

LAKE WORTH LAGOON DRIFT CARD STUDY: NOVEMBER 2024 AFTER-ACTION REPORT

PROJECT SUMMARY

The Lake Worth Lagoon Drift Card Study, or *Lagoon Drift*, is a community-oriented citizen science experiment designed to add new observational data to existing models and give South Florida a better sense of how localized currents affect the way marine debris and pollutants move in and around the Lake Worth Lagoon. This experiment is an extension of the Biscayne Bay Drift Card Study (*Bay Drift*), led by the University of Miami's Consortium for Advanced Research on Transport of Hydrocarbon in the Environment, and the first of its kind in Palm Beach County (PBC). November 2024 marked the 12th experiment in Lake Worth Lagoon citizen science study. Cards were also deployed by partners into the Indian River Lagoon in conjunction with this experiment.

PARTNERS

This Palm Beach County based experiment was executed by ANGARI Foundation in conjunction with local partners:

- Beach Bucket Foundation
- Friends of Manatee Lagoon
- Friends of Palm Beach
- Great Charity Challenge
- Independence Middle School SciQuest Academy
- Keep Palm Beach County Beautiful, Inc.
- LagoonFest
- Lake Worth Lagoon Initiative
- Lake Worth Waterkeeper
- Manatee Lagoon - An FPL Eco-Discovery Center™
- Palm Beach County Department of Environmental Resources Management
- Palm Beach Day Academy
- Surface 71
- The Benjamin School
- Wellington Community High School
- United States Coast Guard Auxiliary Flotillas 5-2 & 5-4
- > 451 individuals who decorated/released/reported drift cards and/or provided access to release sites

EXPERIMENTAL DESIGN

At 10:00 AM on November 14th, 99 *Lagoon Drift* partners and citizen scientists executed the coordinated release of 280 eco-friendly, 4" x 6" degradable wooden drift cards from seven sites around Palm Beach County. Forty cards were deployed at each of the seven sites.

Site selection was based on regional history, partner recommendation and accessibility. Sites were, from N to S: Burt Reynolds Park, North Palm Beach Intracoastal Waterway, the C-17 Canal/Earman River, Manatee Lagoon - An FPL Eco-Discovery Center™, West Palm Beach Center Public Dock, the C-51/West Palm Beach Canal and the C-16 Canal.

RESULTS

1,389+ community members were directly engaged in *Lagoon Drift* educational programming. The experiment also received media coverage with circulation/viewership from a variety of media outlets including ABC WPBF 25 News, Fox 35 News and Fox 51 News.

Of the 280 cards deployed around the Lake Worth Lagoon (LWL) and Intracoastal Waterway (ICW) on November 14th,

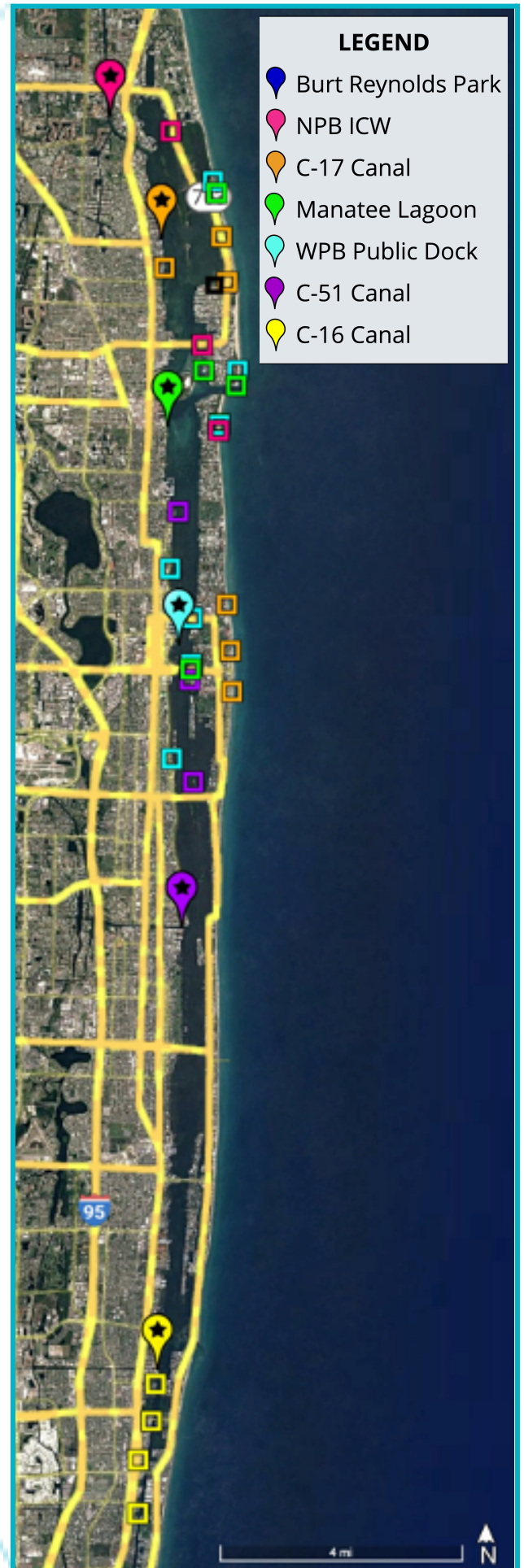
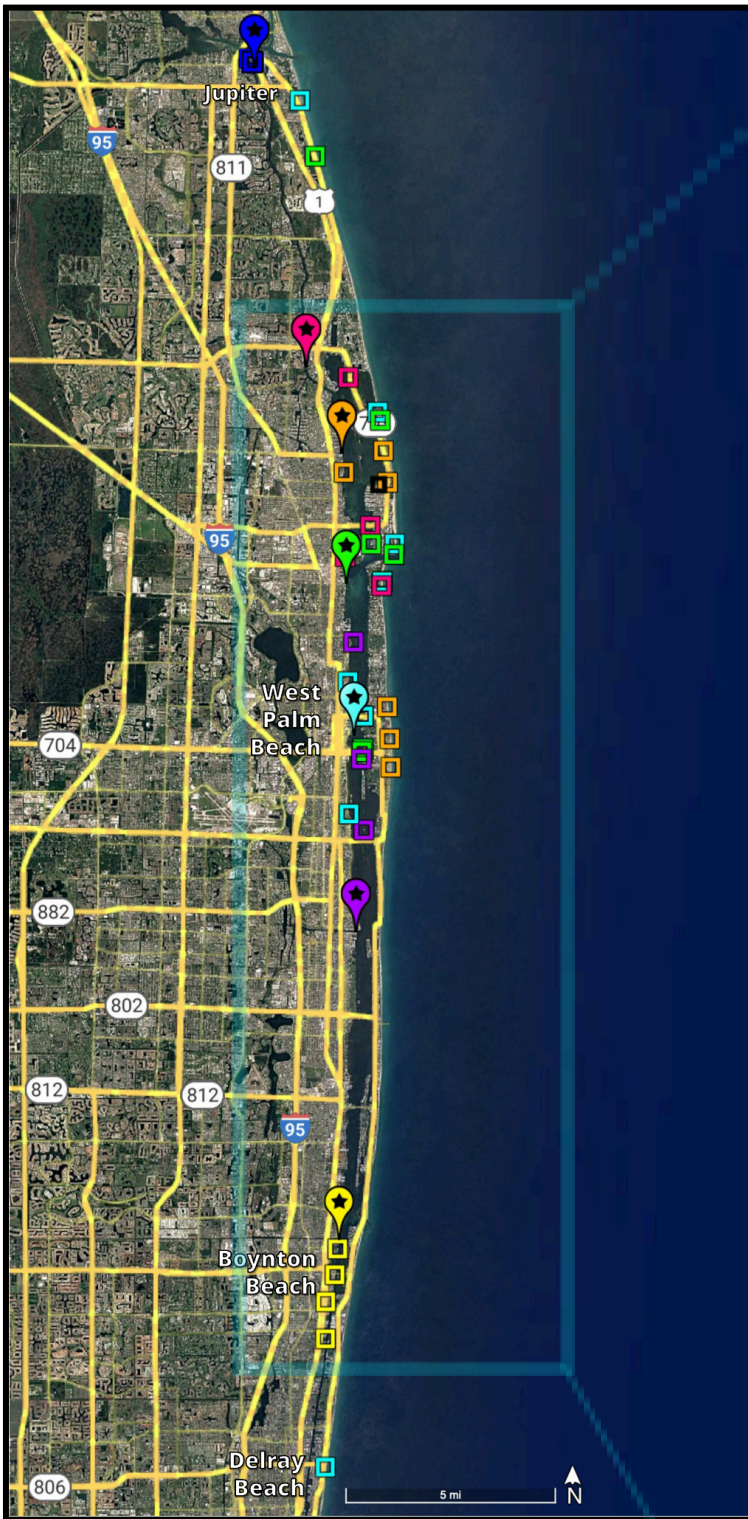
- 49 (18%) were reported recovered by 54 members of the public.
- 37 (74%) of the cards reported were recovered within the LWL, ICW or Loxahatchee River. These included cards released from all 7 of the study sites.
- 12 (24%) of the cards reported were recovered on Atlantic beaches outside the LWL, ICW and Loxahatchee River. These originated from Burt Reynolds Park, North Palm Beach Intracoastal Waterway, C-17 Canal/Earman River, Manatee Lagoon and West Palm Beach Public Docks.
- Found cards were reported from Jupiter in the north to Delray Beach in the south, spanning >34 miles of coastline.

A color-coded summary figure of the study area with drift card deployment and recovery localities is shown on page 2.

NEXT STEPS

ANGARI Foundation and program partners plan to continue to grow participation, collaboration and educational offerings associated with the program in the future, including *Lagoon Drift* citizen science experiments intended for:

- Spring 2025 (around Earth Day / Great American Cleanup)
- November 2025



Google Earth images of the Lake Worth Lagoon Drift Card Study area for the November 14th, 2024 experimental release. Left image provides an overview of full coverage area, while right image focuses on the LWL where most of the study activity occurred.

Color-coded marker bubbles indicate drift card release sites and open squares show locations where members of the public recovered drift cards.