



March 10, 2020

Ms. Meghan Koperski
FWC Imperiled Species Mgmt.
Tequesta Field Office
19100 SE Federal Highway
Tequesta, Florida 33469

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

Dear Ms. Koperski,

Enclosed please find the monthly summary of marine turtle removals for the St. Lucie Power Plant for the month of February 2020. These activities were performed under FWCC Marine Turtle Permit # MTP-125 maintained by Inwater Research Group Inc., as required by Site Certification Condition IX.C.1.

If you should have any questions, please contact Steve Weege at (772) 349-7252.

Sincerely,

A handwritten signature in dark ink, appearing to read 'V. Munné', is written over a light blue horizontal line.

Vince Munné
Land Utilization Supervisor
St. Lucie Plant

LIC-PSL-2020-005

Attachments:

- 1) Email to Meghan Koperski Regarding Marine Turtle Removal Monthly Summary
- 2) Capture Summary Table
- 3) Marine Turtle Removals - St. Lucie Plant Intake Canal
- 4) Capture Notes

cc: FDEP Siting Office

E-mail from Steve Weege to Meghan Koperski Regarding
Marine Turtle Removal Monthly Summary
(2 Pages)

Mrs. Meghan Koperski
Tequesta Field Laboratory
19100 SE Federal Highway
Tequesta, FL 33469

**Subject: Marine Turtle Removal Monthly Summary
February 2020**

Dear Meghan,

Attached, please find the monthly summary of marine turtle removals for February 2020. This month we captured 13 *Caretta caretta*, 15 *Chelonia mydas*, and four *Lepidochelys kempii* in the intake canal of the St. Lucie power plant on Hutchinson Island. Three sea turtles were sent for rehabilitation and there were two mortalities during the month of February. As with all sea turtle strandings at the Saint Lucie Plant, the Florida Fish and Wildlife Conservation Commission (FWC) was consulted and stranding forms were filed with the state through the Sea Turtle Stranding and Salvage Network.

Two sea turtle were sent to rehab for non-causal injuries or illness this month. On February 22nd, a subadult Kemp's ridley was recovered that was entangled in monofilament line. The line was wrapped tightly around the base of its front flipper and neck. Inwater Research Group (IRG) biologists transported the turtle to the Loggerhead Marinelife Center (LMC) in Juno Beach for rehab. On February 23rd, a juvenile Kemp's ridley was removed from the tangle nets with a large wound in its carapace. A series of circular cuts and scrapes were also surrounding the injury (cause unknown). Again, IRG biologists transported the turtle to LMC for rehab. Because the turtles were sent for rehabilitation for injuries/illnesses that were unrelated to the power plant, they were classified as non-causal.

There was one causal mortality and one non-causal mortality this month. On February 8th, a large subadult green turtle was recovered from atop the permanent 5-inch barrier net. Lethargic and suffering from severe papillomatosis, this turtle died while in transit to rehab. The turtle was then taken to Dr. Nancy Mettee, DVM for necropsy and it was determined that, "acute respiratory failure secondary to near drowning was the most likely cause of death." Even though this turtle was initially sent for rehab it was still classified as a causal mortality. On February 26th, a moderately decomposed juvenile green turtle was found floating up against the primary barrier net. Although there were apparent postmortem injuries from entrainment, there was no salient cause of death. Believed to have been entrained postmortem, this turtle was nevertheless too decomposed to necropsy.

The primary 5-inch barrier net encountered light amounts of algae throughout the month. A planned short-term refueling outage for Unit 2 began on February 17th. Even still, the primary barrier net has performed as designed and no turtles have been observed beyond the 5- inch net.

The tag numbers and morphometric data for all turtles captured during the month have been included with this report (see attachments/addendums). Also included is a spreadsheet for all captures, mortalities, injuries, and causal events delineated by species and by month for 2020. In addition, this spreadsheet 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

A handwritten signature in black ink, appearing to read "Steve Weege". The signature is fluid and cursive, with the first name "Steve" and last name "Weege" clearly distinguishable.

Steve Weege
Sr. Environmental Specialist
Inwater Research Group, Inc.
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Jensen Beach, FL 34957
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(772) 349-7252

Capture Summary Table
(1 Page)

	Loggerheads (<i>Caretta caretta</i>)		Green turtles (<i>Chelonia mydas</i>)		Hawksbills (<i>Eretmochelys imbricata</i>)		Leatherbacks (<i>Dermochelys coriacea</i>)		Kemp's ridley (<i>Lepidochelys kempii</i>)		Overall Totals	
	Feb-20	Year to Date	Feb-20	Year to Date	Feb-20	Year to Date	Feb-20	Year to Date	Feb-20	Year to Date	Feb-20	Year to Date
Captures	13	22	15	40	0	0	0	0	4	5	32	67
Causal Mortalities	0	0	1	1	0	0	0	0	0	0	1	1
Non-causal Mortalities	0	0	1	2	0	0	0	0	0	0	1	2
Causal Injuries	0	0	0	0	0	0	0	0	0	0	0	0
Sent to rehab	0	1	1	1	0	0	0	0	2	2	3	4
Fresh Scrapes		Year to Date		Year to Date		Year to Date		Year to Date		Year to Date		Year to Date
None	1	2	3	7	0	0	0	0	2	2	6	11
Minor	12	20	12	33	0	0	0	0	2	3	26	56
Moderate	0	0	0	0	0	0	0	0	0	0	0	0
Severe	0	0	0	0	0	0	0	0	0	0	0	0
Percent with mod/sev scrapes	0.0%	0.0%	0.0%	0.0%	N/A	N/A	N/A	N/A	0.0%	0.0%	0.0%	0.0%

Marine Turtle Removals – St. Lucie Plant Intake Canal
(2 Pages)

MARINE TURTLE REMOVALS ST. LUCIE PLANT INTAKE CANAL FEBRUARY 2020

Date	Species	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	Weight (kg)	Method
2/4/2020	<i>Chelonia mydas</i>		KKT081/KKT082	29.9	30.4	31.4	27.5	25.0	24.6	3.3	Dip net
2/5/2020	<i>Caretta caretta</i>		KKT083/KKT084	67.1	68.5	72.0	67.4	56.8	52.3	43.0	South net
2/5/2020	<i>Caretta caretta</i>		KKT085/KKT086	45.7	46.7	49.0	46.4	40.5	37.4	15.9	North net
2/5/2020	<i>Caretta caretta</i>		KKT087/KKT088	56.7	57.8	59.7	59.1	49.7	45.9	33.5	South net
2/5/2020	<i>Lepidochelys kempii</i>		KKT089/KKT090	54.2	54.9	55.9	56.5	52.8	41.5	22.1	South net
2/5/2020	<i>Caretta caretta</i>		KKT091/KKT092	64.9	65.4	68.5	67.8	56.9	51.9	45.8	North net
2/6/2020	<i>Caretta caretta</i>		KKT093/KKT094	74.7	76.2	80.5	78.0	63.0	58.6	64.8	South net
2/6/2020	<i>Caretta caretta</i>		KKT095/KKT096	59.7	62.7	63.9	62.8	49.1	45.3	31.1	South net
2/8/2020	<i>Chelonia mydas</i>	1	JRG200208-01	72.4	73.7	78.6	72.1	57.9	59.9	51.9	Barrier net
2/9/2020	<i>Lepidochelys kempii</i>		KKT097/KKT098	47.0	47.6	48.0	50.9	46.6	36.9	15.1	North net
2/10/2020	<i>Caretta caretta</i>		KKT099/KKT100	45.7	47.0	49.5	48.2	41.4	37.1	17.7	North net
2/11/2020	<i>Chelonia mydas</i>		KKT101/KKT102	71.8	71.9	74.1	64.8	56.7	58.8	47.0	North net
2/13/2020	<i>Caretta caretta</i>		KKT103/KKT104	64.4	65.6	69.8	68.2	56.5	51.5	47.0	North net
2/13/2020	<i>Chelonia mydas</i>		KKT105/KKT106	43.6	43.8	45.0	38.7	34.5	36.0	10.6	North net
2/14/2020	<i>Chelonia mydas</i>		KKT108	33.2	33.5	36.0	30.8	26.5	27.4	4.9	South net

Date	Species	Note	Tag #'s	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	Weight (kg)	Method
2/14/2020	<i>Chelonia mydas</i>	2	MB2248/MB2249	51.0	52.0	55.4	49.4	39.9	41.0	15.2	South net
2/15/2020	<i>Caretta caretta</i>		KKT109/KKT111	59.2	60.4	64.7	63.1	52.0	46.6	29.9	North net
2/15/2020	<i>Caretta caretta</i>		KKT112/KKT113	70.8	72.0	78.5	73.2	59.0	58.8	55.3	North net
2/15/2020	<i>Chelonia mydas</i>	3	MMY347/KKG101	48.9	48.9	51.8	48.8	39.0	40.5	15.9	South net
2/17/2020	<i>Chelonia mydas</i>	4	IRG0065/IRG0066	26.5	26.7	28.4	23.6	21.2	22.1	2.4	Dip net
2/17/2020	<i>Chelonia mydas</i>	5	KKT001	66.5	66.6	71.8	68.6	52.8	52.7	39.6	South net
2/17/2020	<i>Chelonia mydas</i>	6	KKT114/KKT115	57.5	57.6	61.5	55.9	46.3	48.8	24.5	North net
2/17/2020	<i>Chelonia mydas</i>	7	KKT116/KKT117	59.4	59.9	63.6	55.1	46.4	47.0	25.7	North net
2/18/2020	<i>Chelonia mydas</i>	8	KKT118/KKT119	84.2	86.0	92.8	79.5	62.8	68.2	82.8	South net
2/20/2020	<i>Chelonia mydas</i>	9	MMY144/KKG325	49.2	49.3	53.3	45.2	37.2	39.7	14.9	North net
2/22/2020	<i>Lepidochelys kempii</i>	10	JRG200222-01	53.5	53.8	56.6	62.6	55.4	40.2	20.2	South net
2/23/2020	<i>Lepidochelys kempii</i>	11	JRG200223-01	38.9	39.4	41.4	44.1	37.6	30.0	7.9	North net
2/23/2020	<i>Chelonia mydas</i>		KKT120/KKT121	33.9	34.3	36.4	31.5	27.2	27.9	4.5	South net
2/24/2020	<i>Caretta caretta</i>		KKT122/KKT123	83.3	83.6	91.3	83.5	61.3	62.1	81.9	North net
2/26/2020	<i>Caretta caretta</i>		KKT124/KKT125	56.9	58.2	62.8	59.5	46.9	43.4	23.4	South net
2/26/2020	<i>Caretta caretta</i>		KKT126/KKT127	64.0	64.8	71.5	68.7	55.8	50.2	39.5	North net
2/26/2020	<i>Chelonia mydas</i>	12	RCW200226-01	30.8	31.5	33.0	27.8	24.6	26.6	3.5	Barrier net

Capture Notes
(1 Page)

NOTES

1. REHAB (CAUSAL MORTALITY). Stranding# JRG200208-01. PAPILLOMAS (Balazs Tumor Score = 3 {heavy}). Large subadult green turtle recovered from atop the permanent 5-inch barrier net. Lethargic with heavy epibiont load and severe papillomatosis. Turtle died while in transit to rehab. Taken to Dr. Nancy Mettee, DVM for necropsy and final causality determination. "Acute respiratory failure secondary to near drowning is the most likely cause of death."
2. STRANGE TAG (Both Inconel & PIT Tags), originally tagged in Bermuda by Anne Meylan on 8-14-18. Mostly healed hooking wound in right axilla.
3. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 7/19/18, 12/10/18, 3/31/19, 12/9/19, 1/7/20, and 2/15/20.
4. STRANGE TAG (PIT TAG), originally stranded in NC on 12/20/19 and released 2/5/20 at Cape Canaveral National Seashore by Baltimore Aquarium. Old healed wound in left posterior plastron.
5. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 3/1/04, 11/3/04, 11/21/04, 7/8/05, 8/12/05, 9/13/05, 4/24/06, 9/29/06, 11/19/06, 12/4/06, 12/9/07, 2/10/08, 4/3/08, 9/14/08, 11/26/08, 12/18/08, 12/14/09, 1/11/10, 9/21/10, 7/25/11, 10/13/11, 7/12/12, 12/16/12, 8/19/13, 2/12/14, 5/7/14, 1/4/16, 4/26/16, 10/23/17, 11/14/17, 4/6/18, 10/29/18, 10/22/19, and 2/17/20. Shark rakings on right side of carapace and healed 14cm shark bite in right side of plastron. Turtle missing 50% of left rear flipper and 25% of right rear flipper (flipper damage is healed).
6. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 3/19/08, 6/28/13, 5/25/14, 2/12/16, 6/1/17, 9/19/17, 10/16/17, 1/21/18, 4/17/19, and 2/17/20. New Inconel tags inserted on this capture event. One extra left costal scute.
7. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 7/30/16, 9/17/16, 1/7/17, 10/23/17, 11/18/17, 5/2/18, and 2/17/20.
8. Adult female green turtle. Tail length = 200 mm.
9. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 4/21/18, 12/17/18, 4/3/19, 9/13/19, 9/26/19, and 2/20/19.
10. REHAB (NON-CAUSAL). Stranding# JRG200222-01. Subadult Kemp's ridley with monofilament line wrapped tightly around base of right front flipper and neck. Breathing was labored and raspy. Inwater Research Group (IRG) biologists transported the turtle to the Loggerhead Marinelife Center (LMC) in Juno Beach for rehab.
11. REHAB (NON-CAUSAL). STSSN# JRG200223-01. Juvenile Kemp's ridley removed from the tangle nets with a 4cm x 5cm wound in its carapace. The injury opens into the body cavity. A series of circular cuts and scrapes were also surrounding the injury (cause unknown). IRG biologists transported this turtle to LMC for rehab.
12. DEAD (NON-CAUSAL MORTALITY). Stranding# RCW200226-01. Moderately decomposed juvenile green turtle found floating up against the primary 5-inch barrier net. Impact injury on right side of head appears to have been inflicted postmortem. No salient cause of death. Turtle was too decomposed to necropsy (buried off beach).

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