



Florida Power & Light Company, 6501 S. Ocean Drive, Jensen Beach, FL 34957

February 11, 2011

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED  
7006 3450 0003 0174 4042

Florida Department of Environmental Protection  
Office of Siting Coordination  
3900 Commonwealth Blvd. Mail Stop 48  
Tallahassee, Florida 32399-2400

RE: ST. LUCIE PLANT  
CONDITION IX.C.1, MARINE TURTLE AUTHORIZATIONS

Please find the enclosed monthly summary of marine turtle removals for the St. Lucie Plant for the month of January 2011. These activities were performed under FWCC Marine Turtle Permit #MTP126 maintained by Inwater Research Group, Inc., as required by Site Certification Condition IX.C.1.

Please contact Steve Weege at (772) 216-5096 if you have any questions on this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Eric S. Katzman".

Eric S. Katzman  
Licensing Manager  
St. Lucie Plant

LIC-PSL-2011-010

Attachments

Marine Turtle Removals – St. Lucie Plant Intake Canal – January 2011 (3 pages)  
E-mail from Steve Weege to Meghan Koperski on February 2, 2011 re: January 2011 Canal Captures (2 pages)  
Table (1 page)  
Notes (1 page)

cc: FWCC, Tequesta Field Office

Marine Turtle Removals – St. Lucie Plant Intake Canal – January 2010 (3 pages)

**MARINE TURTLE REMOVALS  
ST. LUCIE PLANT INTAKE CANAL  
JANUARY 2011**

Date	Species	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	Weight (kg)	Method
1/1/2011	<i>Chelonia mydas</i>	1	4A7541065C	29.7	30.0	31.9	27.9	22.2	23.8	3.0	Barrier net
1/1/2011	<i>Chelonia mydas</i>		UUX349	32.8	33.0	35.0	30.0	26.9	26.6	4.1	Barrier net
1/2/2011	<i>Chelonia mydas</i>		4A69563E04	27.5	28.3	29.5	25.0	22.0	23.1	2.6	Hand capture
1/2/2011	<i>Caretta caretta</i>		UUX350/UUX351	58.1	59.1	64.5	63.6	51.9	46.1	32.8	Hand capture
1/2/2011	<i>Chelonia mydas</i>		UUX352	30.9	31.4	33.0	27.8	25.2	25.3	3.4	Hand capture
1/2/2011	<i>Chelonia mydas</i>		UUX353	29.2	29.5	30.8	26.9	23.6	24.0	3.0	Hand capture
1/2/2011	<i>Chelonia mydas</i>		UUX354/UUX355	38.2	38.9	41.1	35.5	30.2	31.3	7.1	Hand capture
1/2/2011	<i>Chelonia mydas</i>		UUX356	29.8	30.0	31.5	28.4	24.8	23.8	3.3	Hand capture
1/2/2011	<i>Chelonia mydas</i>		UUX357/UUX358	56.1	56.9	60.6	48.9	43.6	46.8	23.2	Hand capture
1/2/2011	<i>Chelonia mydas</i>		UUX359/UUX360	44.2	44.6	47.2	40.9	34.9	37.6	12.1	Hand capture
1/2/2011	<i>Chelonia mydas</i>		UUX361/UUX362	44.0	44.1	47.7	39.0	34.9	35.9	10.7	Hand capture
1/2/2011	<i>Chelonia mydas</i>	2	UUX363	46.2	46.7	50.2	42.6	36.3	38.9	13.4	Hand capture
1/3/2011	<i>Chelonia mydas</i>		4A5F590B16	26.6	27.0	28.2	24.1	21.9	22.2	2.3	Dip net
1/3/2011	<i>Chelonia mydas</i>		4A606D1C02	28.2	29.0	30.3	27.2	24.1	23.3	2.7	Hand capture
1/3/2011	<i>Chelonia mydas</i>		4A6C231F1E	27.5	28.0	29.4	25.6	22.9	23.0	2.7	Dip net

Date	Species	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	Weight (kg)	Method
1/3/2011	<i>Caretta caretta</i>		UUX364/UUX365	56.0	57.6	61.7	60.3	48.7	44.6	28.7	Hand capture
1/3/2011	<i>Chelonia mydas</i>	3	UUX366/UUX367	63.7	64.4	68.1	57.7	49.6	53.3	36.5	Hand capture
1/3/2011	<i>Chelonia mydas</i>		UUX368/UUX369	56.2	60.2	65.0	51.9	45.8	50.3	26.2	Hand capture
1/3/2011	<i>Chelonia mydas</i>		UUX370/UUX371	39.5	39.9	42.4	32.0	31.5	32.9	7.3	Hand capture
1/3/2011	<i>Chelonia mydas</i>		UUX372/UUX373	41.5	42.5	44.8	39.4	33.9	34.6	9.4	Hand capture
1/3/2011	<i>Chelonia mydas</i>		UUX374/UUX375	49.4	49.8	52.9	45.0	39.0	41.5	15.9	Hand capture
1/3/2011	<i>Chelonia mydas</i>	4	UUX376/UUX377	35.7	36.0	38.4	32.4	28.6	29.6	6.1	Hand capture
1/3/2011	<i>Chelonia mydas</i>		UUX378	30.3	30.7	32.0	28.2	26.6	25.4	3.9	Hand capture
1/3/2011	<i>Chelonia mydas</i>		UUX379/UUX380	35.1	35.6	37.5	34.3	29.5	29.9	6.0	Hand capture
1/3/2011	<i>Chelonia mydas</i>		UUX381/UUX382	44.8	45.3	48.2	41.6	36.1	37.7	11.2	Hand capture
1/4/2011	<i>Chelonia mydas</i>		4A4A472E62	27.8	28.3	29.2	25.3	23.6	23.2	2.8	Hand capture
1/4/2011	<i>Chelonia mydas</i>		UUX383	29.7	30.3	32.4	29.0	25.8	25.4	3.7	Hand capture
1/4/2011	<i>Chelonia mydas</i>		UUX384	32.4	32.9	34.7	29.2	26.2	26.4	4.3	Hand capture
1/4/2011	<i>Chelonia mydas</i>		UUX385	30.1	30.6	31.9	27.5	25.5	25.3	4.0	Hand capture
1/4/2011	<i>Caretta caretta</i>		UUX386/UUX387	51.2	52.1	55.4	55.0	44.3	40.1	18.8	Hand capture
1/4/2011	<i>Caretta caretta</i>		UUX388/UUX389	64.2	64.9	71.0	64.5	55.3	52.5	45.9	Hand capture
1/4/2011	<i>Caretta caretta</i>		UUX390/UUX391	67.7	68.4	73.8	73.1	58.5	53.6	53.4	Hand capture
1/4/2011	<i>Caretta caretta</i>		UUX392/UUX393	65.7	67.0	73.1	63.0	52.2	51.5	42.3	Hand capture
1/4/2011	<i>Caretta caretta</i>		UUX394/UUX395	54.6	56.1	59.8	58.6	48.0	43.4	27.0	Hand capture
1/4/2011	<i>Caretta caretta</i>		UUX396/UUX397	69.7	71.4	74.8	73.4	59.4	56.6	53.0	Hand capture

Date	Species	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	Weight (kg)	Method
1/4/2011	<i>Chelonia mydas</i>	5	UUX398	32.6	33.1	35.6	30.7	26.6	27.1	4.7	Hand capture
1/4/2011	<i>Chelonia mydas</i>	6	UUX399	47.9	48.7	51.6	45.1	39.5	40.0	14.2	Hand capture
1/4/2011	<i>Caretta caretta</i>		UUX400/UUX401	71.7	72.7	77.5	66.0	55.2	54.3	49.3	North net
1/5/2011	<i>Caretta caretta</i>		UUX424/UUX425	66.0	67.3	71.3	69.7	57.0	50.4	44.0	Hand capture
1/6/2011	<i>Chelonia mydas</i>		UUX402	29.9	30.6	32.0	27.5	25.1	24.7	3.6	North net
1/6/2011	<i>Chelonia mydas</i>		UUX403/UUX404	44.3	45.0	46.9	39.4	35.0	35.8	9.6	Hand capture
1/7/2011	<i>Chelonia mydas</i>		4A632F0A47	26.8	27.3	28.3	24.2	21.7	21.8	2.5	Hand capture
1/9/2011	<i>Chelonia mydas</i>		4A65352924	30.2	30.5	32.0	26.5	23.4	25.8	3.5	Hand capture
1/9/2011	<i>Chelonia mydas</i>		UUX405/UUX406	54.7	55.1	57.9	50.4	42.4	45.9	22.0	Hand capture
1/9/2011	<i>Chelonia mydas</i>	7	UUX407/UUX408	66.7	67.3	72.0	61.9	55.3	55.0	40.6	Hand capture
1/9/2011	<i>Chelonia mydas</i>	8	UUX409	33.8	34.0	36.2	30.8	26.6	28.2	4.3	Hand capture
1/14/2011	<i>Chelonia mydas</i>	9	JAG110114-01	29.6	29.7	31.7	26.5	23.1	25.2	2.5	Barrier net
1/14/2011	<i>Caretta caretta</i>		UUX410/UUX411	65.7	66.9	69.9	67.2	58.2	54.6	43.5	South net
1/16/2011	<i>Caretta caretta</i>		UUX412/UUX413	62.3	63.4	68.6	67.9	55.0	48.7	41.0	South net
1/17/2011	<i>Chelonia mydas</i>		4A38665658	20.4	21.0	21.6	17.7	16.2	17.9	1.2	Dip net
1/25/2011	<i>Caretta caretta</i>		UUX414/UUX415	62.0	63.5	68.9	64.6	50.0	48.9	35.4	North net
1/31/2011	<i>Chelonia mydas</i>	10	UUB745/UUX416	45.3	45.6	47.7	42.0	35.3	36.5	11.2	South net

Table (1 page)

	Loggerheads ( <i>Caretta caretta</i> )		Green turtles ( <i>Chelonia mydas</i> )		Hawksbills ( <i>Eretmochelys</i> )		Leatherbacks ( <i>Dermochelys</i> )		Kemp's ridley ( <i>Lepidochelys</i> )		Overall Totals	
	Jan-Date	Year to Date	Jan-Date	Year to Date	Jan-Date	Year to Date	Jan-Date	Year to Date	Jan-Date	Year to Date	Jan-Date	Year to Date
Captures	13	13	39	39	0	0	0	0	0	0	52	52
Causal Mortalities	0	0	0	0	0	0	0	0	0	0	0	0
Non-causal Mortalities	0	0	2	2	0	0	0	0	0	0	2	2
Causal Injuries	0	0	0	0	0	0	0	0	0	0	0	0
Sent to rehab	0	0	0	0	0	0	0	0	0	0	0	0
Fresh Scrapes	Jan-Date	Year to Date	Jan-Date	Year to Date	Jan-Date	Year to Date	Jan-Date	Year to Date	Jan-Date	Year to Date	Jan-Date	Year to Date
None	2	2	2	2	0	0	0	0	0	0	4	4
Minor	11	11	32	32	0	0	0	0	0	0	43	43
Moderate	0	0	5	5	0	0	0	0	0	0	5	5
Severe	0	0	0	0	0	0	0	0	0	0	0	0
Percent with mod/sev scrapes	0.0%	0.0%	12.8%	12.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	9.6%	9.6%

Notes (1 page)



## NOTES

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1. DEAD (NON-CAUSAL MORTALITY). RECAPTURE from 3/31/10. Found moderately decomposed on barrier net. Missing head. Most likely entrained post-mortem. Held in freezer for FFWCC state necropsy workshops.
2. PAPILOMAS (Tumor Score = 30). Turtle released same day as capture.
3. PAPILOMAS (Tumor Score = 1). Tumor is undergoing regression, located on trailing edge of LFF. Turtle released same day as capture.
4. PAPILOMAS (Tumor Score = 1). One small regressed tumor on neck. Turtle released same day as capture.
5. PAPILOMAS (Tumor Score = 60). Right eye is 60% obstructed by tumors. No large tumors on turtle. Power plant notifications made after contacting FWC. State later asked us to release turtle because rehab locations too full. Spoke to shift manager directly to advise of change. Turtle released same day as capture.
6. PAPILOMAS (Tumor Score = 106). Lots of large tumors on hind flippers and tail. Power plant notifications made after contacting FWC. State later asked us to release turtle because rehab locations too full. Spoke to shift manager directly to advise of change. Turtle released same day as capture.
7. Strange Tag (PIT Tag #454A777870). Source of tag yet to be determined.
8. PAPILOMAS (tumor score=47). Turtle released same day as capture.
9. DEAD (NON-CAUSAL MORTALITY). Found floating at surface of barrier net moderately decomposed. Held in freezer for FFWCC state necropsy workshops.
10. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 12/23/09, 3/23/10, 9/22/10, and 1/31/11.

*SMCL = Straight Minimum Carapace Length*

*SMCL = Straight Standard Carapace Length*

*CSCL = Curved Standard Carapace Length*

*CMCW = Curved Maximum Carapace Width*

*SMCW = Straight Maximum Carapace Width*

*SMPL = Straight Midline Plastron Length*

E-mail from Dave Clark to Meghan Koperski on February 2, 2011 re: January 2011 Canal  
Captures (2 pages)

## Ali, Celine

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**From:** Niebch, David  
**Sent:** Sunday, February 06, 2011 8:37 AM  
**To:** Ali, Celine  
**Cc:** Munne, Vince  
**Subject:** FW: January 2011 FPL Marine Turtle Removal Monthly Report  
**Attachments:** January 2011 Marine Turtle Captures.rtf; Monthly Report Notes 2011.xls; FPL St. Lucie Capture Summary 2011.xls; Turtle report COC coverletter January 2011.doc

David Niebch

-----Original Message-----

From: Stephen Weege [mailto:steveweege@yahoo.com]  
Sent: Wednesday, February 02, 2011 11:56 AM  
To: Meghan Koperski; Mike Bresette; Dave Clark; Frehafer, Ken; Gless, Jodie; Bob Hoffman; Hollowell, Ed; Dennis Logan Ph.D.; Munne, Vince; Niebch, David; Shelley Norton  
Subject: January 2011 FPL Marine Turtle Removal Monthly Report

Dear Meghan,

Attached, please find the monthly summary of marine turtle removals for January 2011. In January, we captured thirteen (13) *Caretta caretta* and thirty-nine (39) *Chelonia mydas* in the intake canal of the St. Lucie power plant on Hutchinson Island. The power plant went into outage mode on January 3rd and flow rates in the canal were reduced by about half. Consequently, sea turtle entrainment has dropped off precipitously. Most of the turtles were cleared out of the canal by the end of the first week. As of the day this report was written, there were only two turtles in the canal. The outage is scheduled to last for eighty days.

During the month there were two non-causal mortalities (both were moderately decomposed juvenile green turtles). On January 1st, a juvenile green turtle was found moderately decomposed on the temporary 5-inch barrier net. This turtle was missing its head and was most likely entrained post-mortem. After consultation with Florida Fish and Wildlife Conservation Commission personnel (FWC), the event was considered to be non-causal to power plant operations. The animal was retained for future FWC state necropsy workshops. On January 14th, another moderately decomposed juvenile green turtle was found floating at the surface of the temporary barrier net. This animal had no other wounds or abnormalities other than being in an advanced state of decomposition. The turtle was determined to be non-causal to power plant operations and was also retained for the FWC sponsored necropsy workshops.

On January 4th, two juvenile green turtles with heavy papilloma burdens were recovered from the intake canal at the Saint Lucie Nuclear Power Plant. The straight standard carapace lengths were 33.1 cm and 48.7 cm. Their tumor scores were 60 and 106 respectively. Although the right eye of the smaller turtle was 60% obstructed, this animal did not have any large tumors. The larger chelonid did have lots of large tumors, but they were mostly concentrated on the hind flippers and the animal could still swim. Power plant notifications were made after contacting FWC (in preparation for sending the animals to rehab). The state later asked us to release these turtles because there was no salient need for rehabilitation, other than the presence of multiple tumors. Rehabilitation facilities for turtles with fibropapillomas were scarce and the space needed to be reserved for animals that had some other compounding factor for rehab such as; complete obstruction of vision, serious wounds, or severely attenuate body condition. Once it was determined that the animals were not going to rehab,

the shift manager was immediately contacted and apprised of the change. Both turtles were tagged and released on Hutchinson Island that same day.

Throughout the month of January, the 5" barrier net experienced light loads of algae that entered into the intake canal. This temporary barrier has effectively kept turtles from moving further down the canal. A permanent fix to the primary net continues to remain in the design phase.

The tag numbers and morphometric data for all the turtles are attached. Also attached is the spreadsheet of all captures, mortalities, injuries, and causal events delineated by species and month/year to date for 2011. This spreadsheet also tracks fresh scrapes incurred on captured turtles for the current month, as well as the entire year.

Please feel free to contact me with any questions.

Sincerely,

Steve Weege  
Senior Environmental Specialist  
Inwater Research Group, Inc.  
4160 NE Hyline Dr.  
Jensen Beach, FL 34957  
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