



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

Meeting Agenda
Brunswick Biological Opinion

September 14, 1999

update BA from BNP to NRC
letter from NRC to NME to support and increase take #
one page with pictures
Purpose: To discuss the biological opinion issued by National Marine Fisheries for the Brunswick Nuclear Plant

Agenda

- 0830 - 0845 Arrival And Introductions ✓
- 0845 - 1000 Tour Of Intake Structure And Diversion Structure ✓
- 1030 - 1200 General Discussion

Topics

- Letter ✓ Protective Measures
- summarizes meeting ✓ "Take" Status Update
- + BNP undelayed ✓ Draft Biological Opinion Versus Issued Biological Opinion
- Impact Of Issued Biological Opinion
- Discussion Of Options

1200 Adjourn

check daily - see conservation Program to #

- 1) Letter from NRC to state restriction of consultation (this must happen)
- 2) Suggestion two sets of take #s one) causal two) - ~~causal~~ caused by plant

Ruth Butcher

NRC Sea Turtle Stranding network what pre overlay of

Barry - change #'s definition of non-causal

Turtle take

B/15

**Meeting Agenda
Brunswick Biological Opinion
September 14, 1999**

Paul Hunter
CRIL
202-328-0002
202-462-2183 (Fax)

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History → copies

→
1200

684 Hoffman →
Adjourn

Dave Burkart

Who is presenting what?

Time for a response from
words from NMF

Do you know other turtle take #'s - no, Is plant
specific

3024 In Draft → responded 2/19/99

Page 29

Understanding → of the published #'s

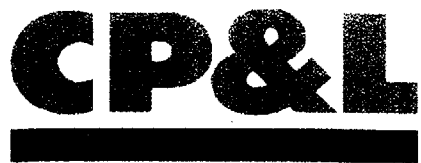
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Sea Turtles

Brunswick Steam Electric Plant

Southport, NC

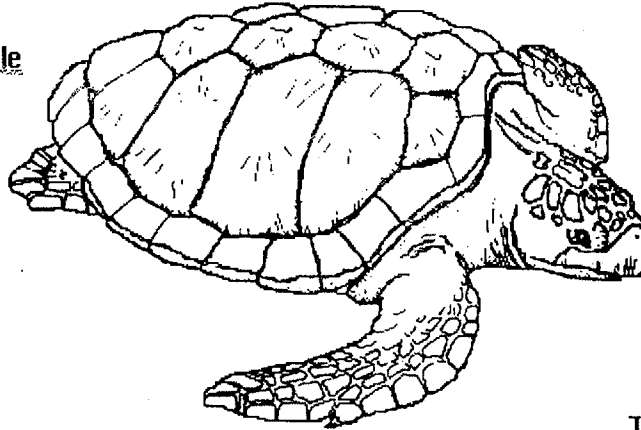
September 14, 1999



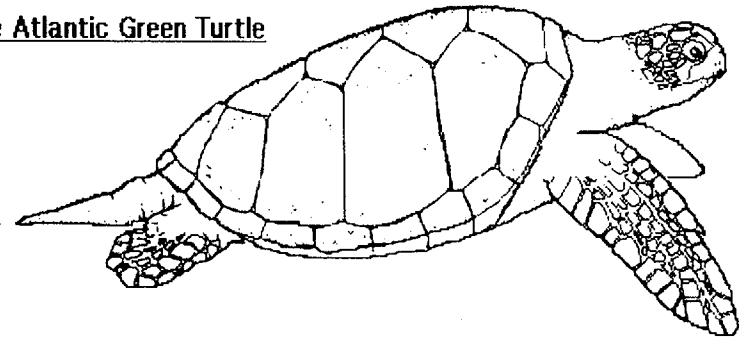
Endangered and Threatened Species

Sea Turtle Species Encountered at Brunswick

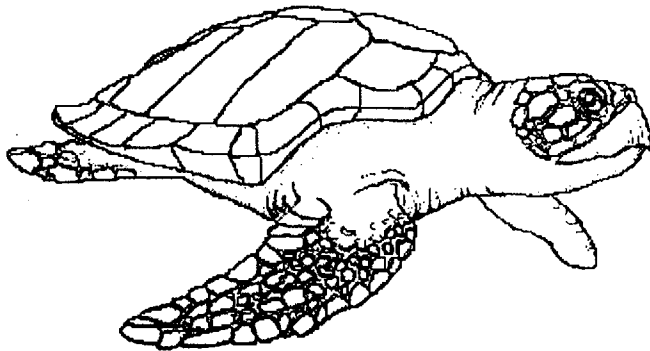
The Loggerhead Turtle



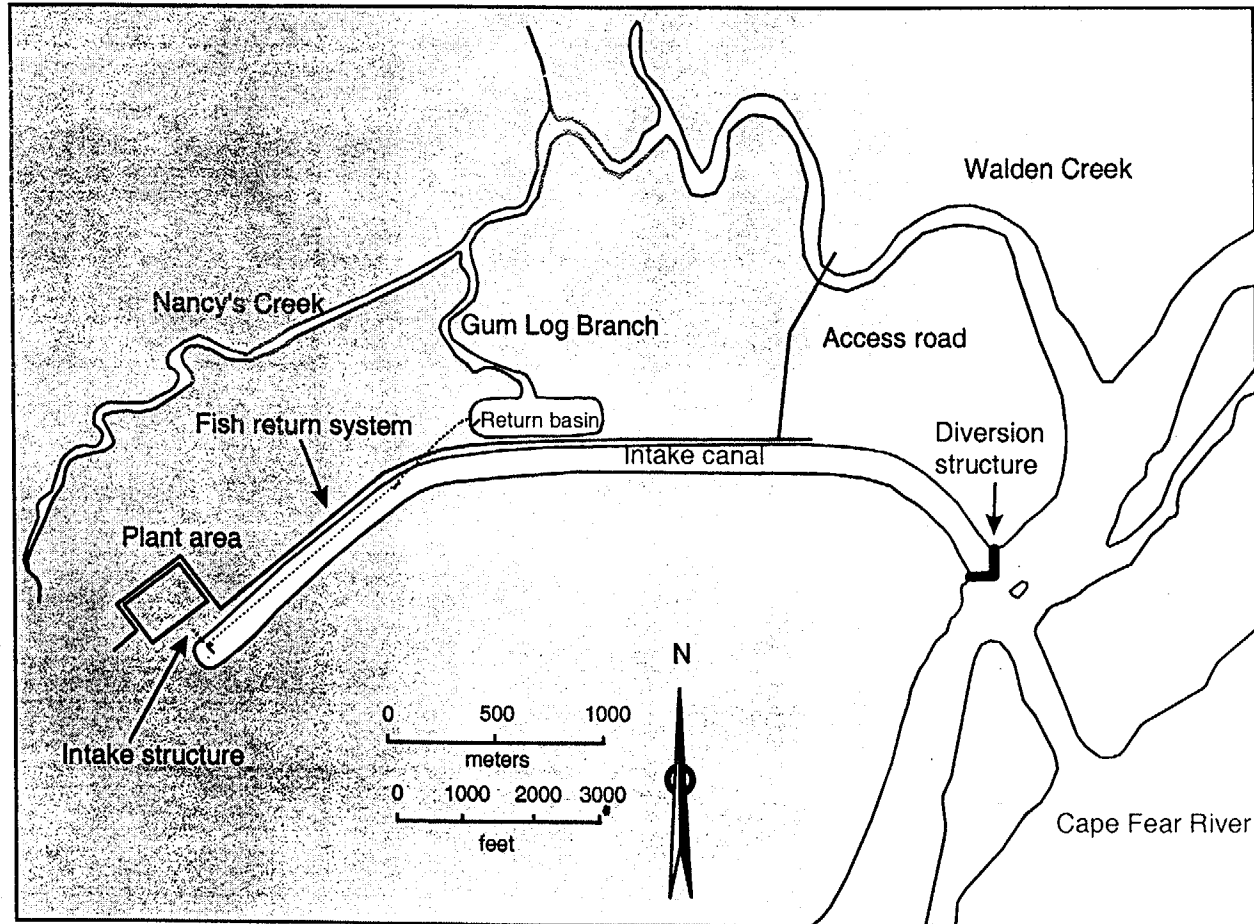
The Atlantic Green Turtle



The Kemp's Ridley Turtle



Brunswick Intake Canal

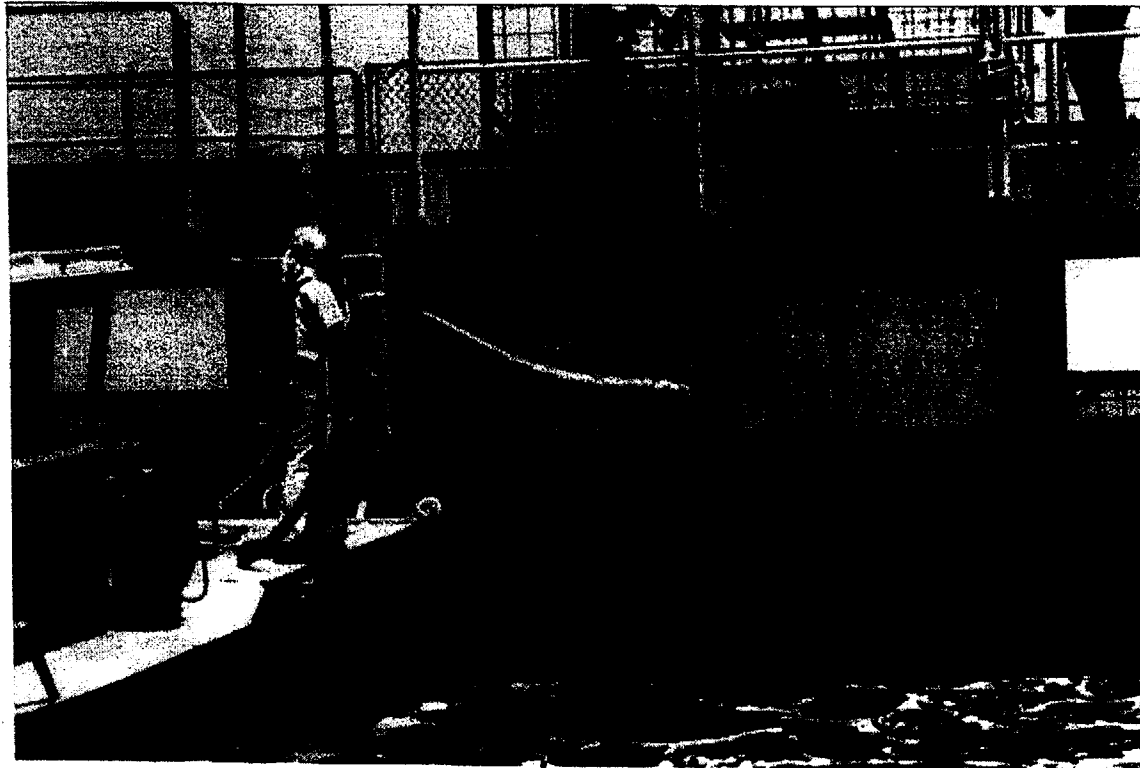


Brunswick Intake Canal

- **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

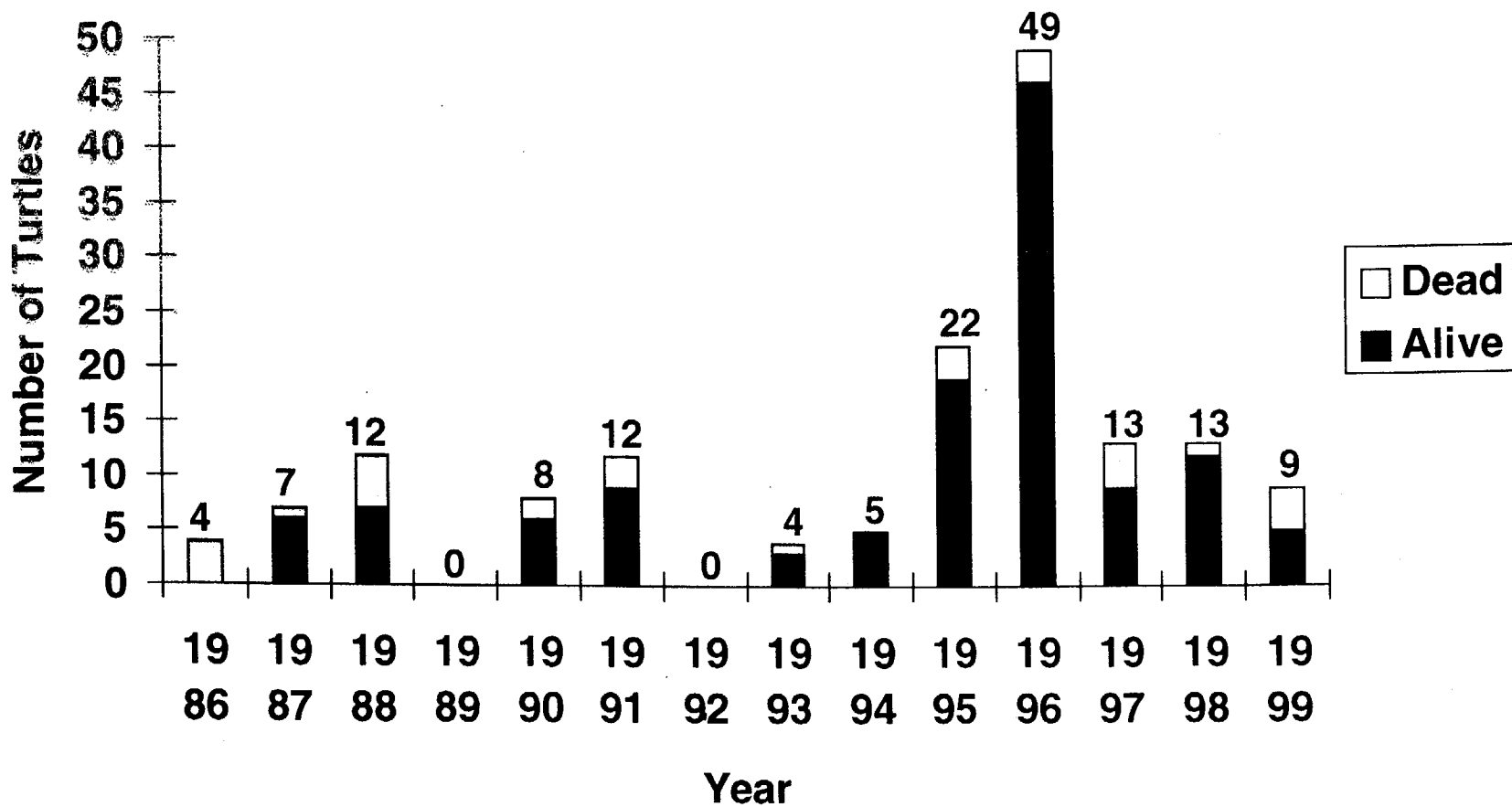
- **April 30, 1999 - NMFS issues Biological Opinion (BO) to NRC**
 - ◆ **BO includes change from annual to biennial incidental take period**

- **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 Capture of Sea Turtles

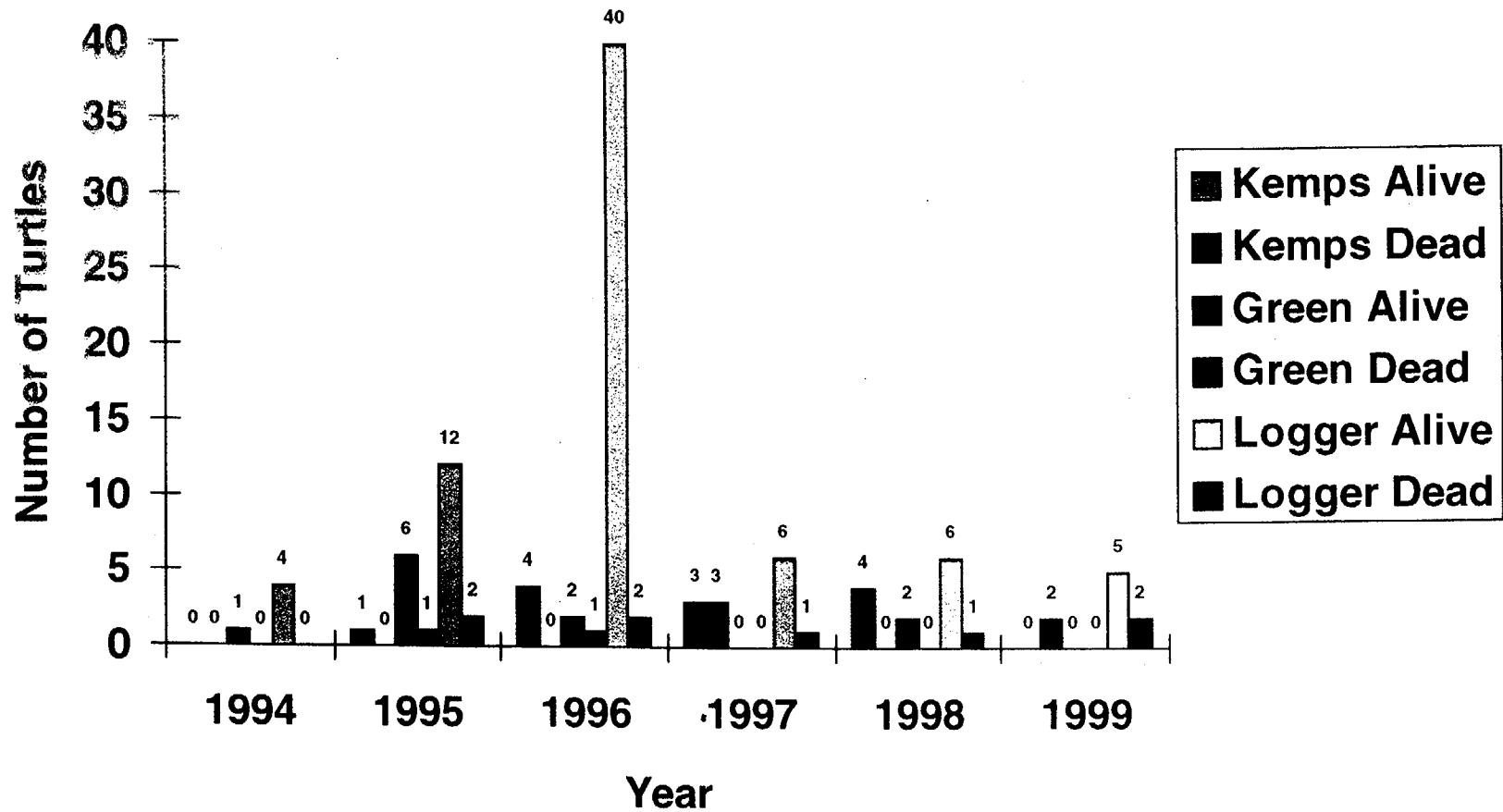
By Number



Current through 9/13/99

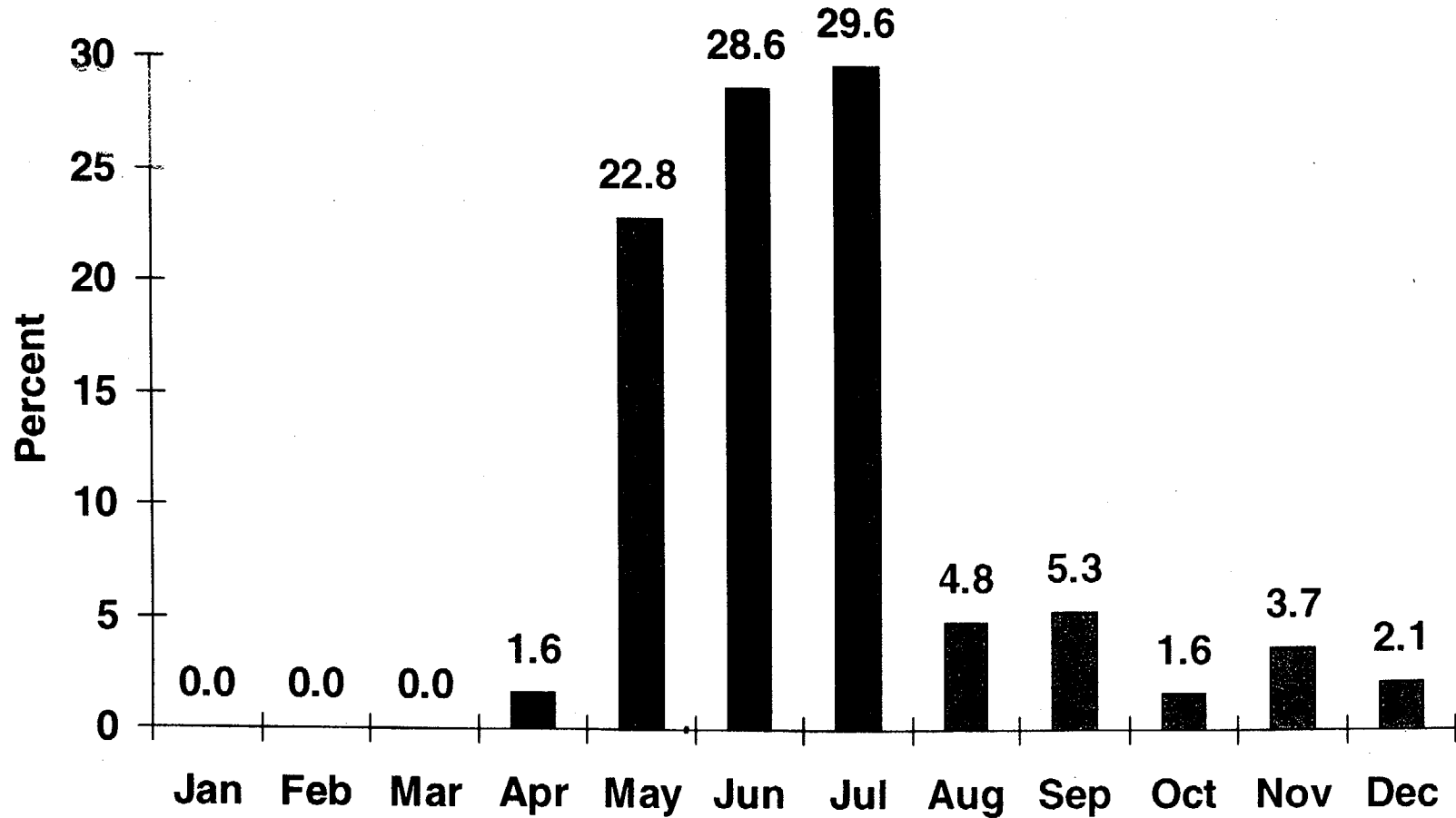
Incidental Capture of Sea Turtles

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?**