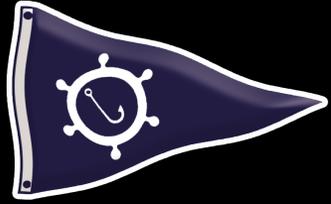


PALM BEACH COUNTY
FISHING FOUNDATION



**OYSTER SHELL
RECYCLING &
RESTORATION
PROGRAM**

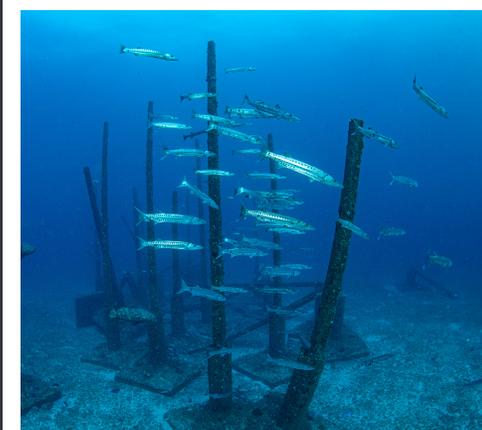
*Improving habitat & water quality
one oyster at a time*



WHO WE ARE...



The Palm Beach County Fishing Foundation is the charitable affiliate of the historic West Palm Beach Fishing Club. We have been building artificial reefs, supporting the development of estuarine enhancement projects and aiding game fish research for decades. We support locally based efforts that help restore and enhance our marine resources.



OUR MISSION:

Collect oyster shells from local restaurant partners before they go to the land fill and use the recycled shells for environmental restoration.



Oysters have lived in Lake Worth Lagoon's intertidal zone from the time it became a brackish water estuary. Like seagrasses, mangroves and other natural habitats oysters have been severely depleted by environmental degradation. There is a need to restore oyster habitat.



Palm Beach Inlet circa 1915

Photo credit: Port of Palm Beach

OIMMP Central
Eastern Florida:
Lake Worth Lagoon



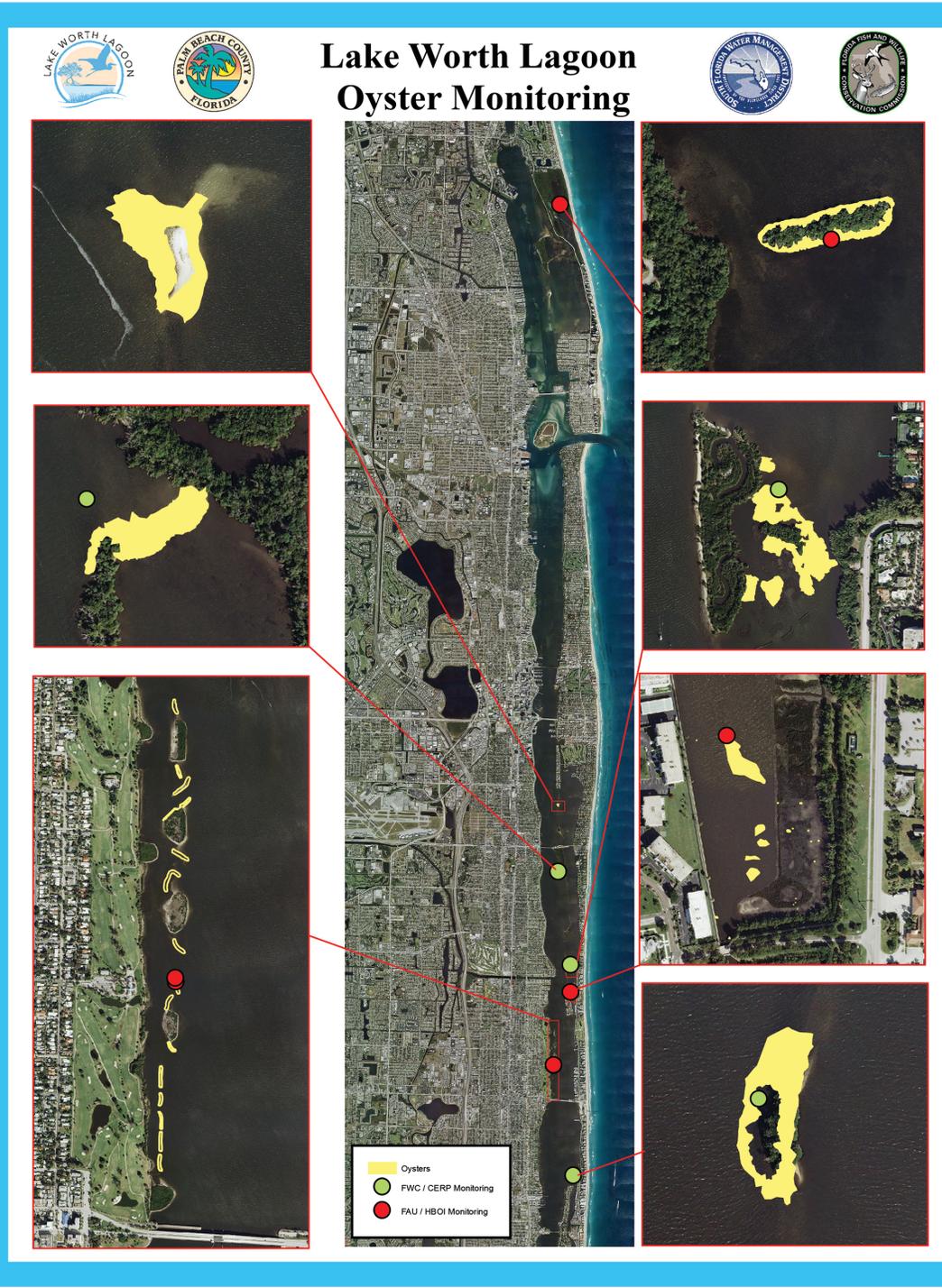
Legend

Oyster

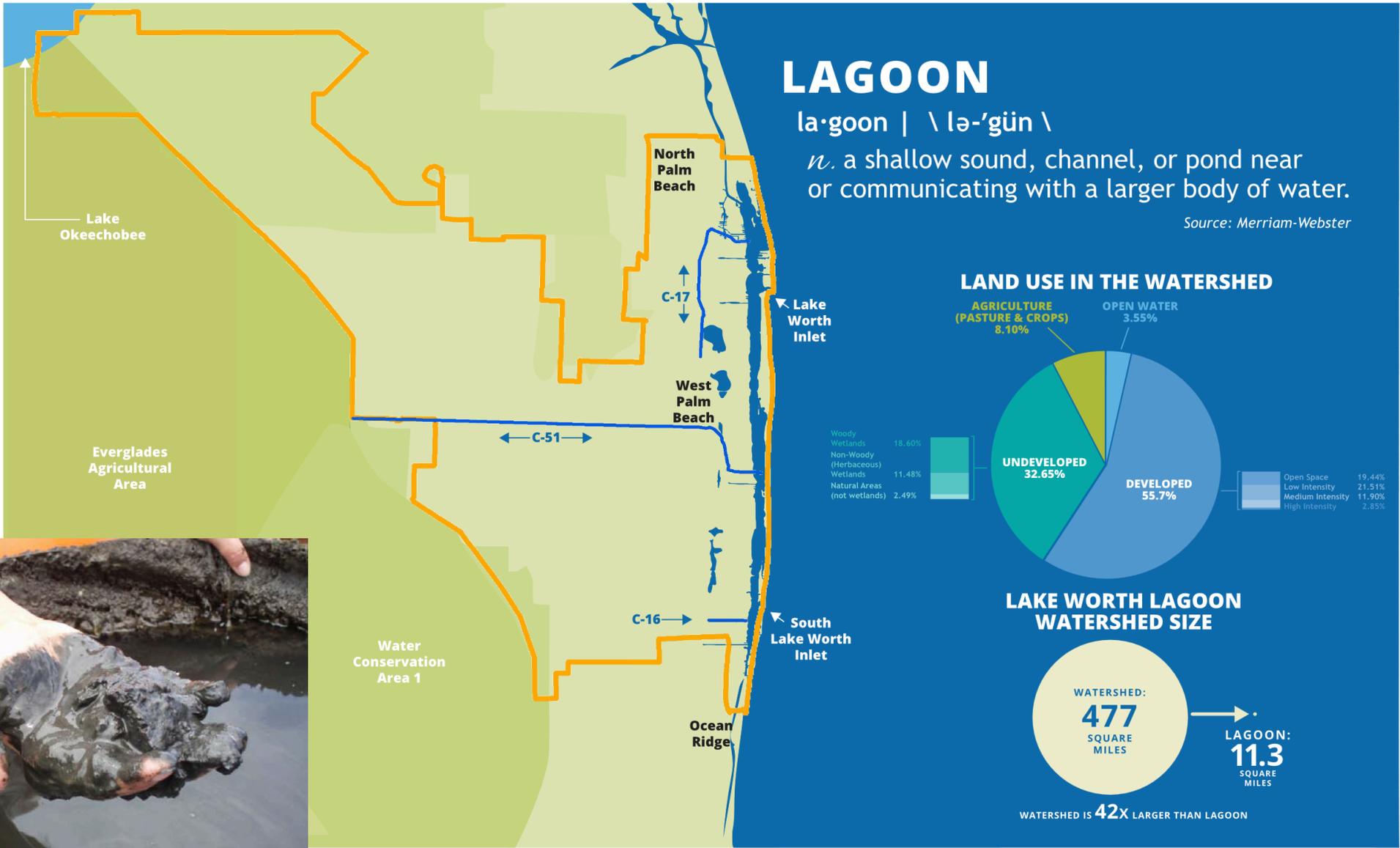
Oyster reefs are not represented to scale.
Sources: PBC 2008, Dial Cordy and Associates Inc 2011.



OYSTER
REEFS
WITHIN THE
LAKE
WORTH
LAGOON



LAKE WORTH LAGOON WATERSHED MAP



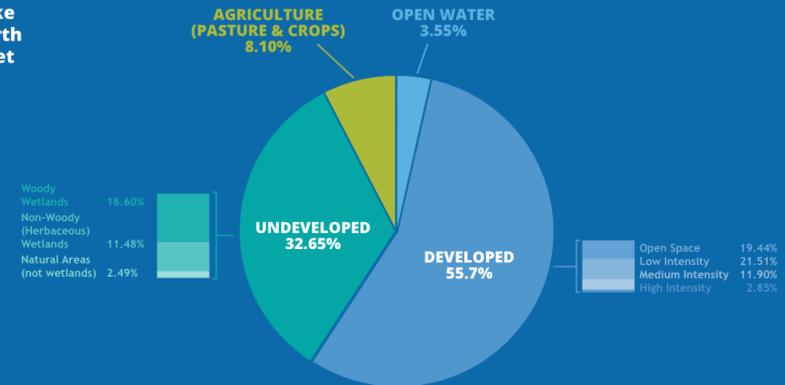
LAGOON

la·goon | \lə-'gün \

n. a shallow sound, channel, or pond near or communicating with a larger body of water.

Source: Merriam-Webster

LAND USE IN THE WATERSHED



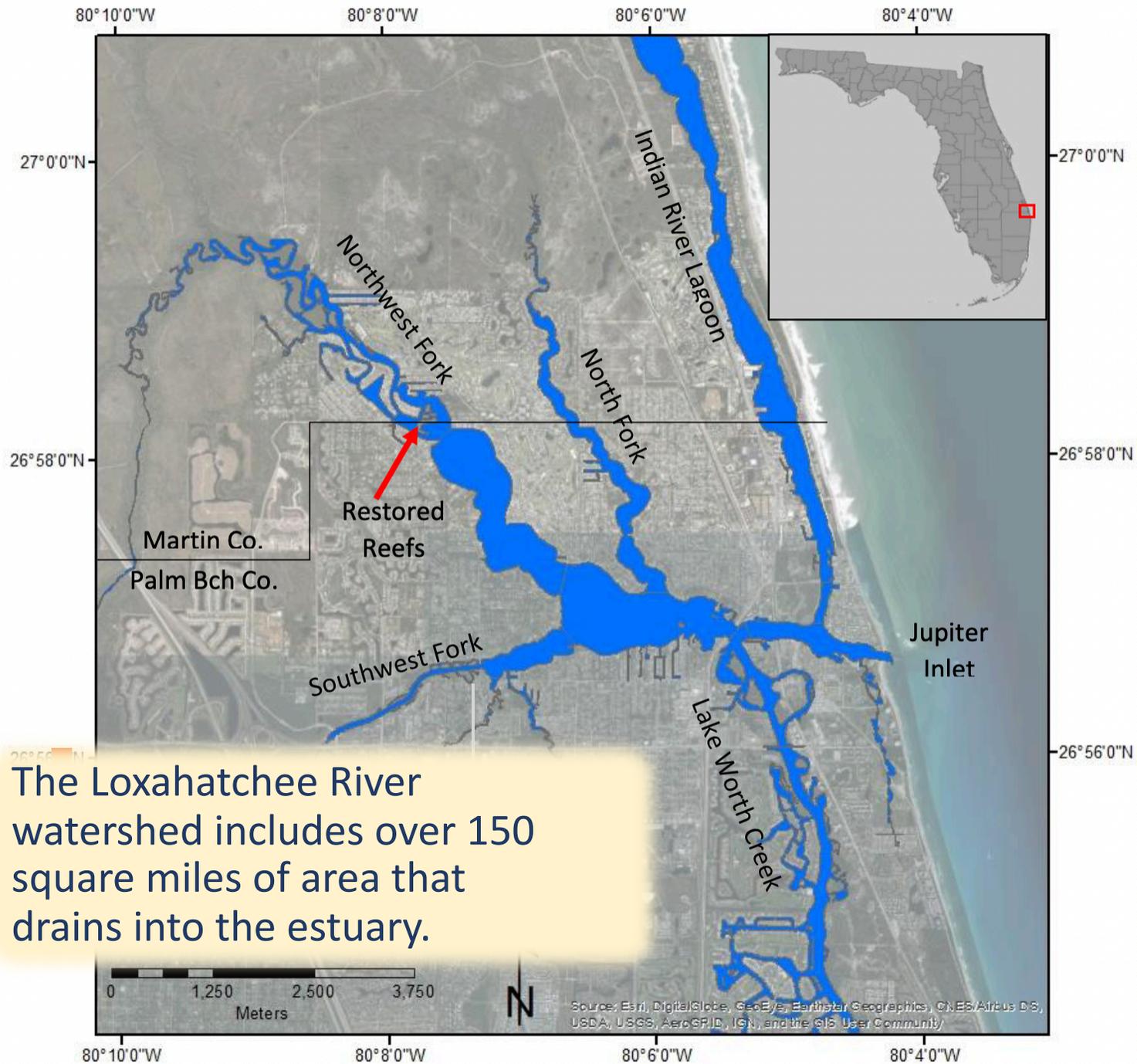
LAKE WORTH LAGOON WATERSHED SIZE



WATERSHED IS **42X** LARGER THAN LAGOON



Graphic courtesy of Lake Worth Lagoon Management Plan



The Loxahatchee River watershed includes over 150 square miles of area that drains into the estuary.



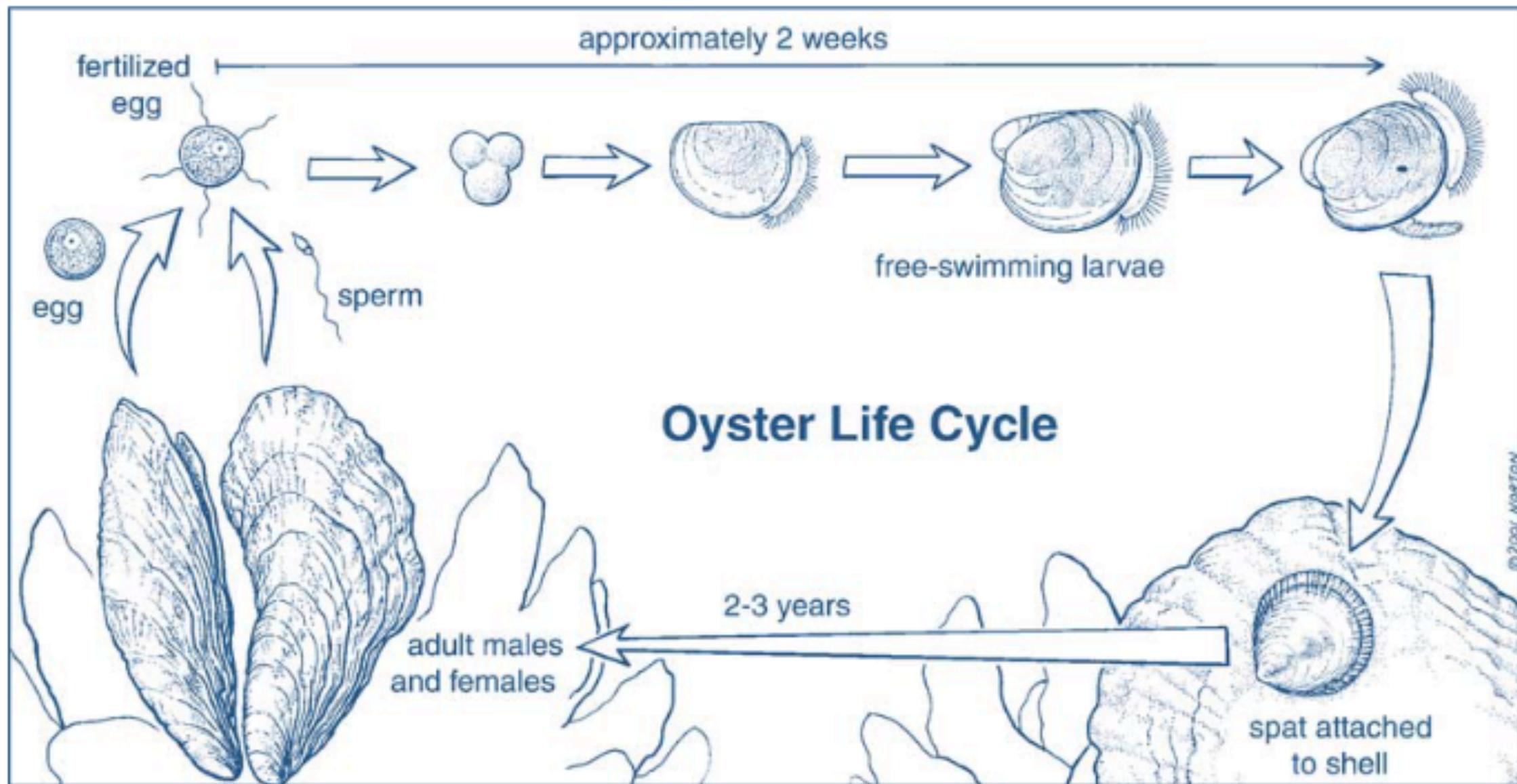


OYSTERS ARE KEYSTONE SPECIES THAT PROVIDE ESSENTIAL ECOSYSTEM SERVICES

- Filter feeders that improve water quality and clarity by filtering out algae, sediment & pollutants
- Provide critical habitat for fish, invertebrates & other wildlife
- Stabilize shorelines and prevent coastal erosion
- Carbon sequestration



Oysters are broadcast spawners. One of the best substrates used to recruit larvae is cured oyster shells. Once their spat settles on a hard surface they spend the rest of their life there. Oyster reefs are nothing more than generations upon generations of oysters growing on top of one another.



Oyster shell recycling & restoration programs are well-established all along the Eastern Seaboard and Gulf Coast. Isn't it time Palm Beach County had one?



RESTORE OUR SHORES



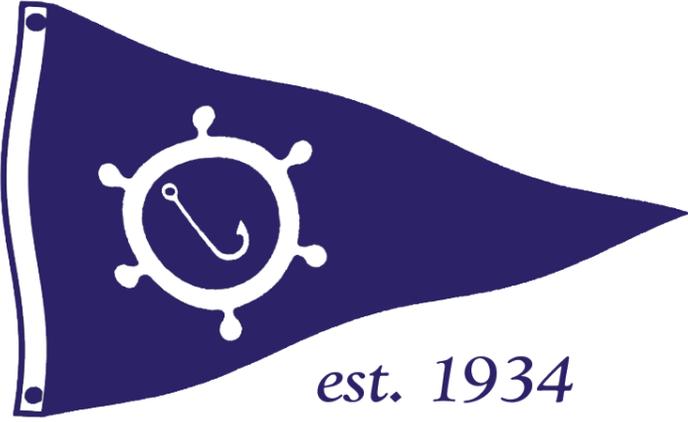
CHESAPEAKE BAY FOUNDATION
Saving a National Treasure

COMMUNITY PARTNERS ARE KEY TO THE PROGRAM'S SUCCESS...MORE WILL BE NEEDED



Local source of shells

WEST PALM BEACH FISHING CLUB



Volunteer & funding support



Site of shell curing station & potential restoration site



RECYCLING THE COLLECTED SHELLS

Oyster shells need to be 'cured' for a period of 3 to 6 months to rid them of any bacteria or harmful substances prior to being reintroduced into the environment.

RESTORATION TECHNIQUES

VERTICAL OYSTER GARDENS



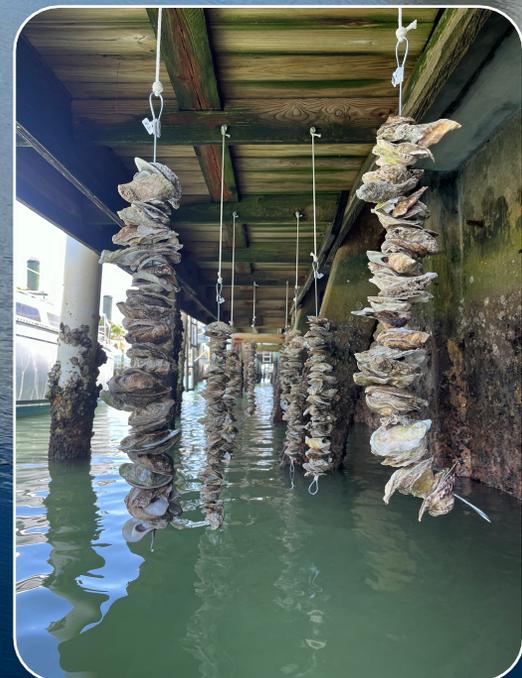
BUILDING OYSTER REEFS



These restoration efforts support the broader goals of creating intertidal habitats and improving water quality as outlined in the Lake Worth Lagoon Management Plan.



With thousands of privately owned docks located in Palm Beach County waterways, the opportunity to increase oyster habitat utilizing vertical oyster gardens is significant



LET'S DO SOME SIMPLE MATH...

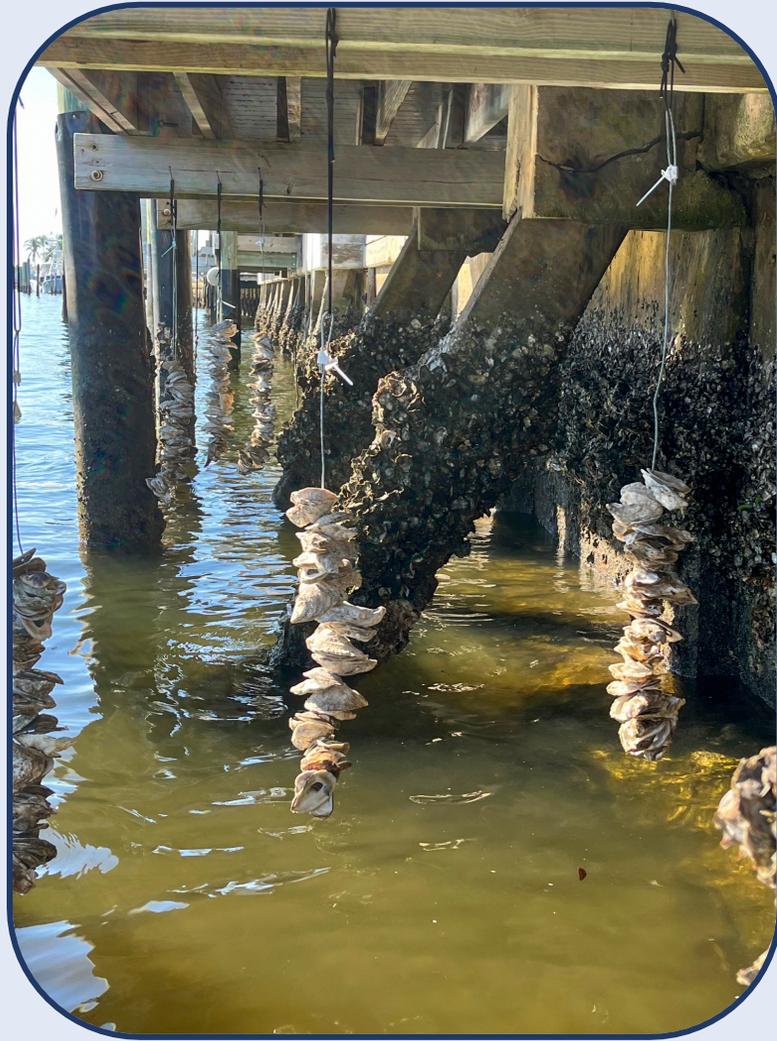
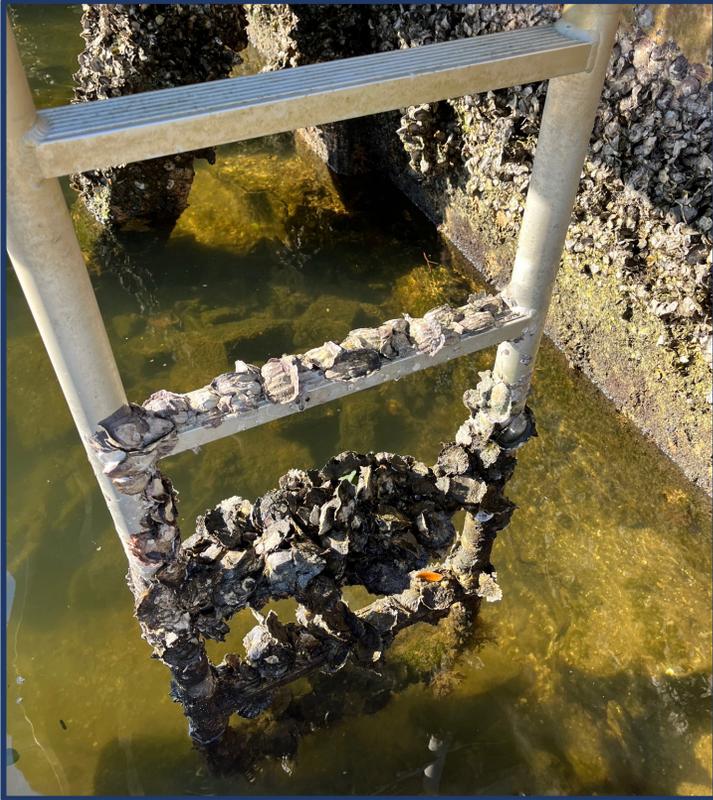
Suppose we install 1,200 VOGs (200 docks with 6 VOGs each)

Then let's presume each VOG recruits 14 oysters

$$1,200 \times 14 = 16,800 \text{ oysters}$$

Estimating each oyster filters 30 gallons of water daily,

A total of 504,000 gallons of water will be filtered each day!



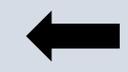
Docks and boardwalks where some oysters are already present will be ideal locations to install Vertical Oyster Gardens



**New
VOGs**



**VOGs at
6 months**





**THE ORIGINATOR OF THE VERTICAL OYSTER
GARDEN...MOTHER NATURE!**



Unscraped



Scraped

DON'T SCRAPE YOUR SEAWALLS



Stakeholder engagement opportunities are another associated benefit. This program is ideally suited for community based environmental restoration and will help get the public invested in the environment



THIS COULD BE YOU!



WIN – WIN – WIN – WIN – WIN!

- Collecting shells from restaurants reduces landfill waste
- VOGs are a proven restoration technique that increases oyster habitat
- Environmental benefits extend far beyond filtering water
- Program provides meaningful community engagement & educational opportunities
- Grassroots environmental initiative that requires no permit



HOW YOU CAN HELP....

- Eat oysters at our partner restaurants
- If you'd like some VOGs let us know
- If you know of locations where VOGs would be a good fit let us know
- If you know of a group that would like to help build VOGs let us know
- If you are interested in assisting with shell pickups let us know
- If you can assist in other ways let us know

***'Using Locally Sourced Shells
for Locally Based Restoration'***



***“NEVER DOUBT THAT A SMALL GROUP OF
THOUGHTFUL, COMMITTED CITIZENS CAN
CHANGE THE WORLD, INDEED, IT IS THE
ONLY THING THAT EVER HAS”***

- Margaret Mead

Famous 20th Century Cultural Anthropologist & Author



GET INVOLVED!



Help us increase habitat & improve water quality in the Lake Worth Lagoon and adjacent waters one oyster at a time

Palm Beach County Fishing Foundation
(561) 832 • 6780