

Interagency Efforts to Restore Florida's Coral Reef

Status, Threats, and the State of Restoration Efforts

Wesley R. Brooks, Ph.D.
Chief Resilience Officer



The Statewide Office of Resilience supports local communities

- Meet communities *where they are* through Regional Resilience Tours
- Assist and accelerate DEP implementation of the Resilient Florida framework
- Advance ongoing state ecosystem restoration efforts / lower barriers to use of nature-based features and natural infrastructure
- Facilitate partnerships to capitalize on strategic collaborations and funding opportunities



The Statewide Office of Resilience leads Interagency
Coordination

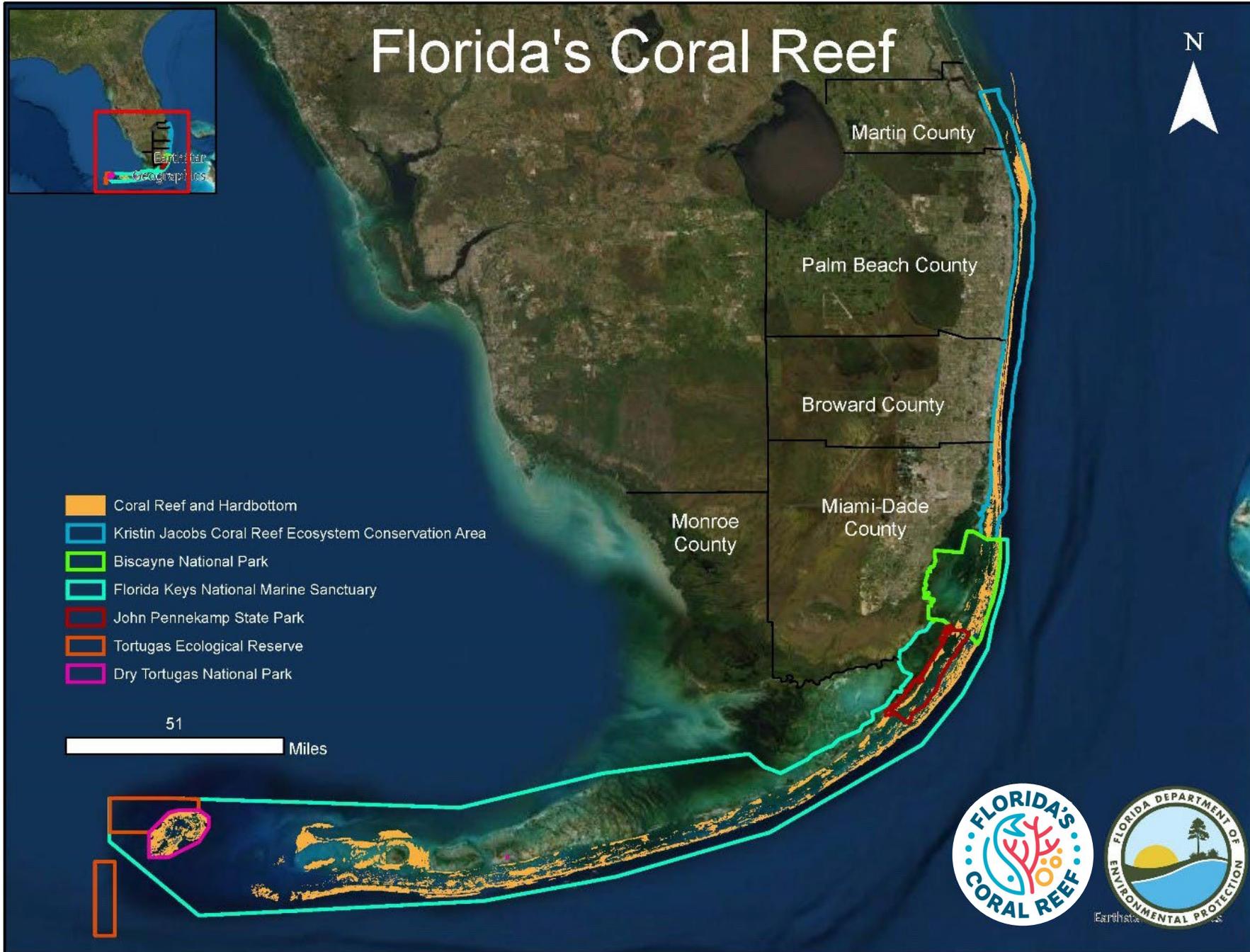
**UNDER GOVERNOR DESANTIS, THESE STATE AGENCIES
ARE MANAGING PUBLIC INVESTMENTS OF:**

>\$9 BILLION IN RESILIENCE

&

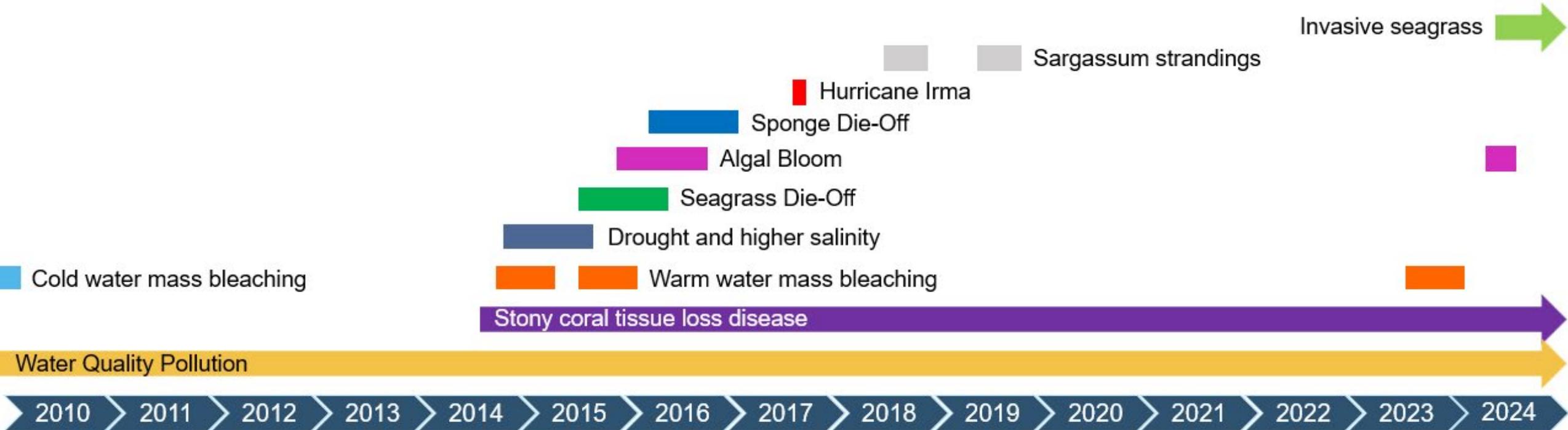
**>\$6.5 BILLION IN WATER QUALITY AND
ECOSYSTEM RESTORATION**

Florida's Coral Reef



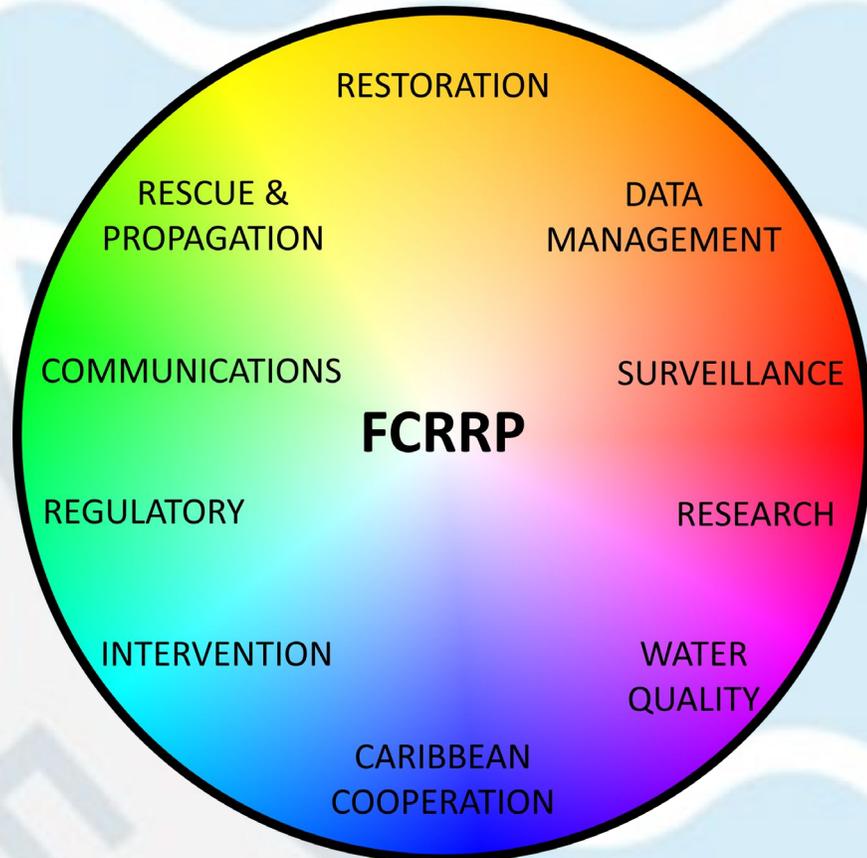
Florida's Coral Reef

RECENT ENVIRONMENTAL AND BIOLOGICAL STRESSORS



Management Coordination

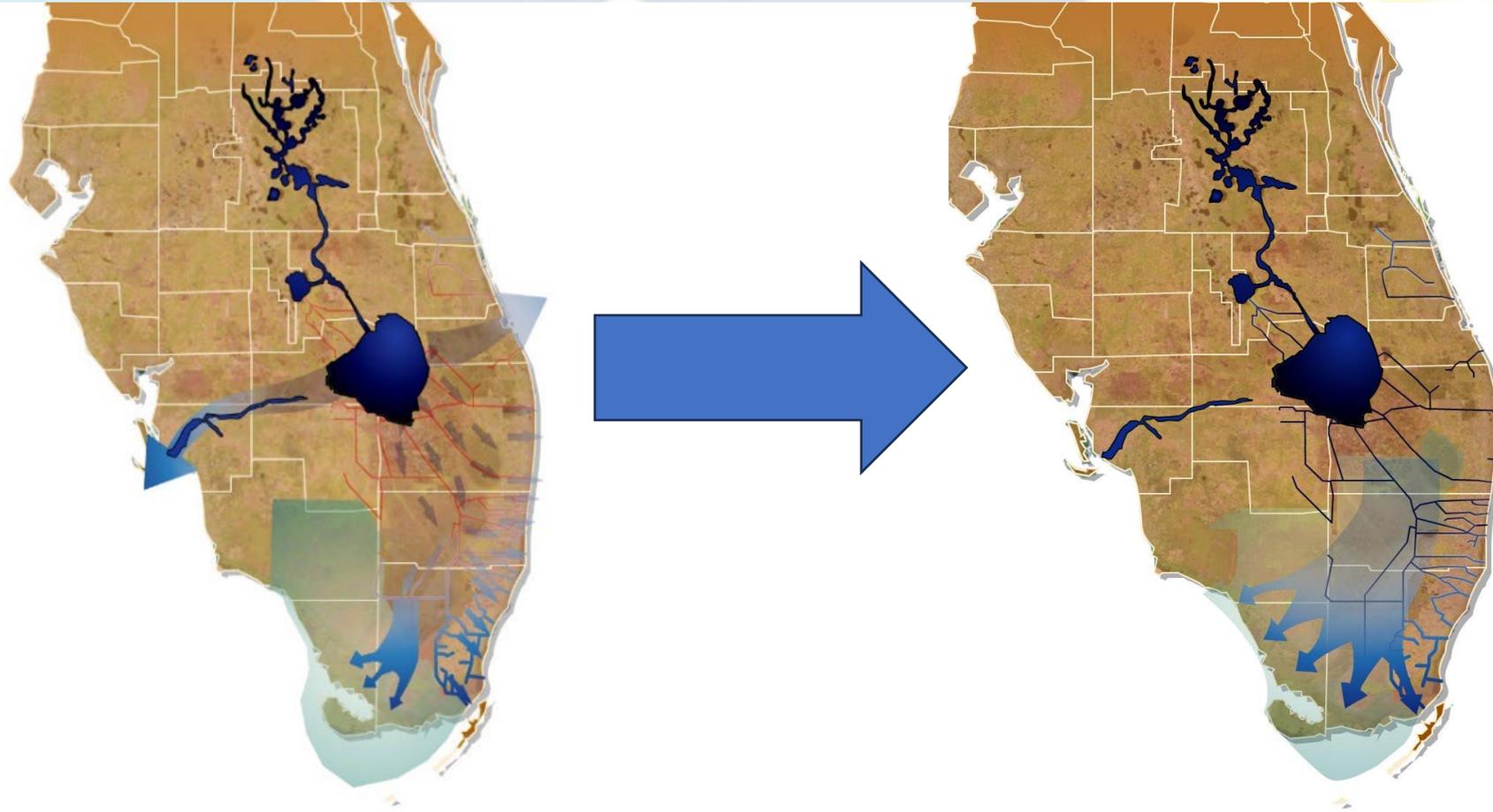
SCTLD Response Team + Florida's Reef Resilience Program =



Structure:

2 leadership bodies
9 response teams
80+ agency, academic,
NGO, & private partners

+ *Future Hydrological Changes...*



Integrated & Proactive Monitoring Coordination



Regionally integrate and coordinate management and restoration-related activities to conserve and restore Florida's Coral Reef and associated resources to protect, sustain, and enhance the South Florida ecosystem's ecological and aesthetic character, function, and resilience.

<https://www.evergladesrestoration.gov/fcrct>

**UNIFIED MONITORING FRAMEWORK
FOR FLORIDA'S CORAL REEF**

ADOPTED: November 9, 2023

FLORIDA'S CORAL REEF Coordination Team

NATIONAL OCEANOGRAPHIC AND ATMOSPHERIC ADMINISTRATION

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

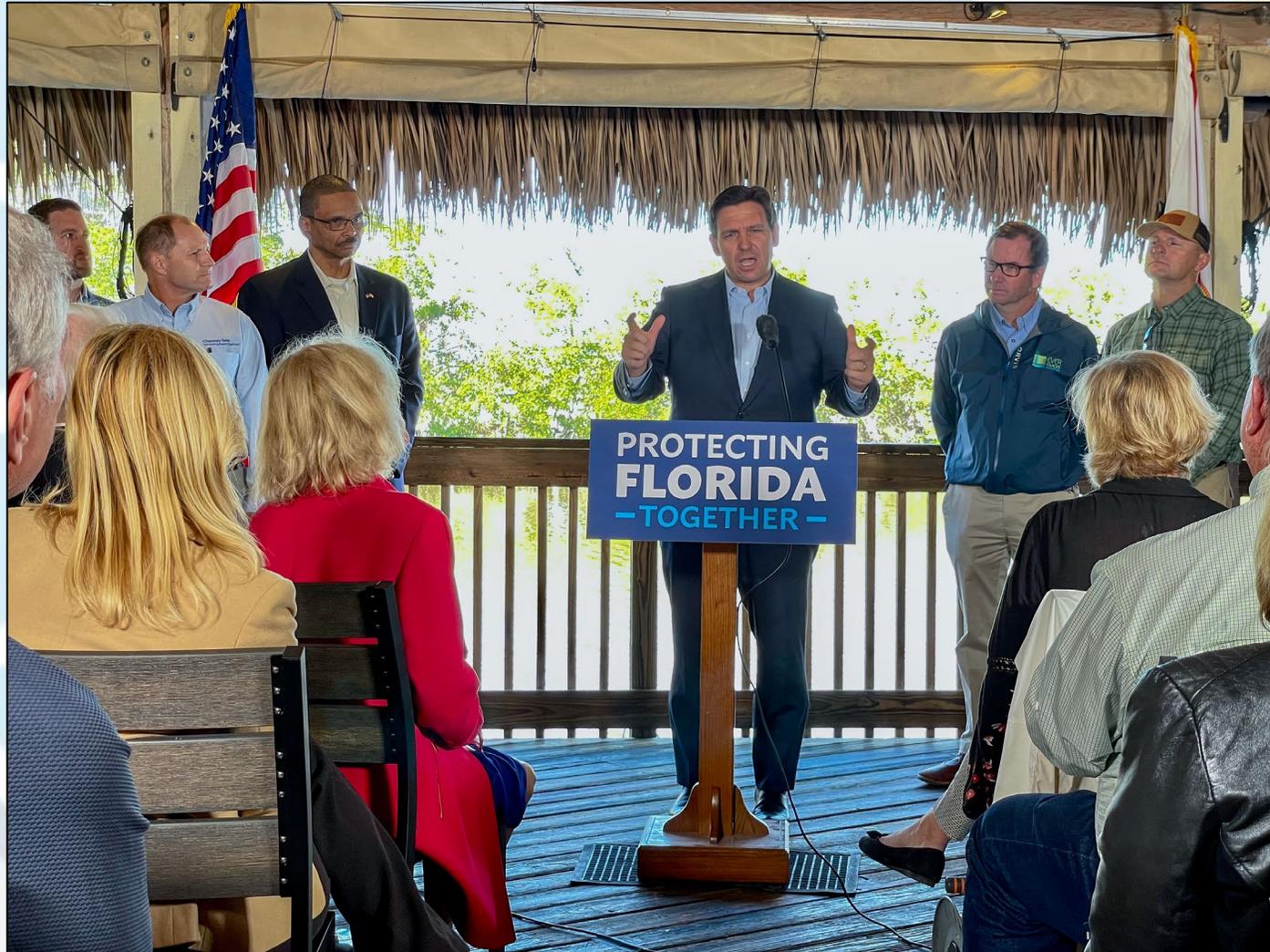
US Army Corps of Engineers

USGS

BROWARD COUNTY

MIAMI-DADE COUNTY

Governor DeSantis issues EO-23-06
“Achieving *Even More* Now for Florida’s Environment”



Florida's Coral Reef Restoration & Recovery Initiative



The FCR₃ Initiative aims to develop the **infrastructure**, **technology**, **skilled workforce**, and **logistics** necessary by 2050 to support the long-term recovery of no less than 25% of Florida's Coral Reef.

FCR3 Initiative

Agency Roles & Responsibilities



Lead FCR3 coordination and funding administration, place-based strategy development for site selections, detailed designs for selected sites, as well as local monitoring and oversight. Lead hybrid reef projects. Lead coral mitigation information sharing and permitting.



Lead species permitting for all coral restoration activities - continue oversight of partners holding >2,000 broodstock corals housed in land-based facilities in FL and nation. Lead genetic management of coral and reef-associated species. Co-develop and implement “propagation pipeline” and associated plans.



Provide high level oversight and vision; identify broader strategic opportunities. Lead the coupling/interrelating of in-water ecosystem restoration with tangible and observable above-water benefits to human communities and built infrastructure.

FCR3 Initiative

Strategically Augmenting Coral Reef Restoration Capacity, Capability, and Success

Phase I (FY23-26):

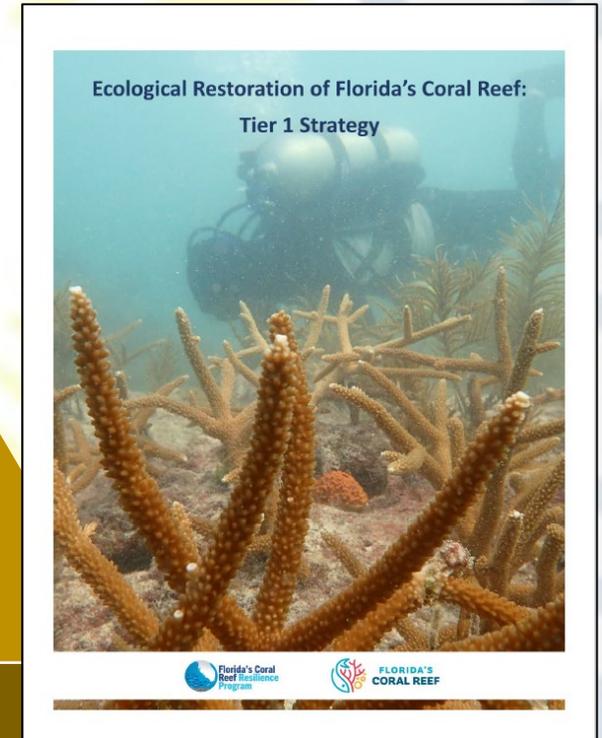
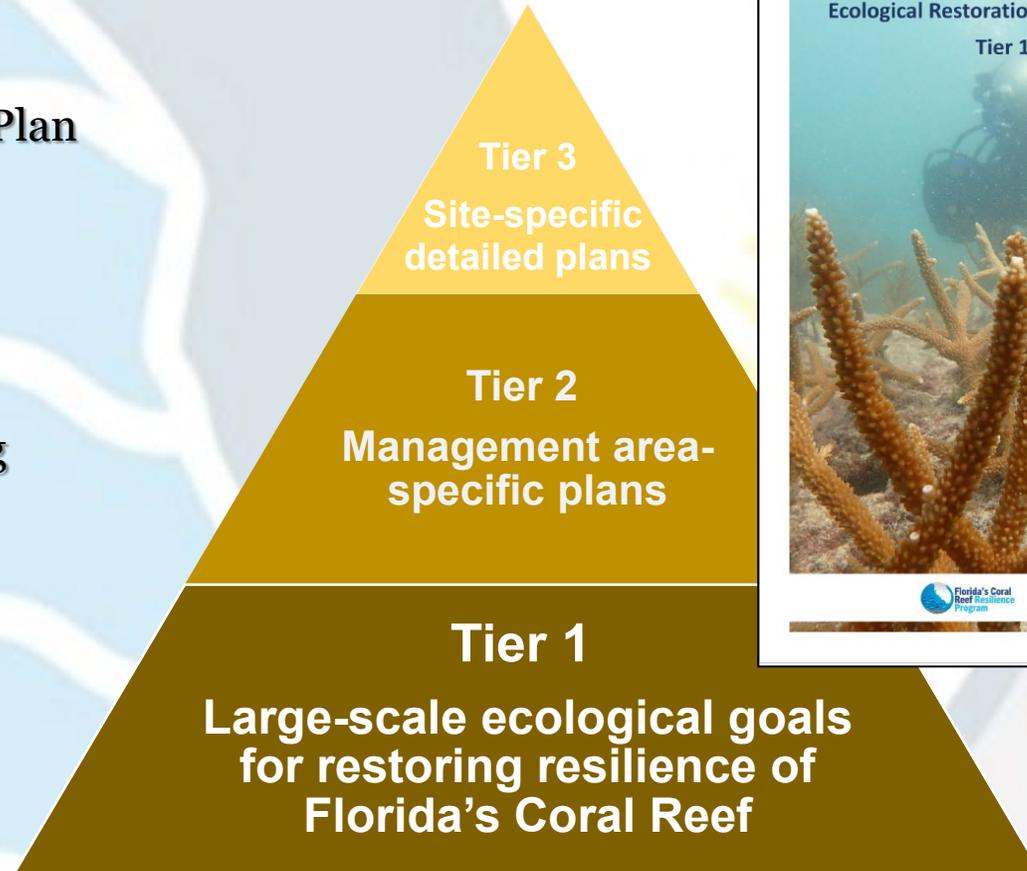
- In-State Facilities Expansion
- **Strategy Development**
- Science, Monitoring, and Adaptive Management Plan
- **Restoration Site Selection**
- Reinforce Existing Restoration Efforts
- Workforce Development

Phase II (FY27-35):

- Construction of New and Maintenance of Existing Facilities
- Refine Training Curriculum
- Maximizing Efficiency
- Workforce and Volunteer Optimization

Phase III (FY36-50):

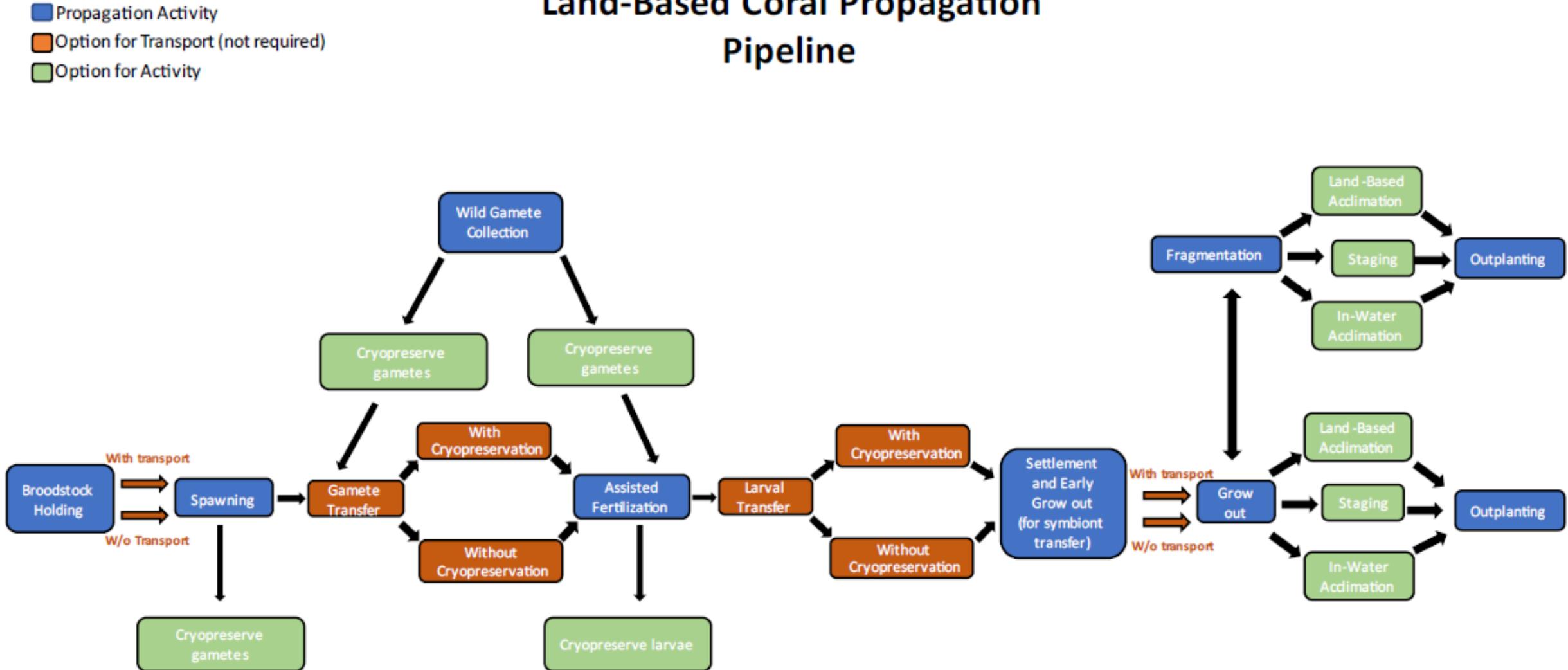
- Sustaining Facilities and Operations
- Expansion and Monitoring
- Maximizing Peoplepower



FCR3 Initiative

Strategically Augmenting Coral Reef Restoration Capacity, Capability, and Success

Land-Based Coral Propagation Pipeline



FCR3 Initiative

Strategically Augmenting Coral Reef Restoration Capacity, Capability, and Success

Phase I (FY23-26):

- **In-State Facilities Expansion**
- Strategy Development
- Science, Monitoring, and Adaptive Management Plan
- Restoration Site Selection
- Reinforce Existing Restoration Efforts
- Workforce Development



Objective: An initial expansion of in-state facilities to hold and propagate Florida's SCTLD Rescue Corals and enhance existing propagation capacity.

Phase II (FY27-35):

- Construction of New and Maintenance of Existing Facilities
- Refine Training Curriculum
- Maximizing Efficiency
- Workforce and Volunteer Optimization



Proposed Metrics:

- # and size of new tanks
- Size of expanded facility area
- # of corals grown to outplant size (15 month+)

Phase III (FY36-50):

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- Maximizing Peoplepower



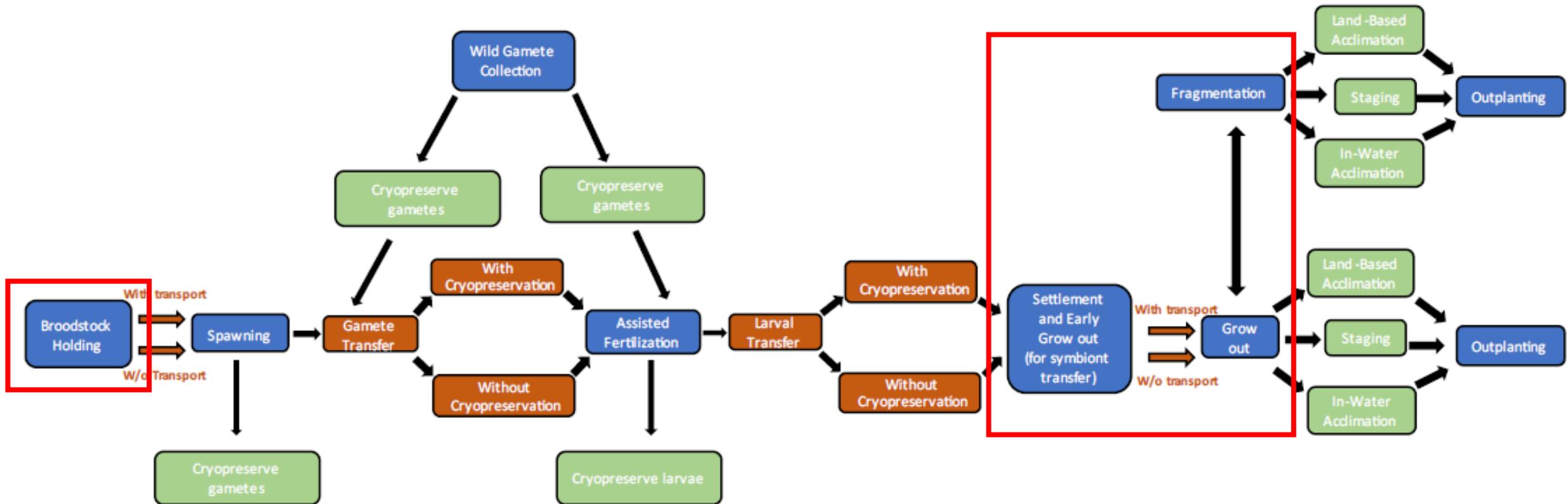
Funding: FCR3 Grants supplemented with Coral Resilience funding for efficiency research.

FCR3 Initiative

Strategically Augmenting Coral Reef Restoration Capacity, Capability, and Success

Land-Based Coral Propagation Pipeline

- Propagation Activity
- Option for Transport (not required)
- Option for Activity



State Appropriations

FY24-25



\$9,500,000 – FCR3 Grants (DEP)



Species list for propagation during 2024-25

High Priority	Medium Priority	Low Priority
<i>Colpophyllia natans</i>	MALI	ALAM
<i>Diploria labyrinthiformis</i>	MANG	DCYL
<i>Montastraea cavernosa</i>	MAUR	DSTO
<i>Pseudodiploria strigosa</i>	MFER	EFAS
<i>Orbicella faveolata</i>	MLAM	FFRA
	OANN	MMEA
	PCLI	OFRA
		SBOU

Characteristics considered for species prioritization:

- **More Resilient to Thermal Stress**
- **Major Reef Builders**
- **Likelihood of Extinction without Human Intervention**
- **Large-Scale Propagation vs. Research Needs**
- **High Growth and Survival Rates**
- **Species Diversity**
- **Interest in Propagation by Partners**

FCR3 Initiative

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Design, construction, and staffing/operations of new “FCR3 Success Centers” in each county



FAU HBOI
ORA (Private)
Coral Facility
4,200 sq ft - \$2.5M



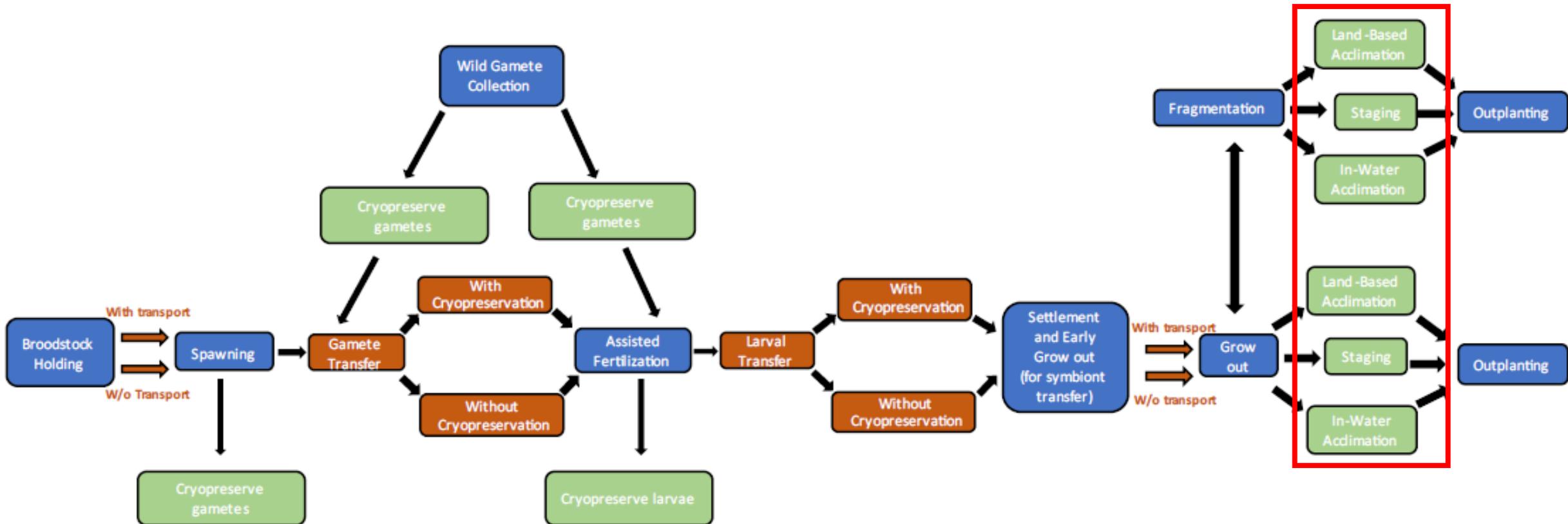
FLAQ Coral
Conservation
Complex - \$4.5M

FCR3 Initiative

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Thank you!



Wesley R. Brooks, Ph.D. | Chief Resilience Officer
Statewide Office of Resilience | Governor Ron DeSantis
wesley.brooks@eog.myflorida.com
[@Florida_CRO](#) | [@Wesley_R_Brooks](#)

