Balsam, Briana

From: <Michael Bresette@fpl.com> [Michael Bresette@fpl.com]

Sent: Monday, February 11, 2008 4:37 PM

To: David_Niebch@fpl.com; Ed_Hollowell@fpl.com; Stacy_Foster@fpl.com;

Vince_Munne@fpl.com; Winifred_Perkins@fpl.com; Meghan.Koperski@MyFWC.com;

Bob.Hoffman@noaa.gov; Shelley.Norton@noaa.gov; Dennis Logan

Subject: Sea turtle captures St. Lucie Plant January 2008 **Attachments:** Jan08rep.rtf; Notes08.xls; St. Lucie caps 2008.xls

Subject: Marine Turtle Removal Monthly Summary January 2008

Dear Meghan,

Attached, please find the monthly summary of marine turtle removals for January 2008. In January, we captured thirty three (33) <u>Caretta caretta</u> and nineteen (19) <u>Chelonia mydas</u> in the intake canal of the St. Lucie power plant on South Hutchinson Island. The temporary, primary barrier net is in place and effectively containing all turtles in the canal to the east of that location. In January, two loggerheads were sent to rehabilitation facilities after consultation with FWCC personnel. The compromised condition of these turtles was not causal to power plant operation. All other turtles captured in January were released back to the ocean on the same day of capture.

Tag numbers and morphmetric data for all turtles are attached. Also attached is a spreadsheet of all captures, mortalities, injuries and causal events delineated by species and month for 2008. This spreadsheet will be updated monthly and included in our monthly report to your agency. This spreadsheet also tracks fresh scrapes and will be helpful in determining the success of the intake pipe cleaning project. One item at the bottom of the spreadsheet provides a percentage of turtles that were found with either moderate or severe scrapes that were incurred during transit through the pipe. I felt that these scrapes were the ones that should be tracked to determine the effectiveness of the pipe cleaning, because turtles will likely still incur minor scrapes during entrainment. These minor scrapes are similar to the scrapes we see on reef turtles that inhabit high energy reefs. Please let me know if you think this is an appropriate tracking method and feel free to contact me if you have any questions or comments.

Sincerely,

Michael J. Bresette Sr. Environmental Specialist Quantum Resources, Inc.

MARINE TURTLE REMOVALS ST. LUCIE PLANT INTAKE CANAL JANUARY 2008

Date	Species	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	Weight (kg)	Method
1/2/2008	Caretta caret	ta	YYB192/YYB193	69.0	70.1	75.7	69.0	56.0	54.7	44.6	South net
1/2/2008	Caretta caret	ta	YYB194/YYB195	57.6	58.9	64.0	59.8	49.9	45.2	29.5	South net
1/4/2008	Chelonia myd	as 1	YYB196	46.4	46.6	48.9	43.1	36.4	38.1	13.0	North net
1/4/2008	Caretta caret	ta	YYB197/YYB198	59.9	61.0	66.8	64.1	52.5	48.8	33.2	South net
1/5/2008	Caretta caret	ta 2		63.7	65.5	72.2	66.1	55.4	48.8	39.0	Barrier net
1/5/2008	Caretta caret	ta 3		70.3	70.9	77.2	68.8	55.0	52.2	42.5	North net
1/5/2008	Chelonia myd	'as		27.7	28.5	29.7	26.9	23.6	22.8	2.9	North net
1/5/2008	Chelonia myd	'as		30.6	31.0	32.6	28.8	26.0	25.6	3.9	North net
1/5/2008	Chelonia myd	'as		38.6	39.0	41.0	34.9	30.5	30.1	6.3	North net
1/6/2008	Chelonia myd	'as		31.6	32.1	34.1	29.0	25.7	25.9	4.3	South net
1/7/2008	Chelonia myd	'as		29.6	30.1	31.6	27.2	24.6	24.8	2.8	Intake well
1/7/2008	Caretta caret	ta	YYB199/YYB200	72.3	73.7	80.1	76.3	59.0	57.8	61.5	North net
1/7/2008	Caretta caret	ta 4	YYB201/YYB202	68.8	70.5	75.6	71.4	57.0	55.5	50.0	North net
1/8/2008	Caretta caret	ta	YYB203/YYB204	57.2	58.4	65.8	60.0	49.4	46.4	32.8	North net
1/8/2008	Caretta caret	ta	YYB205/YYB206	61.7	63.5	68.1	61.5	49.1	49.6	36.9	South net
1/8/2008	Caretta caret	ta	YYB207/YYB208	60.6	61.4	68.2	64.5	52.8	47.8	36.5	South net
1/9/2008	Chelonia myd	'as		31.0	31.4	32.8	27.9	25.7	26.0	3.5	Dip net

Date	Species	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	Weight (kg)	Method
1/9/2008	Caretta carett	а	YYB209/YYB210	66.0	67.6	73.7	68.5	57.2	51.8	41.7	North net
1/10/2008	Caretta carett	а	YYB211/YYB212	58.5	59.4	65.6	63.0	51.3	46.9	35.5	North net
1/11/2008	Chelonia myda	as 5		35.6	36.1	37.6	33.0	28.7	30.1	5.7	Dip net
1/11/2008	Chelonia myda	as		28.4	29.0	29.8	26.6	24.1	23.7	3.0	Dip net
1/11/2008	Caretta carett	а	YYB213/YYB214	64.1	65.0	69.2	63.6	54.2	50.2	38.5	South net
1/11/2008	Caretta carett	а	YYB215/YYB216	66.1	67.2	72.0	69.4	56.0	52.4	43.1	South net
1/12/2008	Caretta carett	а	YYB217/YYB218	58.4	59.7	65.1	63.4	50.6	45.4	29.9	North net
1/14/2008	Chelonia myda	as 6		60.8	61.0	65.6	57.7	45.6	52.0	29.8	South net
1/14/2008	Chelonia myda	as 7	YYB110	44.5	44.6	47.1	41.3	34.2	37.4	11.9	South net
1/14/2008	Chelonia myda	as 8	YYB219	48.4	48.6	51.8	43.1	37.0	40.1	12.4	South net
1/15/2008	Caretta carett	а	YYB220/YYB221	65.5	66.8	73.3	69.7	57.7	52.6	44.2	North net
1/16/2008	Caretta carett	а	YYB222/YYB223	59.2	60.6	65.2	60.4	50.4	47.5	31.4	North net
1/17/2008	Caretta carett	a 9	YYB049/YYB050	63.9	64.4	70.5	63.9	49.9	47.7	34.5	North net
1/18/2008	Chelonia myda	as		26.4	26.8	28.3	24.0	21.1	22.4	2.3	Barrier net
1/19/2008	Caretta carett	а	YYB224/YYB225	53.0	54.3	57.9	58.5	47.1	41.8	24.1	North net
1/19/2008	Caretta carett	а	YYB226/YYB227	66.9	67.3	72.3	68.6	56.0	53.3	45.3	South net
1/22/2008	Caretta carett	а	YYB228/YYB229	77.7	79.2	84.5	78.9	61.2	59.3	60.0	North net
1/23/2008	Chelonia myda	as		35.6	36.2	38.1	31.5	27.1	29.1	5.2	South net
1/24/2008	Caretta carett	а	YYB230/YYB231	57.8	58.8	63.8	58.2	48.6	45.0	29.4	North net
1/24/2008	Caretta carett	a	YYB232/YYB233	75.6	77.1	82.2	77.7	64.6	61.6	70.0	North net

Date	Species	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	Weight (kg)	Method
1/24/2008	Caretta carett	a	YYB234/YYB235	61.4	62.3	69.2	65.3	54.3	49.8	39.8	South net
1/25/2008	Chelonia myda	as		28.7	28.9	30.8	27.0	24.1	23.9	3.0	Dip net
1/25/2008	Caretta carett	a 10	YYB108/YYB109	62.8	63.6	69.0	66.1	54.2	49.7	33.5	North net
1/25/2008	Chelonia myda	as 11	YYB134/YYB135	69.8	69.8	74.9	68.2	55.7	56.8	45.8	South net
1/25/2008	Caretta carett	a	YYB236/YYB237	68.7	70.1	75.7	70.1	56.2	51.4	43.9	South net
1/26/2008	Caretta carett	а	YYB238/YYB239	57.9	58.9	64.7	62.3	50.6	46.4	30.4	North net
1/26/2008	Caretta carett	a	YYB240/YYB241	63.1	64.3	70.2	68.9	56.0	50.3	39.1	North net
1/27/2008	Caretta carett	a	YYB242/YYB243	64.0	65.3	71.9	68.6	54.6	47.8	38.8	North net
1/28/2008	Chelonia myda	as 12		56.4	56.7	59.3	51.3	43.9	46.8	21.6	South net
1/29/2008	Caretta carett	а	YYB244/YYB245	61.1	61.8	66.8	62.0	51.5	47.9	33.5	North net
1/29/2008	Chelonia myda	ıs	YYB246	29.7	30.3	32.4	27.5	24.0	25.2	3.4	Barrier net
1/30/2008	Caretta carett	а	YYB247/YYB248	60.4	61.3	67.1	62.9	52.2	47.2	34.5	South net
1/31/2008	Caretta carett	а	YYB249/YYB250	66.5	67.7	72.4	73.3	59.8	53.0	49.0	North net
1/31/2008	Caretta carett	а	YYB251/YYB252	54.1	55.3	59.9	55.8	44.3	43.0	21.3	South net
1/31/2008	Chelonia myda	as	YYB253	31.0	32.2	34.2	29.4	26.0	26.4	3.8	North net

NOTES

- 1. Recapture. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 10/7/04, 11/3/04, 11/23/04 and 1/24/06.
- Turtle found at surface of 5' barrier net. Slightly underweight and lethargic with heavy algae and barnacle growth.
 No wounds or abnormalities. Transported to Mote Marine Aquarium by FWCC personnel. Not causal to power plant operation.
- 3. Turtle found with a severe wound to left front flipper. Possible prop wound injury appearing fairly recent. Transporte to Mote Marine Aquarium by FWCC personnel. Not causal to power plant operation.
- 4. STRANGE TAG. Whereabouts pending.
- Recapture. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 3/13/06 and 9/8/06.
- Recapture. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 5/23/98, 9/17/98, 3/6/99, 8/4/99, 10/28/99, 1/5/00, 2/17/00, 4/5/00, 7/7/00, 12/21/00, 4/5/01, 5/14/01, 7/3/01, 7/16/01, 1/29/02, 2/19/02, 7/28/02, 10/15/02, 11/16/02, 1/16/03, 10/6/03, 10/26/03, 3/2/04, 5/17/04, 2/4/05, 3/25/05, 4/14/05, 5/17/05, 6/7/05, 11/9/05, 7/19/06, 9/5/06, 11/8/06 and 11/24/07.
- 7. Recapture. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 9/23/04, 8/11/06, 8/23/06, 9/30/06, 3/6/07, 8/19/07 and 12/3/07.
- 8. PAPILLOMAS. Tumor score = 34. Turtle was released at Hutchinson Island the same day.
- Recapture. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 7/6/07.
- Recapture. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 8/18/07, 8/21/07, 8/24/07,9/2/07, 9/10/07, 10/25/07 and 12/17/07.
- 11. Recapture. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 2/16/98, 3/11/02, 8/11/02, 5/10/05, 6/15/05, 9/2/05, 12/12/05, 4/25/06, 8/20/06 and 9/17/07.
- 12. Recapture. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 2/20/98, 7/19/04, 10/16/04, 6/25/05, 7/19/05, 8/15/05, 3/15/06 and 8/14/06.

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

	Loggerheads		Green turtles		Hawk	sbills	Leathe	rbacks	Kemp's	•		
						(Eretmochelys		chelys	(Lepidochelys			
	, ,		(Chelonia mydas)		imbricata)		coriacea)		kempii)		Overall Totals	
		Year to		Year to		Year to		Year to		Year to		Year to
	Jan-08	Date	Jan-08	Date	Jan-08	Date	Jan-08	Date	Jan-08	Date	Jan-08	Date
Captures	33	33	19	19	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	0	0	0	0	0	0	0	0	0	0
Causal Injuries	0	0	0	0	0	0	0	0	0	0	0	0
Sent to rehab	2	2	0	0	0	0	0	0	0	0	2	2
Fresh Scrapes												
None	3	3	6	6							9	9
Minor	17	17	7	7							24	24
Moderate	14	14	6	6							20	20
Severe	0	0	0	0							0	0
Percent with mod/sev												
scrapes	42.4%	42.4%	31.6%	31.6%							38.5%	38.5%