

<b>SECTION-TOPIC</b>	<b>GEOGRAPHY – LAKE WORTH INTRACOASTAL</b>
<b>SUNSHINE STATE STANDARD</b>	<b>Standard 5: <i>Understand how human actions can impact the environment.</i></b> <b>SS.912.G.5.4: <i>Analyze case studies of how humans impact the diversity and productivity of ecosystems.</i></b> <b>SS.912.G.5.6: <i>Analyze case studies to predict how a change to an environmental factor can affect an ecosystem.</i></b>
<b>VOCABULARY</b>	<b>Barrier Island, Inlet, Drainage, Canal, Dredging, Intracoastal</b>
<b>REQUIRED MATERIALS</b>	<b>DEP Link, <i>Lake Worth Lagoon and Intracoastal Waterway Reading</i></b>
<b>DURATION</b>	<b>1 – 50 minute period</b>

**DO NOW OR PRE-LESSON ACTIVITY –**

- Teacher will click on the link below for the **Department of Environmental Protection Assessment and Monitoring Summary** for the Lake Worth Lagoon.
  - The 2 page PDF file has a map of the Lake Worth Lagoon area and a quick history.
  - [Lake Worth Lagoon Map](#)\* (link)
  - Students will spend about 5-10 minutes reading and exploring the page gathering information prior to reading the article below.
  - Students will answer the following questions following their evaluation of the DEP Summary.
1. Lake Worth Lagoon is named after General William J. Worth. Is it really a Lake? If so, explain what makes it a lake or at least what made it a lake in the 1850s. If not, explain the attributes of a lake and why the Lake Worth Lagoon does not meet those guidelines.
  2. The Lake Worth Lagoon is also known as the Intracoastal Waterway. What does Intracoastal mean?

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\*<http://www.dep.state.fl.us/southeast/ecosum/ecosums/LakeWorthLagoon.pdf>

## LESSON -

### **Lake Worth Lagoon and Intracoastal Waterway**

Archaeological excavations along the Lake Worth Lagoon uncovered an abundance of oysters, indicating that it had been salt water during a much earlier time. But when the first settlers arrived in the mid-1800s, Lake Worth Lagoon was an enclosed freshwater lake, with drainage from a swampy area along its western edge. The barrier island to its east separated the lake from the Atlantic Ocean. Natural inlets opened and closed occasionally due to storms, high water levels in the lake, and extreme high tides and waves. Eventually humans created new inlets or made existing ones permanent with dredging and seawalls, and created or enlarged islands.

By the time Sanford Cluett spent his winters on Lake Worth from 1888-1890, the lake had already begun to change from the first drainage efforts of Hamilton Disston. In Palm Beach in 1962, however, Cluett recalled how close the Everglades came to the Lake Worth Lagoon:<sup>1</sup>

*I used to go over in the Everglades. Well, in those days they were loaded with water and had islands. . . . A friend of mine had a little flat-bottom boat, and I used to borrow that over on the edge of the Everglades, which were not touched—no drainage anywhere. . . . I had to walk, of course, through the woods, right across from us. There was nobody on the other side of the lake. We used to go over to look for alligators. I borrowed a . . . 30-foot sailboat [that] could go in shallow water, and we used to sail that boat into places where now, there, land's been filled in. . . . It used to be a great place to spear fish.*

In the 1880s, engineers determined that an inland canal could be constructed to allow for steam-powered vessels and for safer navigation of all water traffic along the east coast. After the federal government refused to finance the project, the state of Florida contracted with the Florida Coast Line Canal and Transportation Company. For each completed mile of canal, the company would receive 3,840 acres of swampland, the state's entire quota of land grants. Although the company planned to sell this land to settlers, it quickly fell into financial crisis and turned to Henry Flagler for help.

Flagler's railroad was then complete to Daytona Beach, and he planned to continue it southward, but he would receive no more state land grants if they were all tied to the canal. Flagler agreed to finance the canal company from the position of president, in exchange for 1,500 acres of the canal's grants for each mile he added to the railroad. Flagler bought the company in 1893; both the railroad and canal would attract buyers for the land as well as interest in south Florida.<sup>2</sup>

Dredging at the mouth of Lake Worth Creek began in 1892. After leaving the creek, it cut across sawgrass marshes that were higher in elevation, releasing their water.

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<sup>1</sup> Sanford Cluett, Oral History (HSPBC, 1962).

<sup>2</sup> "Mr. Flagler and the Canal Company," *Indian River Advocate* (Titusville, Fla.), March 3, 1893 and March 24, 1893, and Alfred Jackson Hanna and Kathryn Abby Hanna, *Florida's Golden Sands* (Indianapolis: The Bobbs-Merrill Company, Inc., 1950), 245-259, cited at "Flagler and his Railroad," History Museum of South Florida, <http://www.hmsf.org/collections-south-florida-birth-city.htm#railroad>.

