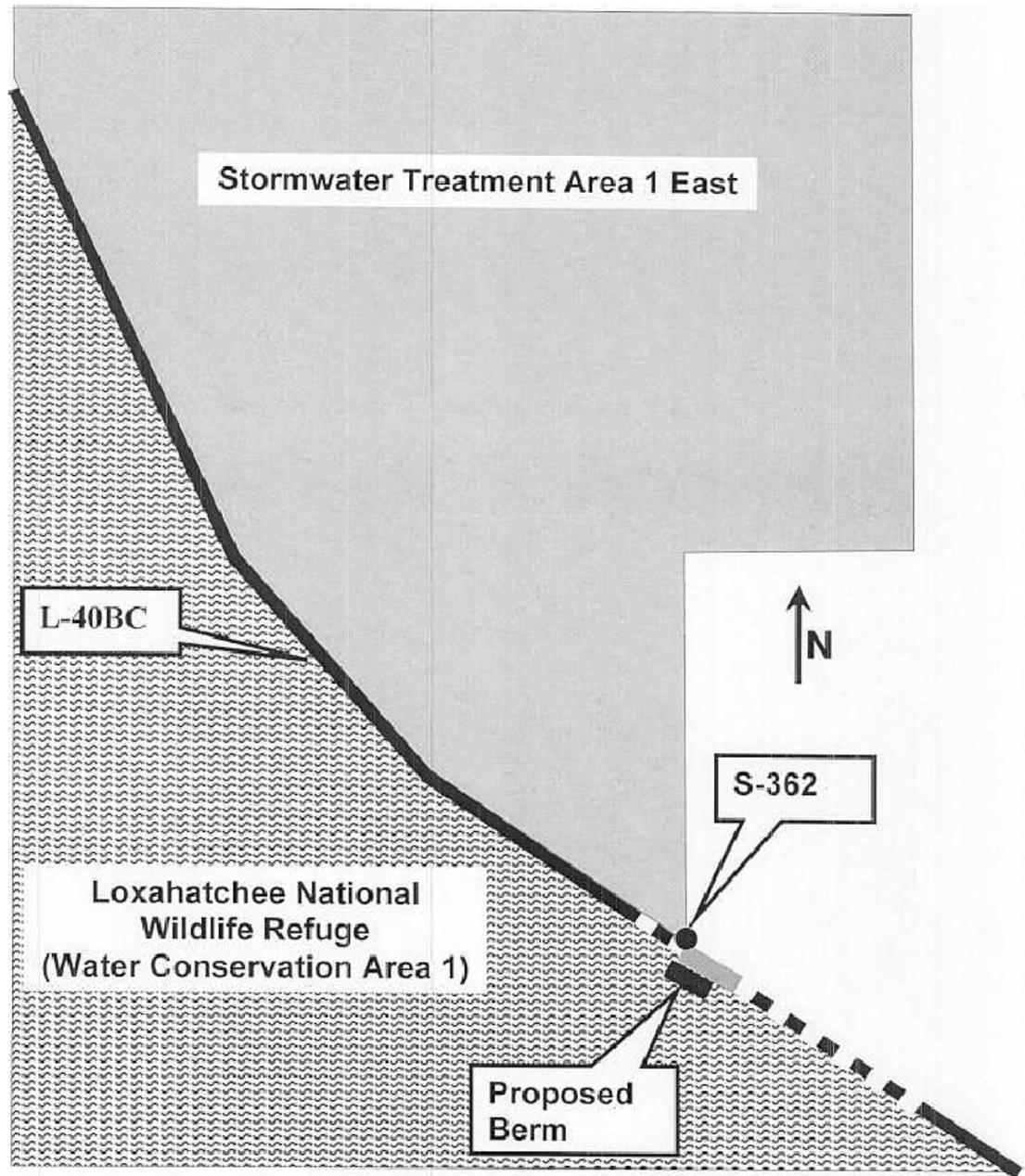
James C. Duck  
Chief, Planning Division

Enclosures



Enclosure: <b>PLATE</b>	1	Centra & Southern Florida Project For Flood Control and Other Purposes <b>C-51 Storm Water Treatment Area 1 East</b>		File name: Reference files: dml 5/11.dgn	Designed by: Drawn by: Date: Date:	Scale: AS SHOWN Plot date: 15 August 2004 Plot scale: NTS	US Army Corps of Engineers Jacksonville District
		General Location Map		D. O. F. FILE NO.:	DEPARTMENT OF THE ARMY JACKSONVILLE DISTRICT CORPS OF ENGINEERS JACKSONVILLE, FLORIDA		

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Enclosure 2. Proposed modifications of the Levee 40 Borrow Canal (L-40BC)

- ■ ■ Proposed L-40BC channel dredging
- ■ ■ Proposed L-40BC channel widening



## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

Arthur R. Marshall  
Loxahatchee National Wildlife Refuge  
10216 Lee Road  
Boynton Beach, FL 33437



September 30, 2004

James C. Duck  
Chief, Planning Division  
U.S. Army Corps of Engineers  
P.O. Box 4970  
Jacksonville, Florida 32232-0019

Dear Mr. Duck:

In response to your request to gather information to help define issues and concerns about the Supplemental Environmental Assessment for the Canal 51 (C-51) West End Flood Control Project (L-40BC modifications) by the Jacksonville District, Army Corps of Engineers (Corps), the Arthur R. Marshall Loxahatchee National Wildlife Refuge offers the following comments:

We are pleased that there is recognition of the potential impact of resuspended sediments from the L-40 Canal penetrating into the interior marsh. The recent research by Dr. Samira Daroub (UF-IFAS) has provided additional technical information supporting this concern. The other major concern about discharges from STA-1E focuses on water quality, namely that the water quality from the STA discharge is different from that of the interior marsh.

As has been previously described by Refuge personnel in both oral and written discussions about the potential influence of STA-1E on the interior marsh, the Refuge is rainfall driven system. It is a soft-water (low alkalinity) system with a unique periphyton community (the base of the food chain) that no longer exists anywhere else in the remaining Everglades wetland. Even average discharges from STA-1E are likely to impact a relatively pristine region of the marsh where water of this type has not previously penetrated. This statement is based on one of two sets of calculations of the potential marsh area impacted that exist to date. Years ago when STA-1E was originally being designed, the Corps calculated a wetland impact zone of 2 acres. More recently, using a combination of model tools (EPGM and DMSTA), Refuge staff calculated potential marsh impacts from phosphorus alone up to 6000 acres. One comment to include in the list of "issues and concerns to be addressed" is that, to date, no additional

about S-362 discharges that options 1, 2, and 3 above do not. However, as with the other options, this option also lacks modeling.

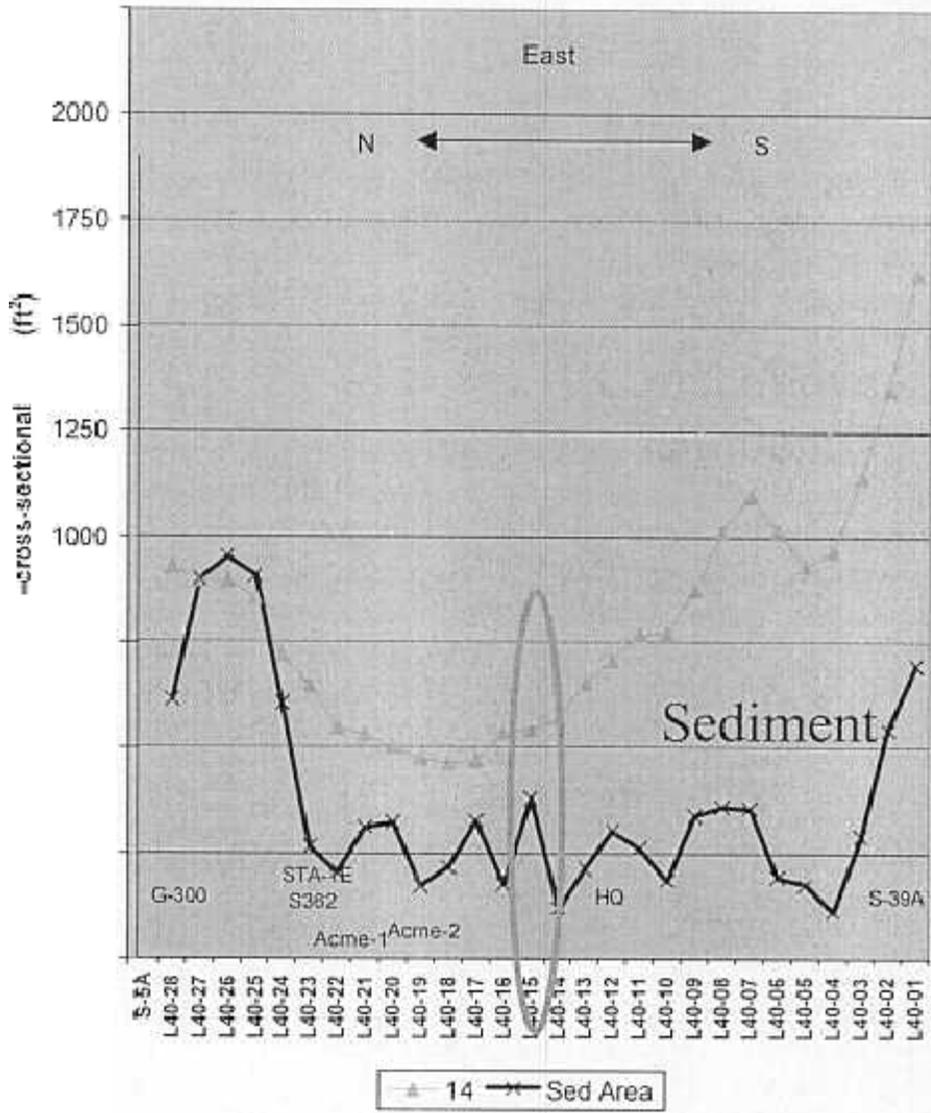
5) Dredge entire L-40

This option would solve the sediment resuspension issue and would provide for greatly increased conveyance capacity. However, this would be expensive and would present spoil disposal problems. This option is likely worth examining only in the context of assessing where along the entire spectrum of options discussed above the most meaningful L-40 activities should fall.

Our biggest concern at the June 1, 2004 meeting is the lack of technical foundation for the current option (#2). The request for input on this Supplemental EA does not provide any further detail design and therefore makes it challenging to accept the proposed design without further information. In light of the need to continue to move forward, we will support the current option (#2) provided that adequate water quality monitoring of the downstream marsh will be captured in the permit language and, if the monitoring reveals that the design is inadequate, a mechanism is put into place for timely action to be taken to resolve the problem.

Again, we appreciate the opportunity to provide input in your process of gathering information for developing a Supplemental Environmental Assessment and we look forward to working with the Corps on completing the L-40 enhancements activities. For specific technical questions, please contact Dr. Matt Harwell (561-735-6005; [matthew\\_harwell@fws.gov](mailto:matthew_harwell@fws.gov)) or Dr. Mike Waldon (561-735-6006; [mike\\_waldon@fws.gov](mailto:mike_waldon@fws.gov)).

Mark J. Musaus  
Refuge Manager





Job Bush  
Governor

## Department of Environmental Protection

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

Colleen M. Castille  
Secretary

October 18, 2004

Mr. James C. Duck, Chief  
Planning Division, Jacksonville District  
U. S. Army Corps of Engineers  
Post Office Box 4970  
Jacksonville, FL 32232-0019

RE Department of the Army, Jacksonville District Corps of Engineers – Scoping Notice –  
Supplemental Environmental Assessment for the Canal 51 (C-51) West End Flood  
Control Project – Palm Beach County, Florida.  
SAI # FL200408199221C

Dear Mr. Duck:

The Florida State Clearinghouse, pursuant to Presidential 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, 42 U.S.C. §§ 4321, 4331-4335, 4341-4347, as amended, has coordinated a review of the referenced scoping notice.

The Florida Department of Environmental Protection (DEP) indicates that an application for an Everglades Forever Act (EFA)/National Pollution Discharge Elimination System permit is currently being processed by DEP staff. Regulatory approval of the activities described in the Supplemental Environmental Assessment will be covered under the STA-1E EFA permit authorization. The DEP is very supportive of the conceptual work plan that has been presented for dredging and removing accumulated bottom muck material from approximately 8200 feet of the L-40 Borrow Canal, building a 1000-foot berm to protect the interior refuge at the location of the S-362 discharge canal, and widening a section of the L-40 downstream of the new discharge canal. DEP recommends that the Corps of Engineers work closely with DEP, Loxahatchee National Wildlife Refuge, and South Florida Water Management District staff to develop the survey protocol and ensure that the final design is acceptable to all parties involved. Please see the enclosed DEP memorandum for further comments and recommendations.

The South Florida Water Management District (SFWMD) notes that the proposed environmental assessment should include an evaluation of the use of dredged material from the L-40 borrow canal as a source of fill for low areas in Stormwater Treatment Area 1 East (STA-1E) to address concerns regarding low cell elevations and short circuiting in cells 2, 4N, 5 and 7. An analysis of the material would have to be completed to determine the suitability of placement in STA-1E. In addition to the possibility of disturbance of muck material in the L-40 borrow

*"More Protection, Less Process"*

*Printed on recycled paper.*

Mr. James C. Duck  
October 18, 2004  
Page 2 of 2

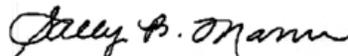
canal, please note that the U.S. Fish and Wildlife Service (USFWS) has also expressed concerns regarding potential impacts to the interior of the Loxahatchee National Wildlife Refuge from STA-1E discharges alone. Please see the enclosed SFWMD letters for additional information.

The Florida Fish and Wildlife Conservation Commission (FWC) notes that they support the USFWS's assertions that water quality and sediment transport issues must be fully considered in the development of project alternatives. FWC will defer to USFWS and Loxahatchee National Wildlife Refuge staff for further recommendations concerning existing conditions, alternative formulation, and water quality monitoring. The same habitat alteration and water quality issues that may impact federally listed bird species may similarly impact resident state-listed birds. FWC requests that any alteration of the L-40BC should be preceded by a survey for burrowing owls, a state-listed Species of Special Concern known to nest in the general vicinity of the project. Please see the enclosed FWC letter to the Corps of Engineers.

Based on the information contained in the notice and the comments provided by our reviewing agencies, the state has determined that, at this stage, the above-referenced project is 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 the project will be based, in part, on the adequate resolution of issues identified during this and subsequent reviews. The state's final concurrence on the project's consistency with the FCMP will be determined during the environmental permitting stage.

Thank you for the opportunity to review this project. If you have any questions regarding this letter, please contact Mr. Daniel Lawson at (850) 245-2174.

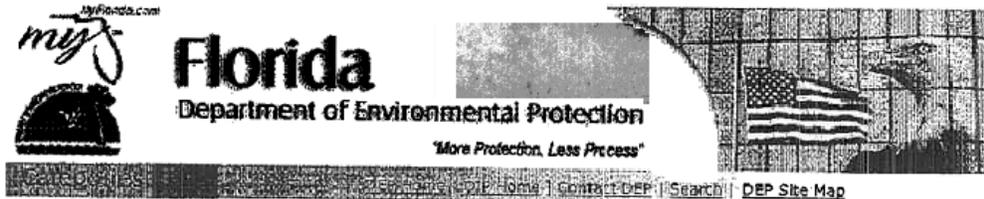
Sincerely,



Sally B. Mann, Director  
Office of Intergovernmental Programs

SBM/dtl  
Enclosures

cc: Frank Nearhoof, DEP, MS 3560  
Inger Hansen, DEP, Southeast District  
John Outland, DEP, MS 45  
Jim Golden, SFWMD  
Brian Barnett, FWC



Project Information	
<b>Project:</b>	FL200408199221C
<b>Comments Due:</b>	September 18, 2004
<b>Letter Due:</b>	October 18, 2004
<b>Description:</b>	DEPARTMENT OF THE ARMY, JACKSONVILLE DISTRICT CORPS OF ENGINEERS - SCOPING NOTICE - SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT FOR THE CANAL 51 (C-51) WEST END FLOOD CONTROL PROJECT - PALM BEACH COUNTY, FLORIDA.
<b>Keywords:</b>	ACOE - SCOPING NOTICE, C-51 WEST END FLOOD CONTROL PROJECT - PALM BEACH CO.
<b>CFDA #:</b>	12.106
<b>Agency Comments:</b>	
<b>COMMUNITY AFFAIRS - FLORIDA DEPARTMENT OF COMMUNITY AFFAIRS</b>	
Released Without Comment	
<b>ENVIRONMENTAL PROTECTION - FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION</b>	
Staff indicates that an application for an Everglades Forever Act (EFA)/National Pollution Discharge Elimination System permit is currently being processed by DEP. Regulatory approval of the activities described in the Supplemental Environmental Assessment will be covered under the STA-1E EPA permit authorization. The DEP is very supportive of the conceptual work plan that has been presented for dredging and removing accumulated bottom muck material from approximately 8200 feet of the L-40 Borrow Canal, building a 1000-foot berm to protect the interior refuge at the location of the S-362 discharge canal, and widening a section of the L-40 downstream of the new discharge canal. DEP recommends that the Corps of Engineers work closely with DEP, Loxahatchee National Wildlife Refuge, and South Florida Water Management District staff to develop the survey protocol and ensure that the final design is acceptable to all parties involved.	
<b>FISH and WILDLIFE COMMISSION - FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION</b>	
1-PAGE LETTER + ENCLOSURE BY BRIAN BARNETT DATED 9/20/04.	
<b>STATE - FLORIDA DEPARTMENT OF STATE</b>	
<b>TRANSPORTATION - FLORIDA DEPARTMENT OF TRANSPORTATION</b>	
Released Without Comment	
<b>SOUTH FLORIDA WMD - SOUTH FLORIDA WATER MANAGEMENT DISTRICT</b>	
The SFWMD notes that the proposed environmental assessment should include an evaluation of using the dredged material from the L-40 borrow canal as a source of fill for low areas in Stormwater Treatment Area 1 East (STA-1E) to address concerns regarding low cell elevations and short circuiting in cells 2, 4, 5 and 7. An analysis of the material would have to be completed to determine the suitability of placement in STA-1E. In addition to the possibility of disturbance of muck material in the L-40 borrow canal, please note that the U.S. Fish and Wildlife Service has also expressed concerns regarding potential impacts to the interior of the Loxahatchee National Wildlife Refuge from STA-1E discharges alone.	
<b>ENVIRONMENTAL POLICY UNIT - OFFICE OF POLICY AND BUDGET, ENVIRONMENTAL POLICY UNIT</b>	
No comment.	
<b>TREASURE COAST RPC - TREASURE COAST REGIONAL PLANNING COUNCIL</b>	
The proposed project is not in conflict or inconsistent with the Strategic Regional Policy Plan.	
<b>PALM BEACH -</b>	



## Memorandum

Florida State Clearinghouse

**THROUGH:** Frank Nearhoof, Program Administrator  
Water Quality Standards & Special Projects Program

**FROM:** Inger Hansen, John Outland

October 13, 2004

**SUBJECT:** Supplemental Environmental Assessment for the Canal 51 (C-51) West End  
Flood Control Project

FL04-9221C

The Department has reviewed the above-referenced Supplemental Environmental Assessment (EA) dated August 2004, and offers the following comments:

The C-51 West End Flood Control project in Palm Beach County includes Stormwater Treatment Area 1 East (STA-1E) works, pump stations 319 and 362, C-51 canal enlargement, and gated structure 155A. The Department is processing an application for an EFA/NPDES permit for this project, in accordance with the requirements of Title 40, Code of Federal Regulations (National Pollution Discharge Elimination System -NPDES), and Section 373.4592, Florida Statutes (Everglades Forever Act - EFA). The need to dredge sediments from the L-40 borrow canal, and protect the interior of the Loxahatchee National Wildlife Refuge (Refuge) from direct discharges and potentially suspended L-40 Muck Material, was proposed during the EFA permit process as part of addressing water quality issues associated with potential impacts to the Refuge resulting from operation of the S-362 discharge pump station. The regulatory approval of the subject activities of this EA will therefore be covered under the STA-1E EFA permit authorization.

The Department is very supportive of the conceptual work plan that has been presented for dredging and removing accumulated bottom muck material from approximately 8200 feet of the L-40 Borrow Canal, building a 1000-foot berm to protect the interior refuge at the location of the S-362 discharge canal, and widening a section of the L-40 near and just downstream of the new discharge canal. In developing the survey protocol and detailed design, the Corps should work closely with the Department, the Refuge, and South Florida Water Management District (SFWMD) staff to ensure that the final design is acceptable to all parties.

Please note that at this time it is difficult to provide comments on the proposed extent of dredging and filling, as detailed surveys have not yet been completed. Based on the information currently provided, we suggest the following:

Memorandum  
SAI #: FL04-9221C  
Page 2 of 2

- 1) The EA should address all the concerns raised by the U.S. Fish and Wildlife Service Refuge officials, including potential impacts to the interior of the Refuge from STA-1E discharges and from the disturbance of muck material from the L-40 Borrow Canal. The EA should also address potential water quality impacts to the L-40 Borrow Canal.
- 2) The EA should address the wetland areas that will be impacted (wetland areas dredged and filled), and provide assurances that the environmental benefits from the project clearly outweigh any impacts from the project.
- 3) We suggest that the scope of the survey of the project site be extended beyond the boundaries identified in the conceptual design to ensure that the project will be fully optimized.
- 4) Sediment samples should be collected to ensure that the sediments are not contaminated and that the disposal method is acceptable. An evaluation should be included to assess the potential of using the dredged material from the L-40 Borrow Canal as a source of fill for low areas in the treatment cells of STA-1E to address concerns raised by the SFWMD.
- 5) The EA should identify appropriate monitoring and modeling to assess the adequacy of the proposed design, and should also propose a mechanism to implement additional remedies should the proposed design prove inadequate.
- 6) The final project layout should be based upon site conditions where environmental survey data, topographic data, sediment samples, and core borings or sediment probes are utilized to determine the optimal design.

Please note that during construction, if state water quality standards for turbidity and other water quality parameters cannot be met at the edge of the standard 150-meter mixing zone, issuance of the Everglades Forever Act Permit would require issuance of an associated variance for an expanded mixing zone. At this time the permit application is being processed without consideration of granting a variance from Rule 62-4.244(5)(c), Florida Administrative Code (F.A.C.), to establish a temporary mixing zone greater than 150 meters within an area of Class III Waters of the L-40 Borrow Canal within the Loxahatchee National Wildlife Refuge, an Outstanding Florida Waters. If as part of the detailed design it is determined that the project can not be completed without a temporary mixing zone, an application for a variance must be submitted to the Department in accordance with the above and must list the water quality parameter(s), and demonstrate that there are no practicable means known to meet the water quality standards within a 150-meter mixing zone. Issuance of the variance also requires assurance that water quality standards can be met at the edge of the expanded mixing zone, pursuant to Rules 62-302, 62-4.242 and 62-4.244, F.A.C. At this time the Department has not received an application for a variance.

If you have any questions regarding these comments, please contact me at (850) 245-8420.

cc: John Outland (email)  
Temperince Morgan (email)  
Kim Shugar (email)  
Inger Hansen (email)  
Tim Gray (email)  
Stacey Feken (email)



**SOUTH FLORIDA WATER MANAGEMENT DISTRICT**

3901 Gun Club Road, West Palm Beach, Florida 33406 • (561) 686-8800 • FL WATS 1-800-452-2045 • TDD (561) 697-2574  
Mailing Address: P.O. Box 24680, West Palm Beach, FL 33416-4680 • www.sfwmd.gov

September 20, 2004

Mr. James C. Duck  
Chief, Planning Division  
US Army Corps of Engineers  
District Engineer, Jacksonville District  
P.O. Box 4970  
Jacksonville, FL 32232-0019

Dear Mr. Duck:

As requested in your letter of August 18, 2004, we are providing the following comments to help define issues and concerns to be addressed in the Supplemental Environmental Assessment being prepared for evaluation of alternatives to diminish the potential impacts to the Arthur R. Marshall Loxahatchee National Wildlife Refuge (Refuge) from discharges from Stormwater Treatment Area 1 East (STA-1E).

The proposed plan consists of construction of an approximately 1000 foot berm (bulkhead) at the junction of the S-362 discharge canal and the L-40 borrow canal (L-40BC), widening of the L-40BC for approximately 3000 feet downstream of S-362, and dredging approximately 8,200 feet of the L-40BC. I have previously expressed our support for this project in my letter of July 6, 2004, attached hereto, and incorporate those comments as part of our response to your scoping letter.

We also hope that this effort will include an evaluation of using the dredged material from the L-40BC as a source of fill for low areas in STA-1E to address concerns about low cell elevations and short circuiting in cells 2, 4N, 5 and 7. An analysis of the material would have to be completed to determine the suitability of placement in the STA.

Please note that the scoping letter does not list all the concerns raised by the U. S. Fish and Wildlife Service Refuge (FWS) officials. In addition to the possibility of disturbance of muck material in the L-40 borrow canal, the FWS has also expressed concern about potential impacts to the interior of the Refuge from STA-1E discharges alone.

If I need to further clarify something, please let me know.

Sincerely,

Chip Merriam  
Deputy Executive Director  
Water Resources

Enclosure

c: Mark Musaus, U.S. Fish and Wildlife Service  
Frank Nearhoof, Florida Department of Environmental Protection

GOVERNING BOARD:

Nicolás J. Gutiérrez, Jr., Esq., Chair  
Pamela Brooks-Thomas, Vice-Chair  
Ircia M. Bogue

Michael Collins  
Hugh M. English  
Lennart E. Lindahl, P.E.

Kevin McCarty  
Markley R. Thornton  
Trudi K. Williams, P.E.

EXECUTIVE OFFICE

Henry Dean, Executive Director



**SOUTH FLORIDA WATER MANAGEMENT DISTRICT**

3301 Gun Club Road, West Palm Beach, Florida 33406 • (561) 686-8800 • FL WATS 1-800-432-2045 • TDD (561) 697-2574  
Mailing Address: P.O. Box 24680, West Palm Beach, FL 33416-4680 • www.sfwmd.gov

July 6, 2004

Dennis R. Duke, P.E.  
Program Manager, Ecosystem Restoration  
U.S. Army Corps of Engineers  
1400 Centrepark Blvd., Suite 750  
West Palm Beach, FL 33401

Dear Mr. Duke:

The purpose of this letter is to help clear up some of the confusion regarding where we go from here with the permitting and construction of STA 1-E.

A conference call was held to better understand the concerns of our respective staffs as well as that of the Florida Department of Environmental Protection (FDEP) regarding sizing the discharge bulkhead for the outflow of the S-362 Pump Stations as well as the appropriate amount of dredging necessary to mitigate any additional loading concerns both within the Water Conservation Area One boundaries. From my recollection of the discussion, I agree that the best we can do with what we know today is to construct a discharge bulkhead of approximately 1,000 feet in length to aid in preventing penetration into the marsh of flows resulting from the operation of S-362 and to remove existing loading within the L-40 borrow canal for approximately one mile. We also agreed that after operating the STA, we would be in a better position to evaluate the structural success or the remaining needs associated with the bulkhead and L-40 dredging. Any future modifications would be included as a part of the Loxahatchee National Wildlife Refuge Canal Structures Component of the Everglades Restoration Plan.

Additionally, the Army Corps of Engineers staff will get timelines for the completion of the bulkhead and dredging to the FDEP so they can include this as a part of the operating permit. I believe this leaves the final issue of monitoring for the STA 1-E permit to be resolved between the District and FDEP.

If I have missed anything, please let me know.

Sincerely,

Chip Merriam  
Deputy Executive Director  
Water Resources

c: Mark Musaus, U.S. Fish and Wildlife Service  
Frank Nearhoof, Florida Department of Environmental Protection

GOVERNING BOARD

Nicolás J. Gutierrez, Jr., Eng., *Chair*  
Pamela Brooks-Thomas, *Wetland*

Michael Collins  
Mark M. English

Kevin McCarty  
Mark D. ...

EXECUTIVE OFFICE

Henry Dunn, *Executive Director*

TOTAL P. 03



## SOUTH FLORIDA WATER MANAGEMENT DISTRICT

3301 Gun Club Road, West Palm Beach, Florida 33406 • (561) 686-8800 • FL WATS 1-800-432-2045 • TDD (561) 697-2574  
 Mailing Address: P.O. Box 24680, West Palm Beach, FL 33416-4680 • www.sfwmd.gov

September 20, 2004

Mr. James C. Duck  
 Chief, Planning Division  
 US Army Corps of Engineers  
 District Engineer, Jacksonville District  
 P.O. Box 4970  
 Jacksonville, FL 32232-0019

Dear Mr. Duck:

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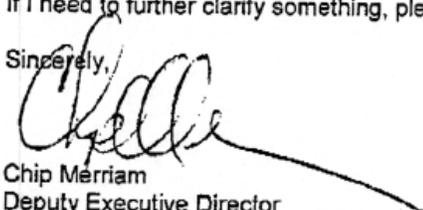
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We also hope that this effort will include an evaluation of using the dredged material from the L-40BC as a source of fill for low areas in STA-1E to address concerns about low cell elevations and short circuiting in cells 2, 4N, 5 and 7. An analysis of the material would have to be completed to determine the suitability of placement in the STA.

Please note that the scoping letter does not list all the concerns raised by the U. S. Fish and Wildlife Service Refuge (FWS) officials. In addition to the possibility of disturbance of muck material in the L-40 borrow canal, the FWS has also expressed concern about potential impacts to the interior of the Refuge from STA-1E discharges alone.

If I need to further clarify something, please let me know.

Sincerely,

  
 Chip Merriam  
 Deputy Executive Director  
 Water Resources

Enclosure

c: Mark Musaus, U.S. Fish and Wildlife Service  
 Frank Nearhoof, Florida Department of Environmental Protection

GOVERNING BOARD

Michael Collins  
 Hugh M. English  
 Lennart E. Lindahl, P.E.

Kevin McCarty  
 Hankley R. Thornton  
 Trudi K. Williams, P.E.

EXECUTIVE OFFICE

# FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION



**RODNEY BARRETO**  
Miami

**SANDRA T. KAUPPE**  
Palm Beach

**H.A. "HERKY" HUFFMAN**  
Enterprise

**DAVID K. MEEHAN**  
St. Petersburg

**JOHN D. ROOD**  
Jacksonville

**RICHARD A. CORBETT**  
Tampa

**BRIAN S. YABLONSKI**  
Tallahassee

**KENNETH D. HADDAD**, Executive Director  
**VICTOR J. HELLER**, Assistant Executive Director

**BRIAN S. BARNETT**, DIRECTOR  
OFFICE OF POLICY AND STAKEHOLDER COORDINATION  
(850)483-6661 TDD (850)488-9542  
FAX (850)922-5079

September 20, 2004

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

**RECEIVED**

SEP 24 2004

**OIP/OLGA**

Re: SAI #FL200408199221C, scoping notice for  
Supplemental Environmental Assessment of  
the C-51 West End Flood Control Project,  
Palm Beach County

Dear Ms. Milligan:

The Habitat Conservation Scientific Services Office of the Florida Fish and Wildlife Conservation Commission (FWC) has responded directly to the U.S. Army Corps of Engineers regarding the referenced project. A copy of our September 20, 2004 correspondence is enclosed.

Sincerely,

*for* Brian S. Barnett, Director  
Office of Policy and Stakeholder Coord.

bsb/yra  
ENV 2-16/6/1 and ENV 1-3-2  
a:\sa1 922)c.doc  
Enclosure

# FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION



RODNEY BARRETO  
Miami

SANDRA T. KAUPE  
Palm Beach

H.A. "HERKY" HUFFMAN  
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Tallahassee

KENNETH D. HADDAD, Executive Director  
VICTOR J. HELLER, Assistant Executive Director

BRIAN S. BARNETT, DIRECTOR  
OFFICE OF POLICY AND STAKEHOLDER COORDINATION  
(850)488-8681 TDD (850)488-9542  
FAX (850)922-8679

September 20, 2004

Mr. James C. Duck  
Chief, Planning Division  
Environmental Branch, South Florida Section  
U.S. Army Corps of Engineers  
P.O. Box 4970  
Jacksonville, Florida 32232-0019

Re: Planning Aid Letter for C-51 West End  
Flood Control Project; Palm Beach County

Dear Mr. Duck:

The Habitat Conservation Scientific Services Office of the Florida Fish and Wildlife Conservation Commission (FWC) offers this Planning Aid Letter to assist the U.S. Army Corps of Engineers (USACE) in development of a Supplemental Environmental Assessment (EA) for the C-51 West End Flood Control Project. The U.S. Fish and Wildlife Service (USFWS) provided their draft September 2004 Planning Aid Letter for our review. We have discussed this project with staff from the USFWS Ecological Services Office and the Arthur R. Marshall Loxahatchee National Wildlife Refuge (LNWR), so we have some understanding of their concerns and recommendations.

The C-51 West End Flood Control project, authorized in Section 315 of the Water Resources Development Act of 1996, includes construction of the Stormwater Treatment Area 1 East (STA 1E) Works, pump stations 319 and 362, C-51 enlargement and gated structure 155A. The project was intended to enhance flood protection in the C-51 basin, provide additional clean water to LNWR, and reduce harmful freshwater discharges to the Lake Worth Lagoon. Once fully operational, STA 1E will discharge treated water via the pump station 362 (S-362) into the Levee 40 borrow canal (L-40BC), which bounds LNWR to the east. L-40BC overflow would spread water, and possibly organic sediments, across the LNWR interior, potentially impacting the oligotrophic, rainfall-driven marshes situated downstream of the overflow. The release of phosphorus from displaced L-40BC organic sediments may disrupt indigenous macrophytic and periphyton communities, displace sawgrass marshes and wet prairies with cattail, and shift the species composition of the oligotrophic periphyton community. Other water quality parameters, such as conductivity levels and sulfate concentrations, have also been identified by the FWS as parameters of concern for this project. Similar to phosphorus, potential increases in conductivity associated with S-362 outflows may shift species composition of the unique periphyton

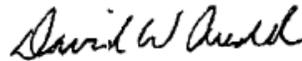
Mr. James C. Duck  
Page 2  
September 20, 2004

community present within LNWR. Sulfates play a role in facilitation of mercury methylation, and may therefore contribute to methylmercury bioaccumulation in resident fauna. The purpose of the supplemental EA is to determine the best means to minimize the potential impacts to LNWR associated with S-362 discharges to the L-40BC.

At a meeting on June 1, 2004, staff from the LNWR, USACE, South Florida Water Management District, and Florida Department of Environmental Protection developed five preliminary alternatives to be evaluated in the EA. All alternatives involved some combination of dredging and/or berming of the L-40BC, aimed at removing muck deposits and decreasing the potential for overflow into the rainfall-driven interior marsh. In their draft September 2004 Planning Aid Letter, the FWS requested that a variety of alternatives be considered to determine the optimal extent and combination of dredging and/or berming required to mitigate impacts. They also requested that the EA include plans for water quality monitoring, which will allow for adaptive management of project features. Water quality monitoring results for this project may be useful in defining appropriate monitoring methodologies and parameters for assessment of subsequent restoration projects, especially those conveying STA discharges into natural areas. We support their assertions that water quality and sediment transport issues must be fully considered in the development of project alternatives.

As the resources being evaluated in this Supplemental EA are primarily within the LNWR, we defer to the FWS and LNWR staff for further recommendations concerning existing conditions, alternative formulation, and water quality monitoring. The same habitat alteration and water quality issues that may impact federally listed wading birds and raptors, may similarly impact resident state-listed species, such as the limpkin (*Aramus guarauna*), little blue heron (*Egretta caerulea*), snowy egret (*Egretta thula*), tricolored heron (*Egretta tricolor*), and white ibis (*Eudocimus albus*). Additionally, any alteration of the L-40BC should be preceded by a survey for state-listed Species of Special Concern burrowing owls (*Speotyto cunicularia*), which are known to nest at the bases of levees and berms in the general vicinity of the project. Please contact our Permit Coordinator, Ms. Angela Williams at (850) 921-5990, for further details on burrowing owl permits and surveys. Questions regarding our concerns and recommendations can be directed to Ms. Yvette Alger at the Habitat Conservation Scientific Services Office in Vero Beach (772-778-5094).

Sincerely,



 Brian S. Barnett, Director  
Office of Policy and Stakeholder Coord.

bsb/ya

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ENV 2-16/6/1

CC: Mr. Ken Ammon, SFWMD, West Palm Beach  
Mr. Jay Slack, USFWS, Vero Beach  
Mr. Chuck Collins, FWC, West Palm Beach

Mr. James C. Duck  
Page 3  
September 20, 2004

Mr. Scott Sanders, FWC, Tallahassee  
Mr. Greg Knecht, DEP, Tallahassee

D

COUNTY: PALM BEACH

DATE: 8/19/2004

COMMENTS DUE DATE: 9/18/2004

CLEARANCE DUE DATE: 10/3/2004

SAI#: FL200408199221C

MESSAGE:

<b>STATE AGENCIES</b>	<b>WATER MNGMNT. DISTRICTS</b>	<b>OPB POLICY UNIT</b>	<b>RPCS &amp; LOC GOVS</b>
COMMUNITY AFFAIRS	SOUTH FLORIDA WMD	X ENVIRONMENTAL POLICY UNIT	
ENVIRONMENTAL PROTECTION			
FISH and WILDLIFE COMMISSION			
STATE			
TRANSPORTATION			

The attached document requires a Coastal Zone Management Act/Florida Coastal Management Program consistency evaluation 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, JACKSONVILLE DISTRICT CORPS OF ENGINEERS - SCOPING NOTICE - SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT FOR THE CANAL 51 (C-51) WEST END FLOOD CONTROL PROJECT - PALM BEACH COUNTY, FLORIDA.

**To: Florida State Clearinghouse**

AGENCY CONTACT AND COORDINATOR (SCH)  
 3900 COMMONWEALTH BOULEVARD MS-47  
 TALLAHASSEE, FLORIDA 32399-3000  
 TELEPHONE: (850) 245-2161  
 FAX: (850) 245-2190

**EO. 12372/NEPA Federal Consistency**

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> No Comment | <input type="checkbox"/> No Comment/Consistent          |
| <input type="checkbox"/> Comment Attached      | <input type="checkbox"/> Consistent/Comments Attached   |
| <input type="checkbox"/> Not Applicable        | <input type="checkbox"/> Inconsistent/Comments Attached |
|  | <input type="checkbox"/> Not Applicable                 |

**From:**

Division/Bureau: OPB - Env. Policy  
 Reviewer: M. J. Conroy  
 Date: 9/13/04

RECEIVED

SEP 15 2004

OIP/ALGA

RECEIVED

AUG 23 2004

OFFICE OF POLICY AND BUDGET  
 ENVIRONMENTAL POLICY UNIT



FLORIDA DEPARTMENT OF STATE  
Glenda E. Hood  
Secretary of State  
DIVISION OF HISTORICAL RESOURCES

RECEIVED

OCT 19 2004

OIP/OLGA

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

October 15, 2004

RE: DHR No.: 2004-8595 / Date Received: August 23, 2004 / SAI #: FL200408199221C  
Jacksonville Corps of Engineers  
~~Scoping Notice - Supplemental Environmental Assessment for the Canal 51 (C-51) West  
End Flood Control Project - Palm Beach County, Florida~~

Dear Ms. Milligan:

Our office received and reviewed the above referenced project in accordance with Section 106 of the *National Historic Preservation Act* of 1966, as amended (NHPA), and 36 *C.F.R.*, Part 800: *Protection of Historic Properties*, and the *National Environmental Policy Act* of 1969, as amended (NEPA). The State Historic Preservation Officer is to advise and assist federal agencies when identifying historic properties (archaeological, architectural, and historical resources) listed, or eligible for listing, in the *National Register of Historic Places*, assessing the project's effects, and considering alternatives to avoid or minimize adverse effects.

Our staff is unable to make specific recommendations concerning the proposed project, because we were not provided a copy of a USGS quadrangle map depicting the area of the proposed work. Therefore, this office recommends that prior to any ground disturbing activities occurring within an area that has not previously been subjected to a cultural resources assessment survey, or that has the potential to impact historic properties, an assessment should be performed. These activities should be coordinated with the Corps' archaeologists. The reports of any such investigations would then need to be forwarded to this office in order to complete the project review process. We look forward to working with you in the future in the management and protection of historic properties associated with these proposed actions.

If there are any questions concerning our comments, please contact Janice Maddox, Historic Sites Specialist, by electronic mail at [jmaddox@dos.state.fl.us](mailto:jmaddox@dos.state.fl.us), or by telephone at 850/245-6333. Thank you for your interest in protecting Florida's historic properties.

Sincerely,

*for*   
Frederick Gaske, Director, and  
State Historic Preservation Officer

500 S. Bronough Street • Tallahassee, FL 32399-0250 • <http://www.flheritage.com>

- |   |  |   |   |
|---|--|---|---|
| <input type="checkbox"/> Director's Office<br>(850) 245-6300 • FAX: 245-6435          | <input type="checkbox"/> Archaeological Research<br>(850) 245-6444 • FAX: 245-6436       | <input checked="" type="checkbox"/> Historic Preservation<br>(850) 245-6333 • FAX: 245-6437 | <input type="checkbox"/> Historical Museums<br>(850) 245-6400 • FAX: 245-6433 |
| <input type="checkbox"/> Palm Beach Regional Office<br>(561) 279-1475 • FAX: 279-1476 | <input type="checkbox"/> St. Augustine Regional Office<br>(904) 825-5045 • FAX: 825-5044 | <input type="checkbox"/> Tampa Regional Office<br>(813) 272-3843 • FAX: 272-2340            |   |



PD-ES (Pugh)

FLORIDA DEPARTMENT OF STATE  
**Glenda E. Hood**  
Secretary of State  
DIVISION OF HISTORICAL RESOURCES

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

January 25, 2005

Re: DHR No. 2004-11576  
Received by DHR: November 12, 2004  
L-40 Canal Modification  
Palm Beach County

Dear Mr. Duck:

Our office received and reviewed the follow-up letter referenced above for the L-40 Canal modification project in accordance with Section 106 of the *National Historic Preservation Act* of 1966, as amended; and the *National Environmental Policy Act* of 1969, as amended.

We note that a Corps archaeologist or the services of a professional archaeologist will be present during the initial construction phase in the event that unexpected cultural resources are inadvertently discovered. This office concurs with this recommendation, and it is our opinion that the proposed project will have no adverse effect on historic properties.

If there are any questions concerning our comments, please contact Laura Kammerer, Deputy Historic Preservation Officer for Review and Compliance, by telephone at 850/245-6333, or electronic mail at [lkammerer@dos.state.fl.us](mailto:lkammerer@dos.state.fl.us). Thank you for your interest in protecting Florida's cultural resources.

Sincerely,

*Laura L. Kammerer, Deputy SHPO*

*for* Frederick Gaske, Director, and  
State Historic Preservation Officer

500 S. Bronough Street • Tallahassee, FL 32399-0250 • <http://www.flheritage.com>

Director's Office  
(850) 245-6300 • FAX: 245-6436

Archaeological Research  
(850) 245-6444 • FAX: 245-6436

Historic Preservation  
(850) 245-6333 • FAX: 245-6437

Historical Museums  
(850) 245-6400 • FAX: 245-6433

Southeast Regional Office  
(954) 467-4990 • FAX: 467-4991

Northeast Regional Office  
(904) 825-5045 • FAX: 825-5044

Central Florida Regional Office  
(813) 272-3843 • FAX: 272-2340