

LAKE WORTH LAGOON DRIFT CARD STUDY: APRIL 2018 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 to 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 the Lake Worth Lagoon region. The April deployment marked the 2nd experimental release of the study and included the addition of 2 new deployment sites to the N and S ends of the Lagoon.

PARTNERS

The experiment was executed by ANGARI Foundation in conjunction with local partners:

- Conniston Middle School
- Friends of Palm Beach
- John D. MacArthur Beach State Park
- Keep Palm Beach County Beautiful, Inc.
- Lake Worth Lagoon Initiative
- Manatee Lagoon – An FPL Eco-Discovery Center™
- NOAA AOML's Advanced Manufacturing & Design Lab
- Palm Beach Central High School
- Palm Beach County – Environmental Resources Management
- Sea to Shore Alliance
- Surface 71
- >250 community members who decorated/released/reported drift cards and/or provided access to drift card release sites.

EXPERIMENTAL DESIGN

At 3:30 PM on April 7th, ~40 Lagoon Drift partners and members of the public coordinated to release 240 - 4" x 6" eco-friendly, biodegradable wooden drift cards from docks/seawalls at 6 sites around the LWL. 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: North LWL, C-17 Canal, Manatee Lagoon – An FPL Eco-Discovery Center™, West Palm Beach Center Public Dock, C-51 Canal, and C-16 Canal.

RESULTS

Thousands of community members were reached through outreach events, door-to-door info sessions, and media.

Strong winds (gusting up to 20 knots) and rough seas at the time of deployment had an immediate impact on released cards and likely contributed to reduced recovery relative to the November 2017 deployment.

Of the 240 cards deployed into the LWL on April 7th,

- 34 (14%) were reported by 23 members of the public; these included cards deployed from 5 of the 6 sites (no cards were reported from the C-17 Canal).
- While there were multiple recoveries from certain areas, no mass card accumulations were reported.
- 10 (4%) were recovered outside the Lake Worth Lagoon. These cards originated from Manatee Lagoon & the C-16 Canal; reports came from Juno Beach Pier in the north (~26 miles traveled) to Briny Breezes (~4 miles traveled) in the south.

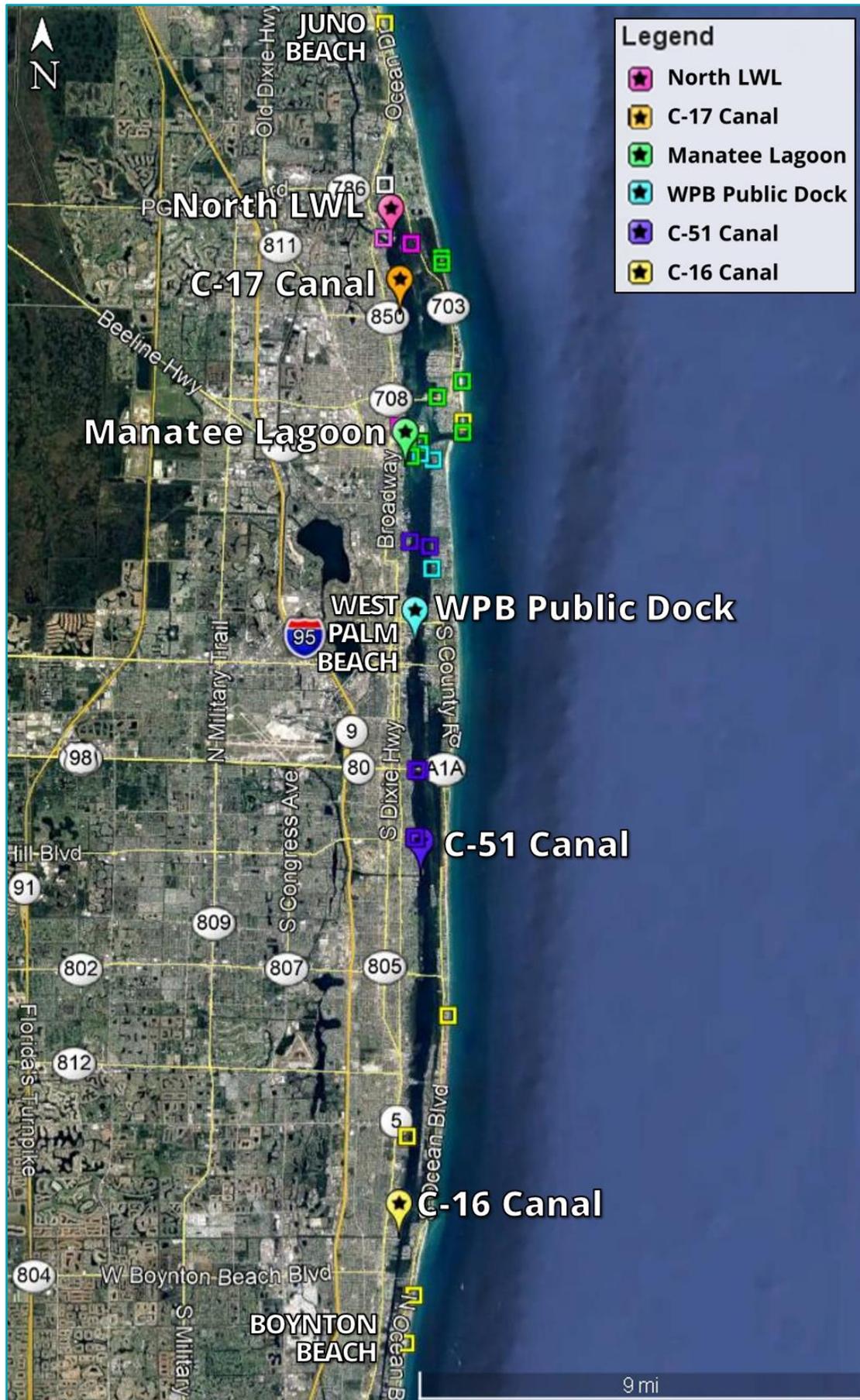
A color-coded summary figure of the study area with drift card deployment and recovery localities can be found on Page 2.

NEXT STEPS

We plan to continue to grow participation, partnerships, and educational programming moving forward, executing 2 Lagoon Drift card release experiments each year. The next 2 will occur:

- Sept. 9 2018 (pre- International Coastal Clean Ups)
- Apr 2019 (pre- Earth Day & Great American Clean Ups)

****Interested in getting involved with future Lagoon Drift experiments? Please contact LagoonDrift@ANGARI.org****



Google Earth map of Lake Worth Lagoon Drift Card Study area from the Apr. 7th, 2018 release event.

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

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