FPL

March 9, 2011

Michael P. Halpin, Program Administrator
Florida Department of Environmental Protection
Siting Coordination Office
3900 Commonwealth Blvd. MS 48
Tallahassee, FL 32399-3000

Re: **Cape Canaveral Energy Center – Application No. PA 08-53**
Post-certification Amendment

Dear Mr. Halpin:

Pursuant to Rule 62-17.205 (1) F.A.C., Florida Power & Light Company (FPL) requests a post certification amendment to its original Site Certification Application (SCA) (Final Order #09-1015) for the Cape Canaveral Energy Center (CCEC). The purpose of this amendment request is to obtain approval for FPL to install a 700-foot section of vinyl sheet piling within the certified CCEC intake canal.

In order to allow for simultaneous use of the intake canal as a warm water refuge for manatees during manatee season and also a cooling water source during start up testing, FPL is proposing to install vinyl sheet piling to effectively divide the canal into a northern and southern half. This division of the canal will also create a more efficiently heated manatee refuge compared to the manatee refuge created during the 2010-2011 manatee season. The sheet piling will be removed when the refuge is no longer required (anticipated in 2013).

The attached Standard Individual Permit Application was submitted to the U.S. Army Corps of Engineers (USACE) on February 25, 2011, and contains detailed information regarding the installation and subsequent removal of the sheet piling. We anticipate that we will need to begin installation of the sheet pile divider in June 2011 so that the heating system and monitoring stations can be adjusted by October 15, 2011, to provide a warm water refuge in compliance with FPL's Specific Conditions of Certification for CCEC.

Pursuant to Florida Fish and Wildlife Conservation Commission (FWC) Specific Conditions of Certification V.A.2.a.vii and V.A.2.f, prior to relocating any monitoring stations, FPL will update the Environmental Monitoring Plan accordingly for subsequent review and approval by DEP, FWC, and US Fish and Wildlife Service (FWS). FPL will also comply with FWC Specific Conditions of Certification V.A.4.E, V.A.6.a, and V.A.6.c during periods of in-water work.

FPL is filing this post-certification amendment to update the CCEC site certification application with the most current information. FPL does not consider this post-certification amendment to include material changes, nor does it warrant any revision to the current conditions of certification.

If you should have any questions, please do not hesitate to call me at 561-691-7518 or Jackie Lorne at 561-691-7063. I look forward to receiving confirmation as this amendment is processed.

Sincerely,

Jacquelyn Lorne for

Barbara P. Linkiewicz
Florida Power & Light Company
Director of Environmental Licensing

cc: Ashley Pinnock, FPL

February 25, 2011 093-87573

U.S. Army Corps of Engineers
ATTN: Tamy Dabu
Cocoa Section
400 High Point Drive, Suite 600
Cocoa, FL 32926

RE: INDIVIDUAL PERMIT APPLICATION FOR INSTALLATION OF A TEMPORARY INTAKE CANAL DIVIDER FOR MANATEE PROTECTION AT FLORIDA POWER & LIGHT'S CAPE CANAVERAL ENERGY CENTER, BREVARD COUNTY, FLORIDA

Dear Ms. Dabu:

Florida Power & Light Company (FPL) is converting the former Cape Canaveral Plant, which is located between Cocoa and Titusville, in unincorporated Brevard County, Florida, into a modern, highly efficient, lower emission, clean next generation energy center using the latest combined-cycle technology. A location map of the plant site is attached (Figure 1). The Site is bounded on the east by the Indian River Lagoon (Intracoastal Waterway), on the west by U.S. Highway 1, on the south by Cottrell Avenue, and on the north by a private medical/office facility. The converted plant will be named the Cape Canaveral Energy Center (CCEC).

As part of the Florida Fish and Wildlife Conservation Commission (FWC) specific conditions of certification for CCEC, FPL is required to provide a warm water refuge for manatees during the coldest months of the year. This requirement remains in effect between October 15 and March 31 if the ambient water temperature falls below 65°F. FPL endeavors to provide a warm water refuge for the manatees between shutdown of the former Cape Canaveral Plant and startup of CCEC, and the refuge is located in the intake canal south of the plant. To comply with this requirement, FPL installed a temporary electric heater system to provide warm water during these conditions for manatee protection. The start up and commissioning of the CCEC plant will, however, require use of the same cooling water intake canal that is also used as the warm water refuge. In order to allow for simultaneous use of the canal as a refuge and cooling water source during start up testing, a 700-foot section of vinyl sheet piling will be installed to effectively divide the canal into a northern and southern half. This division of the canal will also create a more efficiently heated manatee refuge. The piling will be removed when the refuge is no longer required (anticipated in 2013).

The sheet pile will be approximately 0.4-inch-thick material that will be corrugated such that it will be approximately 10 inches wide from one bend to another (effective width). The wall will extend approximately 12 to 18 inches above the mean high water level in the canal. The top of the piles will be covered by 4- x 6-inch timbers bolted to each side. The sheet pile will be installed using a barge that will be lowered into the western end of the intake canal. The installation of the divider will follow the previously approved Manatee Protection Plan and Standard Manatee Conditions for In-water Work for the Cape Canaveral Power Plant. There will be no dewatering of the canal required for the installation, and the entire process of installation and removal is estimated to take 4 weeks each. The project is scheduled to be completed in June or July of this year, and the sheet pile will be removed in the summer of 2013.

As you previously indicated during pre-application discussions, the intake canal divider will require a Standard Individual Permit from the U.S. Army Corps of Engineers (USACE). We anticipate that we will need to begin installation of the sheet pile divider in June 2011 so that the heating system and monitoring

Golder Associates Inc.
6026 NW 1st Place
Gainesville, FL 32607 USA
Tel: (352) 336-5600 Fax: (352) 336-6603 www.golder.com

stations can be adjusted by October 15, 2011 to provide a warm water discharge in compliance with FPL's Specific Conditions of Certification for the Cape Canaveral Plant.

The enclosed application includes the following: Section A of the ERP Application Form (signed); Adjacent property owners map, list, and mailing labels for the public notice (Attachment A); proposed site plan and location figures (Attachment B); project specification sheets (Attachment C); and manatee protection plans and conditions (Attachments D and E). Randall LaBauve, FPL Vice President, will be the permittee. If you have any questions about this application for authorization to install sheet pile for the above-mentioned project, please call Jackie Lorne of FPL at (561) 691-7063.

Sincerely,

GOLDER ASSOCIATES INC.

Michael Harrington, Ph.D.
Ecology Group Director

Karl Bullock
Senior Scientist

MEH/KB/edk

Attachments

cc: Jackie Lorne, FPL
Greg Powell, Golder

SECTION A

FOR AGENCY USE ONLY	
ACOE Application #	DEP/WMD Application #
Date Application Received	Date Application Received
Proposed Project Lat.	Fee Received $
Proposed Project Long.	Fee Receipt #

PART 1:

Are any of the activities described in this application proposed to occur in, on, or over wetlands or other surface waters?
☒ yes ☐ no

Is this application being filed by or on behalf of a government entity or drainage district? ☐yes ☒no

PART 2:

A. Type of Environmental Resource Permit Requested (check at least one). See Attachment 2 for thresholds and descriptions.

- ☐ Noticed General - include information requested in Section B.
- ☐ Standard General (Single Family Dwelling) - include information requested in Sections C and D.
- ☐ Standard General (all other Standard General projects) - include information requested in Sections C and E.
- ☐ Individual (Single Family Dwelling) - include information requested in Sections C and D.
- ☐ Individual (all other Individual projects) - include information requested in Sections C and E.
- ☐ Conceptual - include information requested in Sections C and E.
- ☐ Mitigation Bank Permit (construction) - include information requested in Sections C and F. (If the proposed mitigation bank involves the construction of a surface water management system requiring another permit defined above, check the appropriate box and submit the information requested by the applicable section.)
- ☐ Mitigation Bank (conceptual) - include information requested in Sections C and F.

B. Type of activity for which you are applying (check at least one)

- ☐ Construction or operation of a new system, other than a solid waste facility, including dredging or filling in, on or over wetlands and other surface waters.
- ☐ Construction, expansion or modification of a solid waste facility.
- ☐ Alteration or operation of an existing system which was not previously permitted by a WMD or DEP.
- ☐ Modification of a system previously permitted by a WMD or DEP.

  Provide previous permit numbers:

  - ☐ Alteration of a system
  - ☐ Abandonment of a system
  - ☐ Removal of a system
  - ☐ Extension of permit duration
  - ☐ Construction of additional phases of a system

C. Are you requesting authorization to use Sovereign Submerged Lands?
☐yes ☒no
(See Section G and Attachment 5 for more information before answering this question.)

D. For activities in, on, or over wetlands or other surface waters, check type of federal dredge and fill permit requested:
☒Individual ☐Programmatic General ☐General
☐Nationwide ☐Not Applicable

E. Are you claiming to qualify for an exemption? ☐yes ☒no
If yes, provide rule number if known.

PART 3: **A. OWNER(S) OF LAND**	**B. ENTITY TO RECEIVE PERMIT (IF OTHER THAN OWNER)**
Name **Randall R. LaBauve**	Name
Title and Company **Vice President, Florida Power & Light Company**	Title and Company
Address **700 Universe Blvd.**	Address
City, State, Zip **Juno Beach, FL 33408**	City, State, Zip
Telephone and Fax (phone) **(561) 691-7063** (fax)	Telephone and Fax
C. AGENT AUTHORIZED TO SECURE PERMIT	**D. CONSULTANT (IF DIFFERENT FROM AGENT)**
Name **Michael Harrington**	
Title and Company **Senior Ecologist, Golder Associates Inc.**	
Address **6026 NW 1st Place**	
City, State, Zip **Gainesville, FL 32607**	
Telephone and Fax **(352)336-5600**	

PART 4: (Please provide metric equivalent for federally funded projects):

A. Name of Project, including phase if applicable: ***FPL Cape Canaveral Energy Center Intake Canal Divider***

B. Is this application for part of a multi-phase project?
☐yes ☒no

C. Total applicant-owned area contiguous to the project?
41.4 ac.; **16.75** **ha.**

D. Total area served by the system: ac.; **0** **ha**.

E. Impervious area for which a permit is sought: **0** **ac**.; ha.

F. Volume of water that the system is capable of impounding:
0 **ac. ft**.; m

G. What is the total area of work in, on, or over wetlands or other surface waters?
0.016 **ac.;** **ha.** **700** **sq. ft.;** _____ **sq. m**.

H. Total volume of material to be dredged: **0** **cu yd;** **0** **cu m**

I. Number of new boat slips proposed: **0** wet slips; **0** dry slips

PART 5:

Project location (use additional sheets if needed):
County(ies)Brevard County

Section:**19** Township:**23S** Range:**36E**

Land Grant name, if applicable:

Tax Parcel Identification Number:

Street Address Road or other location: **6000 U.S. HWY 1**

City, Zip Code, if applicable: **Cocoa, FL 32927**

PART 6: Describe in general terms the proposed project, system, or activity.
FPL is planning on constructing a primarily natural gas-fired combined cycle plant, which will be known as the Cape Canaveral Energy Center (CCEC). As part of the conditions of certification for CCEC, FPL is required to provide a warm water refuge for manatees in the intake canal south of the plant. This requirement remains in effect between October 15 and March 31 if the ambient water temperature falls below 65°F. To comply with this requirement, FPL installed a temporary electric heater system to provide warm water during these conditions for manatee protection. The start up and commissioning of the CCEC plant will require use of the cooling water intake canal that is also used as the warm water refuge. In order to allow for simultaneous use of the canal as a refuge and cooling water source, a 700-foot section of vinyl sheet piling will be installed to effectively divide the canal into a northern and southern half. The piling will be removed when the refuge is no longer required (anticipated in 2013).

PART 7:

A. If there have been any pre-application meetings, including on-site meetings, with regulatory staff, please list the date(s), location(s), and names of key staff and project representatives.

B. Please identify by number any MSSW/Wetland Resource/ERP/ACOE Permits pending, issued or denied for projects at the location, and any related enforcement actions.

Agency	Date	No.\Type of Application	Action Taken
ACOE	6/15/10	SAJ-2009-01004 (NW-TSD)	Issued
—	—	—	—
—	—	—	—

C. Note: The following information is required for projects proposed to occur in, on or over wetlands that need a federal dredge and fill permit or an authorization to use state owned submerged lands. Please provide the names, addresses and zip codes of property owners whose property directly adjoins the project (excluding application) and/or (for proprietary authorizations) is located within a 500 ft. radius of the applicant's land. Please attach a plan view showing the owner's names and adjoining property lines. Attach additional sheets if necessary.

1. SEE ATTACHMENT A 2.

3. 4.

PART 8:

A. By signing this application form, I am applying, or I am applying on behalf of the applicant, for the permit and any proprietary authorizations identified above, according to the supporting data and other incidental information filed with this application. I am familiar with the information contained in this application and represent that such information is true, complete and accurate. I understand this is an application and not a permit, and that work prior to approval is a violation. I understand that this application and any permit issued or proprietary authorization issued pursuant thereto, does not relive me of any obligation for obtaining any other required federal, state, water management district or local permit prior to commencement of construction. I agree, or I agree on behalf of the applicant, to operate and maintain the permitted system unless the permitting agency authorizes transfer of the permit to a responsible operation entity. I understand that knowingly making any false statement or representation in this application is a violation of Section 373.430, F.S. and 18 U.S.C. Section 1001.

Mike Harrington
Typed/Printed Name of Applicant (If no Agent is used) or Agent (If one is so authorized below)

Signature of Applicant/Agent — Date: 02/23/11

Ecology Group Director
(Corporate Title if applicable)

AN AGENT MAY SIGN ABOVE ONLY IF THE APPLICANT COMPLETES THE FOLLOWING:

B. I hereby designate and authorize the agent listed above to act on my behalf, or on behalf of my corporation, as the agent in the processing of this application for the permit and/or proprietary authorization indicated above; and to furnish, on request, supplemental information in support of the application. In addition, I authorize the above-listed agent to bind me, or my corporation, to perform any requirements which may be necessary to procure the permit or authorization indicated above. I understand that knowingly making any false statement or representation in this application is a violation of Section 373.430, F.S. and 18 U.S.C. Section 1001.

Randall R. LaBauve		2/17/11
Typed/Printed Name of Applicant	Signature of Applicant	Date

Vice President
(Corporate Title if applicable)

Please note: The applicant's original signature (not a copy) is required above.

PERSON AUTHORIZING ACCESS TO THE PROPERTY MUST COMPLETE THE FOLLOWING:

C. I either own the property described in this application or I have legal authority to allow access to the property, and I consent, after receiving prior notification, to any site visit on the property by agents or personnel from the Department of Environmental Protection, the Water Management District and the U.S. Army Corps of Engineers necessary for the review and inspection of the proposed project specified in this application. I authorize these agents or personnel to enter the property as many times as may be necessary to make such review and inspection. Further, I agree to provide entry to the project site for such agents or personnel to monitor permitted work if a permit is granted.

Randall R. LaBauve		2/17/11
Typed/Printed Name of Applicant	Signature of Applicant	Date

Vice President
(Corporate Title if applicable)

ATTACHMENT A

ADJACENT PROPERTY OWNER INFORMATION

LEGEND

Adjacent Property

FPL Property

600 0 Feet

REV.	DATE	DES	REVISION DESCRIPTION	GIS	CHK	RVW

PROJECT

FPL
CAPE CANAVERAL ENERGY CENTER

TITLE

INTAKE CANAL DIVIDER
ADJACENT PROPERTY OWNERSHIP

REFERENCES

1. Adjacent Property, FPL Property, Brevard County Property Appraiser, 2011.

Golder Associates
Gainesville, Florida

PROJECT No.		093-87573	FILE No.	09387573_D002
DESIGN	MH	02/17/2011	SCALE: AS SHOWN	REV. 0
GIS	NRL	02/17/2011	ATTACHMENT A	
CHECK	MH	8/13/2008		
REVIEW	MH	8/13/2008		

Map Document: TB-PS-A.mxt / Modified 3/15/2010 5:11:02 PM / Plotted 3/16/2010 3:12:54 PM by rlamar

ATTACHMENT A
FPL CCEC ADJACENT PROPERTY OWNERSHIP

MAP ID	PARCEL ID	OWNER NAME	OWNER ADDRESS
1	2316096	COMPTON, TIMOTHY B	3935 CANAVERAL GROVES BLVD COCOA FL 32926
2	2316090	WHITE, EILEEN M	4880 WINDOVER WAY TITUSVILLE FL 32780
3	2316097	SCHMALENBERGER, DAWN GRACE	190 TURTLE PLACE ROCKLEDGE FL 32955
4	2316098	WALTER, DAVID H	172 COTTRELL AVE COCOA FL 32926
5	2316177	PORT ST JOHN PROPERTY LLC	1185 SAND PINE CIR TITUSVILLE FL 32780
6	2316099	WREN, LARRY	3435 S WASHINGTON AVE TITUSVILLE FL 32780
7	2316110	DEBLASIO, PATRICK	551 TICETOWN RD OLD BRIDGE NJ 8857
8	2316095	BROMWELL, MITCHELL H	132 COTTRELL AVE PORT ST. JOHN FL 32927

Timothy B. Compton
3935 Canaveral Groves Boulevard
Cocoa, FL 32926

Ms. Eileen M. White
4880 Windover Way
Titusville, FL 32780

Ms. Dawn Grace Schmalenberger
190 Turtle Place
Rockledge, FL 32955

Mr. David H. Walter
172 Cottrell Avenue
Cocoa, FL 32926

Port St. John Property, LLC
1185 Sand Pine Circle
Titusville, FL 32780

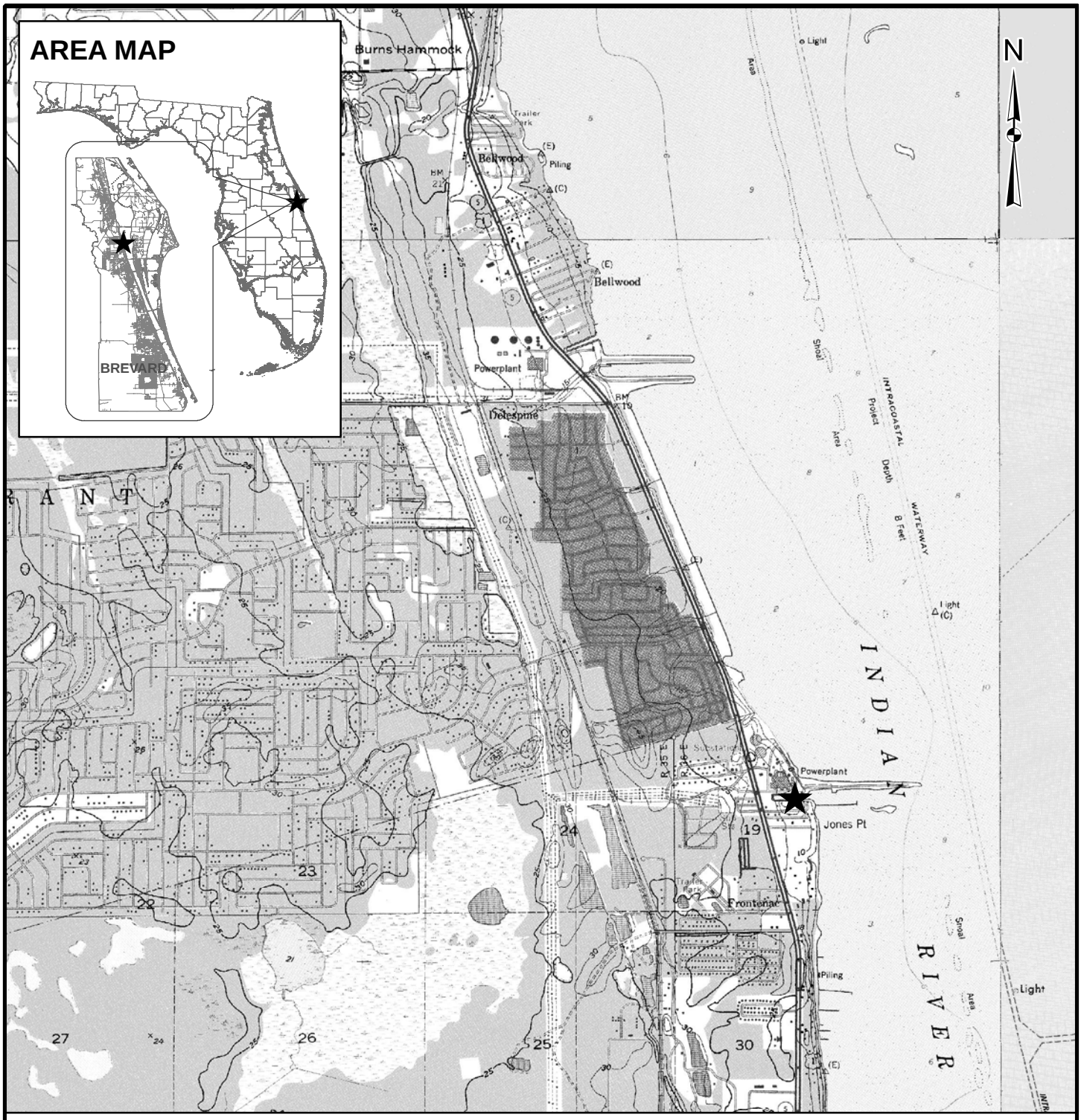
Mr. Larry Wren
3435 South Washington Avenue
Titusville, FL 32780

Mr. Patrick Deblasio
551 Ticetown Road
Old Bridge, NJ 08857

Mr. Mitchell H. Bromwell
132 Cottrell Avenue
Port St. John, FL 32927

ATTACHMENT B

PROJECT LOCATION AND PLANS



LEGEND

★ Project Location

REFERENCES

1. Project Location, FPL, 2009.

REV.	DATE	DES	REVISION DESCRIPTION	GIS	CHK	RVW

PROJECT

FPL
CAPE CANAVERAL ENERGY CENTER

TITLE

INTAKE CANAL DIVIDER
USGS LOCATION MAP

Golder Associates
Gainesville, Florida

PROJECT No.		093-87573	FILE No.	09387573D001
DESIGN	CMC	1/4/2010	SCALE: AS SHOWN	REV. 0
GIS	NRL	1/5/2010		
CHECK	CMC	1/12/2010		
REVIEW	MH	1/12/2010		

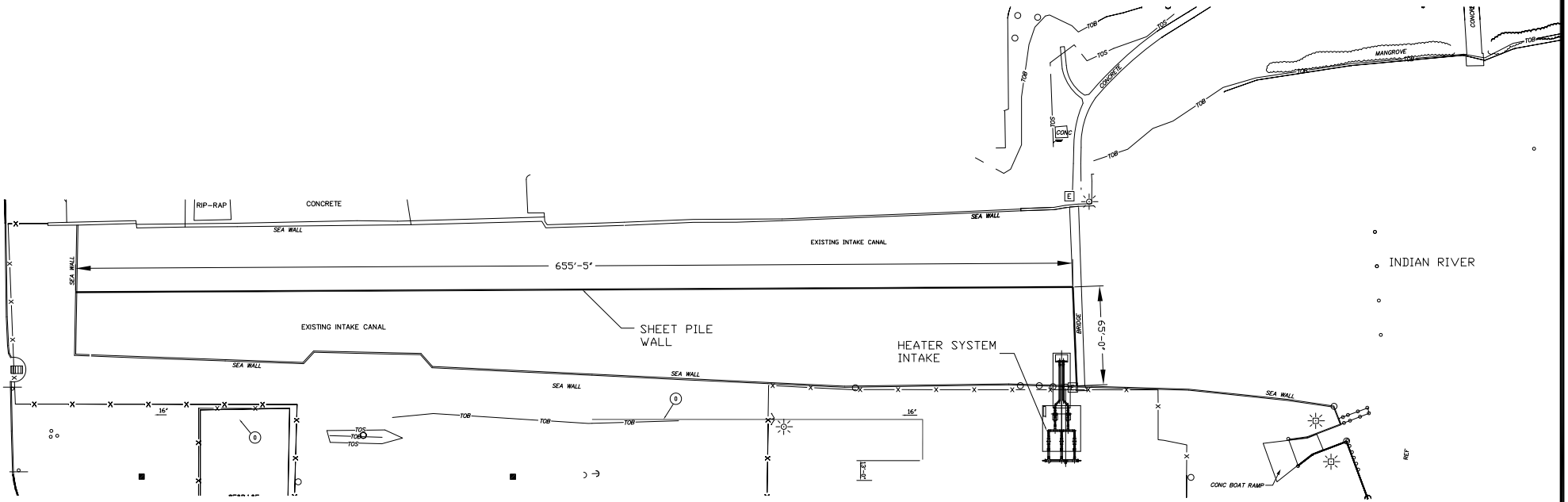
FIGURE 1

Map Document: 09387573A001_USGSLocationMap.mxd / Modified 1/5/2010 3:26:06 PM / Plotted 1/12/2010 10:00:08 AM by rlamar

Drawing file: 09387573_D001_SheetPileWall.dwg Mar 07, 2011 – 2:03pm

100 0 100

SCALE FEET



REFERENCES

WORLEY PARSONS DRAWING FLORIDA POWER & LIGHT COMPANY CIRCULATING WATER HEATING SYSTEM CAPE CANAVERAL. DRAWING Nos. PCAP-0-DW-017-002-001, PCAP-0-DW-017-002-002, Rev. F, DATED 3/16/2010, USED AS BASE MAP.

FIGURE 2

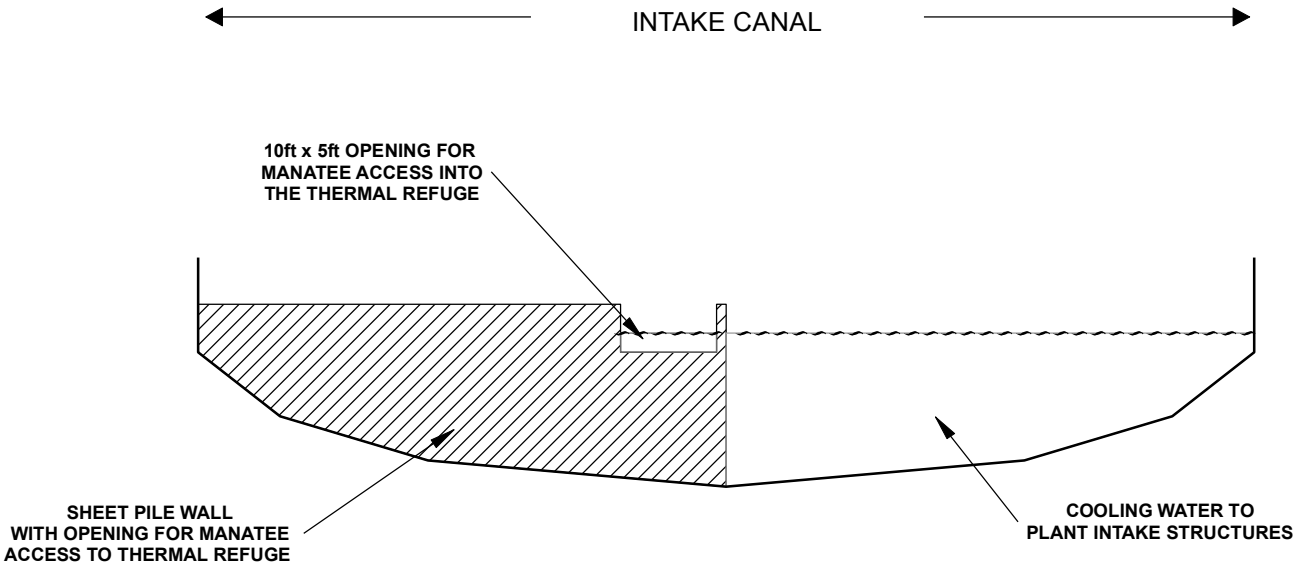
REVIEW	MH	03/07/11
CHECK	MH	03/07/11
CADD	NRL	02/23/11
DESIGN	MH	02/17/11
REV. 0	SCALE AS SHOWN	
FILE No. 09387573_D001		
PROJECT No. 093-87573		

TITLE

INTAKE CANAL DIVIDER

PROJECT

FPL
CAPE CANAVERAL ENERGY CENTER



VIEW LOOKING WEST

NOTES

The above illustration is an elevation view of the east end of the cooling water intake canal at the pedestrian bridge showing the 10ft x 5ft opening for manatee access into the thermal refuge.

REFERENCES

1. Proposed Modification Cross Section, FPL, 2011.

REV.	DATE	DES	REVISION DESCRIPTION	GIS	CHK	RVW

PROJECT

FPL
CAPE CANAVERAL ENERGY CENTER

TITLE

INTAKE CANAL DIVIDER CROSS SECTION

Golder Associates
Gainesville, Florida

PROJECT No.		093-87573	FILE No.	09387573_D003
DESIGN	MH	02/17/2011	SCALE: Not to Scale	REV. 0
GIS	NRL	02/17/2011		
CHECK	MH	03/07/2011		
REVIEW	MH	03/07/2011		

FIGURE 3

Ambient Water Temperature:	52 F
Equilibrium Water Temperature:	31 F
Wind Speed:	4 mph
Heater Capacity:	34 mmBTU/hr
Average Refuge Water Temperature:	72 F
Manatee Entrance Opening (width x depth):	10' x 5'
Heat Loss at the Entrance:	78 %
Heat Loss through Sheet Pile Wall:	7 %
Surface Heat Loss:	16 %

[1] Equilibrium Water Temperature is the water temperature that would be reached, for a specified set of meteorological conditions, given enough time. In the early morning hours when net short wave radiation from the sun is nearly zero, the equilibrium water temperature is at a daily minimum and approximately equal to the dew point temperature of the air.

LEGEND

- Major Discharge
- Intake
- Heater
- Minor Discharge
- Sheet Pile Wall

Enclosed Temperature

- 68 °F
- 69 °F
- 70 °F
- 71 °F
- 72 °F

100 0 Feet

REFERENCES

1. Enclosed Temperature Contours, Golder Associates Inc., 2011.
2. Discharge & Intake Locations, FPL, 2010.
3. Aerial Imagery, FDOT, 2009.

1	02/22/11	DES	REVISED TITLE BLOCK ADDED NOTES	NRL	GP	RVW

PROJECT

FPL
CAPE CANAVERAL ENERGY CENTER

TITLE

MANATEE THERMAL REFUGE TEMPERATURE CONTOURS

Golder Associates
Gainesville, Florida

PROJECT No.		103-87528	FILE No.		10387528_B001
DESIGN	GP	2/17/2011	SCALE: AS SHOWN	REV.	1
GIS	NRL	2/21/2011			
CHECK	MH	8/13/2008			
REVIEW	MH	8/13/2008			

FIGURE 4

ATTACHMENT C

PROJECT SPECIFICATIONS

FPL CCEC INTAKE CANAL DIVIDER SPECIFICATIONS

1. Materials and Dimensions

   The sheet piles will be made from weatherable rigid vinyl in 30 inch beams. The beams interconnect to have an effective width of 10 inches (see attached spec sheet). The vinyl will be approximately 0.4-inch-thick material, and it will be installed to extend approximately 12 to 18 inches above the mean high water level in the canal. The top of the piles will be covered by 4- x 6-inch timbers bolted to each side or a cap of similar materials. The sheet pile will be installed using a barge that will be lowered into the western end of the intake canal.

   The wall will begin at the western end of the intake canal and extend east to the existing footbridge [approximately 655 feet (ft)]. It will then be extended south along the bridge to the southern wall of the intake canal (approximately 65 ft). This will create a 35,000 ft^2 area within the manatee embayment, and this is approximately the same size as the current manatee embayment between the two sections of floating boom. The gap between the start of the piles and the western seawall will be closed to prevent water exchange. There will be a 10 foot wide by 5 foot deep opening in the sheet pile wall at the northeast corner of the new embayment. This opening is the same size and approximate location as the current opening created in the turbidity boom divider installed for the 2010-2011 winter season.

2. Installation and Removal

   The installation of the divider will follow the previously approved Manatee Protection Plan, 2009 Standard Manatee Conditions For In-water Work for the Cape Canaveral Power Plant, and FWC Specific Conditions of Certification. There will be no dewatering of the canal required for the installation or removal, and the entire process is estimated to take 3-4 weeks. The project is scheduled to be completed in June or July of this year and the sheet pile will be removed in the summer of 2013.

3. Water velocity and Thermodynamics

   The thermal conductivity for the vinyl sheet pile material is 0.29 Btu/ft/hr/deg F; and the material is 0.0321 ft thick. So the conductive heat exchange coefficient is 9.0 Btu/ft2/hr/°F. The thermal conductivity for steel sheet pile material is 25.0 Btu/ft/hr/°F; and the thickness is 0.04 ft thick. So the conductive heat exchange coefficient is 625 Btu/ft2/hr/deg F. Consequently, the steel sheet pile will conduct 70 times more heat from the refuge. The vinyl material will conduct about 6 % of the heat, or about 3.3 MMBtu/hr, while the steel will conduct more than 230 MMBtu/hr. As shown in Figure 4 (Attachment B), the existing 34 MMBtu/hr heater will provide 68 degree or warmer water in the newly configured embayment when using the vinyl sheet pile divider. The use of sheet pile will also prevent the water from mixing in areas other than the eastern opening, thus allowing for more effective heating during extreme cold events. There will continue to be a back up heater system with its own discharge to the embayment, and this system will continue to provide a supplemental heated water source during extreme cold weather events.

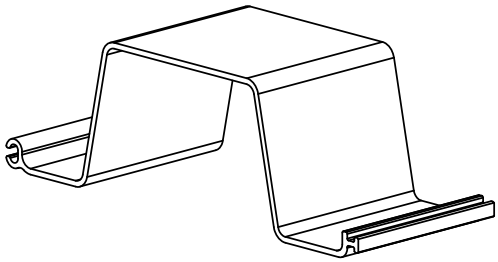
   The orientation of the sheet pile will provide a large enough volume of water on the northern half of the canal to prevent currents during operation of the plant intake pumps that would be a danger to manatees that enter that side of the canal. The water velocity through the intake screens at the intake structures will remain the same as it was for the Cape Canaveral Plant as the water flow through each screen is not changing. Therefore, threat of impingement is the same as it historically has been. The only increase in water velocity will be in the open channel of the intake canal, and will be approximately 2 ft/sec during 3-pump operation and 3 ft/sec during 4-pump operation. The intake pumps for the plant will be operated during start up and commissioning of the cooling system. Once the plant is operational, the manatee heating system will be decommissioned.

CRANE MATERIALS INTERNATIONAL

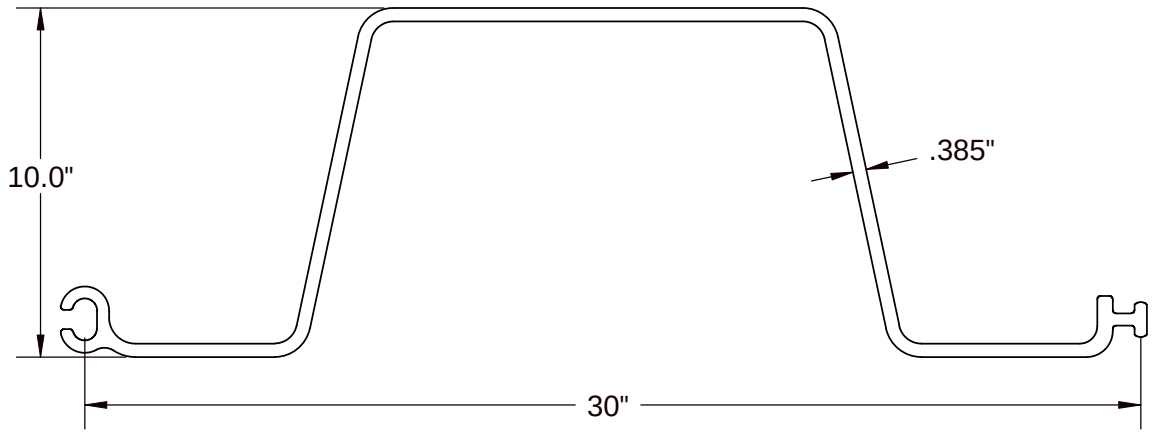
SHOREGUARD®
Synthetic Sheet Piling

Updated January 1, 2011

SG-625



Allowable Moment (M)	6,507 ft-lb/ft	28.94 kN-m/m
Section Modulus (Z)	24.4 in^3/ft	1,312 cm^3/m
Moment of Inertia (I)	122 in^4/ft	16,660 cm^4/m
Impact Strength	15,000 in-lbs/in^2	2,625 N-mm/mm^2
Thickness (t)	0.385 in	9.8 mm
Section Depth	10.0 in	254 mm
Section Width	30 in	762 mm
Material	Weatherable Rigid Vinyl	
Standard Colors	Grey, Clay	
Technology	Box Profile, I-Beam Lock, XCR™	
Standard Packaging	6 sheets/bundle	



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ATTACHMENT D

MANATEE PROTECTION PLAN & SPECIFIC CONDITIONS OF CERTIFICATION

NPDES/IWW

Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

In the matter of:
Approval of FPL Cape Canaveral Power Plant
Manatee Protection Plan

DEP Permit No. FL0001473
Brevard County

Mr. Ron Hix
FPL-5ES/JB
Florida Power & Light Company (FPL)
P. O. Box 14000
Juno Beach, FL 33408

NOTICE OF AGENCY ACTION

The Department of Environmental Protection hereby gives notice of its approval of the enclosed Manatee Protection Plan for the FPL Cape Canaveral Plant, dated August 8, 2000. The Manatee Protection Plan was completed pursuant to Specific Condition 13 of the above referenced permit.

A person whose substantial interests are affected by the Department action may petition for an administrative hearing in accordance with sections 120.569 and 120.57 of the Florida Statutes.

The petition must contain the information set forth below and must be filed (received) in the Department of Environmental Protection, Office of General Counsel, Mail Station 35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000. Petitions filed by the applicant or any of the parties listed below must be filed within twenty-one days of receipt of this notice of intent. Petitions filed by any other person must be filed within twenty-one days of publication of the public notice or within twenty-one days of receipt of this notice of intent, whichever occurs first. A petitioner must mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 of the Florida Statutes, or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the discretion of the presiding officer upon the filing of a motion in compliance with rule 28-5.207 of the Florida Administrative Code.

A petition must contain the following information:
(a) The name, address, and telephone number of each petitioner; the Department case identification number and the county in which the subject matter or activity is located;

(b) A statement of how and when each petitioner received notice of the Department action;
(c) A statement of how each petitioner's substantial interests are affected by the Department action;
(d) A statement of the material facts disputed by the petitioner, if any;
(e) A statement of facts that the petitioner contends warrant reversal or modification of the Department action;
(f) A statement of which rules or statutes the petitioner contends require reversal or modification of the Department action; and
(g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department final action may be different from the position taken by it in this order. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation under section 120.573 of the Florida Statutes is not available for this proceeding.

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

Any party to the order has the right to seek judicial review of the order under section 120.68 of the Florida Statutes, by the filing of a notice of appeal under rule 9.110 of the Florida Rules of Appellate Procedure with the Clerk of the Department of Environmental Protection, Office of General Counsel, Mail Station 35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000; and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice of appeal must be filed within 30 days from the date when the final order is filed with the Clerk of the Department.

Executed in Tallahassee, Florida

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Mimi Drew
Director
Division of Water Resource Management

2600 Blair Stone Road
Tallahassee, FL 32399-2400
(850) 487-1855

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF AGENCY ACTION and all copies were mailed before the close of business on 12-21-00 to the listed persons.

FILING AND ACKNOWLEDGMENT

FILED, on this date, under section 120.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

S. Shields 12-21-00

(Clerk) (Date)

Copies furnished to:

Kipp Frohlich, FWC Tallahassee
Chairman, Board of Brevard County Commissioners
Jim Valade, U.S. Fish and Wildlife Service
Save the Manatee Club
Christianne Ferraro, DEP Orlando
Betsy Hewitt, DEP Office of General Counsel

Florida Power & Light - Cape Canaveral Plant
Manatee Protection Plan
(August 8, 2000)

Purpose:

The purpose of the Cape Canaveral Plant Manatee Protection Plan is to set forth Florida Power & Light Company's (FPL) procedures to comply with Specific Condition 13 of the facility's State Industrial Wastewater Permit Number FL0001473 that was issued on February 24, 1999. This Specific Condition reads, in part:

13. The permittee, in so far as required to comply with Tasks 25 and 251 of the U.S. Fish and Wildlife Service (USFWS) "Florida Manatee Recovery Plan," shall develop a plan and procedures addressing potential manatee impacts, ...All plans, if required, shall include an implementation schedule and address, at a minimum:

(a) Plans to minimize disruption to warm-water outflows during the winter and response procedures in case of disruptions.

(b) Strategy to maintain discharge temperatures that will sustain manatees during cold events.

(c) Plan to monitor ambient and discharge temperatures.

(d) Precautions to minimize hazards to manatees at intake and outfall areas.

(e) Timely communication to manatee recovery program personnel of any long term changes in the availability of warm water.

Compliance with Specific Condition 13:

1. This Manatee Protection Plan will be in effect during the term of the permit. In order for the plant's warm water discharge to provide a safe, warm water refuge for the manatees and to comply with Specific Condition 13, FPL will take the following actions:

a) In the case of an unplanned shutdown or a plant failure occurring that will affect the warm water refuge from November 15 through March 31, when the ambient water temperature is below 61°F., the Florida Fish and Wildlife Conservation Commission (FWCC) and USFWS will be notified no later than four (4) hours after the event has occurred. If an unplanned shutdown occurs that is expected to result in no thermal discharge for 24 hours or longer, regardless of ambient water temperature, the Florida Marine Research Institute should be notified.

The following agency representatives shall be notified in the above referenced event or if any distressed manatees are observed at any time:

FWCC - Florida Marine Research Institute - Marine Mammal Pathobiology Lab: (727)-893-2904

USFWS - Jacksonville Field Office: (904) 232-2580

The FWCC, Bureau of Protected Species Management (BPSM) shall be provided a schedule of any anticipated in-water work within the discharge area or work that will affect the warm water refuge during the period of November 15 through March 31 each year. No routine in-water maintenance work shall occur in the discharge area from November 15 through March 31, unless it is considered essential by FPL and approved by BPSM prior to the start of work. If emergency in-water work is needed, the BPSM will be notified and consulted no later than two weeks following the commencement of the activity. All vessels used in the operation or associated with the activity shall be operated pursuant to the attached standard manatee construction conditions.

b) From November 15 through March 31 each year, to coincide with the time of greatest manatee abundance, if the ambient water temperature falls below 61°F., as measured at the plant intake, the FPL Cape Canaveral plant shall endeavor to operate in a manner that maintains the water temperature in an adequate portion of the discharge area, for at least one unit, at or above 68°F., until such time as the intake water temperature reaches 61°F., unless otherwise authorized by BPSM and the USFWS, or unless safety or reliability of the plant would be compromised.

c) The FPL Cape Canaveral power plant will provide personnel from the BPSM, USFWS, Florida Marine Research Institute, USGS-Sirenia Project, or a designee of these agencies, access to the FPL Cape Canaveral power plant property to conduct manatee research or monitoring activities which may include, placing, maintaining and downloading data from temperature data loggers. (These temperature data loggers will be used to collect air and water temperature data in an ongoing research effort to better understand manatee behavior patterns in response to artificial warm water refugia and environmental variables. The temperature data loggers will be placed in the discharge area and at ambient water and air locations). Access would be limited to normal business hours (8:00am - 5:00pm) unless arrangements are made in advance with the FPL Cape Canaveral power plant.

d) Intake Area: No special surveys will be required for the intake area.

Discharge Area: No special surveys will be required for the discharge area

e) Should FPL decide to retire these units, notice will be provided to FWCC and USFWS as soon as practical after a definite decision is made or, if possible, at least five years prior to the date of retirement.

f) To assist in documenting long-term use patterns of this facility, FPL should conduct periodic aerial surveys of manatees at the Cape Canaveral facility. The continuation of the ongoing statewide aerial survey that FPL has funded in the past years meets these criteria.

g) The FPL Cape Canaveral Power Plant will provide phone numbers for weekday and weekend notification of appropriate plant personnel for the purpose of allowing FWCC or USFWS to coordinate manatee rescue operations as necessary.

2) FPL actions, pursuant to this plan, that are conducted on a one-time basis unless there are significant physical or operational changes to the FPL Cape Canaveral power plant.

a) Provide a site map of the facility as a part of the plan that includes the following information;

1. The location of the intake pipes and discharge pipes.
2. Proximate streams, rivers, bays, etc.
3. The location of the condenser inlet and outlet temperature monitoring devices.
4. The location of any fuel barge docking facilities in relation to the discharge area.
5. The delineation of the no-entry boundary at the discharge area.

b) In order to evaluate and determine what portions of the thermal discharge will provide a sufficient warm water refuge for manatees under potential cold stress water conditions; the FPL Cape Canaveral power plant will, within two (2) years of the effective date of this plan, provide a profile of the thermal gradient (either actual or calculated) of the discharge area waters, as well as its gross bathymetry, at the mean rate of discharge when the ambient water temperature reaches a seasonal low.

Note: The "Thermal Analysis" conducted by FPL in January, 1996 and submitted to the FWCC meets the first requirement above ("... provide a profile of the thermal gradient (either actual or calculated) of the discharge area waters...").

FLORIDA POWER & LIGHT – CAPE CANAVERAL POWER PLANT
MANATEE PROTECTION PLAN

1a) STANDARD MANATEE CONSTRUCTION CONDITIONS FOR ARTIFICIAL WARM WATER REFUGIA DURING THE PERIOD OF NOVEMBER 15 THROUGH MARCH 31

The permittee shall comply with the following manatee protection conditions:

a. The permittee shall instruct all personnel associated with in-water work within the discharge canal and/or the warm water refuge of the potential presence of manatees and the need to avoid collisions with manatees. All vessels used in the operation or in association with the in-water work shall have an observer on board responsible for identifying the presence and location of manatee(s).

b. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act of 1972, The Endangered Species Act of 1973, and the Florida Manatee Sanctuary Act.

c. All vessels associated with in-water work associated with the discharge canal and/or warm water refuge shall operate at "no wake/idle" speeds at all times while in the manatee warm water refuge area. All vessels will follow routes of deep water whenever possible.

d. If manatee(s) are seen within the discharge canal and/or warm water refuge area all appropriate precautions shall be implemented to ensure protection of the manatee(s). These precautions shall include the immediate shutdown of equipment if necessary. Activities will not resume until the manatee(s) has departed to a safe distance on its own volition.

e. Any collision with and/or injury to a manatee shall be reported immediately to the Florida Wildlife Conservation Commission at 1-888-404-FWCC (1-888-404-3922). Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-232-2580).

V. FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION

A. West Indian Manatee

1. Interim Warm-Water Refuge Heating System

a. The current trigger temperature identified in the Manatee Protection Plan under the Cape Canaveral power plant's National Pollutant Discharge Elimination System permit is 61°F. In order to prevent an increased risk of manatee cold stress death during the CCEC conversion construction period, adaptive management protocols for the interim warm-water refuge heating system shall include the following:

(1) Testing, monitoring, and evaluation of the interim heating system shall take place pursuant to the permit conditions found in the Environmental Monitoring and Biological sections.

(2) The trigger temperature shall be set at 65°F, during the period that the interim heating system is required. The interim heating system shall be designed such that when ambient water temperatures are below 65°F, as indicated from a selected ambient water temperature station (as agreed to in the environmental monitoring plan), the interim heating system will provide a water temperature at or above 68°F, within the identified warm-water refuge until such time as the ambient water temperature reaches 65°F. The interim heating system shall be maintained and operated to achieve this result, in accordance with best management practices (BMP) established by Licensee, unless otherwise authorized by FWC and USFWS, or unless the safety or reliability of the electric power system would be compromised. The Licensee shall develop a BMP manual for the interim heating system that shall include the following components:

i. operation and maintenance procedures for the interim heating system;

ii. requirement for a log demonstrating that the recommended operating and maintenance procedures and checks are performed;

iii. a spare parts list including the location of the spares;

iv. a list of qualified operators and repair persons and their contact information;

iv. a trouble shooting flowchart and repair personnel call out plan;

v. an incident log to track the status of troubleshooting and repair activities until the system is operable;

vi. notification requirements to agencies.

(3) Licensee shall submit its BMP manual to FWC for review and comment by August 15 of the year when the CCEC conversion commences which is expected to be 2010. Licensee will review, consider, and incorporate if practicable, comments from FWC that are received by September 15 of that year. A copy of the Licensee's BMP manual for the interim heating system shall be maintained at all times at the CCEC site and shall be made available upon request to authorized representatives of FWC and DEP.

(4) If through the biological monitoring or daily visual assessments of manatee health, or scientific data it is indicated, that the 65°F interim heating system trigger temperature should be; raised or lowered to maintain a sufficient warm-water refuge, then FWC will consult with DEP, USFWS, and FPL to assess the information and develop a new strategy that can be agreed upon by all four parties. Such a new agreed upon strategy would be proposed by FWC in a DEP initiated modification to certification.

(5) The interim warm-water refuge is described as the area located within the current Cape Canaveral plant intake canal beginning at the western most extent of the canal and including all waters within the canal between the peninsula and the southern shoreline up to the southern shoreline's eastern most point (See attachment F and G).

(6) The Licensee may request modification of the following applicable FWC conditions upon issuance by the Department of Environmental Protection, in consultation with the FWC, of Final NPDES permit modification FL0001473 if such requested modifications to the conditions herein have been adopted into the Final NPDES permit.

(7) Licensee shall provide written notification of the commencement of conversion to DEP and the FWC as soon as possible but no later than June 15 of the year when the CCEC conversion commences which is expected to be 2010.

[Sections 403.507 and 403.509, F.S.; Section 379.1025 F.S., Section 379.2291 F.S., Section 379.2431 (2) F.S., Section 20.331 F.S., Section 253.75 F.S., Rules 68A-27 F.A.C.]

2. Environmental Monitoring

a. The following monitoring requirements are applicable to the interim warm-water refuge period and two years post commercial operation of CCEC:

(1) By June 15 of the year when the CCEC conversion commences which is expected to be 2010, the Licensee (Florida Power & Light Company) shall submit to the FWC, Florida Department of Environmental Protection (DEP) Siting Office, and the USFWS an Environmental Monitoring Plan. The Environmental Monitoring Plan shall include, at a minimum, the following components:

i. An evaluation of the interim heating system to determine its ability to provide a sufficient manatee warm-water refuge (as described in Interim Heating System and Environmental monitoring Conditions V.A.1. and 2, and the Licensee's Thermal Modeling Study) during the winter months shall take place prior to discontinuation of the current warm-water discharge. Evaluation of the system shall include its performance during cold fronts and varying tidal and wind conditions, if present, for a duration to be established in the Environmental Monitoring Plan (unless testing takes place as outlines in VA 2.a.(1) ii).

ii. If an interim heating system is installed at Riviera Beach Energy Center (RBEC) in 2009 an initial evaluation of the interim heating system, during winter conditions, shall be conducted there.

iii. The interim heating system at the CCEC site shall be installed and operational by September 15, of the year when the CCEC conversion commences which is expected to be 2010 or as soon as practicable after certification, whichever is later. However, the conversion from the existing system to the interim system cannot be implemented during the winter months (November through March). The warm-water refuge created by this system shall be monitored during initial testing at the CCEC site between September 15 and

October 15, of the year when the CCEC conversion commences which is expected to be 2010, or the duration described in Condition V.A.2.a.(1) i. and the empirical temperature data will be collected and compared to the thermal modeling results to evaluate the performance of the interim heating system and the accuracy of the thermal model.

iv. Monitoring of the CCEC's interim warm-water refuge during the conversion shall consist of winter (October 15 through March 31) ambient air and water temperatures measured at multiple locations within the interim warm-water refuge. The number and configuration of temperature monitoring stations must be sufficient to provide a three-dimensional view, over time, of the thermal plume.

v. Monitoring of the CCEC's post-conversion warm-water refuge shall consist of winter ambient air and water temperatures measured at multiple locations within the warm-water refuge. Monitoring for the first post conversion winter shall take place from October 15 through March 31 and from November 15 through March 31 during the second winter post construction. The number and configuration of temperature monitoring stations must be sufficient to provide a three-dimensional view, over time, of the thermal plume.

vi. Temperature monitoring stations will be deployed during the conversion phase in the interim refuge and post-conversion warm-water refuge. As part of this Environmental Monitoring Plan as described in this Section 5., the Licensee shall include a plan to convey the data from the temperature monitoring stations to the appropriate agencies on a daily basis when the trigger is on and the heaters are running and on a weekly basis when the ambient temperature is greater than 65 degrees.

vii. Specific locations for the temperature monitoring station(s), sampling frequencies, station depths data collection methods, and reporting frequencies must be identified and may be subject to further revision depending on receipt of any required permits, licenses and approvals.

viii. The Environmental Monitoring Plan, including the proposed monitoring locations, shall be approved prior to implementation. FWC, in consultation with the DEP and USFWS, shall indicate its approval or disapproval of the submitted plan within 90 days of the originally submitted information. In the event that additional information from the licensee is necessary to complete and approve the Plan, FWC, in consultation with the DEP and USFWS, shall make a written request to the licensee for additional information no later than 30 days after receipt of the submitted information. A final plan shall be in place by September 1, of the year when the CCEC conversion commences which is expected to be 2010.

(2) The Licensee will prepare an environmental monitoring report that includes all data (made available in electronic form) and statistical analyses collected as a result of the environmental monitoring requirements. This report will be submitted yearly, by August 1 of each year, while the interim warm-water system is in operation during the construction period and two years post-conversion of the CCEC. Within 180 days of the submittal of the final yearly environmental monitoring report, a summary report of all environmental monitoring shall be completed and submitted to the FWC and DEP Siting Office for review.

(3) If, in the review of the annual environmental monitoring reports, FWC, in consultation with the DEP and USFWS, determines the need to modify the Environmental Monitoring Plan, FWC will notify the Licensee to discuss the findings. At that time, FWC, in consultation with the DEP and USFWS and the Licensee, will determine what, if

any, modifications need to be made to the Environmental Monitoring Plan and FWC will request that DEP initiate modifications to certification if necessary.

(4) If by June 1, 2010, the initial monitoring tests of the interim warm-water heating system have taken place at the Riviera Beach power plant, the Licensee will contact DEP and FWC to provide and discuss the results. At that time, FWC, in consultation with the DEP and USFWS, and the Licensee, will determine what, if any, modifications need to be made to the operation of the interim heating systems and FWC will request that DEP initiate a modification to certification if necessary.

(5) By November 1, of the year when the CCEC conversion commences which is expected to be 2010, or two weeks after completion of the initial monitoring test of the interim warm-water heating system at the CCEC, the Licensee will contact DEP, FWC and USFWS to provide and discuss the results. At that time, FWC, in consultation with the DEP, USFWS, and the Licensee, will determine what, if any, modifications need to be made to the operation of the interim heating system and FWC will request that DEP initiate a modification to certification if necessary.

(6) If the Licensee determines the Environmental Monitoring Plan is in need of modifications during the operation of the interim heating system, the Licensee will contact the agencies to discuss the proposed modifications. At that time, FWC, in consultation with the DEP and USFWS and the Licensee, will determine what if any modifications need to be made to the Environmental Monitoring Plan and the FWC will request that DEP initiate a modification to certification if necessary.

[Sections 403.507 and 403.509, F.S.; Section 379.1025 F.S., Section 379.2291 F.S., Section 379.2431 (2) F.S., Section 20.331 F.S., Section 253.75 F.S., Rules 68A-27 F.A.C.]

3. Biological Monitoring

a. The following monitoring requirements for manatee distribution and abundance are applicable to the interim warm-water refuge and two year post-commercial operation of CCEC:

(1) By June 15 of the year when the CCEC conversion commences which is expected to be 2010 the Licensee shall submit to the DEP Siting Office and FWC, a Biological Monitoring Plan. The Biological Monitoring Plan shall include at a minimum the following components:

i. Monitor the winter (October 15 through March 31) distribution and abundance of manatees during the time frame that includes the operation of the interim warm-water heating system. Monitor the winter (November 15 through March 31) distribution and abundance of manatees during the two years' post-conversion at the CCEC warm-water refuge.

ii. Biological monitoring shall at a minimum be conducted through aerial surveys and telemetry tagged manatees.

iii. Specific aerial survey paths, sampling frequencies, and methodologies for aerial surveys. At a minimum, aerial survey flight paths shall encompass known manatee winter habitat including travel corridors and passive warm-water sites throughout Brevard County on a weekly basis during the interim period during the winter months (October 15 through March 31). Once the converted CCEC is in operation the aerial surveys shall be conducted on a twice a month basis for two years post commercial operation during the winter

months. After the first year of post conversion surveys FWC will discuss the results with the Licensee and determine if the second year's surveys can be reduced to one survey per month.

iv. Aerial surveys shall be designed so the data collected will provide an evaluation of manatee abundance and distributional changes in Brevard County in a statistically valid manner that is consistent with past aerial survey data.

v. Telemetry monitoring shall be accomplished by the Licensee through the use of FWC or another entity with experience in manatee telemetry tracking, and data analysis in Florida by providing them $50,000 per winter season to be used for the purchase of up to three tags annually, if needed, and the accompanying annual activities and research, tracking and monitoring activities, data collection, ARGOS usage, software purchase and update, and one final report to the Licensee. This condition will coincide with the use of the interim heating system and 2 years post-commercial operation of CCEC. After the first year of post conversion telemetry monitoring FWC will discuss the results with the Licensee and the parties will determine if the second year's monitoring can be eliminated. The tags will be attached to manatees captured at, or near the CCEC site to document their movements to secondary warm-water sites, nighttime habitat use, behavioral response to changes in the operation of the interim refuge (e.g., availability of warm-water discharge in relation to the trigger temperature), and thermal regime experienced by manatees during the conversion of CCEC. The details of the telemetry effort will be provided in the biological monitoring plan and, if requested by the licensee, FWC and USFWS can provide assistance.

vi. The Biological Monitoring Plan shall be reviewed and approved prior to implementation. FWC, in consultation with the DEP and USFWS, shall recommend its approval or disapproval of the submitted plan to DEP within 90 days of the originally submitted information. In the event that additional information from the licensee is necessary to complete and approve the Plan, FWC, in consultation with the DEP and USFWS, shall make a written request to the Licensee for additional information no later than 30 days after receipt of the submitted information. A final plan shall be in place by September 1, of the year when the CCEC conversion commences which is expected to be 2010.

(2) The Licensee shall provide a manatee observer(s) who has sufficient experience in detecting indicators of cold stress in manatees. The monitoring protocols and individuals acting as manatee observer(s) will require approval from the FWC.

(3) The manatee observer will be required to conduct a daily visual assessment of the condition and general distribution of manatees using the interim warm-water refuge during the winter months (October 15 through March 31) during the interim period. The visual assessments shall be conducted for a sufficient length of time to assess most of the manatees present at the plant and accessible to the observer on that day. If an approved observer is not available, licensee shall notify FWC as soon as possible, but no later than 48 hours, to coordinate actions necessary to resume the observation program.

(4) The Licensee shall provide two moveable land-based observation platforms located along the interim warm-water refuge. These will be used by the manatee observer(s) for conducting assessments of cold stress symptoms and by FWC or USFWS staff monitoring manatee use of the interim refuge through photo identification.

(5) The Licensee will prepare a biological monitoring report that includes all data (made available in electronic form) and statistical analyses completed as a result of the requirements set forth in the biological monitoring plan. This report will be submitted

yearly, by August 1 of each year, when the interim warm-water system is in operation during the construction period and two years post-commercial operation date. Within 180 days of submittal of the final yearly biological monitoring report a summary of all biological monitoring reports shall be completed and submitted to the FWC and DEP Siting Office for review.

(6) If, in the review of the biological monitoring reports, FWC, in consultation with DEP and USFWS, determines the need to modify the Biological Monitoring Plan, FWC will notify the Licensee to discuss the findings. At that time, FWC, in consultation with the DEP and USFWS, and the Licensee will determine what if any modifications need to be made to the Biological Monitoring Plan and the FWC will request that DEP initiate a modification to certification if necessary.

(7) If the Licensee determines the Biological Monitoring Plan is in need of modifications during the operation of the interim heating system, the Licensee will contact the agencies to discuss the proposed modifications. At that time, FWC, in consultation with the DEP and USFWS, and the Licensee will determine what, if any, modifications need to be made to the Biological Monitoring Plan and the FWC will request that DEP initiate a modification to certification if necessary.

(8) The Licensee will provide personnel from the FWC, USFWS, USGS Sirenia Project, or a designee of these agencies, access to the CCEC property to conduct manatee monitoring activities. Reasonable notice shall be given to the Licensee by the agencies. Access would be limited to normal weekday business hours (8:00 a.m. - 5:00 p.m.) unless arrangements are made in advance with the Licensee.

[Sections 403.507 and 403.509, F.S.; Section 379.1025 F.S., Section 379.2291 F.S., Section 379.2431 (2) F.S., Section 20.331 F.S., Section 253.75 F.S., Rules 68A-27 F.A.C.]

4. Contingency Plan

a. FWC and USFWS' LOA (Letter of Authorization) network responders will be responsible for all efforts related to manatee rescues, rehabilitation activities, and carcass recovery during the CCEC conversion. In order to effectively implement contingency plans during the plant conversion and to address manatee health-related issues due to a malfunction or inability of the interim warm-water heating system to effectively provide a warm-water refuge during the winter months (October 15 through March 31), the following conditions are required:

(1) If the observer (pursuant to Biological monitoring Conditions V.A.3.b-d;) identifies manatees with apparent signs of cold stress disease, digital photographs should be taken of the animal(s) and the FWC shall be called as soon as possible on the day of the observations through the following methods. An FWC biologist can be reached via pager at 800-714-0620 (enter the callers contact number followed by the code "02". A page will be returned within 30 minutes; if not, resend the page. For immediate emergency situations FWC's Wildlife Alert number can also be called at 888-404-FWCC.

(2) The Licensee will notify FWC and USFWS immediately if there is a mechanical failure of the interim heating system, or if, for any other reason the interim heating system is not operating in a manner that will provide warm-water sufficient to keep the warm-water refuge at a temperature of 68° F or greater.

(3) The Licensee shall provide in-kind services and financial assistance, not to exceed $100,000 in total value, to FWC for manatee rescue or recovery in the

event that there is a failure of the interim heating system resulting from Licensee's failure to comply with Condition V.A. 1.a.(2) & (3) that causes death or identifiable cold stress to manatees in Brevard County. This condition would apply during the winter months (October 15 through March 31). The in-kind assistance and funds would only be used to address manatee-related cold stress issues in the area that the interim system affects.

(4) The Licensee will provide personnel from the FWC, USFWS, USGS-Sirenia Project, or a designee of these agencies, access to the CCEC property to conduct manatee monitoring activities. Reasonable notice shall be given to the licensee by the agencies. Access would be limited to normal weekday business hours (8:00 a.m. - 5:00 p.m.) unless arrangements are made in advance with the Licensee.

(5) The Licensee will include as part of its safety orientation manatee awareness training for full-time permanent construction personnel at the CCEC site. This training will be designed to educate the construction work force about the legal requirements to avoid manatees and to provide them with contact information if they should spot an injured manatee.

(6) All visitors to CCEC will be required to comply with FPL's safety and security requirements. Personnel will receive an orientation from FPL or its contractor prior to commencing observations or other activities.

[Sections 403.507 and 403.509, F.S.; Section 379.1025 F.S., Section 379.2291 F.S., Section 379.2431 (2) F.S., Section 20.331 F.S., Rules 68A-27 F.A.C.]

5. Development of a Long-Term Manatee Strategy

a. It is expected that at some point in the future the warm-water habitat created by the CCEC will diminish or be terminated in that event the FWC and USFWS believes it is in the best interest of the Licensee, FWC, USFWS, DEP, and the Florida manatee population to begin strategic long term planning to reduce the adverse affects to the Florida manatee population before this occurs.

(1) Within two years of the formal approval by FWC and USFWS of a Warm-Water Action Plan (Plan), inclusive of a future-oriented Management Policy for Warm-Water Manatee Habitat, the Licensee shall host and chair a workshop designed to: (a) articulate a strategy for achieving the goals of that Plan, (b) develop a timetable for implementing the strategy, (c) review progress to date in achieving the strategy, and (d) identify impediments and solutions.

(2) Within one year of the workshop held pursuant to Condition V.A.5.1, the Licensee shall provide the FWC and USFWS with a formal report of the workshop, including findings, conclusions, and recommendations.

(3) Over the course of the operating life span of the CCEC the Licensee shall develop an exit strategy for the CCEC that prevents significant losses to the manatee population when the Licensee determines reduce or eliminate the CCEC's thermal discharge to the extent that a dependable warm-water refuge is no longer present. The Licensee's strategy shall consider FWC and USFWS's statewide Warm-Water Action Plan approved by FWC and USFWS.

(4) The Licensee shall work closely with the FWC and USFWS to evaluate progress toward achieving the vision and goals of the Warm-Water Action Plan and to develop adaptive changes to the Plan as needed to promote manatee recovery through

participation in periodic workshops and/or conferences designed to accomplish such evaluation and adaptive changes.

6. Manatee Construction Conditions for In-Water Work

a. The Standard Manatee Conditions for In-Water Work (revision 2009) are required for all in-water work in or adjacent to waters accessible to manatees. Blasting or pile hammering activities to break rock shall be prohibited in waters accessible to manatees. If no other alternative exists, a modification of these conservation measures can be requested. An adequate Blast and Protected Species Watch Plan must be submitted to and approved by the Imperiled Species Management Section of the FWC prior to these methodologies being used.

b. To reduce the possibility of injuring or killing a manatee during construction, in-water work shall not be performed between November 15 and March 31 unless essential to support the CCEC project's schedule. If in-water work during the winter cannot be avoided the Licensee will contact the agencies to determine alternative conditions that will be implemented to address the proposed activity.

c. At least one person shall be designated as a manatee observer when in-water work is being performed. That person shall have experience in manatee observation, be approved by the FWC two weeks before the beginning of construction, and be equipped with polarized sunglasses to aid in observation. The manatee observer must be on site during all in-water construction activities and will advise personnel to cease operation upon sighting a manatee within 50 feet of any in-water construction activity. Movement of a work barge, other associated vessels, or any in-water work shall not be performed after sunset, when the possibility of spotting manatees is negligible. Observers shall maintain a log detailing manatee sightings, work stoppages, and other protected species-related incidents. A report, summarizing all activities noted in the observer logs, the location and name of project, and the dates and times of work shall be submitted within 30 days following project completion, to the FWC's Imperiled Species Management Section at: 620 South Meridian Street, 6A, Tallahassee, Florida 32399-1600, or e-mailed at fcmpmail@myfwc.com.

d. To reduce the risk of entrapment and drowning of manatees, grating shall be installed over any existing or proposed pipes or culverts greater than 8 inches, but smaller than 8 feet in diameter that are submerged or partially submerged and reasonably accessible to manatees. Bars or grates no more than 8 inches apart shall be placed on the accessible end(s) during all phases of the construction process and as a final design element to restrict manatee access.

7. Force Majeure

If there is an act of God, terrorism, or war that prevents Licensee from providing the requisite warm water conditions, Licensee will notify FWC expeditiously and coordinate efforts to resume compliance with the certification conditions.

[Sections 403.507 and 403.509, F.S.; Section 379.1025 F.S., Section 379.2291 F.S., Section 379.2431 (2) F.S., Section 20.331 F.S., Rules 68A-27 F.A.C.]

ATTACHMENT E

2009 STANDARD MANATEE CONDITIONS FOR IN-WATER WORK

STANDARD MANATEE CONDITIONS FOR IN-WATER WORK

2009

The permittee shall comply with the following conditions intended to protect manatees from direct project effects:

a. All personnel associated with the project shall be instructed about the presence of manatees and manatee speed zones, and the need to avoid collisions with and injury to manatees. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act, the Endangered Species Act, and the Florida Manatee Sanctuary Act.

b. All vessels associated with the construction project shall operate at "Idle Speed/No Wake" at all times while in the immediate area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.

c. Siltation or turbidity barriers shall be made of material in which manatees cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. Barriers must not impede manatee movement.

d. All on-site project personnel are responsible for observing water-related activities for the presence of manatee(s). All in-water operations, including vessels, must be shutdown if a manatee(s) comes within 50 feet of the operation. Activities will not resume until the manatee(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the manatee(s) has not reappeared within 50 feet of the operation. Animals must not be herded away or harassed into leaving.

e. Any collision with or injury to a manatee shall be reported immediately to the FWC Hotline at 1-888-404-FWCC. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-731-3336) for north Florida or Vero Beach (1-772-562-3909) for south Florida.

f. Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs are to be removed by the permittee upon completion of the project. Awareness signs that have already been approved for this use by the Florida Fish and Wildlife Conservation Commission (FWC) must be used (see MyFWC.com). One sign which reads *Caution: Boaters* must be posted. A second sign measuring at least 81/2" by 11" explaining the requirements for "Idle Speed/No Wake" and the shut down of in-water operations must be posted in a location prominently visible to all personnel engaged in water-related activities.

CAUTION: MANATEE HABITAT

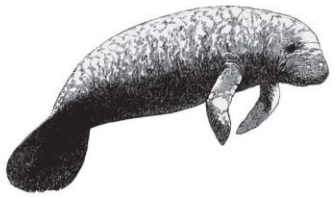
All project vessels

IDLE SPEED / NO WAKE

When a manatee is within 50 feet of work
all in-water activities must

SHUT DOWN

Report any collision with or injury to a manatee:



Wildlife Alert:

1-888-404-FWCC(3922)

cell *FWC or #FWC