FPL

L-2011-218
10 CFR 52.3

June 14, 2011

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555-0001

Re: Florida Power & Light Company
Proposed Turkey Point Units 6 and 7
Docket Nos. 52-040 and 52-041
Response to NRC Environmental Request for Additional Information Letter 1105042 (RAI 5704)
Environmental Standard Review Plan Section EIS 2.4.2 – Aquatic Ecology

Reference:

1. NRC Letter to FPL dated May 4, 2011, Environmental Request for Additional Information Letter 1105042 Related to ESRP Section 2.4.2, Aquatic Ecology, for the Combined License Application Review for Turkey Point Units 6 and 7

Florida Power & Light Company (FPL) provides, as an attachment to this letter, its response to the Nuclear Regulatory Commission's (NRC) Environmental Request for Additional Information (RAI) 2.4.2-1 through 2.4.2-10 provided in the referenced letter. The attachment identifies changes that will be made in a future revision of the Turkey Point Units 6 and 7 Combined License Application (if applicable).

If you have any questions, or need additional information, please contact me at 561-691-7490.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on June 14, 2011.

Sincerely,

William Maher
Senior Licensing Director – New Nuclear Projects

WDM/RFO

D097
NRO

Attachment 1: FPL Response to NRC RAI No. 2.4.2-1 (RAI 5704)
Attachment 2: FPL Response to NRC RAI No. 2.4.2-2 (RAI 5704)
Enclosure: Fish Surveys of the Turkey Point Property Associated with Units 6 & 7, June 23-24, 2009 (TtNUS, July 2009)
Attachment 3: FPL Response to NRC RAI No. 2.4.2-3 (RAI 5704)
Attachment 4: FPL Response to NRC RAI No. 2.4.2-4 (RAI 5704)
Attachment 5: FPL Response to NRC RAI No. 2.4.2-5 (RAI 5704)
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Enclosure 1: *American Crocodile Monitoring Report – 2000*
Enclosure 2: *American Crocodile Monitoring Report – 2001*
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Enclosure 8: *American Crocodile Monitoring Report – 2007*
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Enclosure 10: *American Crocodile Monitoring Report – 2009*
Enclosure 11: *American Crocodile Monitoring Report – 2010*
Attachment 9: FPL Response to NRC RAI No. 2.4.2-9 (RAI 5704)
Attachment 10: FPL Response to NRC RAI No. 2.4.2-10 (RAI 5704)

cc
PTN 6 & 7 Project Manager, AP1000 Projects Branch 1, USNRC DNRL/NRO
Regional Administrator, Region II, USNRC
Senior Resident Inspector, USNRC, Turkey Point Plant 3 & 4

NRC RAI Letter No. 1105042 Dated May 04, 2011

SRP Section: EIS 02.04.02 – Aquatic Ecology

Question from Environmental Technical Support Branch

NRC RAI Number: EIS 02.04.02-1 (RAI 5704)

Provide the following technical report: Ecological Associates Inc. 2009. "Turkey Point Plant (Units 6&7), Baseline Aquatic Biological Characterization Study, March 2008 to February 2009. Draft. July 2009." Staff requests this information to characterize the baseline temporal and spatial distribution and abundance of important aquatic species on or adjacent to the Turkey Point property.

FPL RESPONSE:

The draft technical report *Turkey Point Plant (Units 6 & 7), Baseline Aquatic Biological Characterization Study, March 2008 to February 2009, Draft, July 2009* was incorporated by summary in the technical report *Species and Relative Abundances of Fish and Shellfish in the Vicinity of the Turkey Point Plant Based on Recent Collections* (Ecological Associates, Inc., October 2009). This report is available at http://publicfiles.dep.state.fl.us/Siting/Outgoing/FPL_Turkey_Point/Units_6_7/Completeness/Plant_Associated_Facilities/1st_round_Completeness/FPL_Response_1st_Incompleteness/Attached%20Reports/EAI/Report_Turkey%20Point%20Summary%20Report.pdf (accessed June 8, 2011).

This response is PLANT SPECIFIC.

References:

None

ASSOCIATED COLA REVISIONS:

No COLA changes have been identified as a result of this response.

ASSOCIATED ENCLOSURES:

None

NRC RAI Letter No. 1105042 Dated May 04, 2011

SRP Section: EIS 02.04.02 – Aquatic Ecology

Question from Environmental Technical Support Branch

NRC RAI Number: EIS 02.04.02-2 (RAI 5704)

Provide the following technical report: TTNUS, July 2009. "*Fish Surveys of the Turkey Point Property Associated with Units 6&7, June 23-24, 2009*". Staff requests this information to characterize the baseline temporal and spatial distribution and abundance of important aquatic species on or adjacent to the Turkey Point property.

FPL RESPONSE:

The technical report *Fish Surveys of the Turkey Point Property Associated with Units 6 & 7, June 23-24, 2009* is enclosed with this response.

This response is PLANT SPECIFIC.

References:

None

ASSOCIATED COLA REVISIONS:

No COLA changes have been identified as a result of this response.

ASSOCIATED ENCLOSURES:

Fish Surveys of the Turkey Point Property Associated with Units 6 & 7, June 23-24, 2009 (TtNUS, July 2009)

Attachment 2

Enclosure

Turkey Point Nuclear Plant Units 6 and 7
COL Application
Response to NRC RAI No. 2.4.2-2 (RAI 5704)

Fish Surveys of the Turkey Point Property Associated with Units 6 & 7, June 23-24, 2009 (TtNUS, July 2009)

(Enclosure = 7 Total Pages)

Final
Fish Surveys of the Turkey Point Property Associated with Units 6 & 7, June 23-24, 2009

Prepared for Florida Power & Light Company

Prepared by Tetra Tech NUS, Inc.
Aiken, South Carolina

July 2009

Fish Surveys of the Turkey Point Property
Associated with Units 6 & 7

June 23-24, 2009

Tetra Tech NUS, Inc

As part of the pre-application process in preparation for submittal of the COLA for proposed Units 6 & 7, a survey of Fish Species was conducted in June 2009 in areas that would be impacted by proposed construction. Notwithstanding these dedicated surveys, observations of aquatic species were noted during all site visits, and the resulting information from all site visits was used in characterizing aquatic ecology in the Environmental Report.

On June 23 and 24, 2009, Tetra Tech fishery biologists surveyed fish in several areas within the Turkey Point Plant property that could be impacted by construction of Turkey Point Units 6 & 7. All of the areas, except one (TP-2), are located within the permitted industrial wastewater facility for the Turkey Point Plant. Sampling locations, shown in Figure 1, included:

- A mangrove wetland west of the existing units (TP-1)
- A sawgrass marsh/mangrove community adjacent to Palm Drive (TP-2) that would be impacted by the proposed Reclaimed Water Treatment Facility
- The south remnant canal (TP-3A)
- The north remnant canal (TP-3B)
- A portion of the return canal (TP-4)
- Shallow flats in east-central part of the plant area (TP-5)
- Dead-end canal (TP-6)
- Cooling canal – north (TP-7)
- Cooling canal – south (TP-8)

Methods

Fish were collected using (8-foot diameter) cast nets, a 20-foot-long minnow seine, and standard "Gee" type galvanized minnow traps. The kinds of entangling gear (e.g., gill nets and trammel nets) typically used to capture larger, more-mobile fish species in shallow estuarine/marine waters could not be used due to concern for the endangered American crocodiles that are found in the cooling canals of the industrial wastewater facility. Electrofishing gear was ruled out because water in the canals is hypersaline (extremely high specific conductance), creating a circumstance where the water is actually more electrically conductive than the fish, making electrofishing ineffective.

Water quality measurements were taken with field water quality instruments in conjunction with fish sampling.

Results

Table 1 shows water quality measurements from the various sampling locations, reflecting fish habitat quality that was less than optimal at all locations sampled. Water temperatures in the south remnant canal (TP-3A), return canal (TP-4), nuclear island flats (TP-5), dead-end canal (TP-6), and cooling canal (TP-7 and TP-8) were high, as were salinities, creating conditions that would be stressful for many estuarine fish. In the mangrove area north of the plant area (TP-1) and in the sawgrass marsh/mangrove community adjacent to Palm Drive (TP-2), areas shaded by well-developed tree canopies, temperatures were within a range that most fish species in south Florida can easily tolerate, but dissolved oxygen concentrations were very low, too low to support all but the hardiest of fish species. Notwithstanding these less-than-ideal conditions, all of the waterbodies except the drainage ditch (sampling location TP-2) supported substantial numbers of small fish.

Table 1. Water quality data from eight locations on the Turkey Point site.

Location	Date	Water Temp (°C)	DO (mg/L)	Salinity (parts per thousand)	pH
TP-1	6-24-09	25.5	0.75	< 1.0	6.4
TP-2	6-24-09	23.9	0.5	1.5	6.6
TP-3A	6-24-09	27.6	3.1	52.6	6.3
TP-4	6-24-09	29.5	4.7	53.0	6.7
TP-5	6-24-09	33.7	9.7	50.3	7.5
TP-6	6-24-09	31.1	2.6	52.8	6.9
TP-7	6-24-09	36.5	4.3	52.8	6.9
TP-8	6-24-09	36.5	4.3	52.7	7.1

A total of 433 fish representing seven species were collected during sampling, all species common to south Florida waters (Table 2). All (but one) of the fish collected were small-bodied, short-lived, schooling species, representatives of two families, the killifishes (family Cyprinodontidae) and the livebearers (family Poeciliidae). Cyprinodonts are the dominant group of fish found in intertidal marshes along the east coast of the U.S. Cyprinodonts and poecilids are both known for their hardiness, their ability to withstand high water temperatures and low dissolved oxygen levels. Four cyprinodonts [sheepshead minnow (*Cyprinodon variegatus*), goldspotted killifish *(Floridichthys carpio)*; marsh killifish *(Fundulus confluentus),* and Gulf killifish *(F. grandis)*] and two poecilids (sailfin molly, *Poecilia latipinna,* and mosquitofish, *Gambusia holbrooki)* appeared in collections.

One Gulf toadfish (*Opsanus beta*) was also collected, in the return canal (sampling location TP-4). Another hardy species, the Gulf toadfish can survive in waters with very low levels of dissolved oxygen and can even tolerate brief periods out of water. The species' common name is something of a misnomer, as it is abundant in Florida estuarine waters from Cape Canaveral south to the Keys.

Table 2. Number and relative abundance of fish captured at seven locations on the Turkey Point site in June 2009[1].

	TP-1	TP-3[2]	TP-4	TP-5	TP-6	TP-7	TP-8	Totals	Pct. Composition
Sheepshead minnow	4	70	25	43	87	37	7	273	63.0
Sailfin molly	20	48	7		6	3	6	90	20.8
Goldspotted killifish		3	1	22	15	1	1	43	9.9
Marsh killifish	15							15	3.5
Gulf killifish	3		1			1	1	6	1.4
Mosquitofish	4		1					5	1.2
Gulf toadfish			1					1	0.2
	46	121	36	65	108	42	15	433	

[1] No fish were collected at TP-2
[2] Combined TP3A and TP3B

Sheepshead minnows, found at 7 of the 8 locations sampled and making up 63 percent of all fish collected, are particularly hardy. They have been called "the most eurythermic of all fishes" because they can tolerate both extremely low and extremely high water temperatures. Physiological and behavioral adaptations allow sheepshead minnows to survive in tidal pool habitats where temperatures range from freezing to 43°C (111°F). A euryhaline species, the sheepshead minnow is found in salinities ranging from 0 (fresh water) to 140 parts per thousand (ppt) salinity. Seawater is typically 30 to 35 ppt. Because they are able to "gulp" air at the surface, they can survive when dissolved oxygen concentrations are essentially zero. Fundulids and the poecilid *Gambusia* also employ what has been called Aquatic Surface Respiration, or ASR, in response to low ambient dissolved oxygen levels. The fact that these species are adapted to extreme daily and seasonal fluctuations in dissolved oxygen is not surprising; dissolved oxygen (DO) concentrations in salt marsh pools show extreme diurnal variability, particularly in summer. DO levels in salt marsh pools in late summer can go from supersaturation (~20 mg/L) in mid-afternoon to near-anoxic the following morning.

Discussion

Fish were collected from seven sites at Turkey Point that could be impacted by construction of proposed Units 6 & 7. All fish collected were hardy species commonly found in estuarine habitats in south Florida. No rare, unusual, sensitive, or protected species were collected. Out of concern for resident American crocodiles, no entangling gear (gill nets, trammel nets, trap nets, hoop nets) was used, thus larger predatory species that might be in the cooling canal system (and have been collected by FPL biologists in the past) were not sampled (*Turkey Point Plant Annual Non-Radiological Environmental Monitoring Report 1980*). One additional species, the Atlantic needlefish (*Strongylura marina*), was observed in the return canal but not captured. The Atlantic needlefish is a common inhabitant of coastal waters from New England to the Florida Keys and west to Mexico.

The three fish species that numerically dominated collections in 2009 (sheepshead minnow, sailfin molly, and goldspotted killifish) were also the species most often collected by FPL in surveys of the Turkey Point cooling canal system over the 1975-1980 period (*Turkey Point Plant Annual Non-Radiological Environmental Monitoring Report 1980*). Because FPL biologists used gill nets (in addition to minnow traps), a number of larger-bodied fishes (e.g., grey snapper, bonefish, and snook) were also collected in the 1970s.

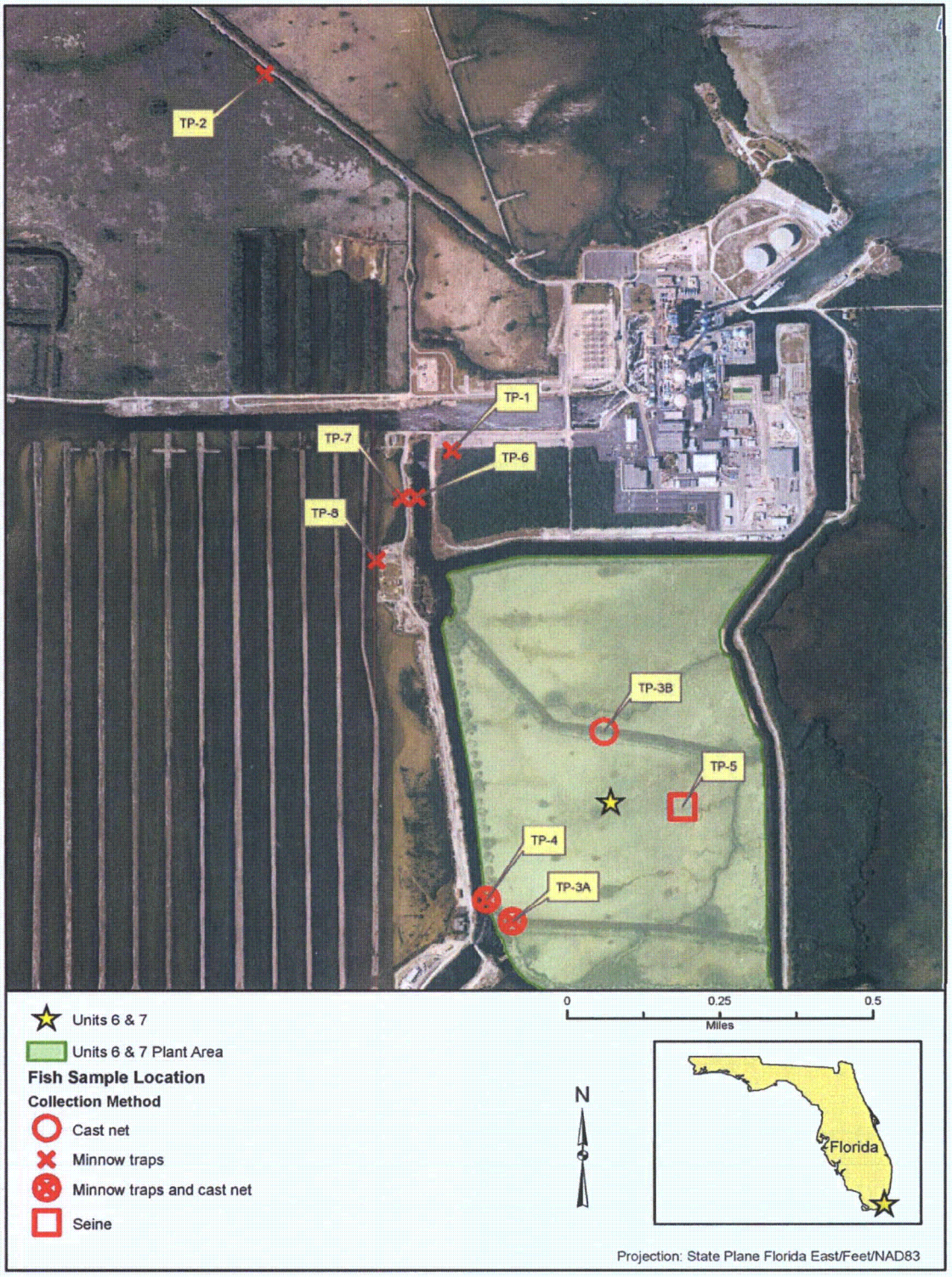

Figure 1. Fish Sample Locations (June 2009)

NRC RAI Letter No. 1105042 Dated May 04, 2011

SRP Section: EIS 02.04.02 – Aquatic Ecology

Question from Environmental Technical Support Branch

NRC RAI Number: EIS 02.04.02-3 (RAI 5704)

Provide the following technical report: Ecological Associates, Inc., October 2, 2009. "Turkey Point Benthic Study." Staff requests this information to characterize the baseline temporal and spatial distribution and abundance of important aquatic species on or adjacent to the Turkey Point property.

FPL RESPONSE:

The technical report *Turkey Point Benthic Study* (Ecological Associates, Inc., October 2, 2009) is available at http://publicfiles.dep.state.fl.us/Siting/Outgoing/FPL_Turkey_Point/Units_6_7/Completeness/Plant_Associated_Facilities/1st_round_Completeness/FPL_Response_1st_Incompleteness/Attached%20Reports/EAI/Report_Turkey%20Point%20Benthic%20Study.pdf (accessed June 8, 2011).

This response is PLANT SPECIFIC.

References:

None

ASSOCIATED COLA REVISIONS:

No COLA changes have been identified as a result of this response.

ASSOCIATED ENCLOSURES:

None

NRC RAI Letter No. 1105042 Dated May 04, 2011

SRP Section: EIS 02.04.02 – Aquatic Ecology

Question from Environmental Technical Support Branch

NRC RAI Number: EIS 02.04.02-4 (RAI 5704)

Describe the freshwater lens structure within the refugia ponds as well as physical structure and dimensions of the ponds, with special emphasis on those in the northern portion of the return canals. Provide data on the salinity of these ponds, with emphasis on the late summer portion of the year.

FPL RESPONSE:

The juvenile crocodile refugia, based on observations performed in 2008, are depicted on Figure 5.3-2 of ER Section 5.3, Revision 2, as detailed in ER Subsection 5.3.3.2.2. Several types of refugia have been used, including refugia in the test canals north of the cooling canals of the industrial wastewater system, ponds excavated on berms of the active canals and test cooling canals, refugia resulting of dredging of berms, refugia at the Everglades Mitigation Bank, and natural refugia outside of the cooling canals of the industrial wastewater system. The dimensions of these ponds are not measured. Currently, crocodile hatchlings are not released into the northern portions of the return canals. However, this habitat is still available for use by crocodile hatchlings and juveniles. As is depicted in the figure, the majority of juvenile crocodile refugia are south of the area of maximum salt deposition.

Salinity levels in these juvenile crocodile refugia vary depending on conditions such as seasonal rainfall and evaporation rates. Additionally, due to precipitation, a freshwater lens typically develops in these refugia during the late summer months, during the post-hatching period when exposure to low-salinity water is necessary. There have been no formal salinity measurements taken in the freshwater lens portion of the crocodile refugia.

This response is PLANT SPECIFIC.

References:

None

ASSOCIATED COLA REVISIONS:

No COLA changes have been identified as a result of this response.

ASSOCIATED ENCLOSURES:

None

NRC RAI Letter No. 1105042 Dated May 04, 2011

SRP Section: EIS 02.04.02 – Aquatic Ecology

Question from Environmental Technical Support Branch

NRC RAI Number: EIS 02.04.02-5 (RAI 5704)

Provide the following technical report: Ecological Associates, Inc., October 2009. "Species and Relative Abundances of Fish and Shellfish in the Vicinity of the Turkey Point Plant Based on Recent Collections." Staff requests this information to characterize the baseline temporal and spatial distribution and abundance of important aquatic species on or adjacent to the Turkey Point property.

FPL RESPONSE:

The technical report *Species and Relative Abundances of Fish and Shellfish in the Vicinity of the Turkey Point Plant Based on Recent Collections* (Ecological Associates, Inc., October 2009) is available at http://publicfiles.dep.state.fl.us/Siting/Outgoing/FPL_Turkey_Point/Units_6_7/Completeness/Plant_Associated_Facilities/1st_round_Completeness/FPL_Response_1st_Incompleteness/Attached%20Reports/EAI/Report_Turkey%20Point%20Summary%20Report.pdf (accessed June 8, 2011).

This response is PLANT SPECIFIC.

References:

None

ASSOCIATED COLA REVISIONS:

No COLA changes have been identified as a result of this response.

ASSOCIATED ENCLOSURES:

None

NRC RAI Letter No. 1105042 Dated May 04, 2011

SRP Section: EIS 02.04.02 – Aquatic Ecology

Question from Environmental Technical Support Branch

NRC RAI Number: EIS 02.04.02-6 (RAI 5704)

Provide the following technical report: Ecological Associates, Inc., August 2009. "Turkey Point Peninsula Seagrass Survey." Staff requests this information to characterize the baseline temporal and spatial distribution and abundance of important aquatic species on or adjacent to the Turkey Point property.

FPL RESPONSE:

The technical report *Turkey Point Peninsula Seagrass Survey* (Ecological Associates, Inc., August 2009) is available at http://publicfiles.dep.state.fl.us/Siting/Outgoing/FPL_Turkey_Point/Units_6_7/Completeness/Plant_Associated_Facilities/1st_round_Completeness/FPL_Response_1st_Incompleteness/Attached%20Reports/EAI/Report_Turkey%20Point%20Seagrass%20Report%20-%20Aug%202009%20Final.pdf (accessed June 8, 2011).

This response is PLANT SPECIFIC.

References:

None

ASSOCIATED COLA REVISIONS:

No COLA changes have been identified as a result of this response.

ASSOCIATED ENCLOSURES:

None

NRC RAI Letter No. 1105042 Dated May 04, 2011

SRP Section: EIS 02.04.02 – Aquatic Ecology

Question from Environmental Technical Support Branch

NRC RAI Number: EIS 02.04.02-7 (RAI 5704)

Provide the following technical report: HDR June 12, 2009. "Turkey Point Units 6 & 7 Roads and Bridges Conceptual Design Report." Staff requests this information to assess the potential impacts from the building of roads and bridges to support the building of Units 6 and 7.

FPL RESPONSE:

The technical report *Turkey Point Units 6 & 7 Roads and Bridges Conceptual Design Report* (HDR June 12, 2009) is available at http://publicfiles.dep.state.fl.us/Siting/Outgoing/FPL_Turkey_Point/Units_6_7/Completeness/Plant_Associated_Facilities/1st_round_Completeness/FPL_Response_1st_Incompleteness/Attached%20Reports/HDR/Roadway%20Design/Report_%20HDR_%20Roads%20%20Bridges%20Conceptual%20Design.pdf (accessed June 8, 2011).

This response is PLANT SPECIFIC.

References:

None

ASSOCIATED COLA REVISIONS:

No COLA changes have been identified as a result of this response.

ASSOCIATED ENCLOSURES:

None

NRC RAI Letter No. 1105042 Dated May 04, 2011

SRP Section: EIS 02.04.02 – Aquatic Ecology

Question from Environmental Technical Support Branch

NRC RAI Number: EIS 02.04.02-8 (RAI 5704)

Provide American Crocodile Monitoring Annual Reports from 2000 to present. Staff requests this information to characterize the baseline conditions that exist for the crocodile populations living on or adjacent to the Turkey Point property, and to assess the potential for impacts to this species.

FPL RESPONSE:

Eleven annual American Crocodile (*Crocodylus acutus*) monitoring reports, years 2000 – 2010, are enclosed with this response.

This response is PLANT SPECIFIC.

References:

None

ASSOCIATED COLA REVISIONS:

No COLA changes have been identified as a result of this response.

ASSOCIATED ENCLOSURES:

1. *American Crocodile Monitoring Report – 2000*
2. *American Crocodile Monitoring Report – 2001*
3. *American Crocodile Monitoring Report – 2002*
4. *American Crocodile Monitoring Report – 2003*
5. *American Crocodile Monitoring Report – 2004*
6. *American Crocodile Monitoring Report – 2005*
7. *American Crocodile Monitoring Report – 2006*
8. *American Crocodile Monitoring Report – 2007*
9. *American Crocodile Monitoring Report – 2008*
10. *American Crocodile Monitoring Report – 2009*
11. *American Crocodile Monitoring Report – 2010*

Attachment 8

Enclosure 1

Turkey Point Nuclear Plant Units 6 and 7
COL Application
Response to NRC RAI No. 2.4.2-8 (RAI 5704)

American Crocodile Monitoring Report – 2000
(FPL 2000)

(Enclosure = 3 Total Pages)

Florida Power & Light Company, P.O. Box 1565, Homestead, FL 33090-1565

FPL

December 12, 2000

Brian Millsap,Chief, Bureau of Wildlife Diversity Conservation
Division of Wildlife
Florida Fish and Wildlife Conservation Commission
620 S Meridian Street
Tallahassee, Florida, 32399-1600

Re: ACTIVITY REPORT FOR PERMIT #WX95031

Dear Mr. Millsap:

The following is a list of activities in which Florida Power and Light Company at the Turkey Point Nuclear Plant has engaged in pursuant to permit # WX98470.

In order to monitor crocodile activity at Turkey Point and known areas adjacent to the power plant, survey types are as follows:

Interceptor Ditch Survey
Night Survey
Nest Site Survey

In addition to the aforementioned surveys, miscellaneous observations of crocodile activity are recorded in the field notebook. Crocodiles are observed, captured, measured, weighed, marked, injected with an AVID microchip and released.

There were fifteen nests with 300 neonate crocodiles recorded in 1999, and seventeen nests with 298 neonate crocodiles recorded in 2000. All of the neonate crocodiles were captured, measured, weighed, marked, microchipped and released.

Alligators are also captured during crocodile monitoring surveys, measured, weighed, marked, microchipped and released.

In addition, weekly surveys are conducted during fall, winter and early spring months in order to monitor Indigo snake *Drymarchon corias couperi* activity. Captured individuals are measured, weighed, sexed and released.

Enclosed is a copy of the publication, Successful Nesting and Status of the American Crocodile *Crocodylus acutus* at the Turkey Point Power Plant in South Florida contained in the Proceedings of the 15th Working Meeting of the Crocodile Specialist Group Veradero, Cuba, 17-20 January, 2000 .

If you require additional information, please contact me at (305) 246-6713.

Sincerely,

Peter Hindes
Site Superintendent, actg
Turkey Point Land Utilization

Florida Power & Light Company, P.O. Box 1565, Homestead, FL 33090-1565

FPL

December 14, 2000

CTP/LU 00-084

Mr. Brian Millsap, Chief
Bureau of Wildlife Diversity Conservation
Florida Fish & Wildlife Conservation Commission
620 South Meridian Street
Tallahassee, FL. 32399-1600

RE: SPECIAL PURPOSE PERMIT
PERMIT NUMBER WX98470

Dear Mr. Millsap:

Please accept this letter as a request to renew the current permit number WX98470. As you may be aware, this permit is due to expire on 2 March 2001. As per Condition #5 of the current permit, please find enclosed the detailed report for all activities engaged in pursuant to this permit.

Please reissue the new Special Purpose permit with the following change: Mr. Don Miller is no longer with the Land Utilization Department, therefore I request that the permit be issued with Mr. Jim Lindsay as permit holder. Mr. Lindsay is currently working as an Environmental Specialist from our Juno Beach Offices, and he is very involved with this program, as well as with all endangered species around the FPL system.

If you should have any questions or concerns, please call Mr. Bob Bertelson at (305) 246-6166.

Sincerely,

Peter C. Hindes
Site Superintendent, Acting
Land Utilization

PCH/bb

Enclosures

cc: Winifred Perkins – FPL

Attachment 8

Enclosure 2

Turkey Point Nuclear Plant Units 6 and 7
COL Application
Response to NRC RAI No. 2.4.2-8 (RAI 5704)

American Crocodile Monitoring Report – 2001
(FPL 2003)

(Enclosure = 3 Total Pages)

Florida Power & Light Company, P.O. Box 1565, Homestead, FL 33090-1565

February 27, 2003

State of Florida Fish & Wildlife
Conservation Commission
620 South Meridian Street
Tallahassee, FL 32399-1600

To Whom It May Concern:

During the entire year of 2001, there were 70 surveys conducted at Turkey Point in order to monitor crocodile activity.

The breakdown of the surveys are as follows:

19- Interceptor Ditch Surveys
5- Nest Site Surveys
37- Night Surveys
9- Miscellaneous observations

Fourteen successful crocodile nests hatched in the cooling canal system, beginning with nest 0101 hatching on June 25, 2001 and ending with nest 0114 hatching on July 31, 2001. There were 227 hatchlings captured, measured, marked, micro-chipped and released.

Two alligators were captured, measured, marked and released, one on June 18, 2001, and the other on July 24, 2001.

Eleven crocodiles were captured, measured and released in the cooling canal system.

One crocodile was captured, measured, marked and released at the Cutler Plant.

Florida Power & Light Company, P.O. Box 1565, Homestead, FL 33090-1565

All of the scutes removed from the crocodiles were preserved and saved at Turkey Point for future DNA analysis.

One DOA crocodile was documented on October 26, 2001, and Angela Williams of Florida Fish & Wildlife Conservation Commission was notified.

If you have any questions, don't hesitate to call me at 305-246-6713.

Thank you,

Joseph Wasilewski
Environmental Specialist

Attachment 8

Enclosure 3

Turkey Point Nuclear Plant Units 6 and 7
COL Application
Response to NRC RAI No. 2.4.2-8 (RAI 5704)

American Crocodile Monitoring Report – 2002
(FPL 2003)

(Enclosure = 3 Total Pages)

Florida Power & Light Company, P.O. Box 1565, Homestead, FL 33090-1565

February 27, 2003

State of Florida Fish & Wildlife
Conservation Commission
620 South Meridian Street
Tallahassee, FL 32399-1600

To Whom It May Concern:

During January 1 through December 31, 2002, there were 77 surveys conducted at Turkey Point in order to monitor crocodile activity.

The breakdown of the surveys are as follows:

17- Interceptor Ditch Surveys
11- Nest Site Surveys
39- Night Surveys
10- Miscellaneous observations and/or surveys

Seventeen crocodile nests were successfully hatched throughout the cooling canal system, beginning with nest 0201 hatching on June 21, 2002 and ending with nest 0217 hatching on August 5, 2002. There were 291 hatchlings captured, measured, marked, micro-chipped and released.

Two alligators were captured, measured, marked and released, one on July 22, 2002 and the other on October 16, 2002.

Six crocodiles were recaptured, measured and released.

All of the scutes removed from the crocodiles were preserved and saved at Turkey Point for future analysis.

FPL

Florida Power & Light Company, P.O. Box 1565, Homestead, FL 33090-1565

If you have any questions, don't hesitate to call me at (305) 246-6713.

Thank you,

Joe Wasilewski

Environmental Specialist
Joseph Wasilewski

Attachment 8

Enclosure 4

Turkey Point Nuclear Plant Units 6 and 7
COL Application
Response to NRC RAI No. 2.4.2-8 (RAI 5704)

American Crocodile Monitoring Report – 2003
(FPL 2003)

(Enclosure = 3 Total Pages)

September 26, 2003

State of Florida Fish & Wildlife
Conservation Commission
620 South Meridian Street
Tallahassee, FL 32399-1600

To Whom It May Concern:

During 2003 (to date, 26 September) there were 62 surveys conducted at Turkey Point in order to monitor crocodile activity.

The breakdown of the surveys are as follows:

12- Interceptor Ditch Surveys
5 - Nest Site Surveys
37- Night Surveys
8 - Miscellaneous observations and/or surveys

Seventeen crocodile nests were successfully hatched throughout the cooling canal system. Nest 0301 hatched on June 24, 2003 and nest 0317 hatched on July 24. There were 295 hatchling crocodiles captured, measured, weighed, marked, micro-chipped and released.

One alligator and three crocodiles were captured, measured, marked and released.

All of the scutes removed from the crocodiles were preserved and saved at Turkey Point for future DNA analysis.

If you have any questions, don't hesitate to call me at (305) 246-6713.

Thank you,

Environmental Specialist
Joseph Wasilewski

Attachment 8

Enclosure 5

Turkey Point Nuclear Plant Units 6 and 7
COL Application
Response to NRC RAI No. 2.4.2-8 (RAI 5704)

American Crocodile Monitoring Report – 2004
(FPL 2004)

(Enclosure = 2 Total Pages)

September 15, 2004

State of Florida Fish & Wildlife
Conservation Commission
620 South Meridian Street
Tallahassee, FL 32399-1600

To Whom It May Concern:

During the entire year of 2004, there were 75 surveys conducted at Turkey Point in order to monitor crocodile activity.

The breakdown of the surveys are as follows:

- **18-Interceptor Ditch Surveys**
- **21- nest surveys**
- **19- night surveys**
- **17-miscellaneous**

18 successful crocodile nests hatched in the cooling canal system, beginning with nest 0401 hatching on 6/21/04 and ending with nest 0418 hatching on 7/19/04. There were 134 hatchlings captured, measured, marked, micro-chipped and released.

All of the scutes removed from the crocodiles were preserved and saved at Turkey Point for future DNA analysis.

One DOA crocodile was documented on 9/1/04 near palm drive adjacent to L-31

If you have any questions, don't hesitate to call me at 305-246-6713.

Thank you,

Joseph Wasilewski
Environmental Specialist

Attachment 8

Enclosure 6

Turkey Point Nuclear Plant Units 6 and 7
COL Application
Response to NRC RAI No. 2.4.2-8 (RAI 5704)

American Crocodile Monitoring Report – 2005
(FPL 2005)

(Enclosure = 26 Total Pages)

Florida Power & Light Company, Environmental Services Dept., P.O. Box 14000, Juno Beach, FL 33408

FPL

December 15, 2005

U.S. Fish and Wildlife Service
Atten: Permit Coordinator
1875 Century Blvd., Suite 200
Atlanta, GA 30345-3301

Dear Permit Coordinator;

Enclosed is the 2005 Annual Report for the Federal Fish and Wildlife Endangered Species permit. This report fulfills General Conditions K., L., and M., of permit number TE092945-0. The activities conducted under this permit are summarized below;

1. There were 176 adult crocodiles spotted during ID surveys conducted in October through March.
2. June through August there were 24 nests found during day and night time nesting surveys.
3. There were 282 hatchlings tagged.
4. Hatchling tissue samples (scutes) were sent to Dr. Michael Forstner at Southwest Texas State University. The DNA results from these samples are currently being reviewed.
5. Dataloggers were not inserted in the nests this year.

Joseph Wasilewski, who is authorized personnel on this permit, was invited to serve as a member of the IUCN SSC Crocodile Specialist Group. At this time we would like to request the following qualified personnel be added to the permit to assist with the permitted activities.

1. Jon Holderman – 7 years of experience at Turkey Point
2. Ben Enloe – Just under one year of experience at Turkey Point
3. Bob Bertleson - 7 years of experience at Turkey Point

The detailed activities conducted under this permit are summarized in the following report.

Please call if you need additional information 561-691-7065.

Sincerely,

Stacy M. Foster

Stacy M. Foster
FPL Environmental Specialist

Figure 1. Color Overview of the Turkey Point Cooling Canal System

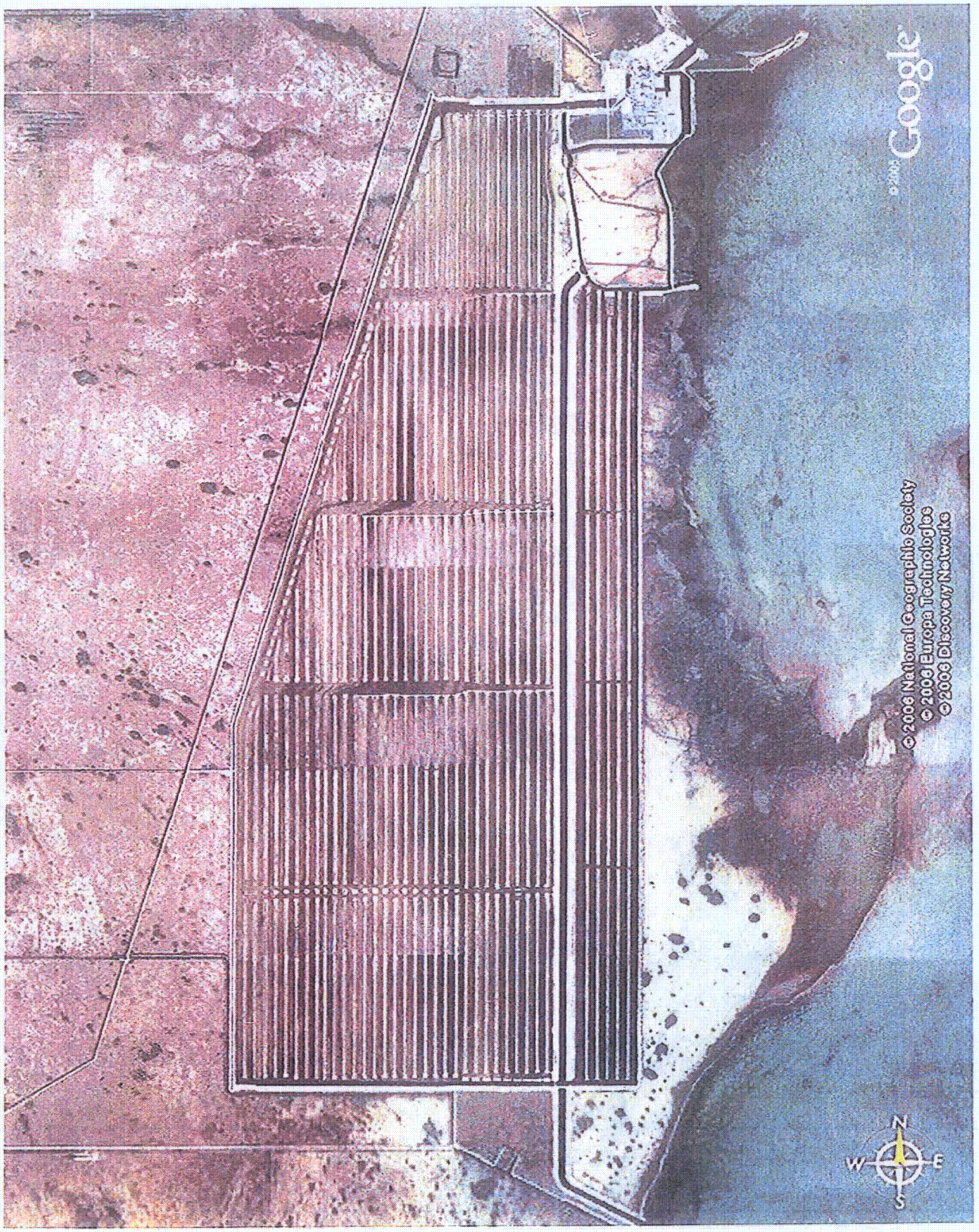

Figure 1. Color Overview of
Turkey Point Cooling Canals

Figure 2. Numbering and Identification System for the Turkey Point Cooling Canal

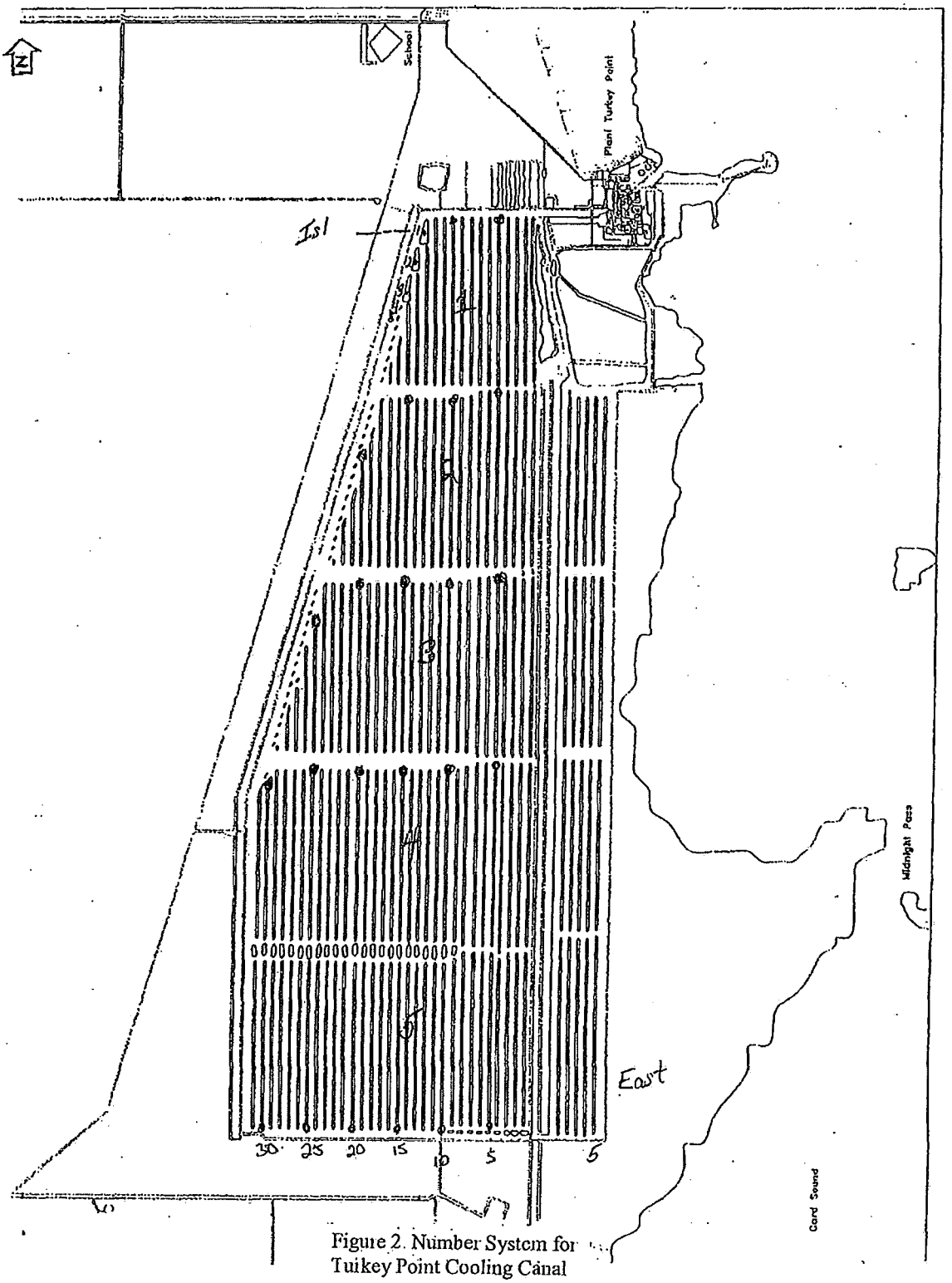

Figure 2. Number System for Tuikey Point Cooling Canal

Figure 3. Location of Nest on the Overview on the Turkey Point cooling Canal

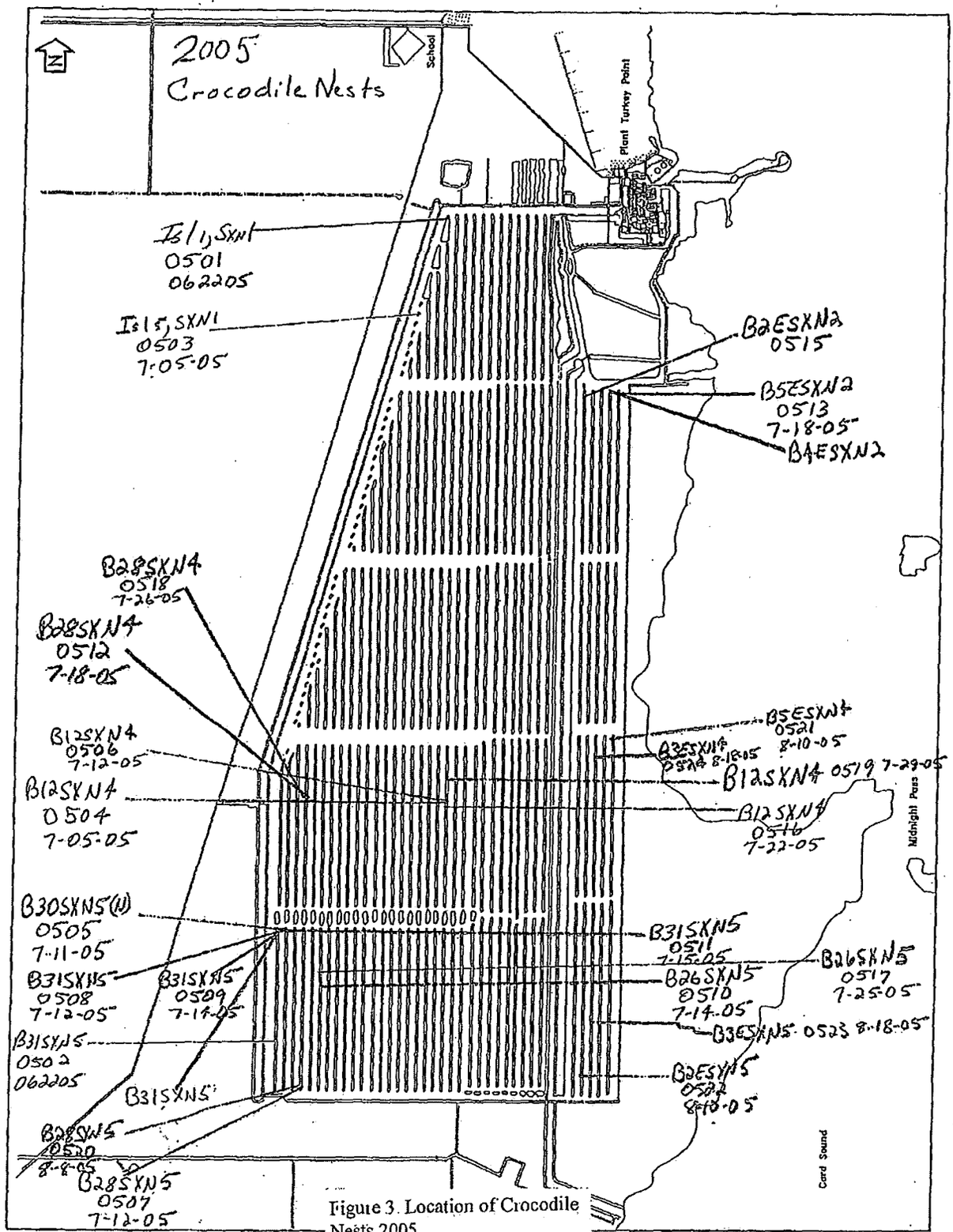

Figure 3. Location of Crocodile Nests 2005

Table 1. Location of Nest with Latitude and Longtitude

Crocodile Nest 2005				
Date	Nest Number	Berm Location	Latitude	Longtitude
6/22/2005	0501	Isl1,SXN1	25°25.983	80°20.895
6/22/2005	0502	B31SXN5	25°21.903	80°21.986
7/5/2005	0503	Isl5,SXN1	25°25.511	80°21.123
7/5/2005	0504	B12SXN4	25°22.878	80°20.957
7/11/2005	0505	B30SXN5	25°22.299	80°21.926
7/12/2005	0506	B12SXN4	25°22.878	80°20.958
7/12/2005	0507	B28SXN5	25°21.643	80°21.821
7/12/2005	0508	B31SXN5	25°22.282	80°21.981
7/14/2005	0509	B31SXN5	25°22.280	80°21.980
7/14/2005	0510	B26SXN5	25°22.148	80°21.698
7/15/2005	0511	B31SXN5	25°22.249	80°21.981
7/18/2005	0512	B28SXN4	25°22.869	80°21.817
7/18/2005	0513	B5ESXN2	25°25.049	80°19.949
7/18/2005	0514	BAESXN2	25°25.109	80°20.004
7/18/2005	0515	B2ESXN2	25°25.087	80°20.171
7/22/2005	0516	B12SXN4	25°22.868	80°20.965
7/25/2005	0517	B26SXN5	25°22.166	80°21.700
7/26/2005	0518	B28SXN4	25°22.870	80°21.815
7/29/2005	0519	B12SXN4	25°23.091	80°20.961
8/8/2005	0520	B28SXN5	25°21.641	80°21.820
8/10/2005	0521	B6ESXN4	25°23.290	80°19.651
8/10/2005	0522	B2ESXN5	25°22.029	80°20.117
8/18/2005	0523	B3ESXN5	25°22.821	80°20.075
8/18/2005	0524	B3ESXN4	25°23.759	80°20.102

Table 1. Location of Crocodile Nest 2005

Table 2. Crocodile Nest Survey Results

Crocodile Nest Survey 2005									
Date	Day or Night	Nest Number	Location of siting	Number Hatched	Number Unhatched	Number Dead	Number Infertile	Number Captured	Comments
5/11/2005	Day	Active Nest Site	B18SXN5						
6/22/2005	Day	0501	B11SXN1	16		1			
		0502	B31SXN5						No eggs found
	Night		B28SXN4						Only 1 active nest area
6/23/2005	Night		B28SXN5						Fresh Drag
			B28SXN4						Fresh Drag
			B26SXN5						Fresh Drag
6/24/2005	Night	Check all nest							No Crocodile siting
6/28/2005	Night		B31SXN5						Fresh Drag
			B30SXN5						Fresh Drag
			B26SXN5						Fresh Drag
6/29/2005	Day	Check all nest							
7/1/2005	Day	Recent Activity	B12SXN4(S)						
		Recent Activity	B28SXN4						
		Recent Activity	B26SXN5						
7/1/2005	Night	Check all nest							
7/5/2005	Day	0503	Isl5,SXN1	9			1		
		Recent Activity	B12SXN4(N)						
		0504	B12SXN4(S)	22			1	22	
		Recent Activity	B30SXN5(N)						
		Recent Activity	B28SXN4						
		Recent Activity	B31SXN5(N)						
		Recent Activity	B28SXN5(S)						
		Recent Activity	B18SXN5						
7/11/2005	Night	0505	B30SXN5(N)	19				19	
7/12/2005	Night	0504	B12SXN4(S)	3				3	
		0506		24				24	
	Night	0507	B28SXN5(S)	10					Could only find hatched eggs could not find hatchlings
		0508	B31SXN5(N)	1				1	I hatching found
		0508		14				14	Found in B30SXN5 Pond
7/14/2005	Night	0509	B31SXN5(N)	22			1	2	2 Hatchlings found

Table 2. Crocodile Nest Survey 2005

Crocodile Nest Survey 2005									
Date	Day or Night	Nest Number	Location of siting	Number Hatched	Number Unhatched	Number Dead	Number Infertile	Number Captured	Comments
		0510	B26SXN5	12		3		1	4 In process of hatching only 1 makes it
		0510	B26SXN5	6				6	Found 6 hatchlings
7/18/2005	Day	0511	B31SXN5(N)					1	Many hatchlings in the pond
		0512	B28SXN4						New nest
		0513	B5ESXN2						New nest
		0514	B4ESXN2						New nest
		0515	B2ESXN2					2	
7/19/2005	Night	0511	B31SXN5(N)					16	Captured in pond
		0515	B2ESXN5					18	Captured in pond
		0513	C3ESXN2					12	
		0514	B4ESXN2					14	Captured in pond
7/20/2005	Night		C26SXN5					2	
7/21/2005	Night		C26SXN5					4	
7/22/2005	Night	0516	B12SXN4	22		2			
7/25/2005	Night	0517	B26SXN4	9			2		
7/26/2005	Day	0518	B28SXN4	13			10		
7/28/2005	Night	0517	C26SXN5					9	
	Night		Isl31						
	Night		Isl30,B30,B31					38	
7/29/2005	Day	0519	B12SXN4(N)	15					
8/1/2005	Night		Isl5,4/5CUT					6	
8/4/2005	Night							8	
8/8/2005	Day	0520	B28SXN5(S)	16					
8/10/2005	Day	0521	B5ESXN(4)	16				26	Captured in pond
		0522	B2ESXN5(S)	12					
8/10/2005	Night	0512	C29SXN4					4	
		0518							
			Isl31,4/5CUT					7	
			C13SXN4					2	
8/13/2005	Night		SXN2N					6	
		0513	C5ESXN4					1	
			Isl31 4/5CUT					2	

Table 2. Crocodile Nest Survey 2005

Crocodile Nest Survey 2005									
Date	Day or Night	Nest Number	Location of siting	Number Hatched	Number Unhatched	Number Dead	Number Infertile	Number Captured	Comments
8/18/2005	Day	0523	B5ESXN5	7					
		0524	B3ESXN4	10					

Table 2. Crocodile Nest Survey 2005

Table 3. Log of Tagged Crocodiles

Tagged Hatchlings 2005									
Date	Nest Number	Tag Number	Snout Vent (cm)	Total Length (cm)	Head Length (cm)	Head Width (cm)	Weight (g)	Sex	Release Location
7/5/2005	0504	TP106568523	12.8	25.7	4.0	1.7	61.6	FEMALE	B12SXN4 Pond
		TP106593363	13.2	26.1	4.1	2.0	58.4	MALE	
		TP106568853	13.0	25.8	4.0	1.9	61.1	MALE	
		TP106572830	13.7	27.0	4.1	1.9	67.1	MALE	
7/6/2005	0504	TP052817819	13.5	27.0	4.1	1.9	66.2	FEMALE	
		TP106585535	12.0	24.2	3.7	1.7	43.6	FEMALE	
		TP106585563	13.5	26.7	4.2	1.9	63.7	MALE	
		TP106570286	13.6	26.7	4.1	1.9	61.7	FEMALE	
		TP106589824	13.4	27.0	4.1	1.9	68.6	MALE	
		TP106596639	13.1	26.4	4.1	1.9	60.1	MALE	
		TP106574033	13.4	26.5	4.1	1.8	63.6	FEMALE	
		TP106571125	13.3	26.1	4.2	2.0	65.1	MALE	
		TP106577619	13.5	26.4	4.1	1.9	63.1	FEMALE	
		TP106590790	12.5	24.8	3.9	1.8	58.6	MALE	
		TP106577779	13.6	26.6	4.1	1.8	70.8	MALE	
		TP106587323	13.7	27.3	4.2	1.9	68.3	MALE	
		TP106590805	13.4	26.4	4.1	1.8	66.5	FEMALE	
		TP106573589	12.9	26.1	4.0	1.9	63.2	FEMALE	
		TP106584838	13.6	25.5	4.0	1.8	64.6	FEMALE	
		TP106598059	13.5	26.1	4.1	1.8	60.6	MALE	
		TP106587354	12.8	25.8	4.0	1.8	65.2	MALE	
		TP106589038	13.0	25.5	4.0	1.8	59.2	MALE	
7/11/2005	0505	TP106567363	14.2	29.0	4.2	1.9	69.9	FEMALE	B12SXN4S Pond
		TP106585868	14.0	28.1	4.2	1.9	68.2	MALE	
		TP106585353	13.9	27.9	4.2	1.9	70.8	FEMALE	
		TP106594816	14.2	27.8	4.5	2.1	76.3	MALE	
		TP061558880	13.2	26.9	4.2	2.1	69.7	FEMALE	
		TP061608118	13.1	27.3	4.3	2.2	76.9	FEMALE	
		TP061623048	13.2	27.1	4.2	2.2	70.7	MALE	
		TP061377809	14.0	20.2	4.3	2.0	73.4	FEMALE	
		TP061608082	13.3	26.3	4.2	2.0	68.7	MALE	
		TP061525298	13.6	27.3	4.3	2.2	74.1	MALE	
		TP061372578	13.8	27.7	4.2	2.0	73.8	MALE	
		TP061595872	14.3	28.0	4.2	2.0	68.1	MALE	
		TP061516562	13.6	27.6	4.2	1.9	69.4	FEMALE	
		TP061364860	14.2	28.8	4.4	1.9	73.0	FEMALE	
		TP061617025	13.8	27.6	4.2	1.9	68.5	FEMALE	
		TP061369354	13.5	26.9	4.2	2.0	67.6	MALE	
		TP061515119	13.9	28.2	4.2	1.9	74.3	FEMALE	
		TP061578551	13.7	27.5	4.1	1.9	71.2	FEMALE	
		TP061364585	14.2	28.5	4.2	2.0	71.5	FEMALE	
7/12/2005	0504	TP061517514	14.3	28.4	4.2	1.9	73.5	MALE	B12SXN4N Pond
		TP061568349	13.5	26.6	4.1	1.9	60.6	FEMALE	
		TP061370804	13.9	27.5	4.2	1.9	68.7	MALE	
7/12/2005	0506	TP061596330	12.8	25.8	3.9	1.8	54.7	MALE	B12SXN4N Pond
		TP061636825	12.0	24.4	3.9	1.8	48.2	FEMALE	
		TP061381100	12.1	23.6	3.8	1.8	53.6	FEMALE	

Table 3. Tagged Crocodile Hatchlings 2005

Tagged Hatchlings 2005									
Date	Nest Number	Tag Number	Snout Vent (cm)	Total Length (cm)	Head Length (cm)	Head Width (cm)	Weight (g)	Sex	Release Location
		TP061599080	12.5	25.1	3.8	1.7	48.3	FEMALE	
		TP061573543	12.3	24.7	3.8	1.8	47.5	FEMALE	
		TP061595000	12.5	25.5	3.9	1.8	56.2	MALE	
		TP061547353	12.5	25.2	3.9	1.9	54.8	FEMALE	
		TP061596081	12.2	25.0	3.8	1.8	54.8	FEMALE	
		TP061796303	12.1	24.6	3.8	1.8	50.0	FEMALE	
		TP061514781	12.6	24.4	3.8	1.8	52.2	FEMALE	
		TP061535259	12.2	25.1	3.8	1.8	54.4	FEMALE	
		TP061519349	12.0	24.5	3.7	1.8	45.7	MALE	
		TP061369840	12.0	24.9	3.8	1.8	46.9	MALE	
		TP061379312	12.0	24.3	3.8	1.8	49.3	FEMALE	
		TP061373880	12.5	25.3	3.9	1.8	53.5	FEMALE	
		TP061373126	12.1	24.2	3.8	1.8	47.3	FEMALE	
		TP061573518	12.8	25.4	3.9	1.8	54.1	FEMALE	
		TP061378348	12.1	24.5	3.9	1.8	49.9	FEMALE	
		TP061608053	12.2	24.6	3.8	1.8	51.8	MALE	
		TP061549326	12.5	25.1	3.8	1.8	49.7	FEMALE	
		TP061643771	12.3	25.1	3.9	1.8	53.9	MALE	
		TP061769377	12.1	24.5	3.9	1.8	47.9	FEMALE	
		TP061367892	11.8	24.1	3.7	1.7	47.1	MALE	
		TP061806527	12.3	24.5	3.8	1.8	44.9	MALE	
	0508	TP061556089	13.7	26.5	4.1	1.9	66.8	FEMALE	B12SXN4N Pond
	0508	TP061538044	13.8	28.5	4.2	1.8			
		TP061538044	14.2	28.3	4.2	2.1	73.7		
		TP061634832	14.6	28.5	4.2	1.9	74.4		
		TP061383809	14.5	28.2	4.2	2.0	67.5	FEMALE	
		TP061769052	14.6	29.2	4.3	2.0	72.7	MALE	
		TP061623044	13.7	26.9	4.2	1.9	67.6	FEMALE	
		TP061565101	14.3	28.3	4.2	1.9	69.8	MALE	
		TP061602520	14.6	28.8	4.2	1.9	70.8	FEMALE	
		TP061371375	13.7	28.2	4.2	2.0	70.4	FEMALE	
		TP061571382	14.4	28.5	4.3	1.9	69.0	FEMALE	
		TP061560814	14.4	28.4	4.2	1.9	69.2	FEMALE	
		TP061634893	14.3	28.1	4.2	1.9	71.8	FEMALE	
		TP061370524	14.4	28.6	4.2	1.9	74.3	FEMALE	
		TP061375050	14.4	29.1	4.3	2.0	71.2	MALE	
		TP061578014	13.9	28.2	4.1	1.9	74.1	FEMALE	
7/14/2005	0509	TP061372307	12.7	25.1	4.0	1.9	60.4	FEMALE	
		TP061382341	12.6	25.1	3.1	1.9	59.7	FEMALE	
	0510	TP061529372	11.5	22.6	3.8	1.8	37.9	FEMALE	
		NOT TAGGED	11.3	22.4	3.7	1.7	36.8		
		NOT TAGGED	11.3	22.1	3.7	1.7	35.3		
		NOT TAGGED	11.8	22.4	3.8	1.8	38.5		
		NOT TAGGED	11.3	22.6	3.8	1.8	38.1		
		NOT TAGGED	11.6	22.5	3.7	1.8	38.7		
		NOT TAGGED	11.6	22.6	3.8	1.8	39.3		
7/18/2005	0515	TP061514853	13.9	27.5	4.2	2.1	70.0	FEMALE	

Table 3. Tagged Crocodile Hatchlings 2005

Tagged Hatchlings 2005									
Date	Nest Number	Tag Number	Shout Vent (cm)	Total Length (cm)	Head Length (cm)	Head Width (cm)	Weight (g)	Sex	Release Location
		TP061547797	14.1	27.9	4.2	2.0	67.5	FEMALE	
7/19/2005	0511	TP061559365	13.9	27.8	4.4	2.1	69.2	FEMALE	B31SXN5
		TP061559512	13.9	27.6	4.4	2.0	71.5	FEMALE	
		TP061379047	14.2	28.0	4.3	2.0	68.3	FEMALE	
		TP061377792	14.1	27.7	4.3	1.9	67.6	FEMALE	
		TP061548624	14.0	27.7	4.4	2.0	69.6	FEMALE	
		TP061559077	13.9	27.6	4.3	2.0	68.1	MALE	
		TP061536623	13.7	27.3	4.4	2.0	71.5	FEMALE	
		TP061514548	14.2	27.4	4.4	2.0	69.9	MALE	
		TP061773530	13.9	27.6	4.4	2.0	65.9	FEMALE	
		TP061594067	14.1	27.6	4.4	2.0	71.3	FEMALE	
		TP061631353	13.9	27.3	4.3	1.9	68.5	FEMALE	
		TP061538095	13.9	27.5	4.2	1.9	65.5	FEMALE	
		TP061542586	14.1	27.5	4.4	2.0	70.9	FEMALE	
		TP061377089	14.0	27.5	4.4	2.0	68.4	FEMALE	
		TP061563801	14.3	28.0	4.3	1.9	66.2	FEMALE	
		TP061565364	13.9	27.3	4.3	2.0	67.6	FEMALE	
	0515	TP061772326	12.6	25.5	3.9	1.9	47.3	MALE	B31SXN5
		TP061633583	12.8	25.5	4.0	3.9	50.7	MALE	
		NOT TAGGED	11.9	23.6	3.9	1.8	52.7	MALE	
		NOT TAGGED	10.5	16.2	3.7	1.7	36.8	FEMALE	
		TP061776831	12.1	24.1	3.9	1.8	46.6	MALE	
		TP061610299	12.6	24.6	4.0	1.9	47.8	MALE	
		TP061556578	13.0	25.2	4.1	1.9	47.1	MALE	
		TP061621300	12.2	24.1	3.9	1.8	44.4	FEMALE	
		TP061514378	12.3	24.0	4.0	1.8	43.8	MALE	
		TP061634036	11.7	23.0	4.0	1.8	38.6	MALE	
		TP061369865	12.3	25.0	4.0	1.8	53.6	FEMALE	
		TP061512861	12.5	24.8	4.0	1.9	49.6	MALE	
		TP061613890	12.3	24.1	3.9	2.0	44.9	FEMALE	
		TP061374599	11.8	23.5	3.9	1.9	48.0	MALE	
		TP061622526	11.8	23.1	3.8	1.8	39.8	MALE	
		TP061631628	12.9	22.3	4.1	1.9	51.6	MALE	
		TP061532560	12.3	24.3	3.9	1.8	46.9	MALE	
		TP061590298	12.5	24.1	3.9	1.9	47.0	MALE	
	0513	TP061369838	12.5	25.1	4.1	1.8	42.6	MALE	EFC POND
		TP061373092	13.5	26.3	4.1	1.9	47.1	MALE	
		TP061383794	13.4	26.6	4.1	1.9	47.4	MALE	
		TP061556342	13.3	26.0	4.1	1.9	44.3	MALE	
		TP061512360	13.1	26.2	4.0	1.8	48.2	MALE	
		TP061371109	13.7	27.3	4.2	1.8	50.4	MALE	
		TP061522540	12.4	24.7	4.0	1.8	36.7	MALE	
		TP061780890	13.8	27.2	4.2	2.0	51.5	MALE	
		TP061552877	13.4	26.1	4.1	1.9	42.3	MALE	
		TP061592086	14.0	27.5	4.2	1.9	53.0	MALE	
		TP061548108	13.5	26.5	4.1	1.9	50.5	MALE	
		TP061533619	13.5	26.5	4.1	19.0	49.9	MALE	

Table 3. Tagged Crocodile Hatchlings 2005

Tagged Hatchlings 2005									
Date	Nest Number	Tag Number	Snout Vent (cm)	Total Length (cm)	Head Length (cm)	Head Width (cm)	Weight (g)	Sex	Release Location
	0514	TP061639087	14.1	28.0	4.2	1.9	67.5	MALE	
		TP061524852	14.1	27.3	4.3	1.9	66.0	MALE	
		TP061620110	14.4	28.4	4.3	1.9	73.8	MALE	
		TP061382580	13.7	27.6	4.1	1.8	68.1	MALE	
		TP061639004	14.3	28.5	4.3	2.0	66.9	MALE	
		TP061788080	13.7	27.6	4.2	1.8	68.4	MALE	
		TP061517821	13.9	27.5	4.2	1.9	66.2	FEMALE	
		TP061535057	13.7	27.5	4.2	1.9	69.1	MALE	
		TP061521308	14.0	27.2	4.2	1.9	65.2	MALE	
		TP061523022	14.1	27.4	4.2	1.9	66.9	MALE	
		TP061585079	14.0	28.0	4.3	2.0	65.6	MALE	
		TP061597807	13.4	27.0	4.2	1.9	65.4	MALE	
		TP061637876	14.4	28.8	4.3	2.0	68.0	MALE	
		TP061582294	14.1	27.9	4.3	2.0	68.1	MALE	
		NOT TAGGED	12.7	25.1	3.9	1.8	36.6	FEMALE	
7/20/2005	N/A	TP061552521	11.7	23.2	3.8	1.8	33.9	FEMALE	
		TP061515012	11.6	23.0	3.9	1.8	3.6	FEMALE	
7/21/2005	N/A	TP061573272	13.0	26.1	4.3	2.0	57.4	MALE	B12SXN4N Pond
		TP061383319	15.2	29.1	4.5	2.0	68.8	FEMALE	
		TP061319087	13.9	27.7	4.0	1.9	55.2	MALE	
		TP061623556	15.2	31.0	4.6	2.0	69.5	MALE	
7/25/2005	0517	TP061556359	13.1	26.0	4.3	1.9	60.1	FEMALE	B12SXN4N Pond
		TP061523788	13.5	27.2	4.3	1.9	60.9	FEMALE	
		TP061567356	13.7	26.7	4.3	1.9	62.8	MALE	
		TP061569013	13.6	26.5	4.4	1.9	63.5		
		TP061594584	13.5	26.7	4.3	1.9	58.5	MALE	
		TP061555007	13.2	26.0	4.2	1.9	56.7	MALE	
		TP061553548	13.5	24.9	4.2	2.0	64.9	MALE	
7/28/2005	0517	TP061566025	13.6	26.7	4.3	2.0	61.4	MALE	B12SXN4(S)
		TP061567053	13.6	26.9	4.3	1.9	61.0	MALE	
		TP061580029	13.9	27.2	4.3	1.9	59.7	MALE	
		TP061620568	14.0	27.6	4.3	1.9	65.8	MALE	
		TP061376296	13.4	26.4	4.3	1.9	62.1	MALE	
		TP061633541	13.8	27.2	4.3	1.9	64.1	MALE	
		TP061379575	13.6	26.5	4.2	1.9	60.9	MALE	
		TP061546578	13.7	27.0	4.3	1.9	57.6	MALE	
		TP061516381	14.5	28.5	4.4	2.0	67.0	MALE	
		TP061633569	14.0	27.0	4.4	1.8	53.2	MALE	B31SXN4(S)
		TP061536350	15.9	30.9	4.6	1.9	76.1	MALE	
		TP061369548	15.6	30.5	4.6	2.0	77.2	MALE	
		TP061789592	14.0	27.8	4.5	2.0	56.6	MALE	
		TP061625033	15.5	30.7	4.7	2.0	70.0	MALE	
		TP061534579	14.3	28.0	4.4	1.8	57.2	MALE	
		TP061534811	14.2	28.4	4.4	2.0	55.6	MALE	
		TP061565296	15.7	30.6	4.6	2.0	74.7	MALE	
		TP061592380	14.0	27.5	4.4	1.8	53.2	FEMALE	
		TP061777117	14.0	27.6	4.3	1.9	55.1	MALE	

Table 3. Tagged Crocodile Hatchlings 2005

Tagged Hatchlings 2005									
Date	Nest Number	Tag Number	Snout Vent (cm)	Total Length (cm)	Head Length (cm)	Head Width (cm)	Weight (g)	Sex	Release Location
		TP061514317	15.5	30.7	4.8	2.0	82.6	FEMALE	
		TP061616028	13.9	27.6	4.3	1.8	53.7	MALE	
		TP061797307	15.5	30.4	4.6	2.0	79.7	MALE	
		TP061546345	13.6	27.5	4.3	1.9	50.5	MALE	
		TP061380264	15.6	30.4	4.6	2.0	71.6	FEMALE	
		TP061584555	14.3	28.6	4.4	1.9	58.7	FEMALE	
		TP061529627	15.1	29.9	4.5	2.1	73.6	FEMALE	
		TP061547572	15.8	31.5	4.7	2.1	78.0	MALE	
		TP061611848	14.1	28.2	4.5	1.9	56.7	MALE	
		TP061365516	14.2	28.1	4.4	1.9	58.5	MALE	
		TP061588835	15.5	30.9	4.7	2.0	70.1	MALE	
		TP061534009	14.1	27.7	4.4	1.9	54.7	FEMALE	
		TP061517320	14.1	27.5	4.4	1.9	48.6	MALE	
		TP061630378	15.6	30.3	4.6	2.0	71.0	MALE	
		TP061636577	15.2	30.6	4.6	2.0	70.3	MALE	
		TP061561114	15.8	31.5	4.7	2.0	74.9	MALE	
		TP061375054	15.9	30.7	4.7	2.0	73.1	MALE	
		TP061626891	15.1	30.0	4.7	2.0	73.2	FEMALE	
		TP061371571	15.2	30.3	4.6	2.0	72.1	MALE	
		TP061624024	14.1	27.6	4.5	1.9	55.7	MALE	
		TP061569114	15.3	30.5	4.7	2.0	72.2	MALE	
		TP061580334	14.2	28.1	4.4	2.0	60.4	MALE	
7/28/2005	Recapture	TP061514548	14.8	29.0	4.5	2.0	75.0	MALE	B31SXN5
	Recapture	TP061548624	14.7	29.1	4.5	2.0	73.5	MALE	
	Recapture	TP061369838	13.6	26.6	4.1	1.9	55.2	MALE	
	Recapture	TP061369865	13.8	26.8	4.2	1.9	50.1	MALE	
	Recapture	TP061613890	12.6	25.2	4.0	1.8	45.1	MALE	
	Recapture	TP061371109	14.6	28.7	4.4	1.9	59.3	MALE	
7/29/2005	0518	TP061526560	12.7	25.6	3.9	1.8	55.3	FEMALE	EFC POND
8/1/2005	Isl5,4/5cut	TP106591544	16.1	31.2	4.8	2.0	75.1	FEMALE	B29SXN4
		TP106582057	16.2	31.7	4.9	2.0	74.6	MALE	
		TP106514860	16.1	32.1	4.9	2.0	79.4	FEMALE	
		TP106567306	16.2	31.5	4.9	2.0	82.2	MALE	
		TP106582855	15.9	31.3	4.9	2.0	79.0	MALE	
		TP106566518	14.5	28.9	4.6	1.9	57.3	FEMALE	WFC POND
8/4/2005		TP106558377	17.0	33.1	5.1	2.1	96.9	MALE	WFC POND
		TP106586376	16.2	31.7	4.9	2.0	91.1	MALE	
		TP106569079	16.5	32.5	4.7	1.9	88.7	MALE	
		TP106588348	16.0	31.1	4.7	2.0	89.4	MALE	
		TP106578839	16.3	31.4	4.9	2.0	82.7	MALE	
		TP106568257	15.8	31.6	4.8	2.0	82.6	MALE	
		TP106569529	14.7	29.1	4.6	2.0	66.2	MALE	
		TP106566290	14.7	28.7	4.5	1.9	59.4	MALE	
8/10/2005	0521	TP106572278	13.2	26.5	4.1	1.8	57.2	MALE	C106
		TP106565577	13.7	27.6	4.4	1.9	63.4	MALE	
		TP106591607	13.5	27.6	4.3	1.9	49.5	MALE	
		TP106585576	12.7	25.3	4.0	1.8	40.3	MALE	

Table 3. Tagged Crocodile Hatchlings 2005

Tagged Hatchlings 2005									
Date	Nest Number	Tag Number	Snout Vent (cm)	Total Length (cm)	Head Length (cm)	Head Width (cm)	Weight (g)	Sex	Release Location
		TP106563521	13.9	27.9	4.3	1.9	54.1	MALE	
		TP106588611	13.7	27.4	4.2	1.9	58.6	MALE	
		TP106559341	13.4	27.2	4.1	1.9	55.4	MALE	
		TP106597325	13.6	27.3	4.1	1.9	56.6	MALE	
		TP106564554	13.6	26.5	4.2	1.9	54.9	FEMALE	
		TP106596338	13.8	27.4	4.2	1.9	60.8	MALE	
		TP106565108	13.6	27.3	4.2	1.9	55.4	MALE	
		TP106593547	14.0	27.7	4.3	1.9	61.2	MALE	
		TP106585352	14.3	27.7	4.2	1.9	56.1	MALE	
		TP106589776	13.6	27.4	4.1	1.9	56.7	MALE	
		TP106569044	14.1	28.1	4.4	1.9	58.7	MALE	
		TP106594879	13.3	26.5	4.1	1.9	58.5	MALE	
		TP106596040	13.3	26.4	4.0	1.9	54.0	MALE	
		TP106575109	13.5	27.0	4.1	1.9	56.2	MALE	
		TP106571027	13.6	27.4	4.2	2.0	54.1	FEMALE	
		TP106569358	13.9	28.1	4.2	1.8	60.5	MALE	
		TP106573366	13.4	26.4	4.1	2.0	56.3	MALE	
		TP106572107	13.2	26.3	4.1	1.9	55.3	MALE	
		TP106575530	13.4	26.2	4.1	2.0	55.8	MALE	
		TP106572575	13.5	26.7	4.2	1.9	55.8	MALE	
		TP106571085	13.0	25.5	4.1	1.9	53.8	MALE	
		TP106584597	13.6	27.5	4.2	1.9	60.0	MALE	
8/10/2005	0512&0518	TP106564376	15.0	30.0	4.6	2.0	68.6	FEMALE	B31SXN4(S) pond
		TP106587851	16.5	33.0	5.0	2.0	85.4	FEMALE	
		TP106576827	15.0	29.8	4.5	2.0	63.9	MALE	
		TP106594591	14.4	28.4	4.3	1.8	53.3	FEMALE	
		TP106591104	17.1	33.2	5.2	2.1	90.6	FEMALE	
		TP106587578	17.9	35.1	5.4	2.2	118.0	MALE	
		TP106575341	16.8	33.1	5.0	2.1	88.2	MALE	
		TP106578051	14.7	29.4	4.5	1.9	61.8	FEMALE	
		TP106572872	16.7	32.2	5.2	2.0	85.1	MALE	
		TP106572872	16.6	32.6	5.2	2.0	91.2	MALE	
		TP106577865	17.7	34.5	5.4	2.1	100.2	MALE	
		TP106591089	15.8	30.5	4.6	2.0	90.2	MALE	
		TP106560332	14.9	30.1	4.8	2.0	76.0	MALE	
8/13/2005		TP106569115	16.2	31.9	4.8	2.0	101.2	MALE	B29SXN4 pond
		TP106581803	16.8	33.4	4.9	2.0	97.8	MALE	
		TP106577851	15.5	30.1	4.7	1.9	73.3	MALE	
		TP106574000	14.7	29.4	4.5	1.9	69.3	MALE	
		TP106582345	14.4	28.7	4.5	2.0	59.2	FEMALE	
		TP106581615	14.7	28.9	4.5	1.9	55.3	MALE	
	0513	TP106576553	18.5	35.2	5.4	2.1	129.8	MALE	
		TP106561278	17.8	34.9	5.2	2.2	98.7	MALE	
		TP106566041	17.8	34.7	5.4	2.1	104.9	MALE	
10/5/2005		TP106582563	59.0	113.7	17.3	4.4	3700.0	FEMALE	
11/16/2005		TP106558609	25.0	44.3	7.2	3.8	310.6	MALE	
11/29/2005		TP106560340	20.3	39.5	6.1	2.3	175.7	MALE	

Table 3. Tagged Crocodile Hatchlings 2005

Table 4. Crocodile ID Survey Results

Crocodile ID Survey 2005								
Date	Day or Night	Crocodile sited	Location of siting	Tag Number & ID Number	Weight (kg)	Total Length	Sex	Release location
4/5/2005	Night	Yes	Test Cooling Canal			2 m		
4/9/2005	Day	Yes	Between new power block & Rd.	TP123913580A, 9RD, 4RD, 9LD, 2S	3.8	100.5 cm	Male	Canal 1 at 4/5 cut
5/5/2005	Day	Yes	Trough on new road	TP052589839 2,5,8RD-1LD,10,115	62.7	251.8 cm	Male	Canal 1 at 4/5 cut
5/11/2005	Day	Yes	C16SXN5			1.2 m		
5/20/2005	Day ID Survey	Yes (5)	SC ??			2-3 m		
		Yes (8)	E Bank			2-3 m		
		Yes (2)	Canal			2-3 m		
6/1/2005	Day ID Survey	Yes (6)	In SC			2-3 m		
		Yes (7)	E Bank			2-3 m		
6/14/2005	Day ID Survey	Yes (9)	E Bank			2-3 m		
6/16/2005	Day ID Survey	Yes (2)	Card Sound & LU Lab			2-3 m		
6/17/2005	Day ID Survey	Yes (2)	Canal			2.5 m		
		Yes (1)	E Bank			2-3 m		
6/18/2000	Day ID Survey	Yes	Card Sound Rd	TP126674391A 5LD-9RD-5,10S	9.5	150 cm	Male	Canal 1 at 4/5 cut
6/20/2005	Day ID Survey	Yes	On SC Raod in a puddle	TP047263296 7,9RD-6LD-1,10S	5.15	112.2 cm	Male	Canal 1 at 4/5 cut
6/28/2005	Night	Yes (4)	C27SXN4			2.25 m		
			C26SXN5			1.2 m		
			C29SXN5			3.5 m		
			C29SXN5 Captured and Tagged	TP052639021	0.595	59.6 cm	Female	At spot of Capture
7/1/2005	Night	Yes (2)	C28SXN4 Large under mangroves					
			C26SXN5 Under Mangroves					
7/5/2005	Night			TP106568523	61.6	25.7 cm		
7/6/2005	Night	Yes (5)	C29SXN5(S)			2.5 m		
			B18SXNN5			2.25 m		
			C3ESXN5			1.2 m		
			C12SXN4			1.0 m		
7/12/2005	Night	Yes	C325SXN5	TP047364781 8,9RD,1RD	2.9	89.9 cm	Female	

Table 4. Crocdile ID Survey 2005

Crocodile ID Survey 2005								
Date	Day or Night	Crocodile sited	Location of siting	Tag Number & Number	ID Weight (kg)	Total Length	Sex	Release location
7/14/2005	Night	No	Fresh Dags on B18SXN5 and B28SXN4					
7/15/2005	Day	Yes	B31SXN5(N)	Nest 0511 hatched				
7/20/2005	Night	Yes (1)	B18SXN5			2.25 m		
7/28/2005	Day		Fresh Dags on B18SXN5 and B28SXN4					
	Night	No						
7/29/2005	Day	Yes (5)	Crocodiles feeding on Tilapia					
8/8/2005	Day	Yes(3)	1 Dead Crocodile					
			2 next to carcass			3.0 m		
						2.5 m		
8/12/2005	Day	Yes (2)				3.0 m		
						2.5 m		
9/1/2005	Day	Yes (3)	C25SC			2.5 m		
			C27SC			2.75 m		
						2.75 m		
9/21/2005	Day		1 dead crocodile on causeway			104.5 cm		
9/30/2005	Day	Yes (9)	B15,SC			2.5 m		
			B24,SC			2.5 m		
			B28, SC			2.75 m		
			E bank			2.5 m		
			E bank in canal			2.5 m		
			E bank in canal			2.5 m		
			E bank by canal			2.25 m		
			E bank			2.5 m		
			WFC			3.25 m		
10/5/2005	Day	Yes (1)	Captured and tagged	TP106582563 5,9,10RD,1LD,7S		113.7 cm		
10/12/2005	Day	Yes (5)	C107			2.25 m		
			E Bank			2.75 m		
			E Bank			2.25 m		
			E Bank			2.25 m		
			E Bank			2.25 m		
10/1705	Day	Yes (6)	C107			3.0 m		

Table 4. Crocdile ID Survey 2005

Crocodile ID Survey 2005								
Date	Day or Night	Crocodile sited	Location of siting	Tag Number & Number	ID Weight (kg)	Total Length	Sex	Release location
			E Bank			2.25 m		
			E Bank			2.5 m		
			E Bank			2.5 m		
			E Bank			2.25 m		
			E Bank			2.5 m		
10/28/2005	Day	Yes (2)	C31,SC			3.0 m		
						2.75 m		
10/31/2005	Day	Yes (5)	WFC			3.5 m		
						3.75 m		
			B29			2.5 m		
			B30			2.5 m		
			B31			2.5 m		
11/1/2005	Day	Yes (7)	EFL			4.0 m		
			B29SC			2.5 m		
			South side					
11/2/2005	Day	Yes (11)	EFC			4.0 m		
			B29SC			2.5 m		
			B26SC			2.5 m		
			On Canal Bank			2.75 m		
			In Canal			3.25 m		
			E Bank			2.5 m		
			E Bank			2.5 m		
			E Bank			2.25 m		
			E Bank			2.5 m		
			NE Bank			2.75 m		
			NE Bank			2.5 m		
11/16/2005	Day		3&4 intake south	TP106558609		44.3 cm		
11/11/2005	Day	Yes (10)	B23SC			2.5 m		
			B26SC			2.75 m		
			8 on E Bank			2.5-3.0 m		
11/22/2005	Day	Yes (10)	C32SC			2.5 m		
			E Bank			2.5 m		
			Culverts			2.25 m		
			C-107			2.5 m		

Table 4. Crocdile ID Survey 2005

Crocodile ID Survey 2005								
Date	Day or Night	Crocodile sited	Location of siting	Tag Number & Number	ID Weight (kg)	Total Length	Sex	Release location
			C-107			2.0 m		
			W Bank			2.75 m		
			E Bank			3.25 m.		
			E Bank			2.75 m		
			W Bank			2.5 m		
			W Bank			2.0 m		
11/28/2005	Day	Yes (23)	B26SC			2.75 m		
			B26SC			2.5 m		
			B27SC			2.25 m		
			B31SC			2.5 m		
			C32,EID Rd			2.75 m		
			SID			2.75 m		
			11 on E Bank			2.25-3.25 m		
			C-107			2.75 m		
			C-107			3.0 m		
			In Canal			2.5 m		
			Line D			3.0 m		
			Line B			3.0 m		
			Line A			3.5 m		
11/29/2005	Day		Captured an Alligator			124.5 cm	male	
		Yes (1)	100 Yards E of fossil entrance	TP106560340		39.5 cm	male	
12/1/2005	Day	Yes (11)	B22SC			2.75 m		
			B28SC			2.5 m		
			B31SC			2.5 m		
			C-107			2.75 m		
			3 Crocodiles			2.75-3.0 m		
			W Bank			3.0 m		
			E Bank			2.5 m		
			W Bank			2.5 m		
			Canal			2.5 m		
			L-31 9 Alligators			1-3 m		

Table 4. Crocdile ID Survey 2005

Attachment 8

Enclosure 7

Turkey Point Nuclear Plant Units 6 and 7
COL Application
Response to NRC RAI No. 2.4.2-8 (RAI 5704)

American Crocodile Monitoring Report – 2006
(FPL 2006)

(Enclosure = 34 Total Pages)

FLORIDA POWER & LIGHT COMPANY

TURKEY POINT PLANT ANNUAL

AMERICAN CROCODILE (*Crocodylus acutus*) REPORT

PERMIT WS03357

2006

FPL

NUCLEAR DIVISION

FLORIDA POWER & LIGHT COMPANY

JUNO BEACH, FLORIDA

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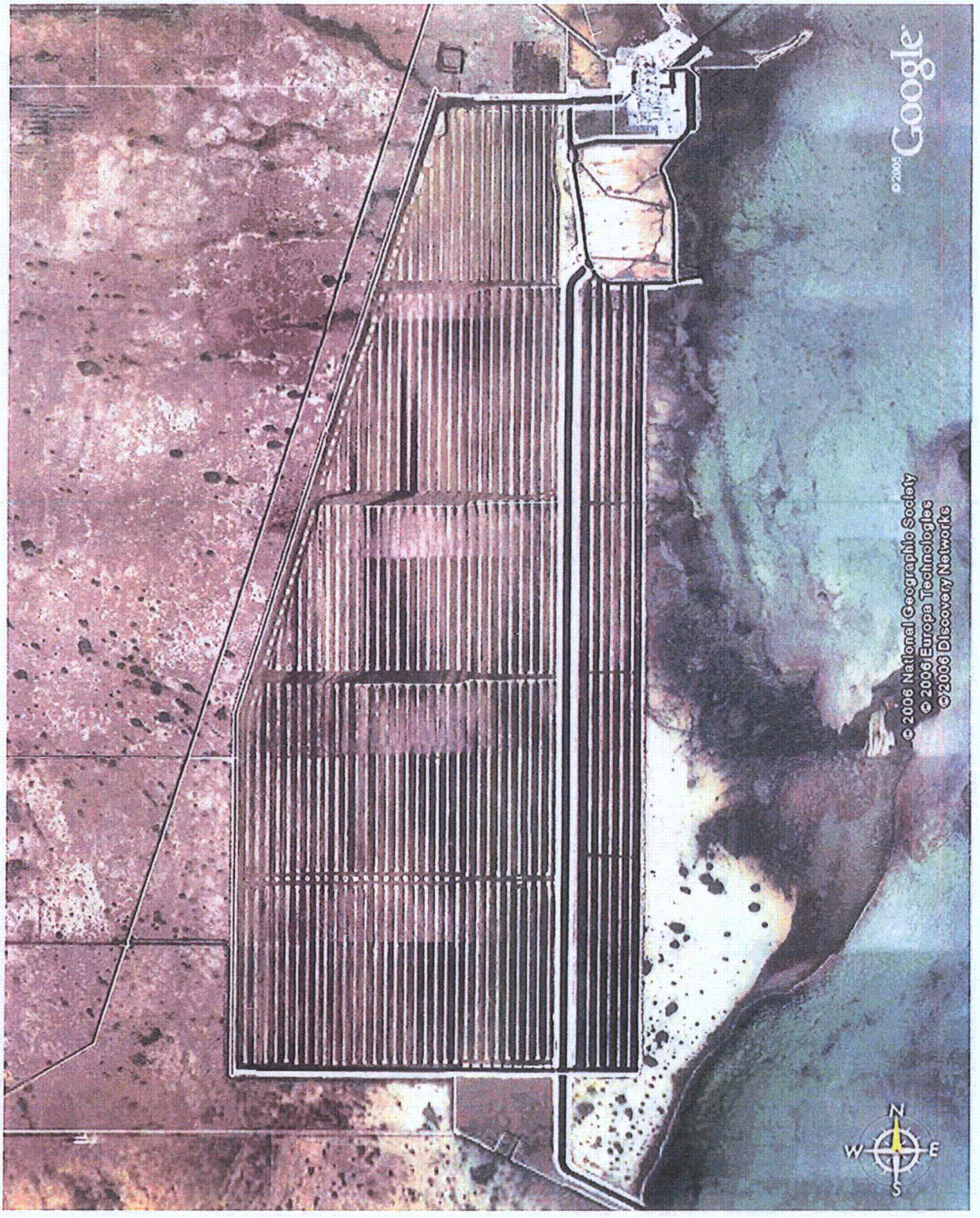

Figure 1. Color Overview of
Turkey Point Cooling Canals

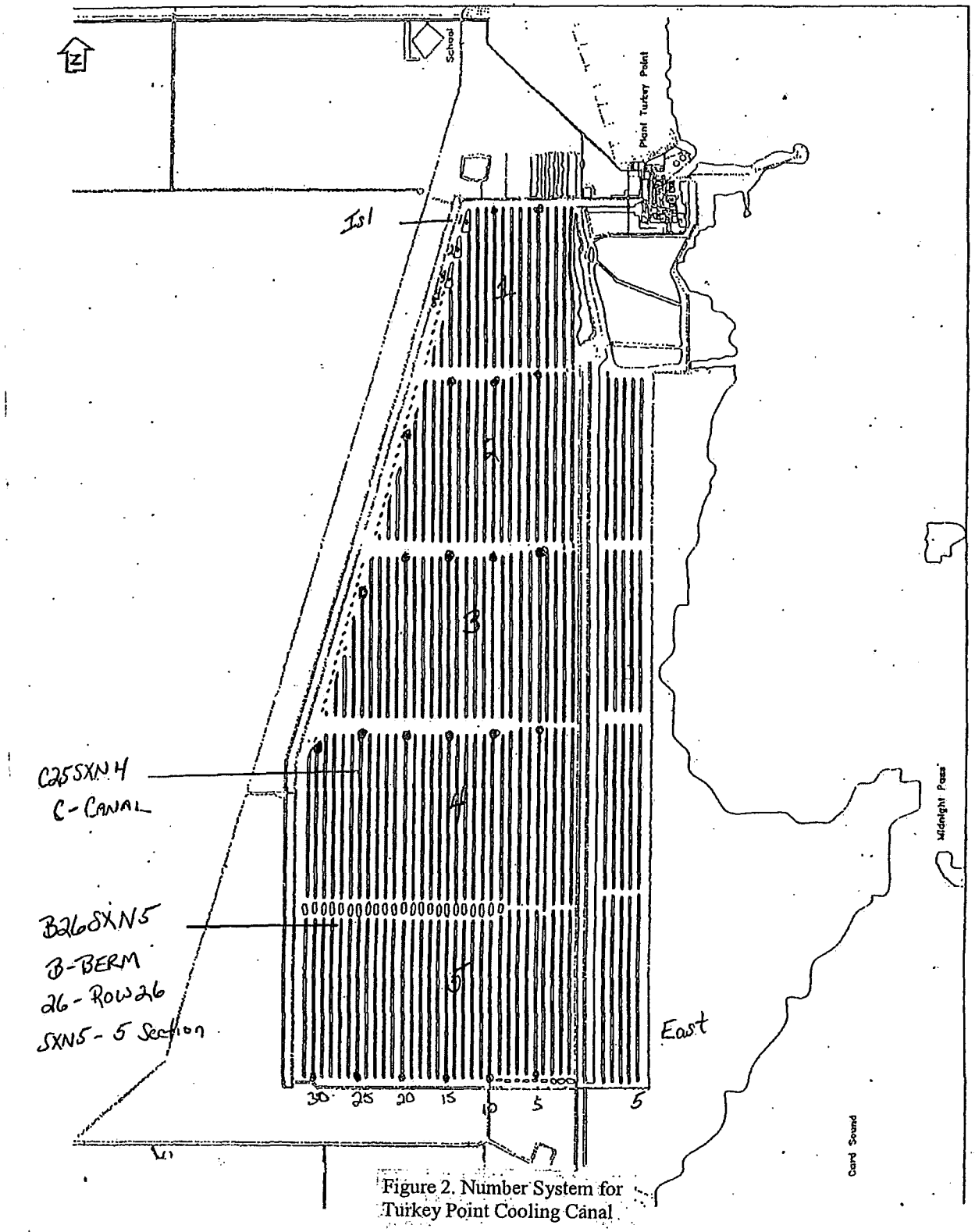

Figure 2. Number System for Turkey Point Cooling Canal

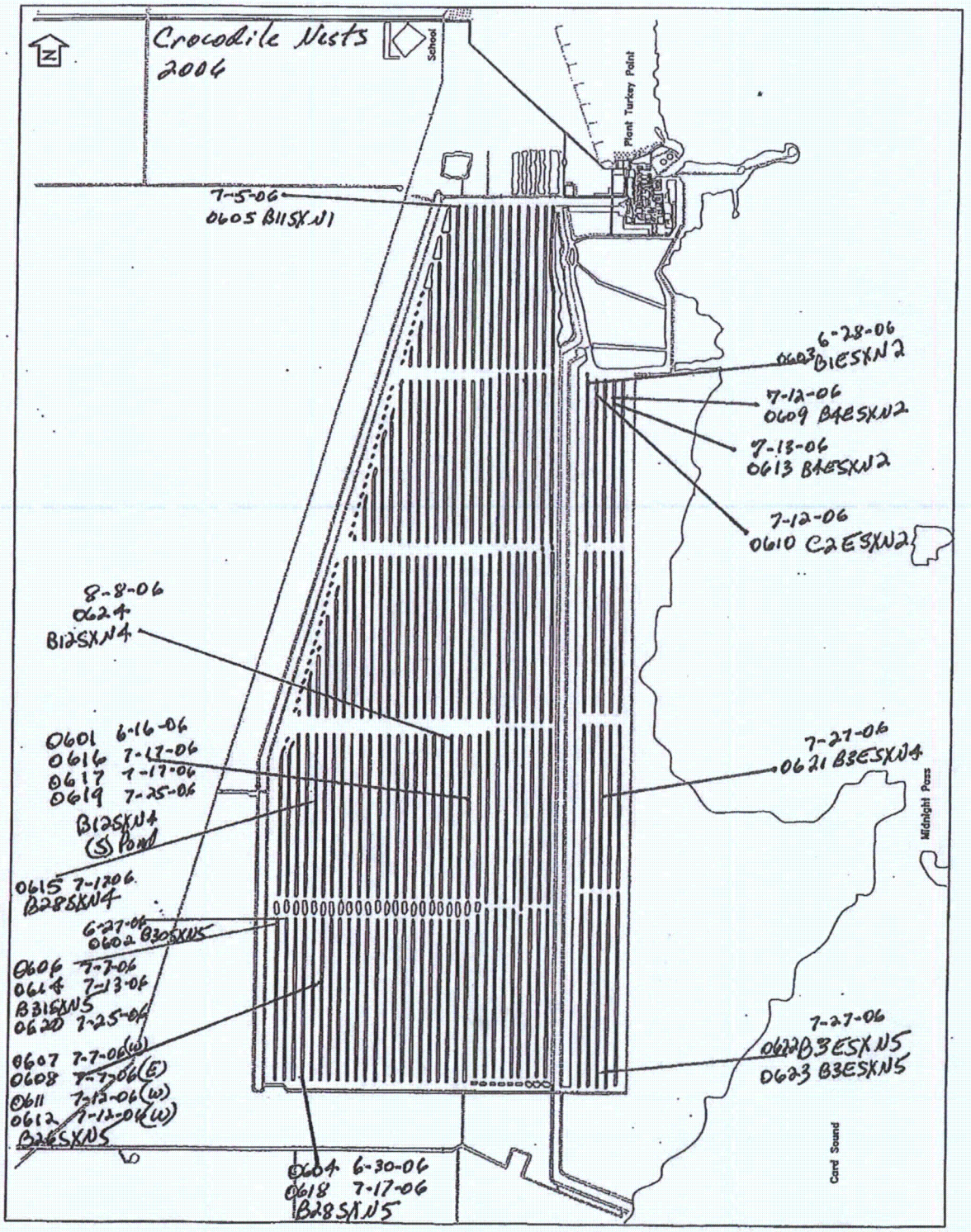

Figure 3. Location of Crocodile Nest 2006

Crocodile Nest 2006				
Date	Nest Number	Berm Location	Latitude	Longtitude
6/16/2006	0601	B12SXN4	25.38094	080.34953
6/27/2006	0602	B30SXN5	25.37114	080.36562
6/28/2006	0603	B1ESXN2	25.41769	080.33632
6/30/2006	0604	B28SXN5	25.36041	080.36390
7/5/2006	0605	B11SXN1	25.43259	080.34841
7/7/2006	0606	B31SXN5	25.37097	080.36646
7/2/2006	0607	B26SXN5	25.36897	080.36208
7/2/2006	0608	B26SXN5	25.36774	080.36205
7/12/2006	0609	B4ESXN2	25.41764	080.33351
7/12/2006	0610	B2ESXN2	25.41760	080.33538
7/12/2006	0611	B26SXN5	25.36800	080.36191
7/12/2006	0612	B26SXN5	25.36779	080.36205
7/13/2006	0613	B4ESXN2	25.38075	080.34962
7/13/2006	0614	B31SXN5	25.37104	080.33642
7/17/2006	0615	B28SXN4	25.38076	080.36382
7/17/2006	0616	B12SXN4	25.38099	080.34954
7/17/2006	0617	B12SXN4	25.38101	080.34952
7/17/2006	0618	B28SXN5	25.35987	080.36390
7/25/2006	0619	B12SXN4	25.38002	080.33469
7/25/2006	0620	B31SXN5	25.37008	080.36652
7/27/2006	0621	B3ESXN4	25.38001	080.33469
7/27/2006	0622	B3ESXN5	25.35874	080.33485
7/27/2006	0623	B3ESXN5	25.35871	080.33484
8/8/2006	0624	B12SXN4	25.38688	080.34966

Table 1. Location of Crocodile Nest 2006

Crocodile Nest Survey 2006									
Date	**Day or Night**	**Nest Number**	**Location of siting**	**Number Hatched**	**Number Unhatched**	**Number Dead**	**Number Infertile**	**Number Captured**	**Comments**
			Crocodile Nest Survey 2006						
Date	Day or Night	Nest Number	Location of	Number	Number	Number	Number	Number	Comments
3/30/2006	Day		B28SXN4						
			B26SXN5						2 sites
			B30SXN5						2 sites
			B31SXN5						5 sites
4/5/2006	Day		B26SXN5						
			B27SXN5						
			B30SXN5						
			B29SXN5						
			B31SXN5						
4/10/2006	Day		B18SXN5						2 sites
			B26SXN5						Many new scratches
4/12/2006	Day		B30SXN5						Another mound nest
			B2ESXN2						9 pre-nest holes
4/19/2006	Day		B3ESXN4						new nest
4/21/2006	Day		B3eESXN5						31 eggs
			B30SXN5 (N)						41 eggs
			B3ESXN5 (E)						15 eggs
6/16/2006	Night	601	B12SXN4	25			2	35	
6/27/2006	Night	602	B30SXN5 (N)	22	4	2	2	24	
6/28/2006	Night	603	B1ESXN2	6	4				
6/29/2006									Nothing to note
6/30/2006	Night	604	B28SXN5 (S)	24		1	3	1	
7/5/2006	Night	605	B10SXN1	20			1		Cannot locate hatchlings
7/7/2006	Night	606	B31SXN5 (N)					23	
		607	B26SXN5 (W)						
		608	B26SXN5(E)					8	
7/12/2006	Night	609	B3ESXN2					3	
		610	B1ESXN2					5	
		611	B26SXN5					30	

Table 2. Crocodile Nest Survey 2005

Crocodile Nest Survey 2006									
Date	Day or Night	Nest Number	Location of siting	Number Hatched	Number Unhatched	Number Dead	Number Infertile	Number Captured	Comments
		612	B26SXN5 (S)					30	
7/13/2006	Night	613	B4ESXN2 (S)					15	
		614	B31SXN5					3	
7/17/2006	Night	615	B28SXN4	15					
		616	B12SXN4 (S)	18					
		617	B12SXN4 (S)	13					
		618	B28SXN5(S)	20					
		619	B26SXN5					7	
7/25/2006	Night	620	B31SXN5 (N)					2	
7/27/2006	Night	621	B3ESXN4	24				33	
		622	B3ESXN5	4					622 and 623 next to
		623	B3ESXN5	22		2			
8/8/2206		624	B12SXN4 (N)						

Table 2. Crocodile Nest Survey 2005

Tagged Hatchlings 2006

Date	Nest Number	Tag Number	Snout Vent (cm)	Total Length (cm)	Head Length (cm)	Head Width (cm)	Weight (g)	Sex	Release Location	Capture Location
6/18/2006		TP106565084	12.5	25.1	4.1	1.9	58.4	FEMALE		
		TP106569073	12.5	23.8	4.0	1.8	49.7	MALE		
		TP106580629	12.2	24.4	4.0	1.9	53.6	MALE		
		TP106567126	13.0	25.9	4.0	2.0	55.8	FEMALE		
		TP106575849	12.7	25.5	4.0	1.9	55.0	FEMALE		
		TP106574260	13.1	26.2	4.1	1.9	58.5	MALE		
		TP106580308	12.8	26.0	4.0	1.9	57.4	MALE		
		TP106588311	13.2	26.7	4.0	2.0	59.0	FEMALE		
		TP106597125	12.8	25.6	4.0	2.0	57.1	FEMALE		
		TP106588022	13.8	26.9	4.1	1.8	56.0	MALE		
		TP106571582	12.5	25.4	4.1	2.0	58.9	FEMALE		
		TP106561054	12.5	24.7	4.0	1.9	54.1	MALE		
		TP106584316	12.8	25.7	4.0	1.9	54.9	FEMALE		
		TP106582524	12.9	25.7	3.9	1.9	56.2	FEMALE		
		TP106579575	12.3	24.6	4.0	1.8	55.3	FEMALE		
		TP106588366	13.0	26.0	4.0	1.9	57.9	FEMALE		
		TP106583525	13.1	26.3	4.0	1.9	65.0	FEMALE		
		TP106596862	12.7	26.0	4.1	1.9	54.6	MALE		
		TP106566608	13.1	25.9	4.1	1.9	56.1	FEMALE		
		TP106575014	12.6	25.1	4.0	1.9	54.6	FEMALE		
		TP106584025	13.0	25.7	4.1	1.9	54.5	FEMALE		
		TP106574358	12.8	25.9	4.0	1.9	56.6	FEMALE		
		TP106596894	13.1	26.4	4.1	1.9	60.4	MALE		
		TP106583267	13.2	26.3	4.0	1.9	53.8	MALE		
		TP106595296	12.6	25.2	3.9		56.2	FEMALE		
		TP106584124	13.1	26.2	4.0	2.0	60.5	FEMALE		
		TP106559609	13.0	25.9	4.0		56.7	FEMALE		
		TP106578011	12.8	25.4	4.1	1.9	54.8	MALE		
		TP106589565	12.9	25.6	4.0	1.9	55.6	MALE		
		TP106586028	12.5	25.1	4.1	1.9	58.5	MALE		
		TP104086082	12.6	25.2	3.9	1.8	53.0	FEMALE		
6/27/2006	0602	TP104307080	12.7	25.5	3.9	1.8	67.1	MALE		
		TP104033032	13.1	25.5	4.0	1.9	59.6	FEMALE		
		TP104263078	13.1	26.1	3.9	1.9	68.2	FEMALE		
		TP104337271	11.7	23.2	3.8	1.8	56.9	FEMALE		
		TP104107780	12.8	26.0	3.9	1.8	67.5	FEMALE		
		TP104206794	12.4	24.9	3.8	1.8	61.8	FEMALE		
		TP104261833	13.1	26.3	4.0	1.9	61.2	MALE		
		TP104306277	13.2	26.3	4.1	1.9	60.1	MALE		
		TP104048295	13.1	25.8	4.0	1.8	60.0	MALE		
		TP104095555	13.1	25.9	4.0	1.9	61.7	MALE		
		TP104306537	13.3	26.1	4.1	1.9	60.0	MALE		
		TP104034803	12.8	25.8	4.1	1.9	57.9	MALE		
		TP104048870	13.0	26.1	4.0	1.9	59.1	FEMALE		
		TP104538827	13.1	25.6	4.0	1.8	58.1	FEMALE		
		TP104123262	13.3	26.9	4.0	2.0	59.6	FEMALE		

Table 3. Tagged Crocodile Hatchlings 2006

Tagged Hatchlings 2006

		TP106562284	12.6	25.1	4.0	1.9	38.7	MALE		
7/12/2006	0610	TP106585575	14.1	28.2	4.2	2.0	69.0	MALE	WFC POND	B2ESXN2
		TP106570537	14.2	27.9	4.2	2.0	64.3	MALE		
		TP106563094	14.1	28.2	4.3	1.9	62.4	MALE		
		TP106579052	13.0	25.7	4.0	1.8	46.3	MALE		
		TP106588032	12.5	25.4	3.9	1.8	48.5	MALE		
7/12/2006	0611	TP106583012	13.0	24.7	4.2	2.0	65.5	FEMALE	SOUTH DADE POND	
		TP106581561	12.9	25.7	4.1	1.9	68.2	FEMALE		
		TP106594333	13.5	26.4	4.1	1.9	65.5	FEMALE		
		TP106576085	12.7	25.9	4.1	1.9	68.4	FEMALE		
		TP106560344	13.2	26.0	4.1	1.9	65.1	FEMALE		
		TP106587037	13.0	24.1	3.8	1.8	60.4	FEMALE		
		TP106586893	13.8	25.2	4.2	1.9	65.1	FEMALE		
		TP106590544	12.7	25.6	4.1	1.9	65.1	FEMALE		
		TP106581605	12.6	25.7	4.1	1.9	64.9	FEMALE		
		TP106572304	12.9	25.7	4.0	1.8	65.4	MALE		
		TP106575280	12.2	24.6	3.9	1.9	65.9	FEMALE		
		TP106570877	12.9	25.7	4.0	1.9	62.9	FEMALE		
		TP106595787	13.0	25.8	3.9	1.9	63.3	FEMALE		
		TP106583769	12.8	25.5	4.1	2.0	69.7	FEMALE		
		TP106590547	12.5	24.9	3.9	1.8	63.8	MALE		
		TP106574282	13.3	26.0	4.1	1.8	59.6	FEMALE		
		TP106569008	13.1	26.5	4.0	1.9	60.9	MALE		
		TP106588269	13.7	26.7	4.1	1.9	65.9	MALE		
		TP106571783	13.5	26.5	4.2	1.9	64.2	MALE		
		TP106565810	13.0	26.1	4.2	1.9	63.5	MALE		
		TP106573344	13.3	26.0	4.1	1.9	64.2	FEMALE		
		TP106574338	13.3	26.1	4.2	2.0	65.7	MALE		
		TP106576017	13.5	25.5	4.1	1.9	63.8	MALE		
		TP106595846	13.3	26.3	4.2	2.0	65.6	FEMALE		
		TP106564612	12.6	24.6	4.0	1.9	58.3	FEMALE		
		TP106585854	13.4	26.2	4.1	2.0	66.5	FEMALE		
		TP106579839	12.8	25.2	4.0	1.8	63.4	MALE		
		TP106561619	13.5	26.5	4.2	1.9	65.3	FEMALE		
		TP106588635	12.8	25.1	4.1	1.9	63.0	FEMALE		
		TP106597014	13.4	26.3	4.1	1.9	62.1	MALE		
7/12/2006	0612	TP106592866	13.5	26.6	4.0	1.9	65.4	MALE	S DADE POND	B26SXN5
		TP106572016	13.3	25.9	4.0	1.9	61.9	MALE		
		TP106587839	12.9	26.0	4.0	1.9	66.7	MALE		
		TP106571365	12.7	25.4	3.8	1.8	43.6	MALE		
		TP106598014	12.9	25.6	4.0	1.9	65.2	MALE		
		TP106567891	13.0	25.8	4.0	2.0	63.5	MALE		
		TP106574818	13.2	26.1	4.1	1.9	66.2	MALE		
		TP106585525	13.2	26.2	4.1	1.9	66.7	MALE		
		TP106582276	13.3	26.2	4.1	1.9	55.3	FEMALE		
		TP106563844	12.8	25.1	4.1	1.9	63.5	MALE		
		TP106576100	12.4	25.1	4.0	1.8	50.5	MALE		
		TP106593638	12.2	25.5	4.1	1.9	69.6	MALE		
		TP106572563	13.2	26.2	4.0	1.9	65.8	MALE		
		TP106561853	13.4	25.5	4.1	1.9	64.2	MALE		
		TP106572297	12.7	25.1	4.0	1.8	60.8	MALE		
		TP106575770	12.9	25.5	4.0	1.9	63.0	MALE		

Table 3. Tagged Crocodile Hatchlings 2006

Tagged Hatchlings 2006

		TP106597127	13.2	26.0	4.1	1.9	63.7	MALE		
		TP106566817	13.0	25.5	4.1	1.9	63.1	MALE		
		TP106586593	13.4	26.4	4.1	1.9	67.3	MALE		
		TP104333881	13.0	25.6	4.0	1.9	68.4	MALE		
		TP104315070	12.5	25.0	4.0	1.9	66.9	MALE		
		TP104264798	12.2	23.9	3.9	1.8	44.5	MALE		
		TP104008099	13.3	26.5	4.1	1.9	67.6	FEMALE		
		TP104304839	13.3	26.1	4.0	2.0	65.6	MALE		
		TP104009560	13.2	25.6	4.0	1.9	61.9	MALE		
		TP104267805	13.2	26.1	4.1	1.9	68.5	MALE		
		TP104123278	12.9	25.5	4.0	1.9	48.7	MALE		
		TP104051358	13.0	26.0	4.1	1.9	65.5	MALE		
		TP104331279	13.3	26.2	4.1	1.9	68.6	MALE		
		TP104109002	13.1	26.1	4.0	1.9	63.3	FEMALE		
		TP104071262	12.7	24.7	4.0	1.8	42.7	MALE		C1ESXN2
		TP104257541	13.6	27.1	4.1	1.9	54.3	MALE		C3ESXN2
		TP104266261	12.9	25.9	4.0	2.0	51.3	MALE		
		TP104336096	12.8	25.7	4.0	1.9	51.7	MALE		
		TP104265847	12.9	26.2	4.0	1.9	48.3	MALE		
		TP104256079	12.4	24.4	3.9	1.8	44.4	MALE		
		TP104027267	13.1	25.6	4.0	1.9	45.8	UK		
		TP104308794	12.4	25.3	3.9	1.9	48.1	MALE		
		TP104125856	13.1	25.9	4.0	1.9	49.8	MALE		
		TP104069270	12.3	24.1	3.9	1.8	43.5	MALE		
		TP104123521	12.5	25.0	4.0	1.9	47.2	MALE		
7/13/2006	0613	TP104051360	14.2	29.0	4.2	2.0	70.2	MALE	B12SXN4POND	B4ESXN2 S P
		TP104081280	14.4	29.1	4.2	1.9	62.6	MALE		
		TP104044786	13.9	27.7	4.2	1.9	65.2	MALE		
		TP104263585	14.4	28.5	4.3	2.0	69.3	FEMALE		
		TP104530368	14.4	28.0	4.2	1.9	66.4	MALE		
		TP104261639	13.8	27.8	4.2	2.0	64.3	MALE		
		TP104267312	14.4	27.5	4.3	1.9	64.7	MALE		
		TP104304328	14.4	29.0	4.3	2.0	65.7	UK		
		TP104009278	14.3	28.2	4.3	2.0	68.2	FEMALE		
		TP104262558	14.7	29.2	4.4	2.0	67.8	FEMALE		
		TP104304259	13.9	27.5	4.1	1.9	69.9	MALE		
		TP104259007	14.6	29.4	4.3	2.0	66.9	MALE		
		TP104271261	14.3	28.3	4.3	2.0	67.8	FEMALE		
		TP104263002	14.1	27.4	4.3	2.0	66.5	UK		
		TP104263565	14.1	28.1	4.2	2.0	66.7	MALE		
		TP104267079	13.6	27.4	4.2	2.0	66.2	MALE	B12SXN4NPOND	C26SXN5
		TP104021087	13.6	27.4	4.0	2.0	63.1	FEMALE		
		TP104041125	13.6	27.4	4.2	2.0	66.2	MALE		
		TP104331617	13.4	26.5	4.3	2.0	60.6	UK		
		TP104264583	13.9	27.9	4.3	2.0	64.6	UK		
		TP104087840	13.7	27.5	4.3	2.0	64.3	MALE		
		TP104331623	13.7	27.1	4.2	2.0	61.4	UK		
		TP104275538	13.2	25.9	4.0	1.9	64.0	MALE	B12SXN4N Pond	
		TP104077870	13.6	26.8	4.2	1.9	65.1	MALE		
		TP104063377	13.3	26.0	4.1	1.9	64.3	FEMALE		
		TP104009001	12.7	25.5	4.0	1.9	66.7	MALE		
		TP104264303	13.4	26.5	4.1	1.9	68.7	FEMALE		

Table 3. Tagged Crocodile Hatchlings 2006

Tagged Hatchlings 2006

		TP104053280	13.3	26.0	4.1	1.9	65.2	MALE		
7/13/2006	0614	TP104261525	13.5	27.1	4.2	1.9	56.9	FEMALE	B12SXN4NPOND	C32SXN5
		TP104533591	13.7	26.5	4.1	1.9	56.5	FEMALE		
		TP104008356	14.2	28.3	4.5	2.0	65.3	FEMALE		
		TP104011268	13.5	26.2	4..0	1.8	50.5	MALE		B26SXN5
7/17/2006	0615									B28SXN4
7/17/2006	0616									B12SXN4SPO
7/17/2006	0617									B12SXN4SPO
7/17/2006	0618									B28SXN5(S)
7/17/2006	0619									B26SXN5
		TP104258352	14.1	27.7	4.3	1.9	58.7	FEMALE		
		TP104124262	14.5	29.6	4.3	1.9	65.0	UK		
		TP104021308	14.1	28.1	4.0	1.9	63.4	FEMALE		
		TP104306571	14.3	27.8	4.3	1.9	60.5	FEMALE		
		TP104019076	14.7	29.2	4.4	2.0	67.2	FEMALE		
		TP104259002	13.8	27.1	4.3	1.9	60.4	FEMALE		
		TP104082827	14.5	28.6	4.4	1.9	68.8	UK		
		TP104258595	13.9	27.8	4.4	1.9	56.2	MALE		
		TP104111579	14.1	28.1	4.3	2.0	61.3	FEMALE		
		TP104331111	13.3	26.5	4.0	2.0	50.5	MALE		
		TP104259351	14.2	28.0	4.4	1.9	64.2	FEMALE		
		TP104051844	12.7	25.1	4.0	2.0	51.6	FEMALE		
		TP104108791	13.7	26.7	4.2	1.9	56.6	UK		
	Recaptur	TP104303361	15.1	29.8	4.7	2.0	64.3	MALE		
	Recaptur	TP106583113	15.0	29.5	4.6	1.9	62.9	MALE		
	Recaptur	TP106584124	15.6	31.0	4.7	2.0	73.4	MALE		
	Recaptur	TP106578591	15.5	30.4	4.7	2.0	64.7	MALE		
	Recaptur	TP106561054	14.6	29.0	4.6	2.0	60.9	MALE		
		TP104276005	12.4	24.5	3.9	1.8	35.6	MALE		C14SXN4
		TP104025841	13.7	27.2	4.2	1.9	68.5	MALE		
	Recaptur	TP106583267	15.3	30.2	4.5	2.0	69.2	MALE		
		TP104258779	15.4	29.9	4.7	1.9	68.6	UK		
7/17/2006	YOY	TP104250552	23.6	46.1	7.4	2.5	193.5	FEMALE		
		TP104016542	13.9	27.9	4.4	1.9	65.0	MALE	B12SXN4NPOND	C26&C27SXN
		TP104259010	13.2	26.3	4.3	1.9	64.4	FEMALE		
		TP104263079	13.7	26.6	4.3	1.9	66.1	MALE		
		TP104034081	13.7	27.6	4.3	1.9	65.9	FEMALE		
		TP104034117	13.9	28.2	4.3	1.9	58.5	FEMALE		
		TP104515257	13.8	28.3	4.4	2.1	66.5	FEMALE		
		TP104263371	13.3	28.4	4.2	2.0	64.8	MALE		
		TP101309256	14.7	29.1	4.2	2.1	65.9	FEMALE		
		TP104124064	14.2	28.1	4.4	2.0	65.4	FEMALE		
		TP104278560	14.3	28.5	4.4	1.9	61.1	FEMALE		
		TP104114028	14.2	28.6	4.5	1.9	59.0	FEMALE		
7/20/2006		TP104083073	14.2	28.4	4.3	1.9	63.1	MALE		C27SXN5
		TP104258090	13.5	27.0	4.1	1.8	44.3	MALE		
		TP104027534	13.8	27.4	4.3	1.9	60.0	MALE		
		TP104315344	13.8	27.0	4.3	1.9	47.8	MALE		
7/25/2006		TP104267353	15.0	29.1	4.6	1.9	59.5	MALE		
		TP104347089	15.1	30.3	4.5	1.9	67.0	MALE		
		TP104303827	14.2	27.5	4.2	1.9	66.5	MALE		
		TP104320829	13.0	26.1	4.1	8.1	51.6	MALE		

Table 3. Tagged Crocodile Hatchlings 2006

Tagged Hatchlings 2006

		TP104306023	13.9	27.4	4.2	1.9	51.7	MALE		
		TP104077774	13.7	26.6	4.2	1.9	63.6	MALE		
		TP104342099	13.0	26.2	4.1	1.8	48.8	FEMALE		
7/25/2006	0620	TP104125623	14.2	27.6	4.4	2.0	69.9	FEMALE		B31SXN5(N)
		TP104028519	14.0	28.3	4.5	2.0	71.0	FEMALE		
		TP104022772	14.9	29.2	4.4	1.9	63.8	FEMALE		C29SXN5
7/27/2006	0621									B2ESXN4
7/27/2006	0622									B3ESXN5
7/27/2006	0623									B3ESXN5
		TP104082786	12.8	25.4	4.0	1.8	46.4	MALE	B30SXN4 SPOND	C3ESXN4
		TP104065040	1301.0	25.6	4.0	1.9	48.9	MALE		
		TP104013609	11.5	23.5	3.8	1.7	36.3	UK		
		TP086099087	12.5	25.1	4.1	1.8	47.7	MALE		
		TP086099346	12.6	25.5	4.1	1.8	50.4	MALE		
		TP086100101	12.9	26.0	3.9	1.8	47.4	UK		
		TP086098853	12.6	26.1	4.0	1.9	47.3	MALE		
		TP086099622	12.6	25.1	4.1	1.9	46.1	MALE		
		TP086099079	13.2	26.1	4.1	1.9	49.5	MALE		
		TP086098570	12.3	25.4	4.0	1.9	45.6	MALE		
		TP086099524	11.7	23.5	3.9	1.8	39.1	UK		
		TP086100353	12.7	24.6	4.0	1.9	44.9	MALE		
		TP086099590	13.0	25.5	4.1	1.9	49.6	MALE		
		TP086100057	12.7	25.2	4.0	1.8	43.8	UK		
		TP086099882	12.3	23.8	3.9	1.8	40.9	MALE		
		TP086100351	12.8	25.3	4.1	1.8	48.8	MALE		
		TP086099620	12.0	23.9	4.0	1.9	43.3	MALE		
		TP086098813	12.4	24.9	4.1	1.9	42.8	MALE		
		TP086098567	12.4	24.9	4.0	1.9	41.6	MALE		
		TP086099563	12.4	25.7	4.0	1.9	40.3	UK		
		TP086098573	12.1	23.5	4.0	1.8	37.2	MALE		
		TP086098590	11.7	23.1	3.9	1.8	35.0	MALE		
		TP086100294	13.1	25.2	4.2	1.8	50.2	MALE		
		TP086805311	12.8	25.1	4.0	1.9	45.8	MALE		
		TP086100534	12.0	24.0	4.0	1.8	40.4	MALE		
		TP086100518	13.3	25.9	4.1	1.9	47.0	FEMALE		
		TP086100046	12.0	23.6	3.9	1.8	39.1	MALE		
		TP086807263	12.1	23.2	3.9	1.8	36.2	MALE		
		TP086098377	12.2	24.0	4.0	1.8	42.6	MALE		
		TP086098594	13.0	26.0	4.1	1.9	49.4	MALE		
		TP086098553	12.9	25.6	4.1	1.9	47.2	MALE		
		TP086098850	12.9	25.8	4.0	1.8	46.8	MALE		
		TP086805359	11.9	23.8	3.9	1.8	36.1	MALE		
7/27/2006		TP086100045	13.1	25.9	4.2	1.8	51.3	MALE	B30SXN4 SPOND	
		TP086099632	13.6	26.5	4.3	1.9	54.9	MALE		
		TP086099854	13.4	26.3	4.2	1.8	53.6	MALE		
		TP086098513	13.5	26.2	4.2	1.9	52.4	MALE		
		TP086100053	13.1	25.9	4.0	1.9	50.4	MALE		
		TP086098582	13.3	26.3	4.2	2.0	51.3	UK		
		TP086099118	14.3	27.9	4.3	1.8	52.2	UK		
		TP086609885	12.9	25.1	4.0	1.9	46.7	UK		
7/31/2006		TP086100020	15.2	29.9	4.6	2.0	69.1	MALE		C29SXN4
		TP086122894	15.0	29.6	4.5	1.9	61.9	MALE		

Table 3. Tagged Crocodile Hatchlings 2006

Tagged Hatchlings 2006

		TP086100107	15.1	28.5	4.6	2.0	64.2	MALE		
		TP086099526	14.6	29.2	4.5	1.8	62.5	MALE		
		TP086099626	15.1	29.9	4.6	1.9	66.2	MALE		
7/31/2006		TP086100257	13.5	26.2	4.3	2.0	57.9	FEMALE		C26SXN5
		TP086098520	13.8	26.9	4.4	2.0	63.4	FEMALE		
		TP086098891	13.9	27.2	4.4	1.9	61.0	MALE		
		TP086099554	13.7	27.0	4.3	1.9	68.2	MALE		
		TP086099541	14.1	27.2	4.5	2.0	69.2	MALE	B30SXN4 SPOND	C32SXN5
		TP086099826	15.4	30.6	4.7	2.0	78.2	MALE		
7/31/2006	Recaptur	TP104308794	14.2	28.3	4.5	2.0	58.8	UK		
8/2/2006		TP086099351	13.6	26.6	4.3	1.9	55.6	MALE		
		TP086099313	12.9	25.5	4.2	1.9	41.7	MALE		
		TP086098519	14.6	28.2	4.5	1.9	62.6	MALE		
		TP086806603	13.1	25.9	4.1	1.8	43.9	MALE	B30SXN4 SPOND	
8/2/2006		TP086100281	15.8	31.0	4.8	2.0	80.9	MALE	B12SXN4 NPOND	
		TP086099355	15.3	30.5	4.7	2.0	69.9	MALE		
		TP086099805	15.3	30.3	4.5	2.0	75.4	MALE		
		TP086100300	15.9	31.6	4.9	2.1	88.8	MALE		
		TP086099372	15.8	30.8	4.9	2.0	80.3	MALE		
8/2/2006		TP086100312	13.7	27.0	4.3	1.8	57.1	FEMALE	B12SXN4 NPOND	C26SXN5
		TP086099611	13.7	27.0	4.2	2.0	58.7	MALE		
		TP086099894	14.5	28.5	4.5	2.0	68.4	MALE		
		TP086098843	14.3	27.6	4.3	2.0	62.7	FEMALE		
		TP086098603	13.6	26.6	4.4	2.0	60.3	FEMALE		
8/2/2006		TP086806287	15.6	30.5	4.6	2.0	65.2	MALE	B12SXN4 NPOND	C29SXN4
		TP086099577	14.9	29.9	4.5	2.0	64.2	MALE		
		TP086100024	15.0	29.2	4.5	2.0	65.3	MALE		
		TP086099037	15.1	29.2	4.6	2.0	63.3	MALE		
		TP086100378	39.7	75.7	11.6	3.2	1400.0	FEMALE		
8/9/2006		TP086805315	14.7	28.5	4.5	1.9	55.0	MALE		
		TP086806545	13.4	26.1	4.1	1.8	44.0	FEMALE	C-106	EAST SIDE G
8/9/2006		TP086098378	15.2	29.6	4.8	2.0	72.1	MALE	C-106	
		TP086099324	15.6	31.0	4.9	2.0	66.7	MALE		
		TP086100108	16.3	32.5	5.0	2.0	81.2	UK		

Table 3. Tagged Crocodile Hatchlings 2006

Crocodile ID Survey 2006

Date	Day or Night	Crocodile sited	Location of siting	Tag Number & ID Number	Weight (kg)	Total Length	Sex	Release location
1/2/2006	Day	18	B22SC			2.5 m		
			B26SC			2.25 m		
			B27SC			2.25 m		
			B28SC			1.2 m		
			B31SC			2.5 m		
			B31SC			3.0 m		
			B31SC			3.0 m		
			B31SC			2.75 m		
			E Bank (0.05 mi)			2.5 m		
			E Bank (0.1 mi)			2.5 m		
			E Bank (0.2 mi)			2.5 m		
			C-107 (0.5 mi)			2.0 m		
			C-107 (0.55 mi)			3.0 m		
			C-107 (0.6 mi)			2.5 m		
			C-107 (0.7 mi)			2.5 m		
			E Bank			3.25 m		
			E Bank (1.0 mi)			2.5 m		
			L-31 4 Crocs			uknown		
1/5/2006	Day	26	B23SC			2.5 m		
			B26SC			3.0 m		
			B31SC			3.0 m		
			B31SC			2.75 m		
			B31SC			2.5 m		
			E Bank (0.1 mi)			2.5 m		
			E Bank (0.15 mi)			2.5 m		
			E Bank (0.3 mi)			3.0 m		
			E Bank (0.35 mi)			2.5 m		
			C-107			2.5 m		
			C-107 (0.6 mi)			2.5 m		
			C-107 (0.65 mi)			3.0 m		
			C-107 (0.7 mi)			2.5 m		
			E Bank (1.0 mi)			2.5 m		
			E Bank (1.2 mi)			2.25 m		
			L-31			2.5 m		

Table 4. Crocodile ID Survey 2006

Crocodile ID Survey 2006

			L-31			2.75 m		
			L-31			3.25 m		
			L-31			2.5 m		
			L-31			3.25 m		
			W Bank (1.9 mi)			2.5 m		
			W Bank (2.0 mi)			3.25 m		
			W Bank (2.7 mi)			2.25 m		
			W Bank (2.8 mi)			2.5 m		
			W Bank (4.1 mi)			2.5 m		
			Canal (4.3 mi)			2.25 m		
1/17/2006	Day	18	B17			2.5 m		
			B17			2.5 m		
			B17			2.0 m		
			B22			2.5 m		
			B26			2.5 m		
			B26			2.75 m		
			B30			1.5 m		
			B31			3.0 m		
			B31			2.75 m		
			B31			2.5 m		
			B31			2.5 m		
			B31			2.5 m		
			E Bank (0.4 mi)			2.5 m		
			E Bank (0.7 mi)			3.25 m		
			E Bank (1.0 mi)			2.25 m		
			E Bank (1.3 mi)			2.5 m		
			W Bank (2.0 mi)			2.75 m		
			Canal (3.7 mi)			2.5 m		
1/27/2006	Day	14	B26SC			2.5 m		
			B28SC			2.5 m		
			B31SC			2.0 m		
			B31SC			2.0 m		
			B31SC			2.0 m		
			B31SC			2.0 m		
			B31SC			2.0 m		
			B31SC			3.0 m		
			C-107			2.75 m		

Table 4. Crocodile ID Survey 2006

Crocodile ID Survey 2006

			E Bank (0.2 mi)			2.5 m		
			E Bank by cave (1.0 mi)			2.25 m		
			center of canal (1.9 mi)			2.75 m		
			W Bank (5.5 mi)			2.5 m		
			BISXN4			2.0 m		
1/31/2006	Day	28	B26SC			2.5 m		
			B27SC			2.75 m		
			B28SC			2.5 m		
			B28SC			2.25 m		
			B31SC			2.5 m		
			B31SC			2.5 m		
			B31SC			2.5 m		
			B31SC			2.25 m		
			B31SC			2.75 m		
			B31SC			2.5 m		
			C32SC			3.0 m		
			E Bank (50 m N OF SID)			2.5 m		
			C-107 (0.05 mi)			2.0 m		
			C-107 (0.1 mi)			3.0 m		
			E Bank (0.15 mi)			2.5 m		
			E Bank (20 m N)			2.5 m		
			C-107			1.75 m		
			Manatees in C-107					
			E Bank (0.2 mi)			2.5 m		
			E Bank (0.25 mi)			2.5 m		
			C-107 (0.5 mi)			2.5 m		
			E Bank (0.6 mi)			2.5 m		
			E Bank (0.75 mi)			3.25 m		
			C-107 (0.75 mi)			2.75 m		
			E Bank (1.3 mi)			2.0 m		
			E Bank (1.4 mi)			2.5 m		
			E Bank (1.6 mi)			3.0 m		
			E Bank (1.9 mi)			2.5 m		
2/7/2006	Day	24	B22SC			3.0 m		
			B26SC			3.0 m		
			B26SC			2.5 m		
			B31SC			2.5 m		

Table 4. Crocodile ID Survey 2006

Crocodile ID Survey 2006

			B31SC			2.5 m		
			B31SC			2.5 m		
			B31SC			2.5 m		
			B31SC			2.5 m		
			B31SC			2.75 m		
			C32SC W bank			2.25 m		
			E Bank (0.1mi)			2.5 m		
			E Bank (0.2mi)			2.5 m		
			C-107 (0.2 mi)			2.5 m		
			C-107 (0.4 mi)			2.5 m		
			C-107 (20 m N)			3.0 m		
			C-107 (0.6 mi)			2.75 m		
			C-107 (0.7 mi)			2.5 m		
			E Bank (1.8 mi)			2.5 m		
			E Bank (1.9 mi)			2.75 m		
			E Bank (20 m N)			2.5 m		
			E Bank (2.2 mi)			2.5 m		
			Canal (3.1 mi)			2.5 m		
			center of canal (3.5 mi)			2.25 m		
			L-31			2.75 m		
			L-31			3.0 m		
			L-31			2.5 m		
			L-31			3.75 m	Male	
			L-31			2.5 m	Female	
			C32 @ S end of B3ISXN4			3.75 m		
2/9/2006	Day	39	5 adult crocs in B30SC			unk		
			7adult crocs in B31SC			unk		
			9 in C-107			unk		
			12 in ID			unk		
			6 in L-31			unk		
2/14/2006	Day	23	B26SC			2.75 m		
			B26SC			2.5 m		
			B30SC			2.5 m		
			C31SC			2.5 m		
			C31SC			3.0 m		
			B31SC			2.25 m		
			B31SC			2.25 m		

Table 4. Crocodile ID Survey 2006

Crocodile ID Survey 2006

			B31SC			2.5 m		
			B31SC			2.5 m		
			B31SC			2.5 m		
			E Bank (0.1 mi)			2.5 m		
			C-107 (0.15 mi)			2.25 m		
			E Bank (0.2 mi)			2.5 m		
			E Bank (0.25 mi)			2.5 m		
			C-107 (0.3 mi)			2.5 m		
			E Bank (0.35 mi)			2.5 m		
			C-107 (0.5 mi)			2.75 m		
			C-107 (0.7 mi)			2.75 m		
			E Bank (1.0 mi)			2.5 m		
			unknown			3.25 m		
			W Bank (1.9 mi)			2.75 m		
			center of canal (5.4 mi)			2.5 m		
			W Bank (5.5 mi)			2.5 m		
2/21/2006	Day	34	B20SC			3.5 m		
			B26SC			2.5 m		
			B27SC			2.25 m		
			B28SC			2.0 m		
			C30SC			2.5 m		
			B30SC			2.5 m		
			B30SC			3.0 m		
			B31SC			2.5 m		
			B31SC			2.5 m		
			B31SC			2.5 m		
			B31SC			2.5 m		
			B31SC			3.0 m		
			B31SC			3.0 m		
			B31SC			2.75 m		
			B31SC			2.0 m		
			E Bank (0.1 mi)			2.5 m		
			E Bank (0.15 mi)			2.75 m		
			E Bank (20 m N)			2.5 m		
			E ID Rd (0.3 mi)			2.75 m		
			E Bank (0.35 mi)			2.5 m		
			C-107 (0.35 mi)			2.5 m		

Table 4. Crocodile ID Survey 2006

Crocodile ID Survey 2006

			C-107 (0.7 mi)			3.5 m		
			center of canal (0.9 mi)			3.5 m		
			E Bank (1.0 mi)			2.5 m		
			C-31 (L-31)			2.75 m		
			C-31 (L-31)			2.75 m		
			C-31 (L-31)			2.75 m		
			1 gator C-31 (L-31)			2.75 m		
			E Bank (1.9 mi)			unk		
			center of canal (2.0 mi)			2.5 m		
			center of canal (2.5 mi)			2.0 m		
			center of canal (2.8 mi)			2.25 m		
			E Bank (2.9 mi)			2.5 m		
			unknown			3.25		
3/14/2006	Day	29	B11SC			2.5 m		
			B19SC			3.75 m		
			B25SC			2.25 m		
			B28SC			2.5 m		
			B29SC			2.5 m		
			B29SC			3.0 m		
			B30SC			2.5 m		
			B30SC			2.75 m		
			C31SC			3.5 m		
			B31SC			2.5 m		
			B31SC			2.5 m		
			B31SC			1.5 m		
			B31SC			2.25 m		
			C32SC			2.5 m		
			SID			2.25 m		
			C-107 50m N of curve			2.5 m		
			C-107 50m N of curve			2.5 m		
			E Bank (0.1 mi)			2.5 m		
			20m North			3.5 m		
			20m North			2.5 m		
			C-107 (0.2 mi)			2.5 m		
			E Bank (0.3 mi)			2.5 m		
			E Bank (1.0 mi)			2.5 m		
			center of canal (1.2 mi)			2.75 m		

Table 4. Crocodile ID Survey 2006

Crocodile ID Survey 2006

			E Bank (1.8 mi)			3.5 m		
			E Bank (2.7 mi)			2.25 m		
			NID (5.5 mi)			5.5 m		
			L-31			3.0 m		
			L-31			2.5 m		
3/20/2006	Day	26	C13SC			2.5 m		
			C14SC swimming in center of canal			3.5 m		
			C16SC			2.5 m		
			B26SC			2.5 m		
			B27SC			2.5 m		
			B27SC			2.5 m		
			B28SC			2.5 m		
			B30SC			2.25 m		
			B30SC			2.5 m		
			B31SC			4.0 m		
			B31SC			1.75 m		
			C-107 (0.05 mi)			2.5 m		
			C-107 (0.1 mi)			2.25 m		
			C-107 (0.15 mi)			2.5 m		
			E Bank (0.2 mi)			2.5 m		
			E Bank (0.55 mi)			2.5 m		
			far bank (0.55 mi)			1.5 m		
			far bank (0.55 mi)			2.0 m		
			far bank (0.70 mi)			3.75 m		
			E Bank (1.0 mi)			2.5 m		
			E Bank in canal (1.4 mi)			3.0 m		
			E Bank (1.6 mi)			2.5 m		
			E Bank in canal(1.6 mi)			3.0 m		
			E Bank (1.8 mi)			2.5 m		
			E Bank (2.0 mi)			2.5 m		
			E Bank (2.1 mi)			2.25 m		
5/9/2006	Day	21	9 crocs in SID			unknown		
			50 m N of SID			2.5 m		
			E Bank (20m N)			3.75 m		
			E Bank (20m N)			2.5 m		
			E Bank (0.3 mi)			2.5 m		
			E Bank (0.7 mi)			2.5 m		

Table 4. Crocodile ID Survey 2006

Crocodile ID Survey 2006

			E Bank (1.1 mi)			2.5 m		
			E Bank (1.2 mi)			2.25 m		
			center of canal (30m N)			3.75 m		
			E Bank (1.6 mi)			2.5 m		
			E Bank (1.8 mi)			3.25 m		
			E Bank (2.5 mi)			2.25 m		
			NID (5.4 mi)			unknown		
5/16/2006	Day	16	B25SC			2.5 m		
			B26SC			2.5 m		
			B24SC			2.5 m		
			B27SC			2.5 m		
			B29SC			3.5 m		
			B30SC			3.0 m		
			C-107 (0.1 mi)			2.5 m		
			E Bank (0.25 mi)			2.5 m		
			E Bank (0.4 mi)			2.5 m		
			E Bank (1.2 mi)			2.5 m		
			E Bank (1.8 mi)			3.25 m		
			sm gator in gator hole (0.1 mi)			0.7 m		
			center of canal (2.1 mi)			2.5 m		
			center of canal (4.0 mi) covered w/mud			2.5 m		
			E Bank (4.5 mi)			2.75 m		
			E Bank (5.4 mi)			2.25 m		
5/24/2006	Day	13	3 crocs in sc			unknown		
			E Bank (0.1 mi)			2.75 m		
			E Bank (0.15 mi)			2.5 m		
			E Bank (0.15 mi)			3.5 m		
			E Bank (0.2 mi)			2.5 m		
			E Bank (0.4 mi)			2.5 m		
			E Bank Cave (1.1 mi)			2.5 m		
			E Bank Cave (1.3 mi)			2.5 m		
			E Bank (1.4 mi)			2.5 m		
			center of canal (1.9 mi)			3.25 m		
			E Bank (2.4 mi)			2.5 m		
			W Bank under mangrove (5.5 mi)			2.5 m		
6/6/2006	Day	12	EFL			2.25 m		
			SC rd + B18			2.5 m		

Table 4. Crocodile ID Survey 2006

Crocodile ID Survey 2006

			E Bank (20m North of SID)			2.5 m		
			center of canal (0.1 mi)			2.75 m		
			C-107 (0.2 mi)			1 m		
			E Bank			2.5 m		
			C-107 (0.25 mi)			2.25 m		
			SPS (2.1 mi) (JAW)			3.5 m		
			SPS (2.1 mi) (JAW)			2.5 m		
			E Bank			2.0 m		
			E Bank (5.1 mi)			3.5 m		
			NID (5.5 mi)					
6/14/2006	Day	12	3 crocs in SC					
			burrow (0.1 mi)			2.5 m		
			E bank (20m North)			3.25 m		
			E Bank (0.25 mi)			3.25 m		
			E Bank (0.3 mi)			2.25 m		
			C-107 (0.5 mi)			1.25 m		
			burrow (1.3 mi)			2.5 m		
			E Bank (2.7 mi)			2.5 m		
			center of canal (3.1 mi)			3.25 m		
			E bank (4.0 mi)			2.5 m		
9/7/2006	Day	7	center of canal (3.6 mi)			3.5m		
			south pump station(2.1mi)			2.25m		
			E bank(1.7mi)			2.5m		
			E bank(1.1mi)(cave)			2.5m		
			c-107(.07mi)			2.5m		
			E bank(.4mi)			2.5m		
			B19SC			2.5m		
9/27/2006	Day		C14SC			2.5m		
			c-107(.2mi)			2.5m		
			E bank(0.2mi)			2.5m		
			E bank(2.2mi)			2.5m		
10/2/2006	Day		WFC			3.25m		
			c-107(0.2mi)			2.5m		
			1.4mi(under mangrove)			2.5m		
			B30SC			2.5m		
10/25/2006	Day		50m N of SID			2.75m		
			E bank, .05mi			2.5m		

Table 4. Crocodile ID Survey 2006

Crocodile ID Survey 2006

			c-107, 0.1mi			2.5m		
			.07mi, pond on W(gator)			1.5m		
			cave, 1.1mi			2.5m		
			E bank,1.2mi			2.5m		
			E bank,1.7mi			2.5m		
			E bank,5.3mi			2.25m		
10/30/2006	Day		Across from Lab			2.5m		
			Sea Dade Canal,100m E of EFC			2.5m		
			.02mi,E bank			2.5m		
			.03mi, E bank			3.0m		
			0.35mi, cave			2.5m		
			0.35mi, c-107			2.5m		
			0.5mi,c-107			2.75m		
			0.7mi, E bank, cave			2.5m		
			0.7mi, (Gator)			1.1m		
			1.5mi, in canal			2.5m		

Table 4. Crocodile ID Survey 2006

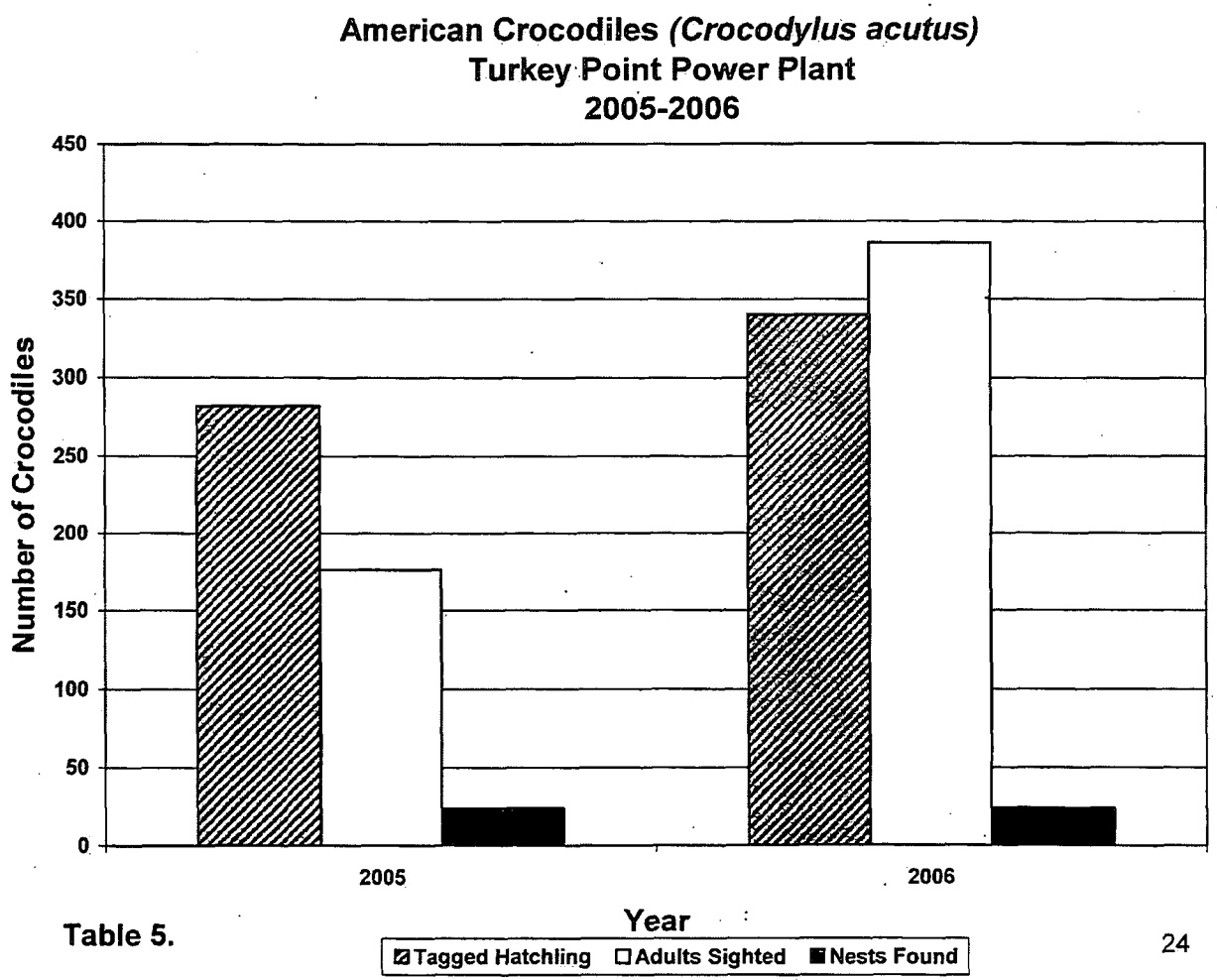
American Crocodiles (Crocodylus acutus)
Turkey Point Power Plant
2005-2006
Number of Crocodiles
450
400
350
300
250
200
150
100
50
0
2005
2006
Year
Tagged Hatchling
Adults Sighted
Nests Found

Table 5.

The Status of American Crocodiles (*Crocodylus acutus*) at Turkey Point Nuclear Power Plant, Florida, USA

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June 2006

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Abstract

Florida Power & Light's Turkey Point Nuclear Power Plant has been a recognized habitat for the American crocodile, *Crocodylus acutus,* since the first nest was discovered in 1978. It has been designated critical habitat by the United States Fish and Wildlife Service (USFWS) since 1979. Since that time Turkey Point's closed loop cooling canal system has provided a suitable environment for the American crocodile's nesting and development. By the end of the crocodile-nesting season in 2005 the total number of successful nests had increased to 255 and the number of hatchlings captured, processed and released was up to 3,774. A closely monitored and ever developing crocodile program at Turkey Point has contributed to the discovery of an increasing number of burrows and has been a catalyst towards a large population increase in the number of juvenile and adult endangered American crocodiles residing in the area. It is estimated that the total number of animals at the Turkey Point location is approximately 400.

Introduction

The American crocodile, *Crocodylus acutus,* has a wide range throughout the estuarine coastal communities in much of the Caribbean. Populations exist on both the Caribbean and Pacific coasts of Mexico and Central America. It is found on the northern coast of South America, south to Peru, on the islands of Hispaniola, Jamaica, and Cuba. Florida is the northernmost extent of its range, and the only portion of the United States that it occurs. Historically, American crocodiles ranged from Lake Worth on the east coast of Florida, around the southern tip, including the Florida Keys, up to Pinellas County (Tampa) on the west coast. Currently, its range is limited to the southernmost Florida counties and the Florida Keys (Miami-Dade, Collier, Monroe and Lee).

History

At the turn of the 20th century, there may have been between 1,000 and 2,000 American crocodiles in Florida (Ogden, 1978). The crocodile population was depleted by urbanization, loss of habitat and hunting. By the 1970s, the population size was estimated at 100 to 400 animals (Ogden, 1978). In 1989, the population was estimated to be 220 +/- 78 adults and sub-adults (Kushlan and Mazzotti, 1989). Recent trends estimate the population at approximately 1,000 animals (United States Fish and Wildlife Service, 1999).

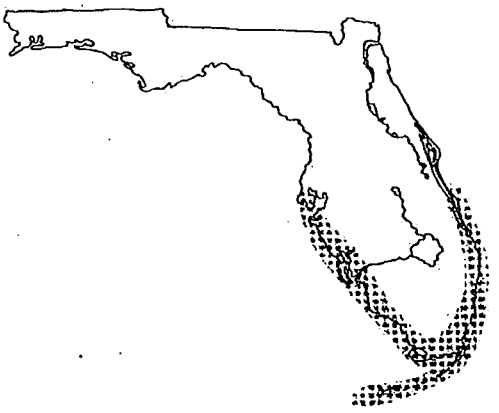

Figure 1: Historical Range of the American Crocodile in Florida

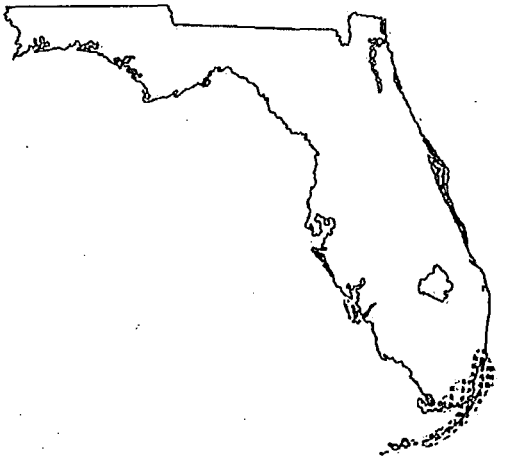

Figure 2: Current Range of the American Crocodile in Florida

Florida Power and Light's (FPL) Turkey Point power plant is located in extreme southern Miami-Dade County. The plant is bordered on the north and east by Biscayne National Park, to the west by a freshwater (Everglades) marsh, and south by a Red mangrove, *Rhizophora mangle*, tidal estuary. The actual power plant consists of two fossil fuel and two nuclear reactors. A fifth unit, to be powered by natural gas is currently under construction. As a result of the power generating units, a cooling canal system was required and engineers designed the closed loop cooling canal system (CCS). This system began operation in 1972. Within the CCS, there are 270 linear kilometers of canals and twice that number in shoreline habitat. Canals are 60m wide and one meter deep. Water is hyper-saline, and tends to range between 35 and 55 parts per thousand. Separating the canals are earthen berms 25-30m wide that rise up anywhere from 1.0 meter to 3.0 meters above the mean high tide line. The berm substrate is a combination of peat, marl, sand and soil. Within the berms are fresh-water ponds initially constructed by accident to regulate the spoil from the dredge. After it was discovered that the female crocodiles utilize the fresh water ponds for nesting, a program was instituted in coordination with the canal maintenance department. This program designs and constructs ponds in crocodile sanctuary areas other than the original sanctuary areas. Throughout the CCS, 32 areas on selected berms ranging in length from 30 meters to 300 meters have been set aside for use by the crocodiles. The original intent was to keep the areas in a natural state and keep heavy equipment out. As a result this procedure, the sanctuaries have become monocultures of invasive exotic vegetation. The program now schedules regular maintenance to clear the exotic vegetation and if the situation warrants, to dig new ponds.

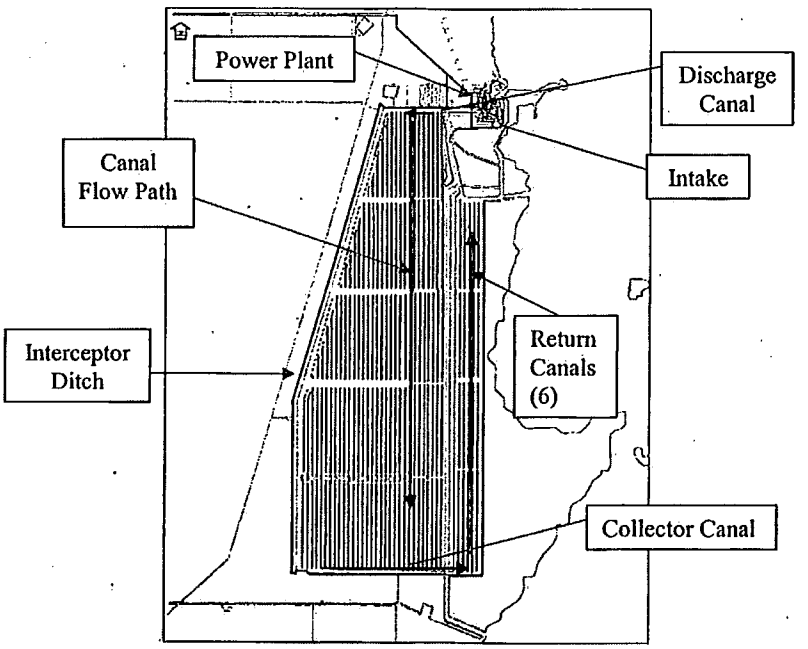

Figure 3: Map of Cooling Canal System at Turkey Point

Crocodiles were first discovered in the CCS in 1976. The first crocodile nest was uncovered by a backhoe working on the berms within the CCS in 1978. That discovery was the impetus for FPL's crocodile management plan. It is a necessary program that conducts surveys to monitor the crocodile population within and adjacent to Turkey Point site. The survey types are coordinated to coincide with the annual cycle of the crocodile. In the months of April and May, airboat surveys are conducted during the night to locate adults within the system. Areas are marked where adults are present, then checked during daytime hours to look for possible nesting activity. Day and night surveys are conducted in June, July and August. Nests are located; hatchlings are captured and brought back to the lab for processing. Biometric data is then recorded. (Collection of the following measurements: snout-vent length, total length, head length, head width, weight and the animal is sexed) Their scutes are clipped to show the origin of the animal and to assign a number. Then they are microchipped at the right side of the base of their tail for further identification purposes. They are released near the site of capture.
For the rest of the year, miscellaneous surveys are conducted via truck or airboat to monitor the population. One standardized survey, the Interceptor Ditch (ID) survey, consists of monitoring a 9.0km fresh water canal that is 6 meters deep. This particular survey began in 1982 and continues to this day. It is used as a barometer to calculate the number of adult crocodiles residing in the area.

The resident crocodile population at Turkey Point nuclear power plant has steadily increased since the animals were discovered on the site in 1976. According to Gaby et al (1985) the resident population of non-hatchling crocodiles consisted of a minimum of 19 adult, sub-adult and juvenile crocodiles. In 1995, the number of non-hatchling crocodiles at the power plant was estimated at 24-30 (Brandt et al 1995).

There has also been a steady increase of successful crocodile nests at Turkey Point since the inception of the monitoring program. Since 1978, there have been a total of 255 successful nests at Turkey Point. For a ten year period from 1978 through1989, there were 24 successful nests. From 1990 through 1999, there were 121 successful nests. The six years between 2000 through 2005 produced 110 successful nests. There has also been steady increase in number of hatchlings captured. The total number of hatchlings from 1978 through 2005 is 3,736. From 1978 through 1989, there were 285 hatchlings captured and processed. From 1990 through 1999, there were 1,940 captured and processed. From 2000 through 2005, there were 1,511 captured and processed. However, the number of hatchlings collected does not account for all of the hatching success. On many occasions, by the time researchers reached the hatched nest site, the female has moved the brood into areas inaccessible to the researchers. Out of 24 nests in 2005, nine successfully hatched without any captures. It is estimated that 33% of the successfully hatched nests are moved to inaccessible areas prior to capture attempts.

The present population is estimated at 400 total animals. Based on data collected during the aforementioned surveys, the population is estimated to be as follows: P=N/(AFE), a method developed by Chabreck, (1966) who used this formula to estimate alligator populations in Louisiana. Kushlan and Mazzotti (1989) also utilized this formula (1989). According to Chabreck's formula, P=Population, N= number of

nests, A=percentage of adults in the population, F=the percentage of females in the adult population, and E=the percentage of adult females actually nesting. It is estimated that the adults make up 16% of the population, of which 75% are females and 50% of those females nest every year. Putting numbers into the equation comes up with the estimated population size: P=24/(.16 X 0.75 X 0.5) or 24/0.06=400.

Discussion

Increased population size at Turkey Point is the result of on-site nesting in the CCS. Although man-made, the CCS provides ideal habitat for American crocodile nesting. The entire area is restricted-access and protected by security guards, this makes it an ideal location for crocodiles because they are shy and reclusive and prefer quiet waters. The berms provide crocodiles with leeward protection, regardless of the wind direction and strength. The actual substrate on some of the areas within the CCS have the correct combination of peat, marl, sand and soil which provides for proper drainage and nest incubation. As a result of the ideal conditions, there are several areas in which the crocodiles are communally nesting. There are very few nest predators present. The main nest predator, which is becoming more frequent, is the introduced, invasive fire ant, *Solenopsis invicta.* The fresh-water ponds on the interior of the berms are ideal for hatchlings, since the canals are hypersaline. The ponds provide shelter and a way to avoid the high levels of salinity. (Dunson, 1982, Ellis,1981) Once the ponds' use by nesting female crocodiles was discovered, certain areas within the CCS were targeted to dig new ponds. Typically, the females nest on or near the berm housing the pond. Once the nests hatch, she carries the hatchlings into the actual pond. This behavior takes place whether the nest is adjacent to the pond or a distance of up to two kilometers. Hatchlings remain within the ponds during daylight hours, crossing over into the CCS in the evenings to feed.

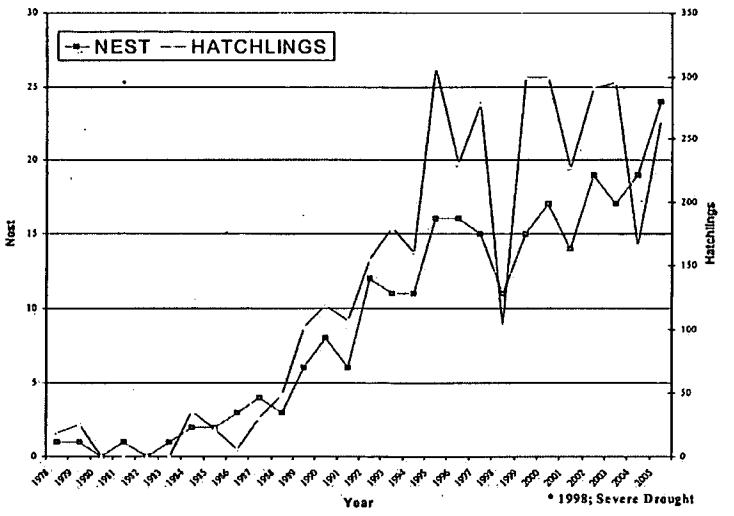

Figure 4: Chart comparing the number of Nests vs. Hatchlings 1978 to 2005

Present

The transient crocodile population within the CCS is trending towards permanency. During the early years of the CCS, crocodiles would utilize the Interceptor Ditch for recruitment and breeding, only to disperse afterwards. After several years, the adult crocodiles (male and female) began constructing burrows within the CCS and in the ponds within the berms. There has been an increase in number of burrows from 1980's to present (Figure 5).

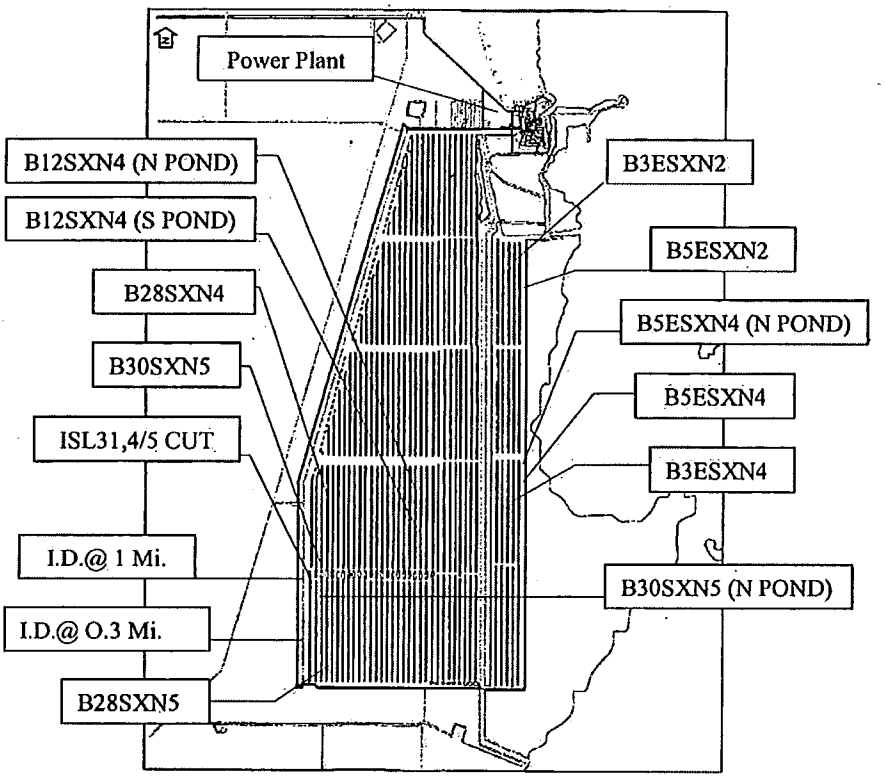

Figure 5: Map of crocodile burrows from 1978 to 2006

Hatchlings also utilize the burrows and have been noted as early as 1990 to retreat into the burrow when disturbed. Hatchling crocodiles have been captured near the entrance to caves under the observation of the female. In one instance, (Wasilewski, pers observation 2005) during a daytime nest survey, a crocodile nest was discovered to have recently hatched. Twenty-five hatched eggs were counted within the nest cavity and in an adjacent pond, however no hatchlings were present. Upon returning to the area that following night, twenty-five hatchling eyeshines were discovered in the pond. When disturbed, the hatchlings retreated to a recently excavated cave at the northwest corner of the pond. Upon rounding up all the hatchlings and stationing someone at the entrance to the cave, all twenty-five animals were captured.

Conclusion

In summary, the man-made cooling canal system of Turkey Point provides all the natural history requirements for adult crocodiles in southern Florida. Within the CCS exists ample habitat for successful nesting and rearing of young crocodiles. The question remains regarding the carrying capacity of the CCS. The design of the CCS, with 32 canals on the west side and 6 canals on the east side makes for an unusual array of habitat. Communal nesting should continue and it may be years before this carrying capacity will be reached. Increasing population on the site has resulted in dispersal of crocodiles to adjacent areas. Turkey Point animals have been captured as far as 25km from the plant. Conversely, crocodiles from Everglades National Park and Key Largo have been seen and captured at Turkey Point. As a result of the increases in the crocodile population, there have been increasing reports of "nuisance" crocodiles within urban areas. This has caused the United States Fish and Wildlife Service (USFWS) and the Florida Game and Fresh Water Fish Commission to revisit their management plans. As of March 2005, the USFWS proposed legislature to down-list the American crocodile from "Endangered" to "Threatened" status.

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