

LAKE WORTH LAGOON DRIFT CARD STUDY: NOVEMBER 2021 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 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. After a year and a half hiatus in response to the COVID-19 pandemic, *Lagoon Drift* partners were eager to initiate the November 2021 experiment, which was the 6th of its kind since the study commenced in 2017. The November 2021 experiment also marked the 2nd synchronized release of *Lagoon Drift* cards in the Indian River Lagoon coordinated by the Florida Department of Environmental Protection (FDEP) – Indian River Lagoon Aquatic Preserves and their partners.

PARTNERS

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

- Clearwater Marine Aquarium Research Institute
- Friends of Manatee Lagoon
- Friends of Palm Beach
- Keep Palm Beach County Beautiful, Inc.
- LagoonFest
- Lake Worth Lagoon Initiative
- Lake Worth Waterkeeper
- Manatee Lagoon – An FPL Eco-Discovery Center™
- Norman Gitzen Gallery
- Palm Beach County - Environmental Resources Management
- Palm Beach Day Academy
- Sea Turtle Day at Gumbo Limbo Nature Center
- Surface 71
- > 340 community members who decorated/released/reported drift cards or provided access to drift card release sites

EXPERIMENTAL DESIGN

At 1 PM on November 6th, ~65 *Lagoon Drift* partners and members of the public coordinated to release 240 - 4" x 6" eco-friendly, degradable wooden drift cards from docks and vessels at 6 sites around PBC. 40 cards were deployed from each of the 6 sites.

Site selection was based on regional history, partner recommendation, and accessibility. They 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

Thousands of community members were reached through social media, outreach events and educational programming.

Of the 240 cards deployed around the LWL and ICW on November 6th,

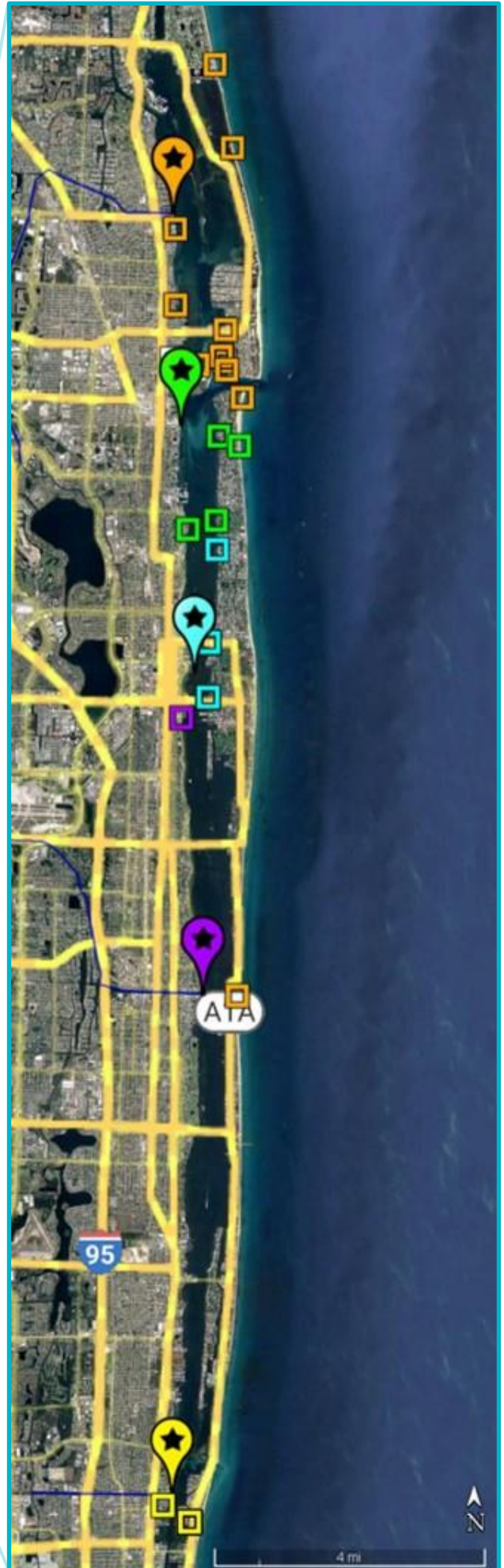
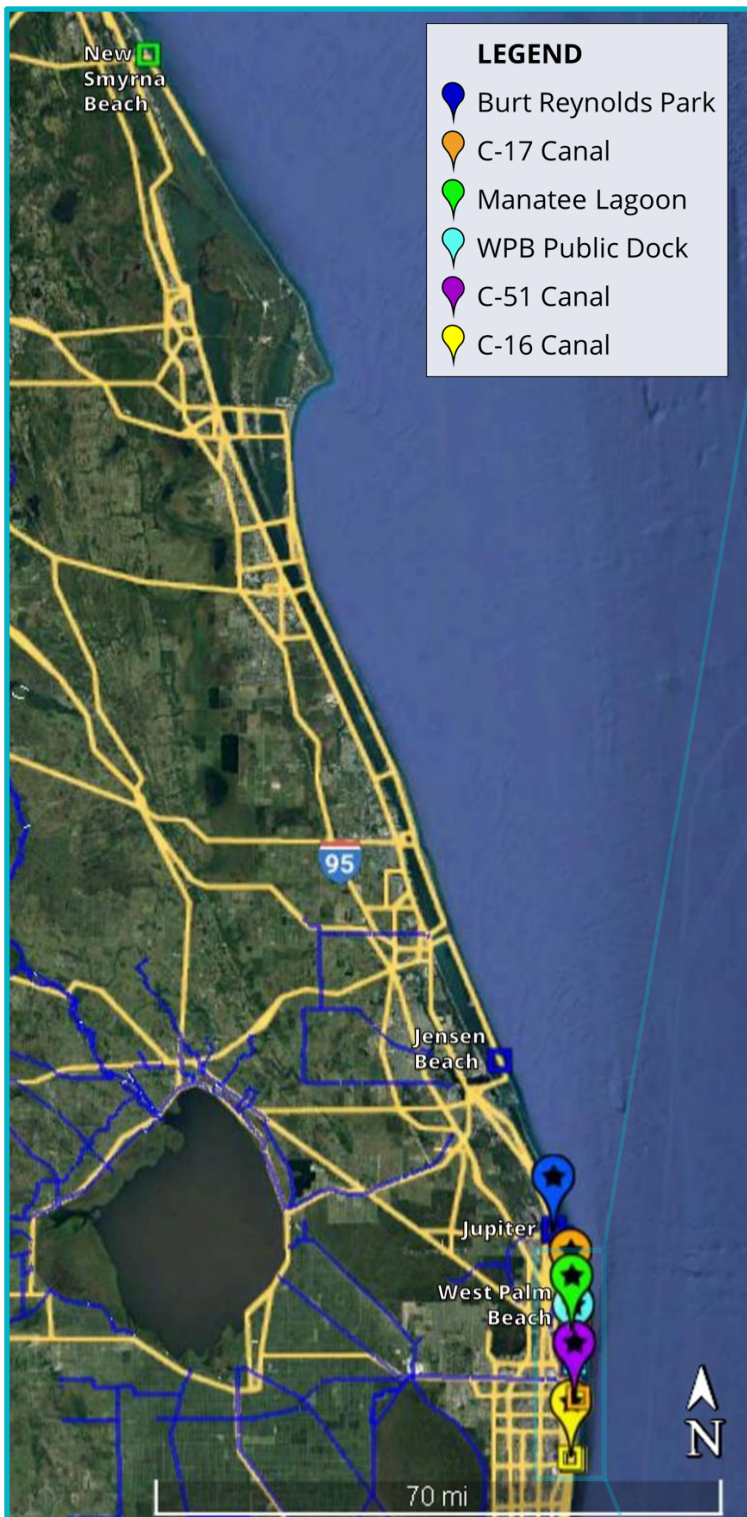
- 40 (17%) were reported by 29 members of the public; these included cards released from all 6 of the study sites.
- Multiple cards were recovered in several areas throughout the region. 8 of the 40 cards released from the mouth of the C-16 Canal were recovered at the Inlet Cay Bridge in Ocean Ridge.
- 7 (18%) of the cards reported were recovered on Atlantic beaches outside the LWL, ICW and Loxahatchee River. These originated from Burt Reynolds Park, the C-17 Canal and Manatee Lagoon.
- Reports came from New Smyrna Beach in the north (~170 miles traveled) to Ocean Ridge (~0.5 miles traveled) in the south.

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

NEXT STEPS

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

- Spring 2022 (pre- World Ocean Day)
- Fall 2022



Google Earth images of the Lake Worth Lagoon Drift Card Study area for the Nov. 6th, 2021 experiment. 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 drift cards were recovered by members of the public.

For more info on the #LagoonDrift project, visit: angari.org/lagoondrift/