

# WATER QUALITY BISCAYNE BAY TASK FORCE

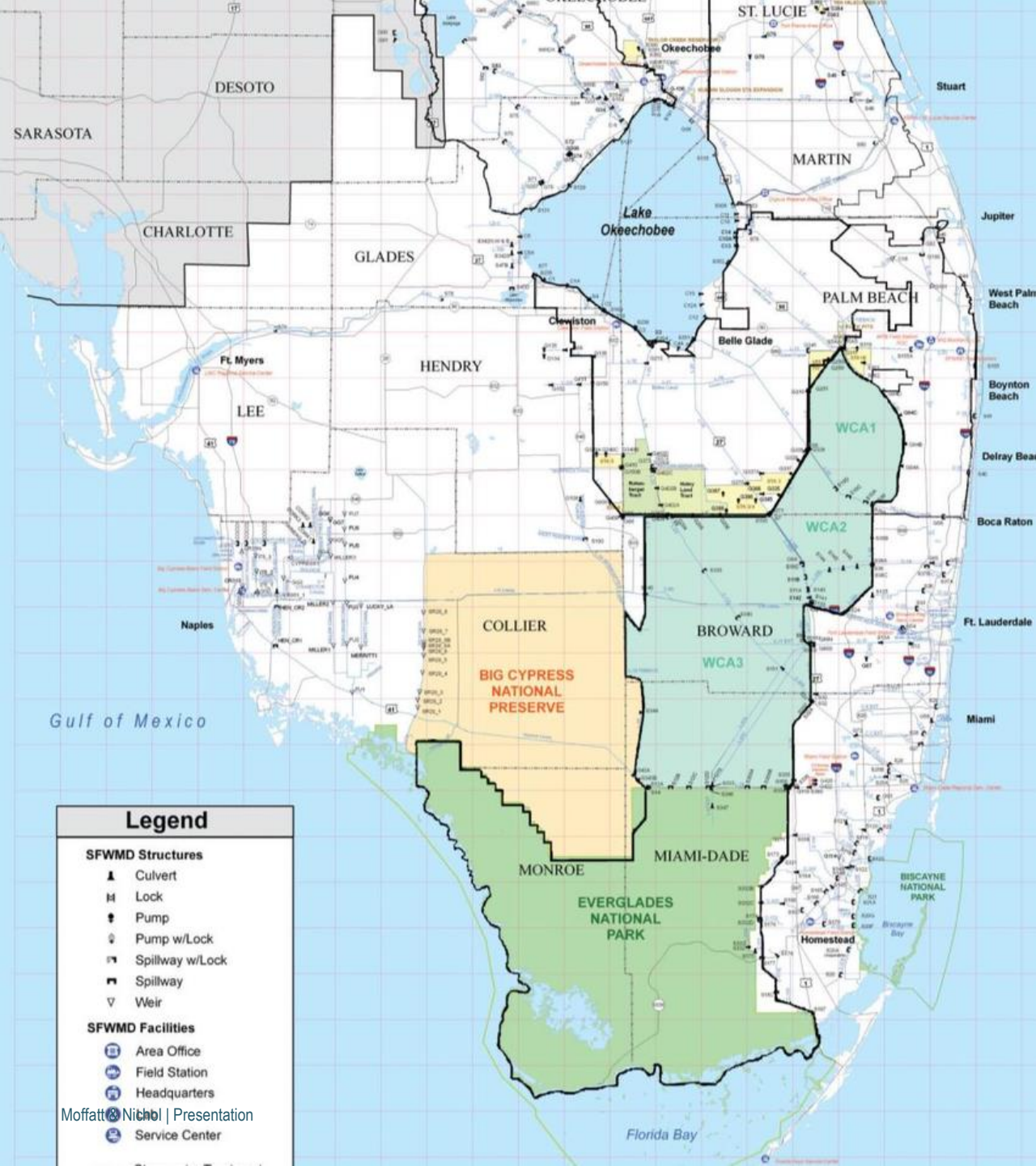
Lynette Cardoch, PhD  
Task Force Member  
Director, Resilience & Adaptation, Moffatt & Nichol



# Coastal and Inland Waterways







# One System



Miami Herald, 09/08/2019





**MIAMI  
WATERKEEPER®**







**SEPTIC**



**SEWER**

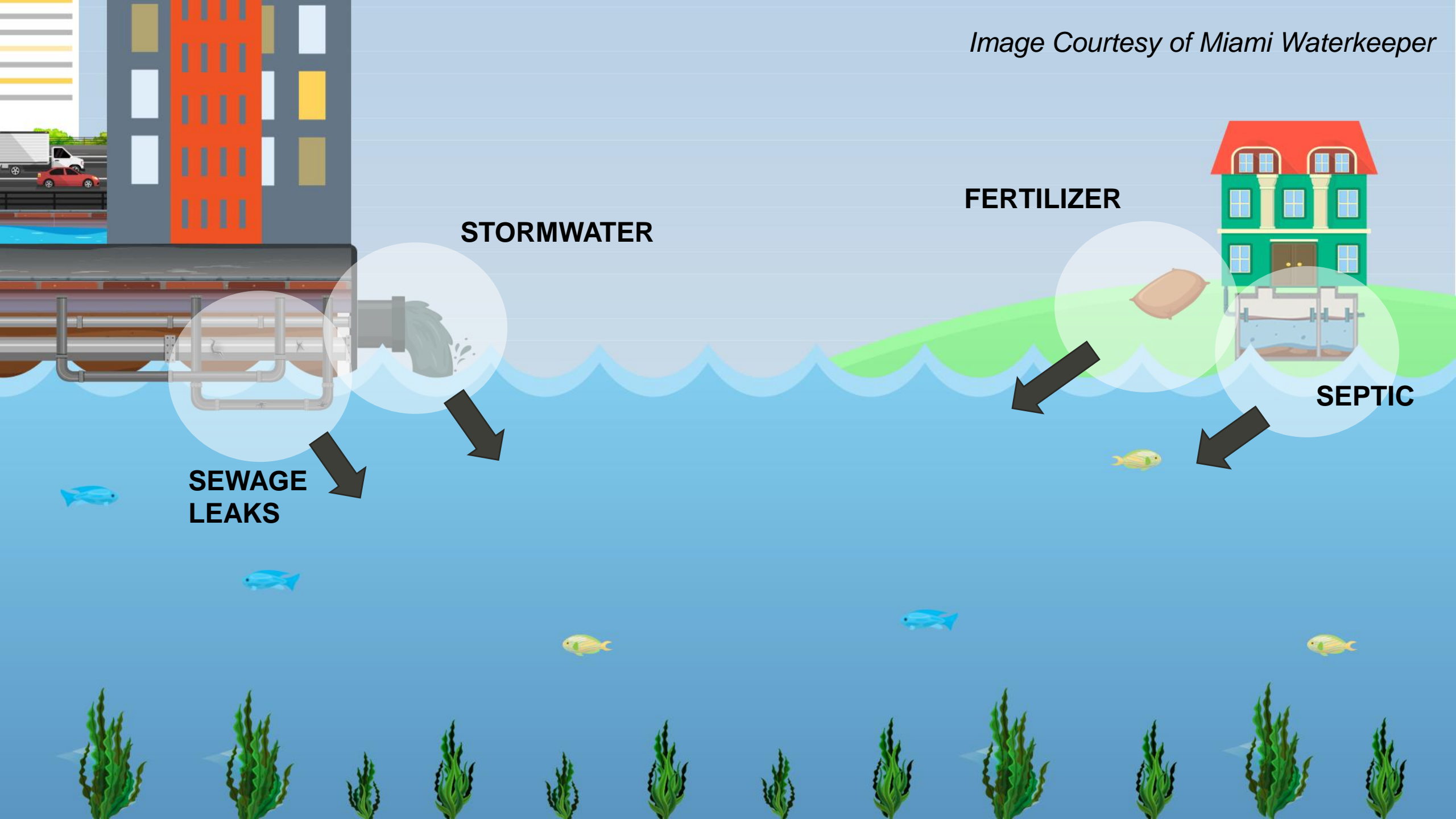


**STORMWATER**

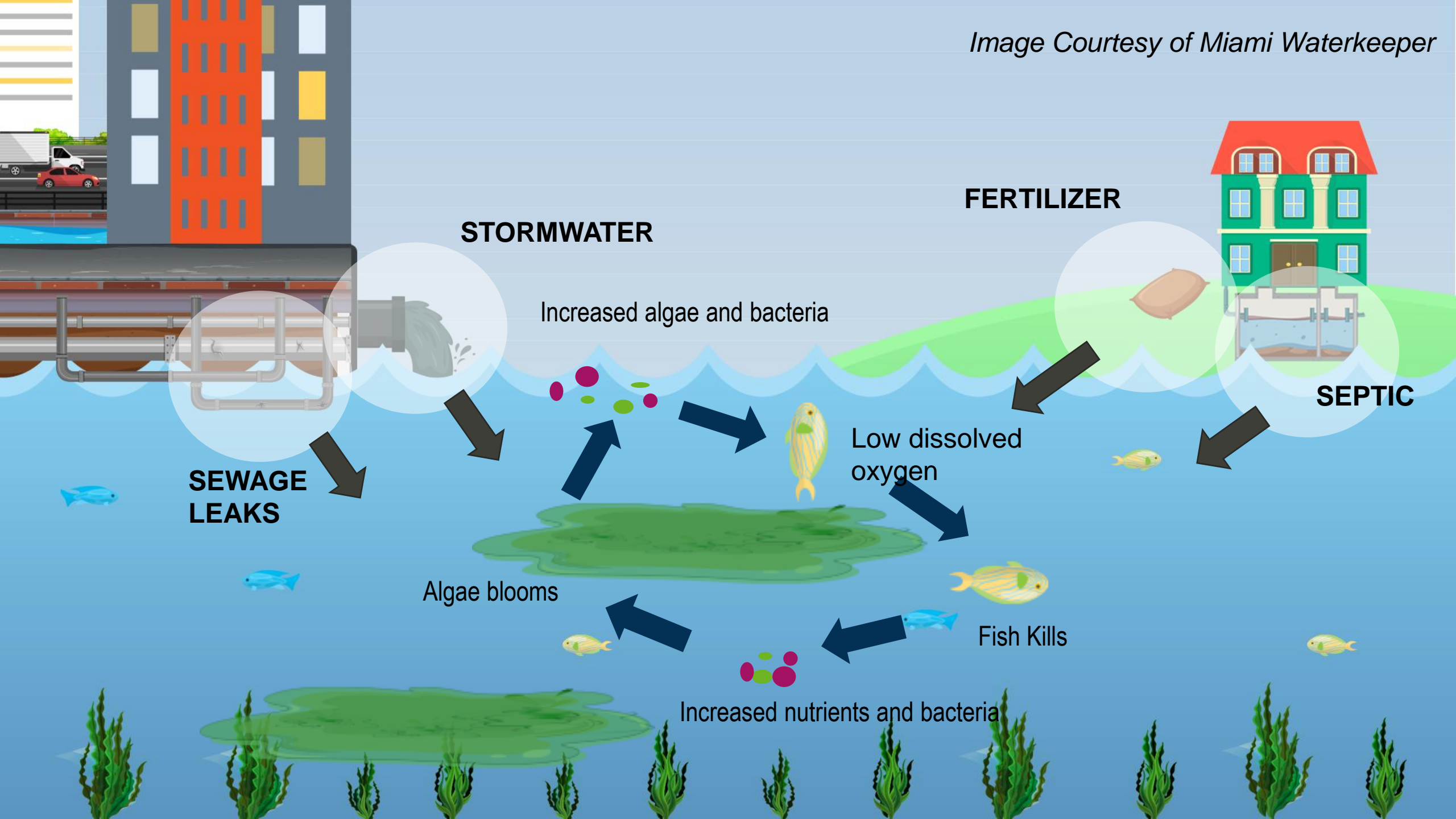


**FERTILIZER**

*Image Courtesy of Miami Waterkeeper*







**STORMWATER**

**FERTILIZER**

**SEWAGE  
LEAKS**

**SEPTIC**

Increased algae and bacteria

Low dissolved  
oxygen

Algae blooms

Fish Kills

Increased nutrients and bacteria



# Task Force

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Director of MDC  
DERM



Chief Resilience  
Officer



Infrastructure, civil  
engineer



Coastal real  
estate developer



Water quality  
expert



Coastal  
ecology/coastal  
management



Tourism /  
economic vitality



2 members  
at-large

- › Created February 2019
- › Convened June 2019
- › 18 meetings
- › 35 presentations



# 7 Policy Themes



Water quality



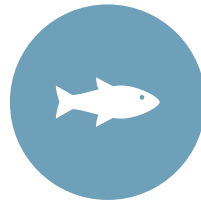
Watershed habit /  
natural infrastructure



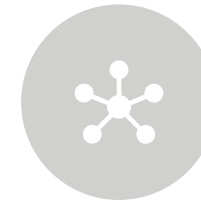
Funding



Governance



Marine debris



Infrastructure



Education and  
outreach





**RESILIENT ECOSYSTEMS = RESILIENT COASTAL COMMUNITIES**

# Water Quality

The activities on Biscayne Bay

**2004**

contributed about

**\$12.7 billion**

in additional county production

**\$6.3 billion**

In income to county residents

**137,600**

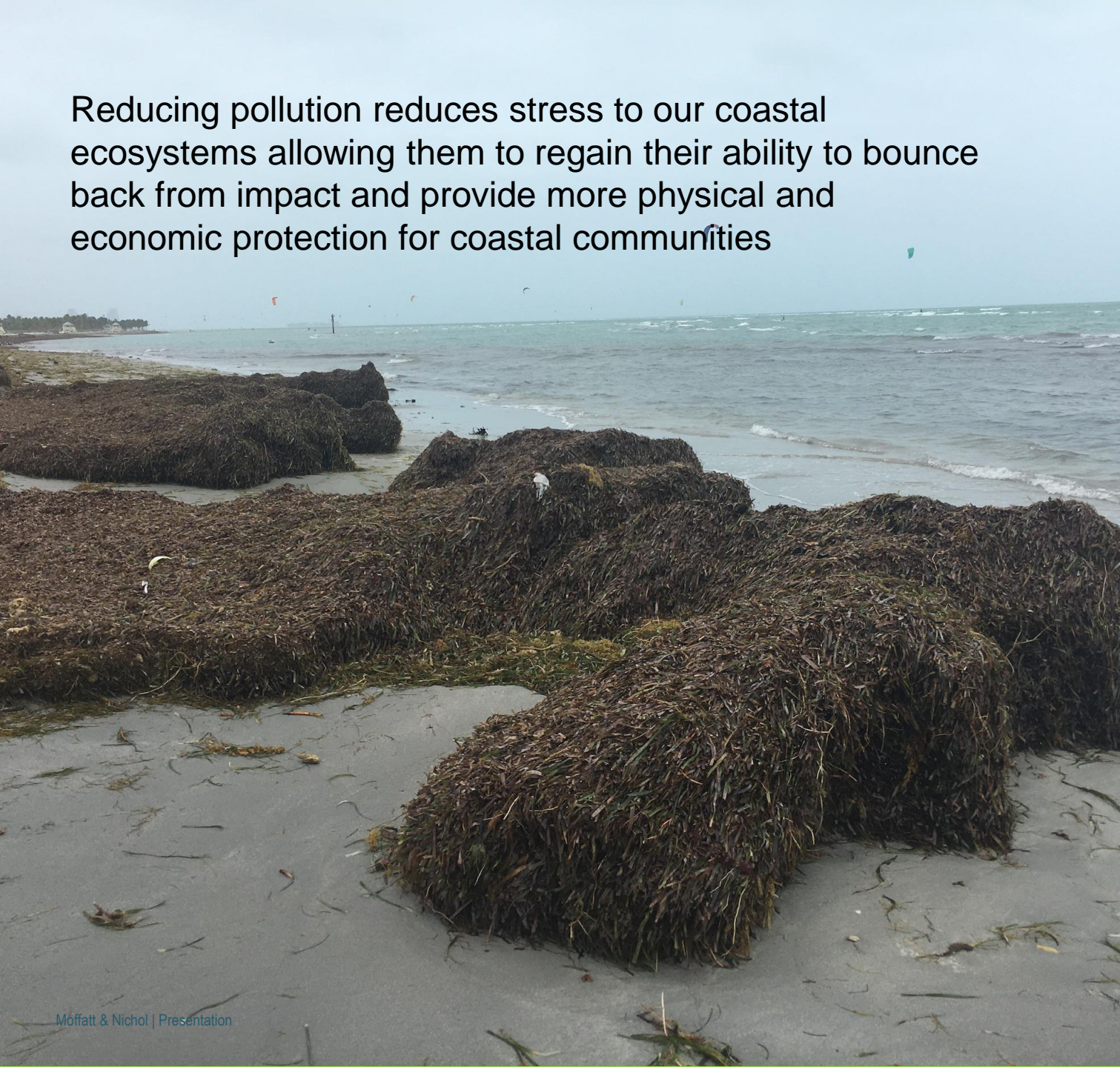
jobs

**\$627 million**

in tax revenue to Miami-Dade County



Reducing pollution reduces stress to our coastal ecosystems allowing them to regain their ability to bounce back from impact and provide more physical and economic protection for coastal communities



# Water Quality

These values represent

**10%**

of all income earned in the county

**11%**

of employment in the county

**11%**

of all excise taxes, property taxes, fees, licenses, and sales tax revenues collected in the county



# OVERARCHING RECOMMENDATIONS: UNIFIED & COLLABORATIVE APPROACH TO WATERSHED RESTORATION

- › **Watershed Management Board**
- › **Chief Bay Officer**
- › **Watershed Restoration Plan**



# Biscayne Bay Recovery Plan

Summary of Biscayne Bay Task Force Recommendations



Working Together, We Can Help Save Biscayne Bay.

Biscayne Bay is in trouble. Seagrass, the foundation of all life in the Bay, is dying. Scientists have studied Biscayne Bay's fragile ecosystem and have issued a call to action. We, the 2.8 million people who live and call Miami-Dade home, must answer that call.

## Biscayne Bay Actions Steps to Recovery

Benchmark  
 Immediate (I) | Short-Term (S) | Mid-Term (M)  
 Less than one year | Between one and three years | Greater than three years

### Action Type

Actions that can be accomplished administratively within the County	Actions that require additional policy considerations	Actions that require further collaboration at the municipal, state, or federal level
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## A Unified Approach to Recovery for a Healthy & Resilient Biscayne Bay

*Biscayne Bay Task Force Report and Recommendations*

*June 2020*

### Biscayne Bay Task Force Members

- Irela Bagué**, Task Force Chairperson, President, Bagué Group
- David Martin**, Task Force Vice Chairperson, President, Terra Group
- Lynette Cardoch**, Ph.D., Director of Resilience & Adaptation, Moffatt & Nichol
- Lee Hefty**, Director, Division of Environmental Resources Management, Miami-Dade County
- James Murley**, Chief Resilience Officer, Office of Resilience, Miami-Dade County
- John Pistorino**, P.E., Principal, Pistorino and Alam
- Alyce Robertson**, Executive Director, Downtown Development Authority
- Steve Sauls**, Biscayne Bay Marine Health Summit Steering Committee Member
- Tiffany Troxler**, Ph.D., Director of Science, Sea Level Solutions Center, Florida International University

# Education and Outreach to Help Citizens and Visitors Learn How to Protect Biscayne Bay

EDUCATION AND OUTREACH		
6A	Create a multi-lingual, multi-media campaign and educational outreach program	Immediate (I)
6B	Leverage the funding in the Community Based Organization grant program to create a special focus on Biscayne Bay education	Short-Term (S)
6C	Conduct an educational campaign to inform the public on the proper and improper ways to dispose of trash and the impacts of littering and marine debris to the health and management of Biscayne Bay	Immediate (I)
6D	Implement policies to reduce the amount of locally generated plastic marine debris	Short-Term (S)
6E	Build upon and increase volunteer clean-up activities county-wide	Immediate (I)
6F	Develop environmental sustainability and "plastic free" best practices	Short-Term (S)
6G	Support a "Living Laboratory for Bay Health"	Short-Term (S)
6H	Develop and implement a contractor and lawn care industry training program	Short-Term (S)
6I	Expand the scope of Baynanza to add year-round activities and collaborate on Biscayne Bay Marine Health Summit activities.	Immediate (I)





# Time for Action

- › Environment = economy
- › Previous successful efforts
- › Watershed approach
- › No regrets



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