

LICENSEE: Carolina Power & Light Company

October 21, 1999

FACILITY: National Marine Fisheries Service
North Carolina Wildlife Resources Commission

SUBJECT: SUMMARY OF BRUNSWICK BIOLOGICAL OPINION MEETING OF
SEPTEMBER 14, 1999

A meeting was held with personnel from Carolina Power & Light (CP&L), the National Marine Fisheries Service (NMFS), North Carolina Wildlife Resources Commission, and the U.S. Nuclear Regulatory Commission (NRC) on September 14, 1999, at Brunswick Steam Electric Plant (BSEP). The purpose of the meeting was to discuss the Biological Opinion (evaluation) issued by NMFS and the need to reinitiate consultation with NMFS on the Incidental Take Statement for endangered or threatened sea turtles at BSEP.

The participants in the meeting were given a tour of the BSEP intake and diversion structure, the intake canal and traveling screens at the plant intake and the fish return system. The major topics of discussion included an overview of the BSEP protective measures regarding endangered or threatened sea turtle species, more recent data on turtle takings updates, and a thorough discussion of the impact of the Radiological Opinion and the NMFS current process for issuance. A copy of the slides presented during the meeting is included as Enclosure 1. A list of attendees is provided as Enclosure 2.

As a result of the meeting, BSEP planned to issue a letter to NRC that would supplement its Biological Assessment; thereafter, the NRC would formally request the reinitiation of consultation with NMFS. That letter was submitted to the NRC on October 4, 1999.

Original signed by:

Karen R. Cotton, Project Manager, Section 1
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-325 and 50-324

Enclosures: As stated

cc w/encls: see next page

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DOCUMENT NAME: G:\PDII-2\Brunswick\914mtgsum.wpd *See previous concurrence

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OFFICE	PDII-2\PM	PDII-2\LA	*NRR/DRIP	PDII-2\SC
NAME	KCotton	EDunnington	BZalcman	SPeterson
DATE	10/ /99	10/ /99	10/15/99	10/ /99

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UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

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A handwritten signature in black ink, appearing to read "K. Cotton".

Karen R. Cotton, Project Manager, Section 1
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-325 and 50-324

Enclosures: As stated

cc w/encls: see next page

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Sea Turtles

Brunswick Steam Electric Plant

Southport, NC

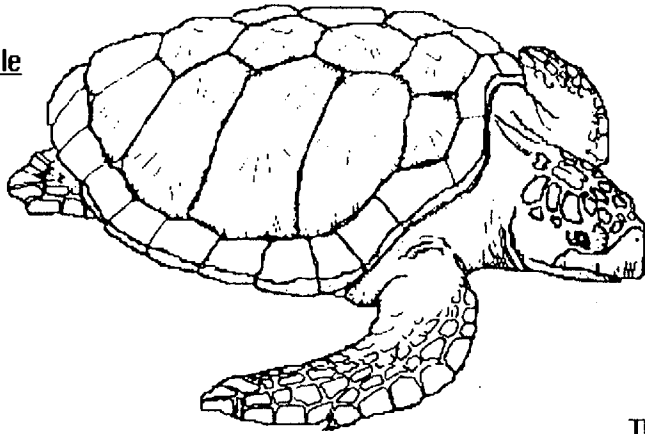
September 14, 1999



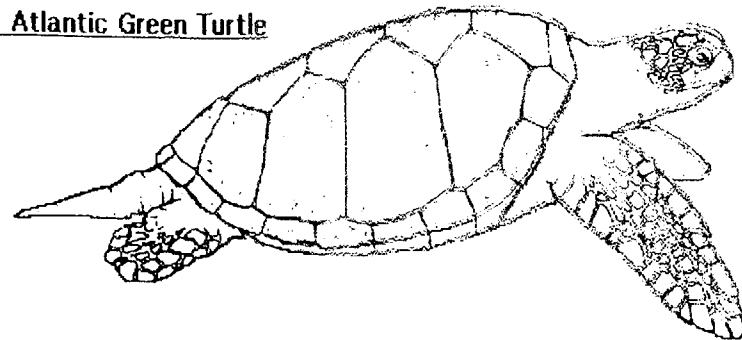
Endangered and Threatened Species

Sea Turtle Species Encountered at Brunswick

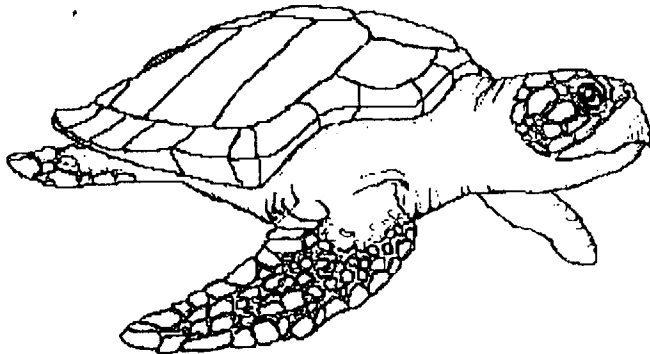
The Loggerhead Turtle



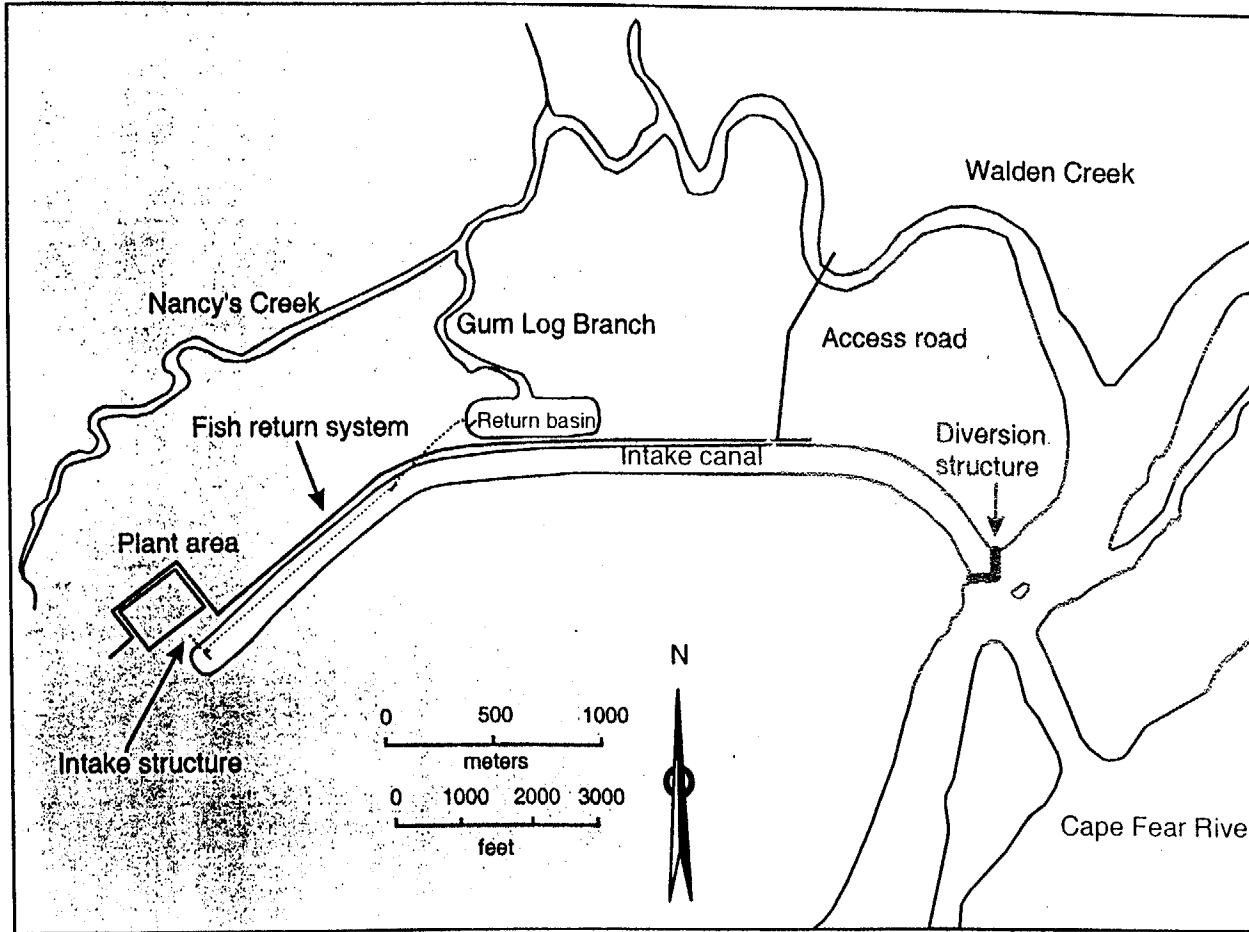
The Atlantic Green Turtle



The Kemp's Ridley Turtle



Brunswick Intake Canal

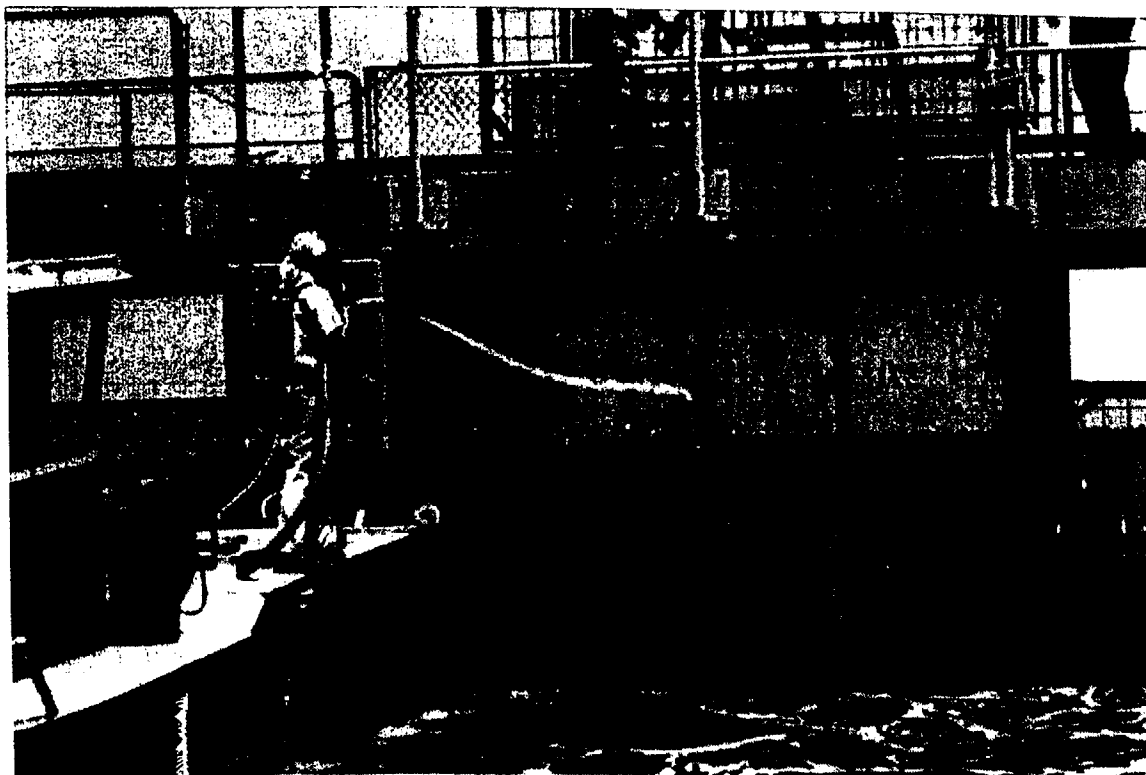


Brunswick Intake Canal

- Once through cooling system
- Intake approximately 5.7 mile upstream from mouth of Cape Fear River
- Intake canal approx. 3 miles long (ship channel to plant)
- Intake canal approx. 300 feet wide and 18 feet deep (msl)
- Water withdrawal mainly from surface layer of river
- Water discharged via 6 mile long canal to Atlantic Ocean
- Permanent diversion structure completed in Nov 1982
- Trash racks and traveling screens located at plant intake structure
- Impinged organisms returned to estuary via return flume

Brunswick Intake Canal

Diversion Structure at the Cape Fear River



Measures to Reduce Sea Turtle Occurrence in BNP Intake Canal

- **Diversion maintenance to reduce screen blowouts**
- **Routine patrols of the canal from trash racks to diversion structure**
- **Environmental personnel on call 24 hours per day**
- **Capture efforts undertaken when sea turtles observed**
- **Diversion maintenance crews on lookout while on duty**
- **Security on lookout while patrolling intake area**
- **Dedicated turtle capture boat with capture nets**
- **Installation of semi-permanent Blocker screens on the diversion structure**

Endangered and Threatened Species

Sea Turtles at Brunswick

- **Sea turtles have been “taken” (captured) in the BNP intake canal. Most returned safely but some have died.**
- **Excellent working relationship with North Carolina Sea Turtle Coordinator and history of stewardship in returning turtles safely to the environment.**
- **In 1997, CP&L requested NRC to enter Formal Consultation with NMFS**
 - ◆ **Objective: Receive Biological Opinion with an Incidental Take Statement for Sea Turtles**

Consultation Chronology

Sea Turtles at Brunswick

- **August 12, 1997 - Meeting held at Brunswick with NMFS, NRC, and NC to discuss Sea Turtle issues**
- **January 26, 1998 - CP&L submits Biological Assessment (BA) to NRC**
- **March 9, 1998 - NRC provides NMFS with CP&L's BA and NRC's recommendations**
- **May 12, 1998 - NMFS has follow-up tour of intake canal**

Consultation Chronology

Sea Turtles at Brunswick

- **February 10, 1999 - NRC delivers NMFS' draft Biological Opinion (BO) to Brunswick for comments**

- **February 19, 1999 - CP&L submits comments on Draft Biological Opinion**
 - ◆ **Proposed Incidental Take Statement is challenging but reasonable**

- **February 24, 1999 - NRC submits NRC and CP&L comments on Draft BO to NMFS**
 - ◆ **There is no discussion from NMFS on changing Incidental Take Statement**

Consultation Chronology

Sea Turtles at Brunswick

- **April 30, 1999 - NMFS issues Biological Opinion (BO) to NRC**
 - ◆ **BO includes change from annual to biennial incidental take period**

- **May 26, 1999 - CP&L obtains copy of BO from LIS**
 - ◆ **BO has not been issued to CP&L on docket**
 - ◆ **CP&L has been inquiring as to why Incidental Take Statement was changed and how to revise it since CP&L will not be able to meet these limits**

- **September 14, 1999 - Today's meeting**

Incidental Take Statement

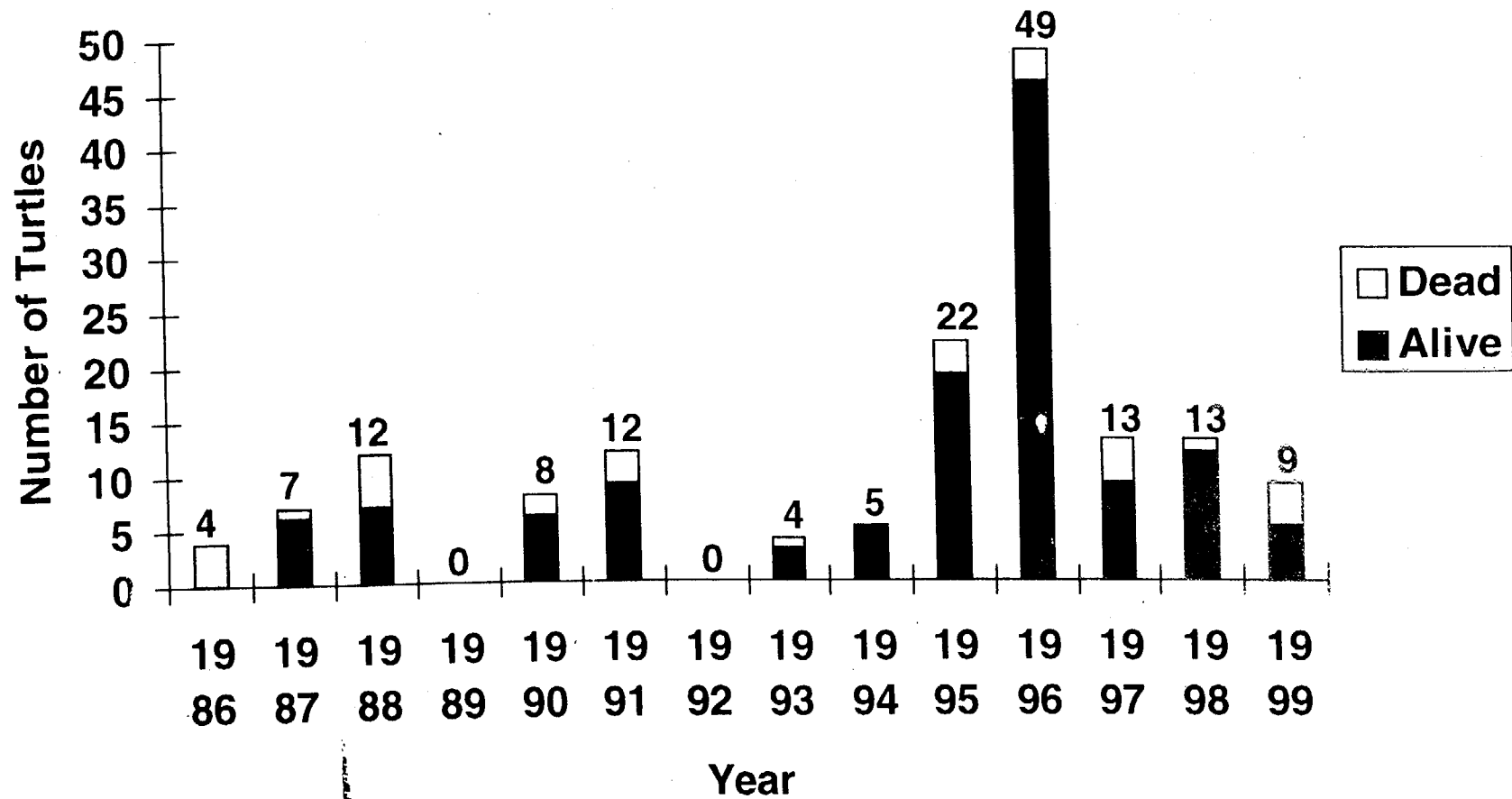
NMFS' Proposed Limits Presented in the Draft BO

- Loggerhead: 50 annually (with 6 being lethal)
- Green: 5 annually (with 2 being lethal)
- Kemp's ridley: 8 annually (with 2 being lethal)
- Leatherback or
Hawksbill: 1 annually (live or lethal)

These limits were changed from annual to biennial in the Final BO without adjusting the values thus cutting the limits in half

Incidental Capture of Sea Turtles

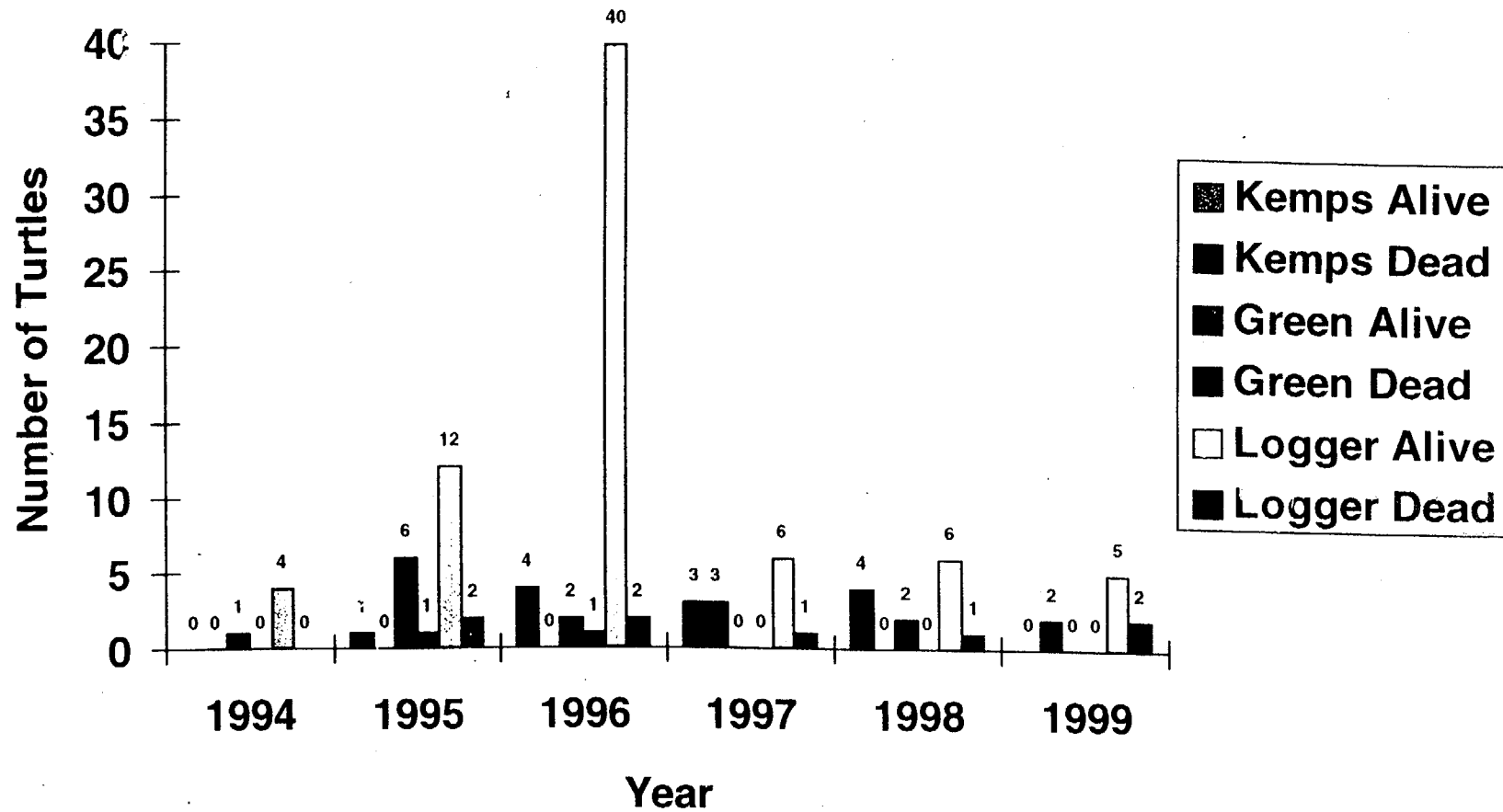
By Number



Current through 9/13/99

Incidental Capture of Sea Turtles

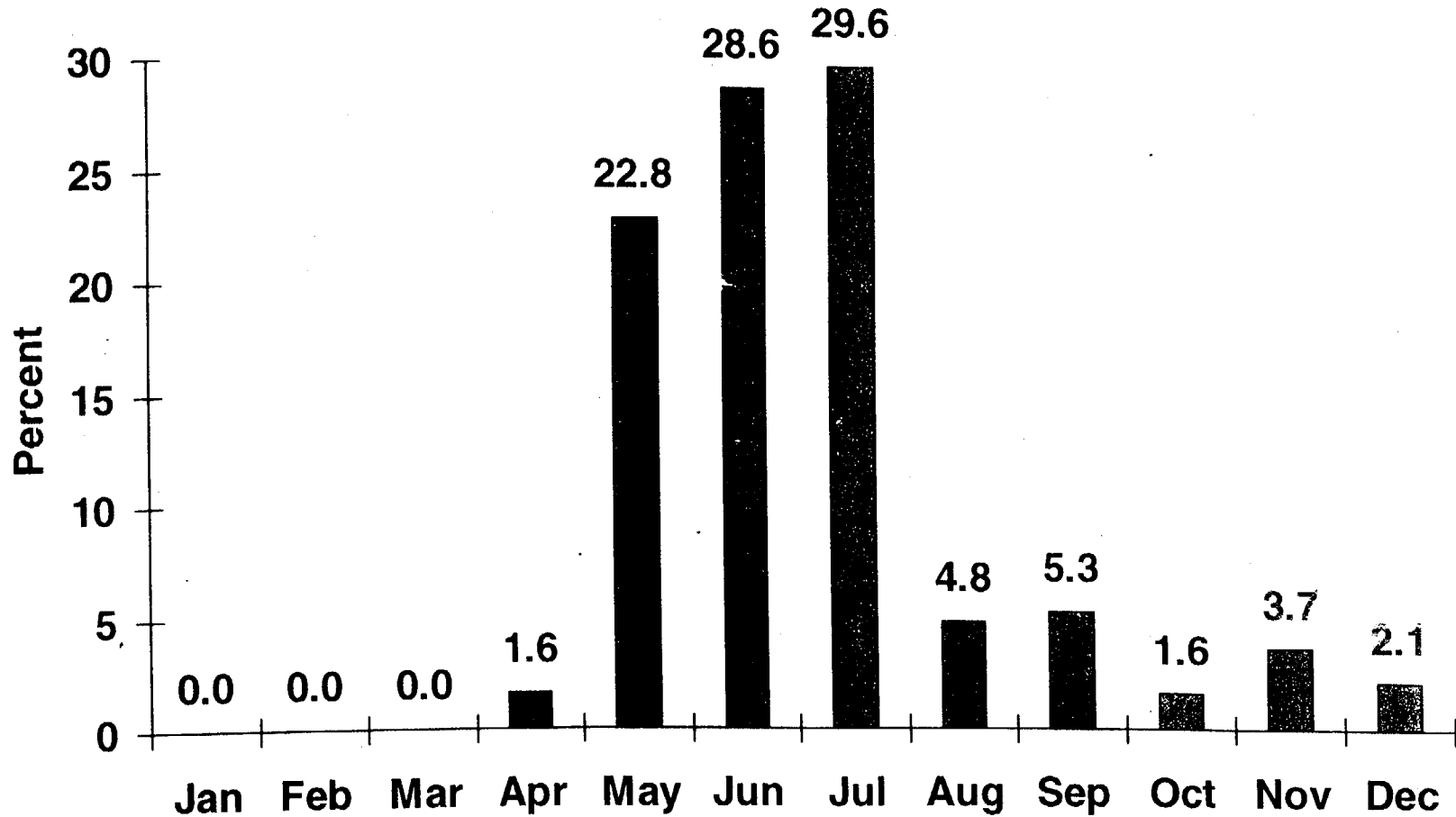
By Species



Current through 9/13/99

Incidental Capture of Sea Turtles

By Months



Data represents 1986 through 1998

Inability to Meet Biennial Incidental Take Statement

History of Limiting Turtle Species Takes						
	1994	1995	1996	1997	1998	1999 (To 9/13/99)
Biennial Take Level Met or Exceeded	Yes (Greens 8t)		Yes (Kemp 3d/10t)		Yes* (Kemp 2d)	
		Yes (Greens 2d/10t, Loggerhead 56t)		Yes (Kemp 3d/10t)		Yes* (Kemp 2d)
Species (Biennial Level)	1994	1995	1996	1997	1998	1999 (To 9/13/99)
Greens (Dead 2)	0	1	1	0	0	0
Greens (Total 5)	1	7	3	0	2	0
Kemp (Dead 2)	0	0	0	3	0	2
Kemp (Total 8)	0	1	4	6	4	2
Leatherback/Hawksbill (Total 1)	0	0	0	0	0	0
Loggerhead (Dead 6)	0	2	2	1	1	2
Loggerhead (Total 50)	4	14	42	7	7	7

* Biennial level already reached for dead Kemp's ridley turtles.

Where do we go from here?

- Brunswick will not be able to reasonably meet the biennial limits in the Incidental Take Statement
- Can the statement be revised without entering consultation again?

**BRUNSWICK BIOLOGICAL OPINION
MEETING ATTENDEES
SEPTEMBER 14, 1999**

NAME	ORGANIZATION	PHONE NUMBER
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Bill Murray	CP&L	(910) 457-2842
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