

**INDIAN RIVER COUNTY, FLORIDA  
MEMORANDUM**

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**TO:** Board of County Commissioners

**THROUGH:** John A. Titkanich, Jr., County Administrator

**THROUGH:** Eric Charest, Interim Natural Resources Director

**FROM:** Quintin Bergman, Coastal Resource Manager

**SUBJECT:** Results from the 2023 Sea Turtle Nesting Season

**DATE:** November 21, 2023

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This is an update to inform the Board of County Commissioners (Board), residents of Indian River County (IRC), and visitors of the record-breaking results from the 2023 sea turtle nesting season on the beaches within IRC. Additional information relative to the County's sea turtle Habitat Conservation Plan (HCP) and annual nesting information can be found on the County Coastal Division Facebook page: @IRCcoastal and on the County website: [https://indianriver.gov/services/public\\_works/coastal\\_engineering/sea\\_turtle\\_conservation\\_program.php](https://indianriver.gov/services/public_works/coastal_engineering/sea_turtle_conservation_program.php)

**DESCRIPTION AND CONDITIONS**

**Background Information** - IRC beaches are the ideal nesting habitat for three species of sea turtles. Numerous leatherback, loggerhead, and green sea turtles return to our beaches to lay nests during the summer months. Sea turtles are a long-lived reptile species that can take between 20-30 years to become mature adults, and are able to live up to 100 years or more. Adult female turtles lay up to 6 nests or more per nesting season which runs annually from March 1<sup>st</sup> through October 31<sup>st</sup> here in IRC. Female sea turtles typically nest every other season and normally return the same beach they hatched from to lay their nests. Long-term monitoring is vital to the understanding of sea turtle populations. The County's efforts were formalized in 2004 with the implementation of the Habitat Conservation Plan (HCP), the document that established a framework for the County's sea turtle conservation efforts. Qualified County Staff, along with its consultants, maintain permits issued by the Florida Fish and Wildlife Conservation Commission (FWC) and the U.S. Fish and Wildlife Service to perform conservation activities with sea turtles.

**Nest Monitoring** – Annually, during sea turtle nesting season, daily surveys are conducted by permitted individuals along all 22.4 miles of the coastline. During the daily survey only a small subsample of nests are marked with wooden stakes and flagging tape, with the majority of the nests incubating unmarked. The marked nests are then monitored each day until they hatch. Once hatched, permitted individuals then conduct an inventory of the nest to determine its success. This measure of success includes metrics on the total number of eggs laid as well as the percentage of hatched eggs. This data collected over many years not only

informs County Staff of annual nesting numbers but can be used to identify long-term and emerging trends.

The 2023 nesting season marks the 19th year since the county-wide HCP has been implemented. In 2023, the County beaches received its first nest on March 1st, a leatherback nest near Turtle Trail Beach Access. Leatherbacks are usually the first to arrive in IRC followed by loggerheads then greens. As of the writing of this agenda item, the last nest was laid on November 2<sup>nd</sup>, a green sea turtle nest in the middle of Indian River Shores. The past five season nesting numbers are displayed in the table below:

<b>Season</b>	<b>Leatherback Nests</b>	<b>Loggerhead Nests</b>	<b>Green Nests</b>	<b>TOTAL</b>
<b>2023</b>	27	8,639	4,105	12,771
<b>2022</b>	101	7,431	1,823	9,355
<b>2021</b>	24	5,629	1,514	7,167
<b>2020</b>	73	6,217	1,154	7,444
<b>2019</b>	37	6,159	2,378	8,574

**Results** – The 2023 nesting season resulted in more nests laid in IRC than ever recorded. Loggerhead sea turtles laid 8,639 nests, approximately a 15% increase over the previous year’s record number of 7,431 nests. Green sea turtles laid 4,105 nests, approximately a 55% increase over the previous record of 2,634 nests laid in 2017. IRC is situated on the outer limits of the leatherback nesting region, resulting in fewer nests. Leatherback sea turtles typically nest in higher numbers in Martin County through Broward County, and along the Caribbean islands.

**50+ Years of Conservation Efforts** – Prior to the County implementing the local HCP in 2004, the U.S. Federal Government passed the Endangered Species Act (ESA) in 1973. The ESA is the legislation that afforded protection to all the sea turtle species within the United States. The U.S. Fish and Wildlife Service along with the National Marine Fishers Service of the National Oceanic and Atmospheric Administration are the branches of the U.S. Government responsible for overseeing the ESA in reference to sea turtles. These branches work collaboratively to suggest which wildlife populations are deemed threatened or endangered. Knowing that an individual sea turtle takes between 20 to 30 years to mature, it’s possible that the County’s beaches are seeing 2 new generations of sea turtles that are contributing to the higher nesting numbers we are seeing now since sea turtles became protected 50 years ago.

**RECOMMENDATION**

There is no action required by the BCC as this is being presented for informational purposes only.

**APPROVED AGENDA ITEM FOR:** November 21, 2023