

## LAKE WORTH LAGOON DRIFT CARD STUDY: APRIL 2023 AFTER-ACTION REPORT

### PROJECT SUMMARY

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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 particles, including marine debris and pollutants, move in and around the Lake Worth Lagoon (LWL). 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 (CARTHE) and the first of its kind in Palm Beach County (PBC). After a year and a half hiatus in response to the COVID-19 pandemic, *Lagoon Drift* partners re-initiated their drift card experiments in November 2021, and April 2023 marked the 9<sup>th</sup> experiment in this citizen science study.

### PARTNERS

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

- Clearwater Marine Aquarium Research Institute
- Eagles Landing Middle School
- Friends of Manatee Lagoon
- Friends of Palm Beach
- Great Charity Challenge
- Keep Palm Beach County Beautiful, Inc.
- Lake Worth Lagoon Initiative
- Lake Worth Waterkeeper
- Manatee Lagoon - An FPL Eco-Discover Center™
- Palm Beach County - Environmental Resources Management
- Palm Beach Day Academy
- Surface 71
- The Benjamin School
- TurtleFest 2023 at Loggerhead Marinelife Center
- > 327 community members who decorated/released/reported drift cards and/or provided access to drift card release sites

### EXPERIMENTAL DESIGN

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At 7:30 AM on April 14<sup>th</sup>, 18 *Lagoon Drift* partners and citizen scientists executed the coordinated release of 240 - 4" x 6" eco-friendly, degradable wooden drift cards from docks and vessels at 6 sites around PBC. Forty cards were deployed at each of the 6 sites.

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

### RESULTS

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400+ community members were directly engaged in *Lagoon Drift* educational programming. The experiment also received media coverage with circulation/viewership/listenership of 261,000.

Of the 240 cards deployed around the LWL and ICW on April 14<sup>th</sup>,

- 43 (18%) were reported recovered by 44 members of the public; these included cards released from all 6 of the study sites.
- 13 (30%) of the cards reported were recovered on Atlantic beaches outside the LWL, ICW and Loxahatchee River. These originated from Burt Reynolds Park, the West Palm Beach Public Dock, and the C-51 and C-16 Canals.
- Reports came from Hutchinson Island in the north to Ocean Ridge in the south, covering a range of >80 miles of coastline.

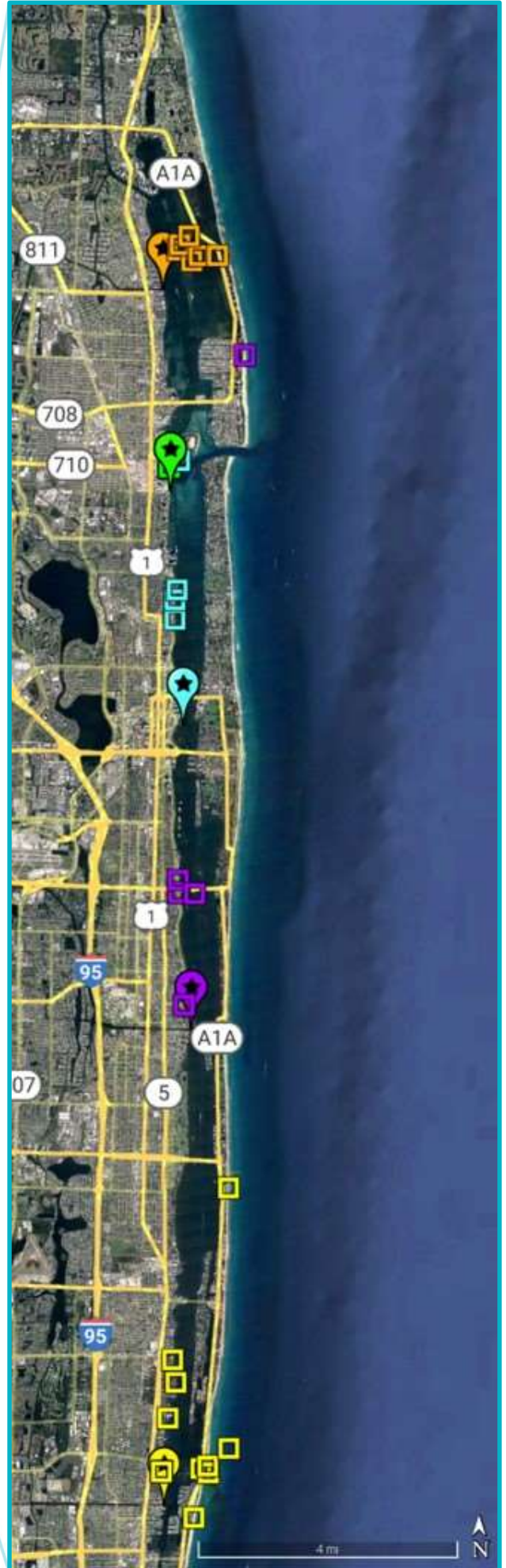
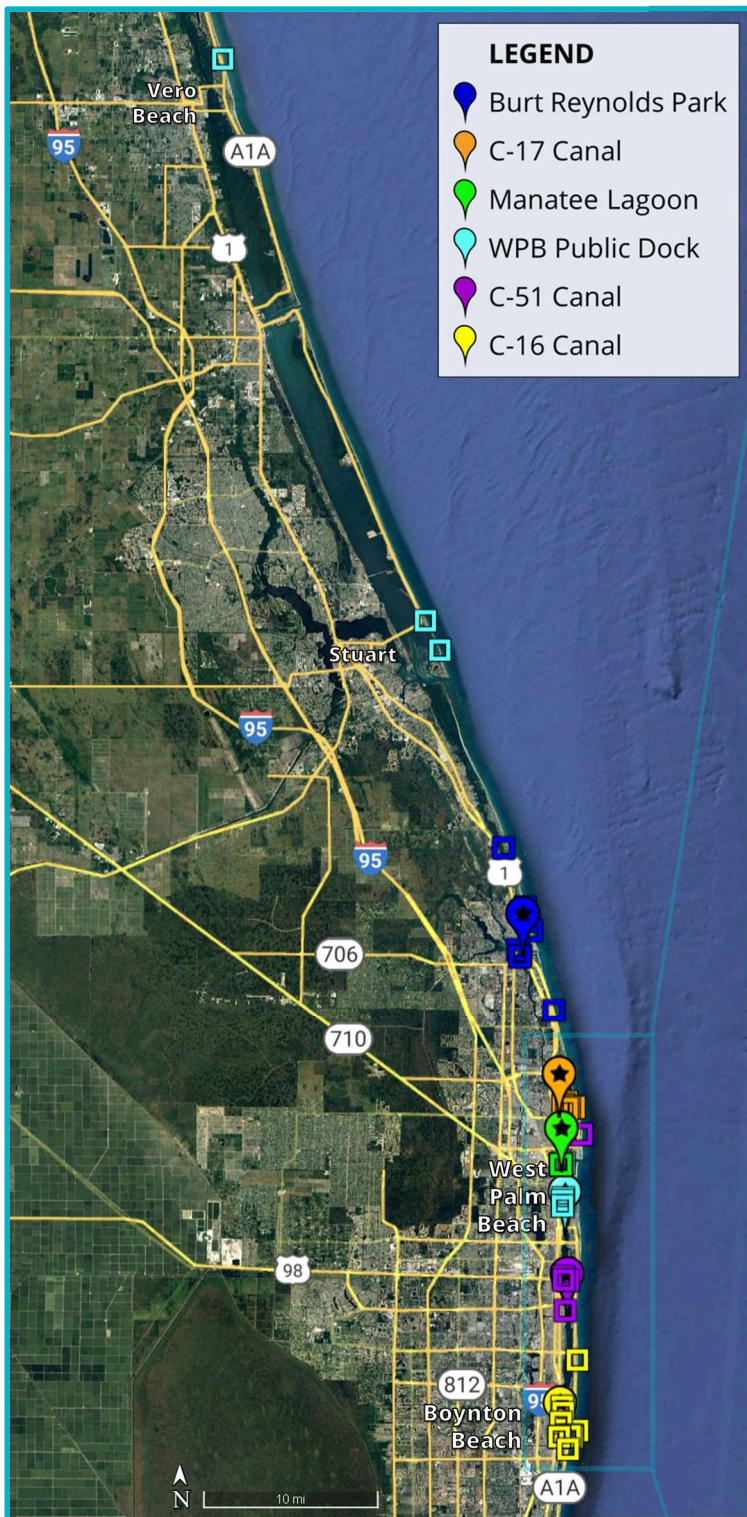
A color-coded summary figure of the study area with drift card deployment and recovery localities is shown on Page 2.

### NEXT STEPS

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

- November 2023
- Spring 2024 (around Earth Day / Great American Cleanup)



Google Earth images of the Lake Worth Lagoon Drift Card Study area for the April 14<sup>th</sup>, 2023 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.

For more info on the #LagoonDrift project, visit: [angari.org/lagoondrift/](https://angari.org/lagoondrift/)