# Participant Agenda May 21-22, 2019
# Florida Marine Debris Reduction Workshop

## Nova Southeastern University Guy Harvey Oceanographic Center
## 800 North Ocean Drive, Dania Beach, FL 33004

**Workshop Goal |** To increase coordination between government, industry, and academia by convening stakeholders to update and revise the Florida Marine Debris Reduction Guidance Plan. The workshop will bring together diverse perspectives in the marine debris community to develop recommended strategies and actions to reduce the impacts and amount of marine debris in Florida.

**Objectives |** During this workshop, participants will:

- Share working group updates, and review updated working group structure
- Assess existing guidance and determine what to update and/or augment for each working group moving forward into a reduction plan
- Set baseline meeting schedules and reporting processes for working groups
- Identify target audiences for each working group
- Identify data gaps and research needs
- Learn about funding opportunities

## Work Groups

- Abandoned and Derelict Vessels (ADV)
- Community Action (CA)
- Derelict Fishing Gear (DFG)
- Emergency Response (ER)
- Research and Data: Wildlife and Habitat Impacts and Human Dimensions (RD)

# Participant Agenda

## Day 1- Tuesday, May 21, 2019 (8:30 AM - 4:30 PM)

**8:30 AM** **Registration check-in** (Coffee and light refreshments)

**9:00 AM** **Welcome and Introductions**

**9:45 AM** **Florida Marine Debris Community: History & Updated Working Group Structure**
- *Sarah Latshaw, NOAA Marine Debris Program*

**10:00 AM** **Working Group Updates: Successes and Challenges**
- *Abandoned and Derelict Vessels*
- *Community Action*
- *Derelict Fishing Gear*
- *Emergency Response*
- *Research and Data: Wildlife and Habitat Impacts and Human Dimensions*

**10:50 AM** **Break**

**11:00 AM** **Funding Opportunities & Discussion**
- *Ann Lazar, Florida Department of Environmental Protection*
- *Charles Grisafi, NOAA Marine Debris Program*

**11:30 AM** **Perspectives from the Pacific: California Ocean Litter Prevention Strategy**
- *Sherry Lippiatt, California Regional Coordinator, NOAA Marine Debris Program*

**12:00 PM** **Lunch** *(Provided by NOVA Southeastern University)*

**1:00 PM** **Charge to the Working Groups, Instructions for Breakout Sessions**

**1:15 PM** **Working Group Breakouts**
- *Assess existing guidance and determine what is complete*
- *Review goals and strategies, update as necessary, and identify any new strategies*

**2:15 PM** **Break**

**2:30 PM** **Working Group Breakouts**
- *Begin to identify specific actions (who, what, and when)*

**4:00 PM** **Report Out on Strategies and Goals**

**4:30 PM** Adjourn

**5:30 PM** **Networking Event:** LauderAle Brewery and Tap Room

# Participant Agenda

## Day 2- Wednesday, May 22, 2019 (8:30 AM - 4:30 PM)

**8:30 AM** **Coffee and light refreshments**

**9:00 AM** **Welcome Back, Overview of Agenda Day 2**

**9:05 AM** **Overview of Environmental Protection Agency (EPA)'s Trash Free Waters Program**
- *Chris Plymale, Environmental Protection Agency*

**9:35 AM** **Stormwater Infrastructure, Maintenance, and Data Collection**
- *Margarita Kruyff, City of Miami Beach*

**10:05 AM** **Break**

**10:20 AM** **Working Group Breakouts**
- *Existing data, data gaps, and resource needs*

**11:30 AM** **Lunch** *(Provided by Nova Southeastern University)*

**12:30 PM** **Group Discussion: Communication and Organization**
- *Baseline meeting schedules*
- *Tracking and reporting processes for working groups*

**1:00 PM** **Working Group Breakouts**
- *Continue to identify and refine specific actions*
- *Funding ideas*

**2:15 PM** **Break**

**2:30 PM** **Working Group Breakouts**
- *Finalize specific actions*
- *Prepare for working group report out*

**3:30 PM** **Final Working Group Report Outs**

**4:00 PM** **Wrap up and next steps**

**4:30 PM** **Workshop Adjourn**

*Please note the specific times may change due to day-of logistics and considerations.*

# Perspectives from the Pacific: California Ocean Litter Prevention Strategy

Sherry Lippiatt, PhD
California Regional Coordinator
NOAA Marine Debris Program

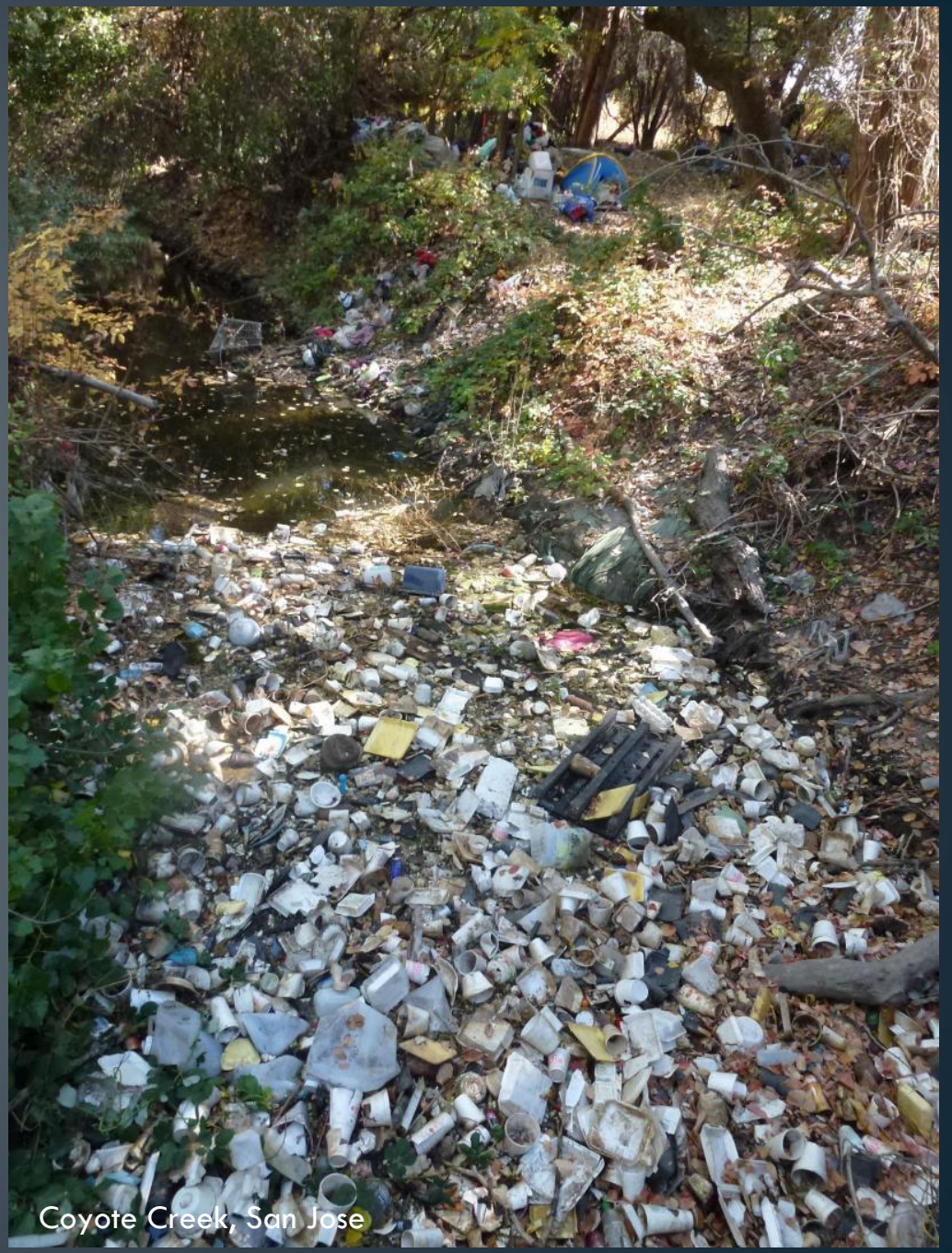
May 21, 2019
Florida Marine Debris Reduction Workshop

*Photo: Heal the Bay*

Photo: Ballona Creek, Bill MacDonald (Algalita)


Photos: UC Davis, Santa Barbara Adventure Co


2019.02.02 - Offramp near Ashby & Shellmound



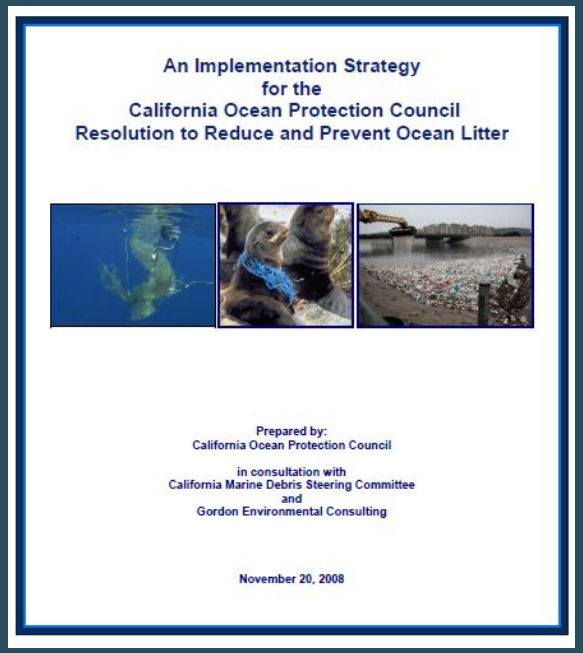
Coyote Creek, San Jose

Photos: Richard James / Coastodian.Org, SF BayKeeper

# Marine Debris-Related Policies in CA

- (1986) Bottle Bill
- (1997) SB172 creates Abandoned Watercraft Abatement Fund Grant Program
- (2011) AB341 set goal of 75% of solid waste recycled, composted or source reduced by 2020
- (2015) AB1323 Streamlines process for removal of "marine debris vessels" (all or part of a vessel that is unseaworthy and not reasonably fit to be used as a means of transportation by water)
- (2016) Trash Amendments: Requires municipalities to have zero trash (> 5mm) entering water bodies by 2030
- (2016) Plastic Bag Ban approved by voter referendum
- (2018) AB1884 Straws Upon Request: sit-down restaurants only, took effect Jan 1, 2019
- (2018) SB1335 Take-Out Packaging in state facilities: only recyclable, compostable foodware; CalRecycle to create approved product list by 2021
- (2018) SB1422 Water Board to do annual testing of microplastics in drinking water
- (2018) SB1263 OPC to develop and implement Microplastics Strategy to understand risks and solutions
- (2019) City of Berkeley's Disposable Free Dining and Litter Reduction Ordinance: immediately requires utensils, straws, lids and sleeves to be provided by request only; and by 2020, all takeout foodware must be compostable, vendors must charge $0.25 for hot and cold takeout cups, and eat-in dining facilities must use reusable foodware

# 2018 California Ocean Litter Prevention Strategy




Update

Coordination

Action

Track Progress

Funding

*Photos: NOAA, SB Adventure Co, OPC*

# Strategy Development

- Two Stakeholder Workshops
- Ocean Protection Council Approval
- Published June 2018

# Strategy Content


## Stakeholder Goals

1. Source reduction – policies and incentives
2. Source reduction – EPR, design
3. Waste management / interception on land
4. Research existing and emerging issues
5. Behavior change for purchasing
6. Ocean-based debris prevention & cleanup

# Goal 1: Reduce the use of common ocean litter items through mandates and incentives targeting public institutions and businesses.

*Photo Credit: National Oceanic and Atmospheric Administration.*

**Objective 1.1. Prohibit or discourage common ocean litter items in public institutions, retail, and food service establishments through government policies or mandates.**

| Action Items | Lead & Partner Organizations |
|---|---|
| 1.1.1. Pass and implement policies that prohibit or discourage common ocean litter items at the local level[3] and consider these policies for effectiveness assessment as described under Objective 4.4. | **CPSC, The Albatross Coalition, Zero Waste San Diego**, BASMAA, Clean Water Action/Clean Water Fund, PRCC, Surfrider Foundation, UPSTREAM |
| 1.1.2. Pass and implement legislation that prohibits or discourages common ocean litter items at the state level and consider these policies for effectiveness assessment as described under Objective 4.4. | **CPSC, The Albatross Coalition, Zero Waste San Diego**, Californians Against Waste, Clean Water Action/Clean Water Fund, PRCC, Surfrider Foundation, UPSTREAM |
| 1.1.3. Expand the single-use plastic carryout bag ban to apply to retail stores, restaurants, and food delivery, and amend the state's criteria for reusable bags to exclude bags made from plastic film.[4] | Californians Against Waste, Surfrider Foundation |
| 1.1.4. Promote reusable and refillable food and beverage packaging in the state bottle bill, and state and local packaging policies. | **CPSC, The Albatross Coalition, Zero Waste San Diego**, Californians Against Waste, UPSTREAM, PRCC |
| 1.1.5. Change procurement of common ocean litter items on UC and CSU campuses, and share lessons learned with other learning institutions (e.g., community colleges, K-12). | Clean Water Action/Clean Water Fund, CPSC |
| 1.1.6. Change procurement to minimize the use of common ocean litter items in local and state government buildings and events, and share lessons learned with other public institutions (e.g., federal facilities, jails, hospitals). | **OPC**, BASMAA, Californians Against Waste, Clean Water Action/Clean Water Fund, CPSC, UPSTREAM |
| 1.1.7. Require permits for new construction of dine-in restaurants to include dishwashing facilities on-site to accommodate reusable food ware. | Californians Against Waste, Clean Water Action/ Clean Water Fund, UPSTREAM |
| 1.1.8. Develop a toolkit with materials and strategies to share with local and out-of-state advocates to a) aid in the process of banning common ocean litter items, and b) to aid in the process of switching local governments and communities to reusable items. | **Plastic Pollution Coalition, UPSTREAM** |

**Objective 1.2. Incentivize institutions, businesses, and events to transition away from common ocean litter items.**

| Action Items | Lead & Partner Organizations |
|---|---|
| 1.2.1. Perform audits before and after institutions implement efforts to minimize the use of common ocean litter items. | Clean Water Action/Clean Water Fund |
| 1.2.2. Incentivize businesses and corporations to transition to reusables (e.g., film industry craft services, corporate dining, water refill stations) through sharing case studies and demonstrating cost-savings. | Amcor Limited, Clean Water Action/Clean Water Fund, Surfrider Foundation, UPSTREAM |
| 1.2.3. Promote certification for events (e.g., music festivals, concerts, sports competitions, film production) that achieve zero waste principles. | **The Albatross Coalition, Zero Waste San Diego**, Clean Water Action/Clean Water Fund, Surfrider Foundation |

# Goal 3: Improve waste management and interception of litter on land before it enters the ocean.

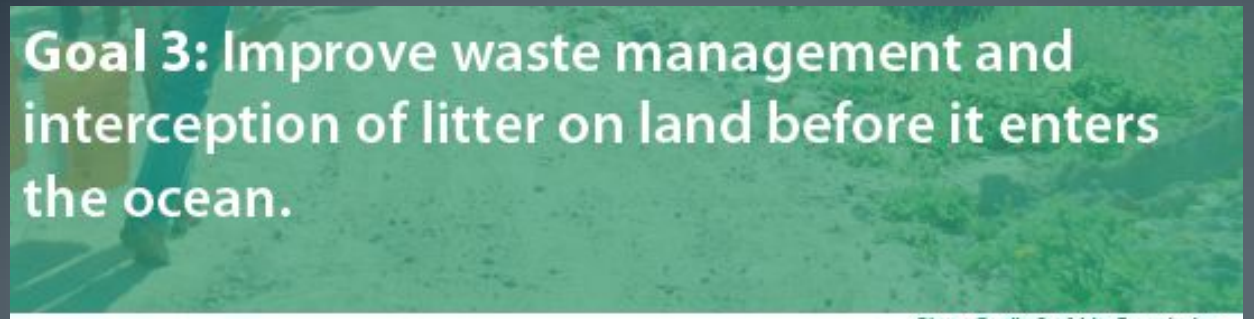
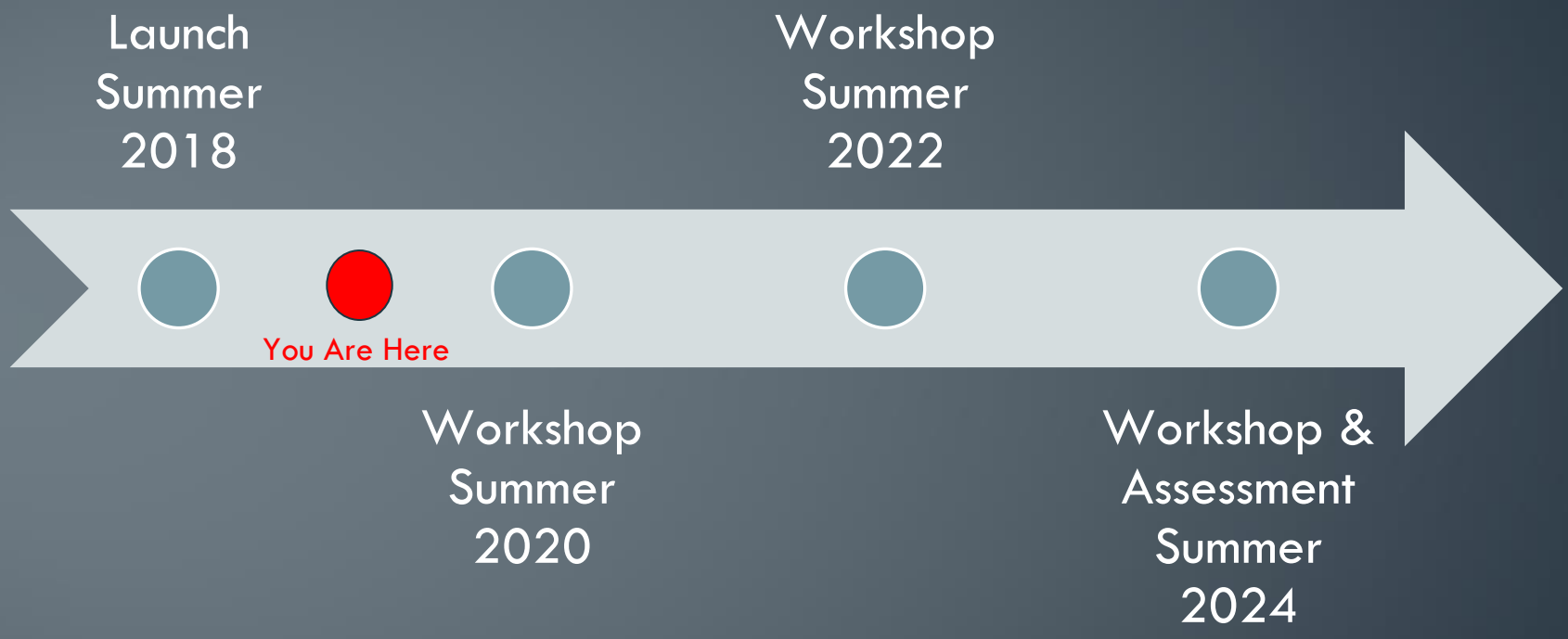


*Photo Credit: Surfrider Foundation.*

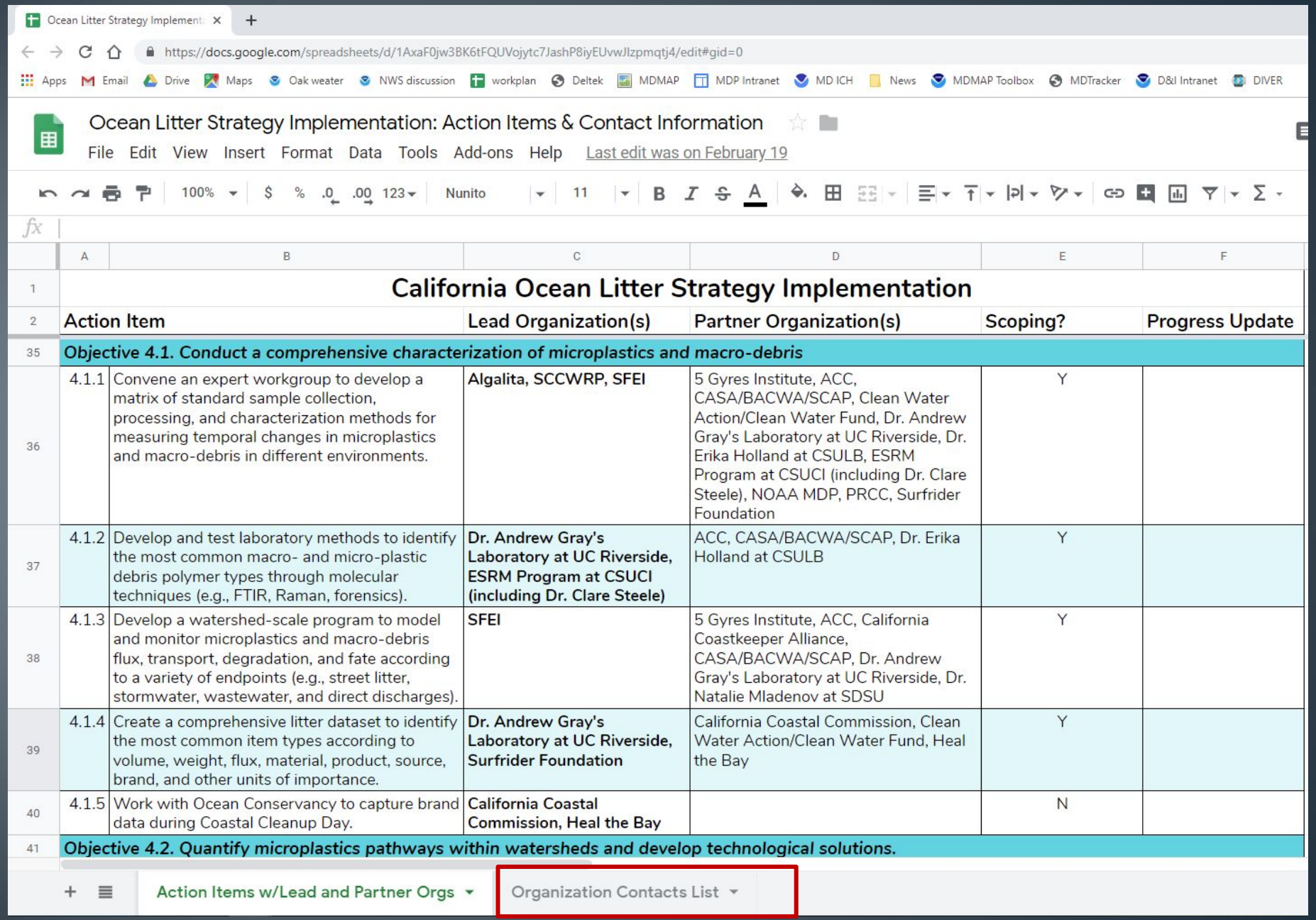
| Objective 3.1. Support the State Water Resources Control Board's Trash Amendments. | |
|---|---|
| **Action Items** | **Lead & Partner Organizations** |
| 3.1.1. Create a mechanism for local governments to fund stormwater trash programs through public or private sources. | ACC, BASMAA, Clean Water Action/Clean Water Fund, OPC, PRCC, Save Our Shores, UPSTREAM |
| 3.1.2. Implement a statewide Adopt-A-Storm Drain program. | **City of Oakland**, PRCC, Save Our Shores |
| 3.1.3. Educate the public about the Trash Amendments. | BASMAA, California Coastkeeper Alliance, CPSC, Clean Water Action/Clean Water Fund |

| Objective 3.2. Improve waste management in public places. | |
|---|---|
| **Action Items** | **Lead & Partner Organizations** |
| 3.2.1. Establish and improve management of trash, recycling, and compost receptacles in high-use areas. | Amcor Limited, ACC, California Coastal Commission, OPC, PRCC, Save Our Shores |
| 3.2.2. Increase industry investment in infrastructure improvements to address waste management at schools and other public areas. | **ACC** |
| 3.2.3. Support packaging policies that develop and expand infrastructure for recycling in California. | Californians Against Waste, CPSC, PRCC |
| 3.2.4. Engage with municipalities and social programs to assess how to reduce ocean litter from encampments, as one strategy to improve the health, wellbeing, and safety of homeless communities. | BASMAA |

# Communication & Tracking




+ Update webinars every 6 months



Ocean Litter Strategy Implementation: Action Items & Contact Information

https://docs.google.com/spreadsheets/d/1AxaF0jw3BK6tFQUVojytc7JashP8iyEUvwJlzpmqtj4/edit#gid=0

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# California Ocean Litter Strategy Implementation

| | Action Item | | Lead Organization(s) | Partner Organization(s) | Scoping? | Progress Update |
|---|---|---|---|---|---|---|
| 35 | **Objective 4.1. Conduct a comprehensive characterization of microplastics and macro-debris** | | | | | |
| 36 | 4.1.1 | Convene an expert workgroup to develop a matrix of standard sample collection, processing, and characterization methods for measuring temporal changes in microplastics and macro-debris in different environments. | **Algalita, SCCWRP, SFEI** | 5 Gyres Institute, ACC, CASA/BACWA/SCAP, Clean Water Action/Clean Water Fund, Dr. Andrew Gray's Laboratory at UC Riverside, Dr. Erika Holland at CSULB, ESRM Program at CSUCI (including Dr. Clare Steele), NOAA MDP, PRCC, Surfrider Foundation | Y | |
| 37 | 4.1.2 | Develop and test laboratory methods to identify the most common macro- and micro-plastic debris polymer types through molecular techniques (e.g., FTIR, Raman, forensics). | **Dr. Andrew Gray's Laboratory at UC Riverside, ESRM Program at CSUCI (including Dr. Clare Steele)** | ACC, CASA/BACWA/SCAP, Dr. Erika Holland at CSULB | Y | |
| 38 | 4.1.3 | Develop a watershed-scale program to model and monitor microplastics and macro-debris flux, transport, degradation, and fate according to a variety of endpoints (e.g., street litter, stormwater, wastewater, and direct discharges). | **SFEI** | 5 Gyres Institute, ACC, California Coastkeeper Alliance, CASA/BACWA/SCAP, Dr. Andrew Gray's Laboratory at UC Riverside, Dr. Natalie Mladenov at SDSU | Y | |
| 39 | 4.1.4 | Create a comprehensive litter dataset to identify the most common item types according to volume, weight, flux, material, product, source, brand, and other units of importance. | **Dr. Andrew Gray's Laboratory at UC Riverside, Surfrider Foundation** | California Coastal Commission, Clean Water Action/Clean Water Fund, Heal the Bay | Y | |
| 40 | 4.1.5 | Work with Ocean Conservancy to capture brand data during Coastal Cleanup Day. | **California Coastal Commission, Heal the Bay** | | N | |
| 41 | **Objective 4.2. Quantify microplastics pathways within watersheds and develop technological solutions.** | | | | | |

Action Items w/Lead and Partner Orgs | Organization Contacts List

# Communication & Tracking

## Scoping / Progress Reporting:

- Implementation Plan
- Project Needs / Barriers
- Metrics
- Next Steps

**2018 California Ocean Litter Strategy**

**Action Item & Project Scoping Report**

**Return Completed Form to:**
sherry.lippiatt@noaa.gov
holly.wyer@resources.ca.gov

**Submission Date:** 12/1/2018

**Action Item Number and Title:**

2.1.3. Include performance measures in EPR programs for both prevention and recycling of common ocean litter items, with prevention being a higher priority.

**Lead Organization (or organization completing this form):**

California Product Stewardship Council (CPSC)

**Lead Coordinator/Contact and Contact's email or phone:**

Joanne Brasch, PhD Joanne@calpsc.org 916-706-3420

**Partner Organizations/Contacts:**

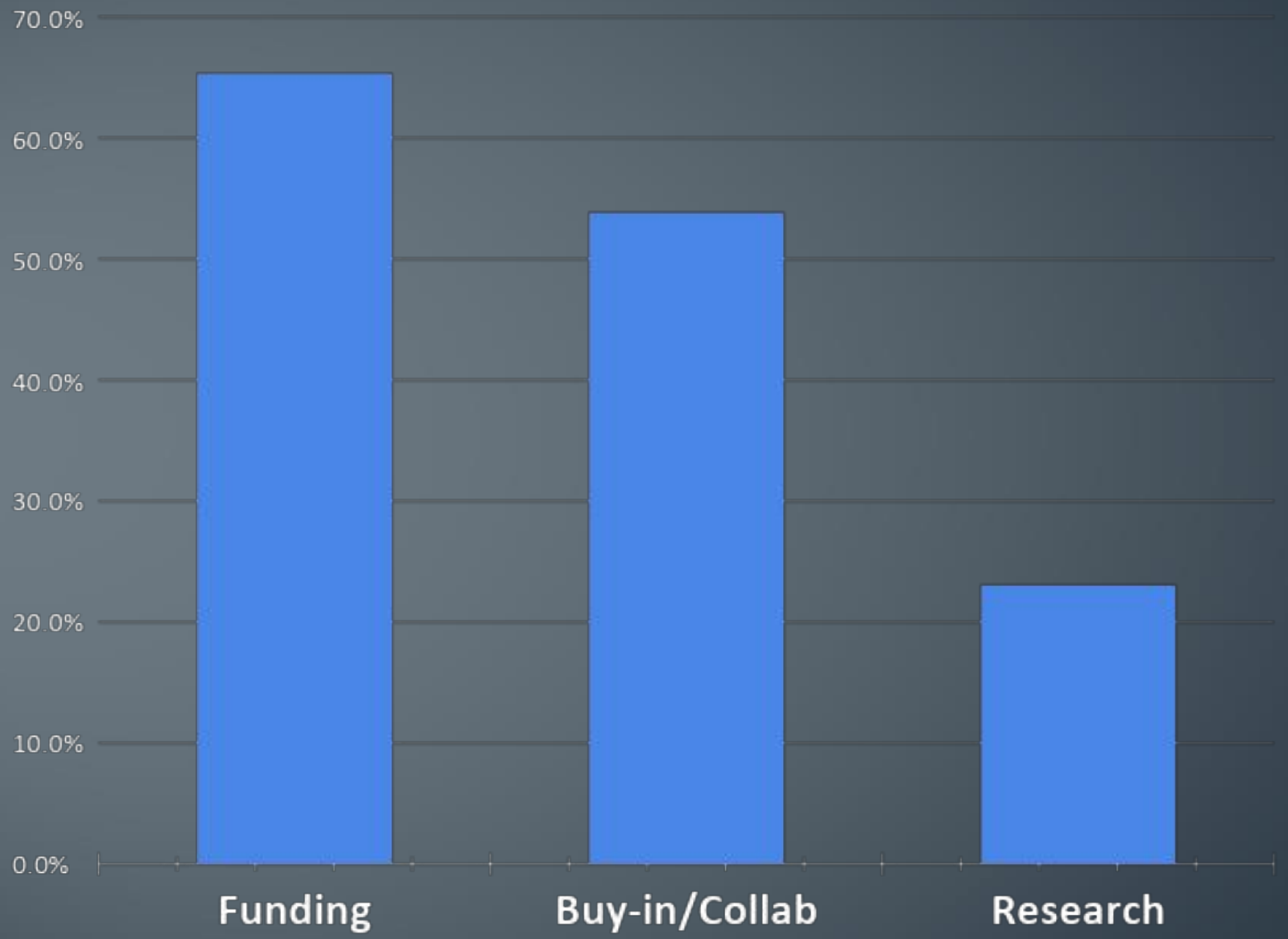
CPSC, Joanne Brasch, joanne@calpsc.org
UPSTREAM, Miriam Gordon, miriam@upstreamsolutions.org
Californians Against Waste (CAW), Melissa Romero, melissaromero@cawrecycles.org
PRCC, Patricia Moore, patty@prcc.biz
Save Our Shores, Katherine O'Dea, katherine@saveourshores.org

**New Partners (if any):**

No new partners have been identified.

**Action Item Implementation Plan/Project Development**

# OLS Action Needs and Barriers



# Successes

- Completed Actions
- Networking, new partnerships
- Coordinated work with shared vision and goals
- Increased awareness of the issue and priorities
- Leveraging resources and funding

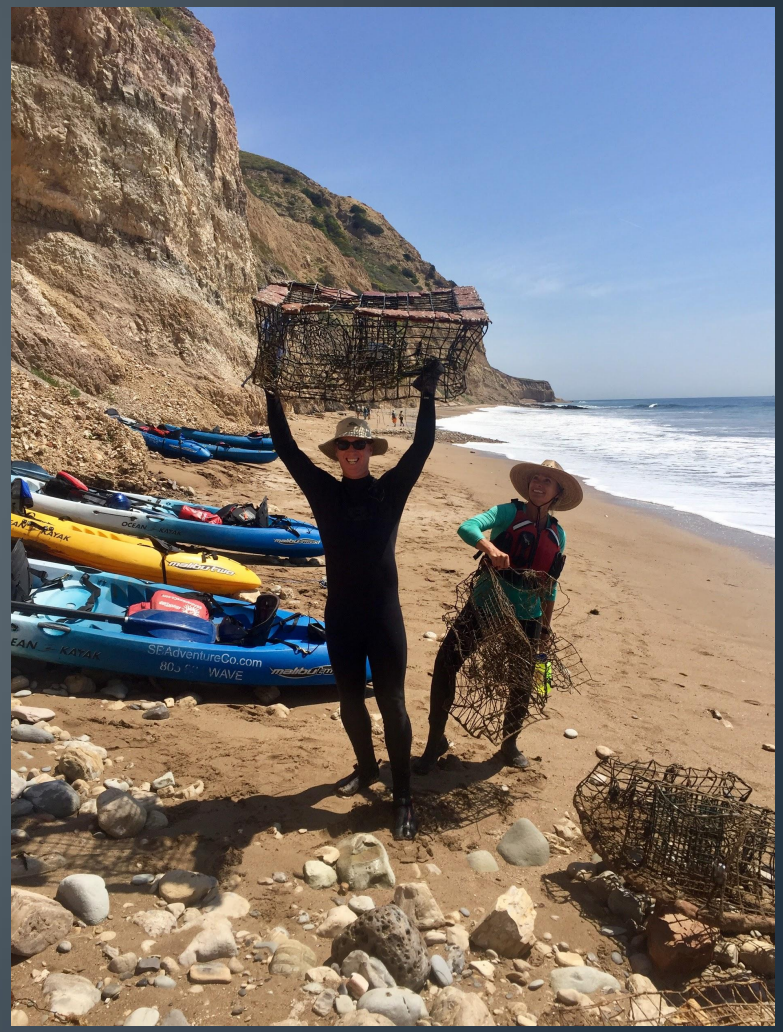



Photo: Santa Barbara Adventure Co

# Thank You

Sherry.Lippiatt@noaa.gov

Photo: Michaela Miller

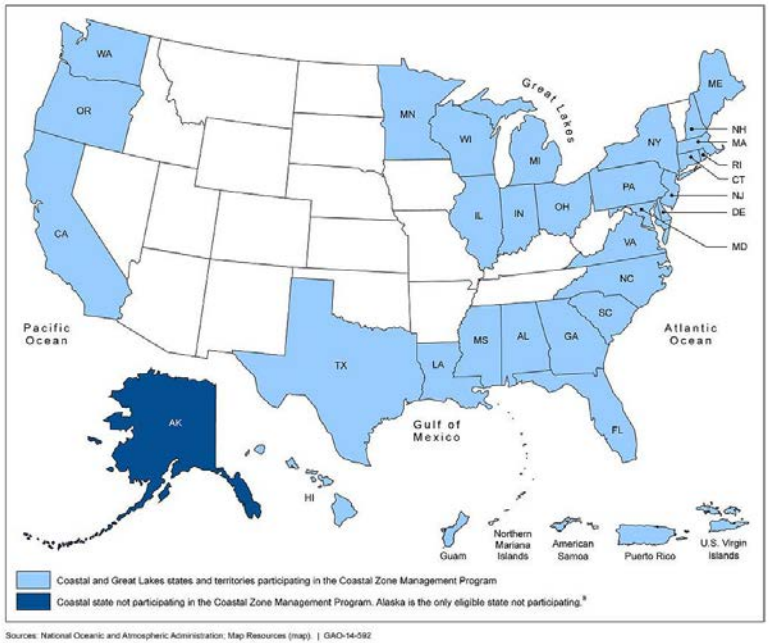
# Florida's Coastal Management Program

Ann Lazar
Ann.Lazar@FloridaDEP.gov
850-245-2168

# CMP Overview

## *Federal consistency and funding*

- Each coastal state can be part of the federal program to help there be nationwide consistency
- State incentive for participation is annual funding and federal consistency authority Funding divided between Coastal Zone Enhancement Grants (309) and Administrative  Grants (306)



# Florida Coastal Management Program

## *Network Partner Agencies*

### Lead Agency:

Department of Environmental Protection Office of Resilience and Coastal Protection

- Department of Agriculture and Consumer Services
- Department of Economic Opportunity
- Division of Emergency Management
- Fish and Wildlife Conservation Commission
- Department of Health
- Department of State, Division of Historical Resources
- Department of Transportation
- Florida Building Commission, (Department of Business and Professional Regulation)
- Northwest Florida Water Management District
- St. Johns River Water Management District
- South Florida Water Management District
- Southwest Florida Water Management District
- Suwannee River Water Management District

# 309 Assessment

## *2021-2025*

- Evaluates need for improvement in nine set enhancement areas
- Determines extent of problems and opportunities exist and effectiveness of efforts to address those problems
- Lays out existing conditions and states' priority needs for program improvements

# 309 Assessment

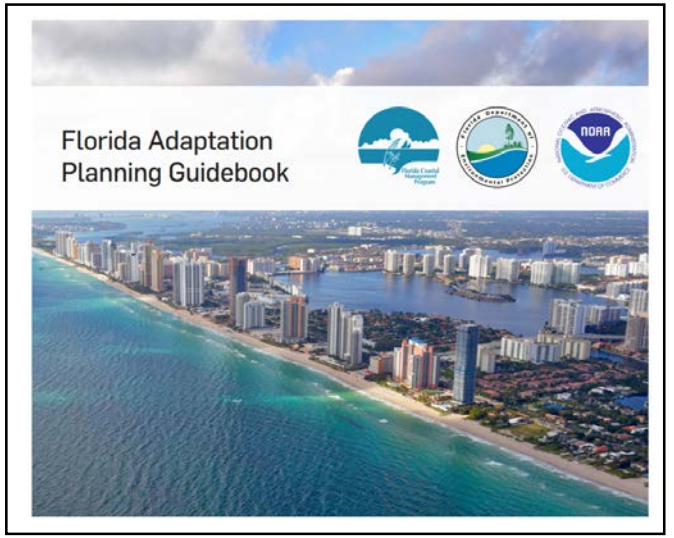
## *2021-2025*

### Nine Enhancement Areas

- Wetlands
- Coastal Hazards
- Public Access
- Marine debris
- Cumulative and secondary Impacts
- Special Area Management Planning
- Ocean Resources
- Energy and government facility Siting
- Aquaculture

# Coastal Management Program

## *309 Funding*


| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---|---|---|---|---|
| • Form Resource Assessment Teams<br>• Identify indicators<br>• Conduct data gap analyses | • Compile & synthesize data<br>• Identify assessment product formats<br>• Obtain initial results and products | • Finalize data products<br>• Draft assessment products<br>• Review of products by Resource Assessment Teams | • Finalize assessment products<br>• Launch web application and Decision Support Tool<br>• Conduct outreach | • Complete product valuation<br>• Incorporate process into decision-making |

# Strategies
## *Summary*

- Include goals and methods to achieve a specific program change
- Addresses a priority need identified by the CMP and NOAA and reflected in the assessment
- Includes Task descriptions, cost estimates and milestones

# Strategies

## *Important Details*

- Project does not have to be five years long
- Can design project with break years within the five years
- Under one of the nine enhancement areas

# Program Change
## *Examples*

- Boundary change
- New or revised authorities (statutes, regulations, ordinances, etc.)
- Special area management plans or plans for areas of particular concern
- Formally adopted policy documents that statute interpretation

# Funding

- Florida — approximately $520 annually
- No match required
- Also a competitive funding opportunity — Project of Special Merit
- Additional dollars to target enhanced aspect of strategy

# Funding

## *Project of Special Merit*

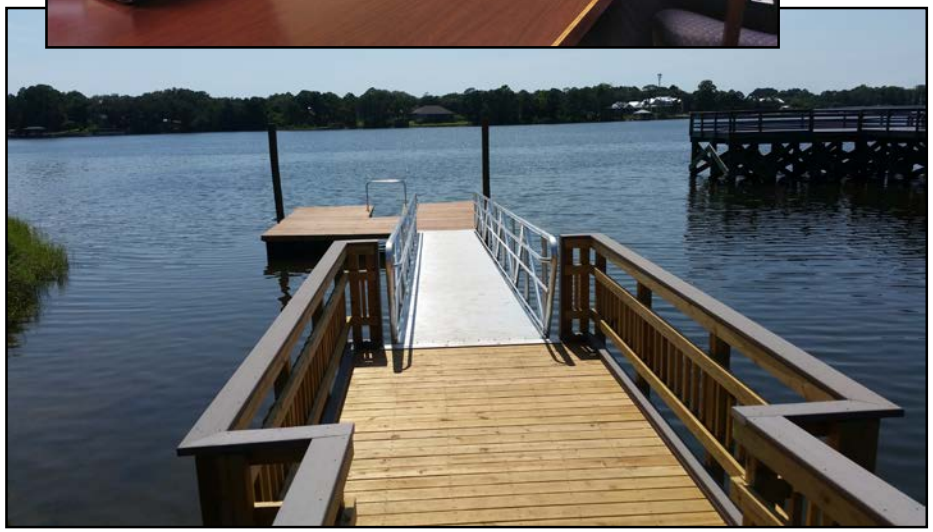
- Coastal Hazards and Ocean Resources
- No match
- Not for turning-dirt projects

# Timing

- Assessment will start this summer
- Strategies will come out of the assessment

# Other CMP Grant Programs

## *Local Government Grants and Assistance*



# Questions

## *Contacts*

- Becky Prado
  - Rebecca.Prado@FloridaDEP.gov
  - 850-245-2103

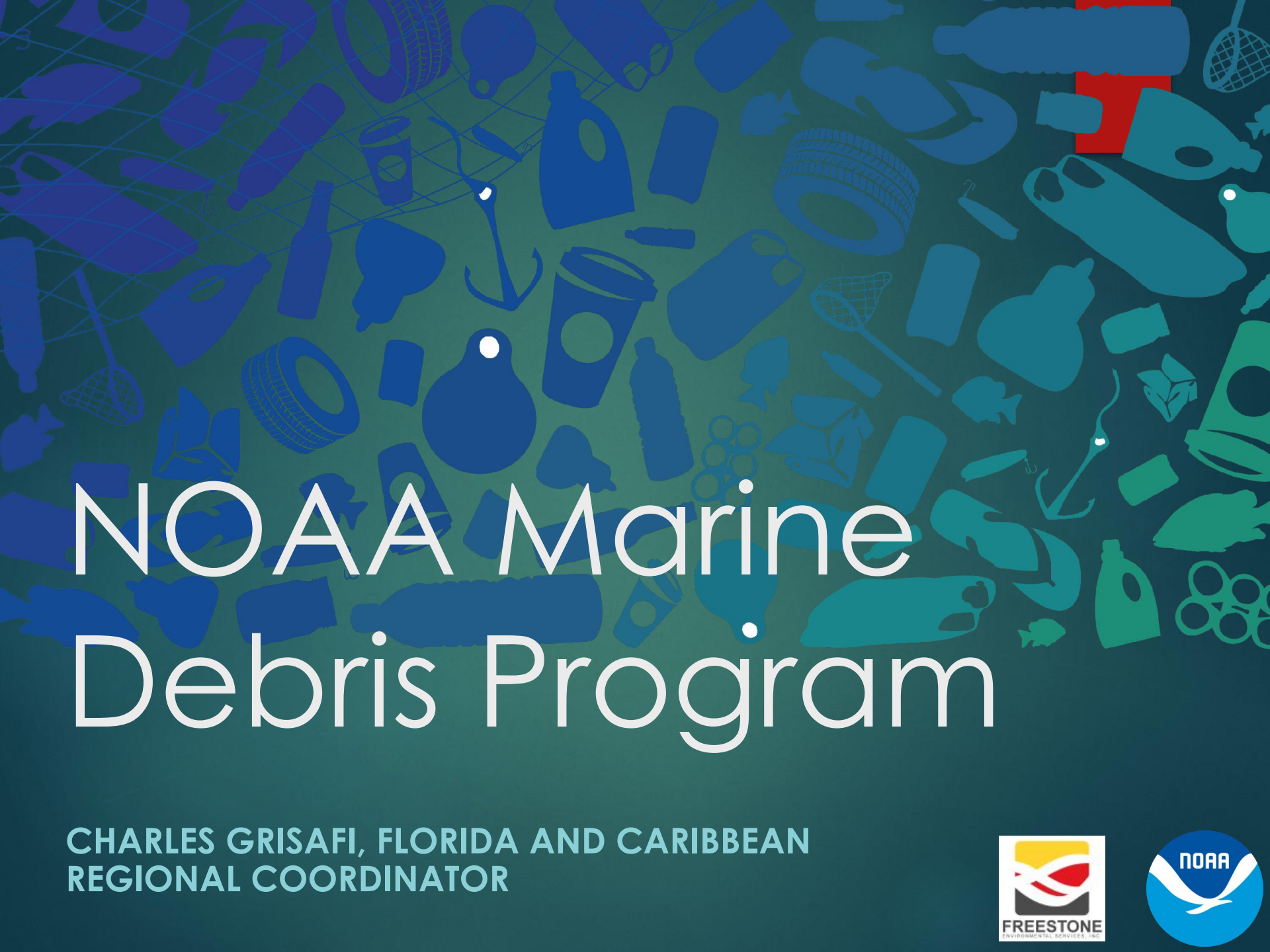
- Ann Lazar
  - Ann.Lazar@ FloridaDEP.gov
  - 850-245-2168

# Thank you!


Ann Lazar

Ann.Lazar@FloridaDEP.gov

850-245-2168



# NOAA Marine Debris Program

CHARLES GRISAFI, FLORIDA AND CARIBBEAN REGIONAL COORDINATOR

FREESTONE ENVIRONMENTAL SERVICES, INC.

NOAA

# NOAA MDP Program Pillars

- Removal
- Prevention
- Research
- Emergency Response
- Regional Coordination

*Photo: NOAA CREP*

# Removal

**Community-based** marine debris removal grants.

Recipients include NGOs, industry, and state and local governments

**Removal priorities include:**

- Derelict Fishing Gear
- Aquaculture gear
- Abandoned and derelict vessels
- Debris from natural disasters
- Debris in critical habitat


*Photo: FDACS*

# Prevention

National prevention grant competition.

Projects that **change behavior** in order to prevent or reduce a specific type of marine debris

Prevention priorities include:

- Education and outreach with K-12 and college level students
- Fishing communities
- Coastal tourism industry
- Solid waste management
- Single-use plastic reduction

# Research

Joint projects with academia, NOAA partners

**Research priorities include:**

- Ecological Risk Assessment
- Exposure/Response Analysis
- Economic impacts
- Fate and Transport
- Shoreline monitoring and assessment at over 330 sites

# Emergency Response

Emergency Response Plans for each coastal state

NOAA MDP provides scientific support to other federal and state agencies responding to a natural disaster

- Serving in Emergency Operations Centers or Incident Command Posts
- Mapping and debris assessments
- Environmental compliance
- Disaster Relief supplemental funding

**Florida Marine Debris Emergency Response Guide: Comprehensive Guidance Document**

NOAA Marine Debris Program
National Oceanic and Atmospheric Administration
U.S. Department of Commerce
September 2017

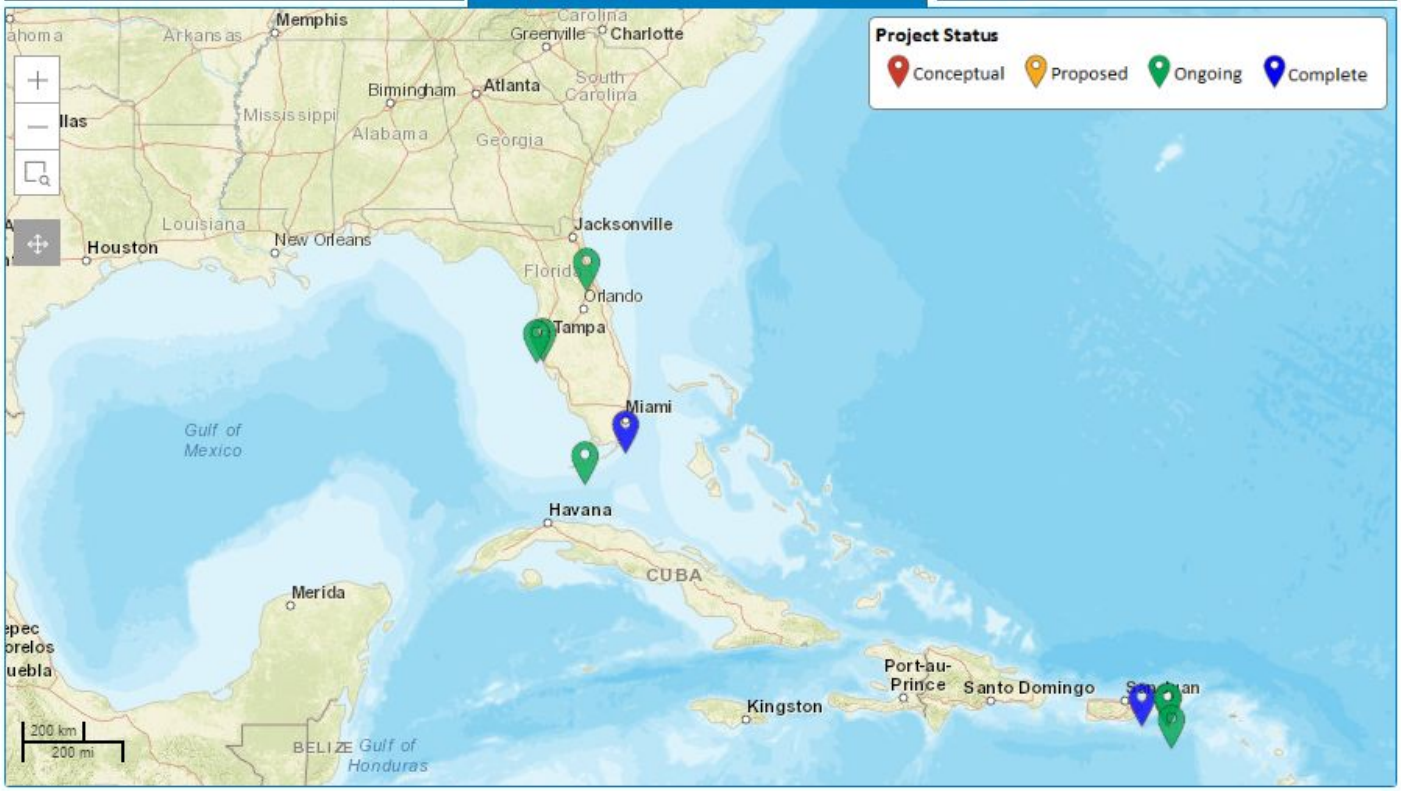
Photo: NOAA

FLORIDA AND CARIBBEAN

# Marine Debris Collaborative

HOME ABOUT RESOURCES

WELCOME | LOCATIONS | DETAILS




EVENTS AND ANNOUNCEMENTS

Participate in events in your area.

LEARN MORE

FUNDING OPPORTUNITIES

Find funding for organizations and projects.

VIEW POSTINGS

FLORIDA AND CARIBBEAN Marine Debris Collaborative | Maintained by NOAA

https://floridacaribbean-mdc.diver.orr.noaa.gov/web/florida-and-caribbean/funding-opportunities

# EPA's Trash Free Waters Program

## *A strategic approach to reduce trash in aquatic ecosystems*
## *Projects in Mobile, AL and Atlanta, GA*

Chris Plymale EPA Region 4

Florida Marine Debris Workshop, May 22, 2019

# Today's Discussion

Water Issues EPA's Trash Free Waters Program is addressing by implementing projects

# Marine Debris is a Global Problem and Priority


MARINE DEBRIS

Trash in Water is Pollution, Not Merely an Eyesore

# Aquatic Trash Impacts

- Trash is a pervasive problem for oceans and coasts, causing significant economic, aesthetic, and ecological impacts.

- **Approximately 80% of aquatic trash comes from land-based sources.**

- **Trash on land enters the water via many different pathways.**

- During the 2014 International Coastal Cleanup (sponsored by the Ocean Conservancy), participants worldwide collected 12.3 million pounds of trash in a single day.


SEWERS
PSP

# A Costly and Pervasive Pollution Problem in the United States

- According to Keep America Beautiful, over 51 billion pieces of litter end up on US roads each year, with annual litter cleanup costs in the U.S. approaching $11.5 billion.
- Local governments spend millions of dollars every year cleaning up litter.  Los Angeles County, CA spends over $18 million annually to clean up and prevent litter (Inside Solid Waste, 2011).


RIVERS & STREAMS


COMMERCIAL FISHING

# DIRECT DISCHARGE

# TOP 10 ITEMS COLLECTED

1. Cigarette Butts
**2,248,065**

2. Food Wrappers (Candy, chips, etc.)
**1,376,133**

3. Beverage Bottles (Plastic)
**988,965**

4. Bottle Caps (Plastic)
**811,871**

5. Straws, Stirrers
**519,911**

6. Other Plastic Bags
**489,968**

7. Grocery Bags (Plastic)
**485,204**

8. Beverage Bottles (Glass)
**396,121**

9. Beverage Cans
**382,608**

10. Cups & Plates (Plastic)
**376,479**

Ocean Conservancy

# HOW LONG UNTIL IT'S GONE?

Estimated decomposition rates of common marine debris items

# Plastic Trash Impacts

- Plastic is estimated to make up 60-80% of ocean trash. Microplastics are ubiquitous in all of the world’s oceans.

- Eight million tons of plastic are estimated to enter the ocean annually.

# Plastic Trash Impacts

- It is estimated that there will be 1 lb. of plastic for every 3 lbs. of fish in the ocean by 2025.
- Durable plastic packaging is used for many short-term, single-use purposes.
- Plastic aquatic trash may be a vector for the transfer of Persistent Bio-accumulative and Toxic chemicals from the water to the marine food web.

# MICROPLASTICS & MICROBEADS

# Plastic Trash Impacts Microplastics

- Microplastics (less than 5 mm in diameter) may be ingested by aquatic organisms and interfere with digestion or nutrient absorption.
- Microplastics may contain toxic chemicals as part of the original plastic material (e.g., dyes) or may adsorb environmental contaminants such as PCBs.
- Microplastics may act as vectors for the seeds/eggs/spores of invasive species.

# The best way to reduce trash?


***DON'T CREATE IT***
***IN THE FIRST PLACE!***

# The Mobile Bay NEP:

Two Projects Funded to reduce Trash in waters

- 25,000 from HQ
- 488,000 from GOMP

# LITTER ISSUES

# WHERE THEY ARE TODAY

- EPA GOM–MBNEP- 3 Mile Creek
- EPA Trash-Free Waters
- EPA GOM-DRCR- Dog River
- Testing EPA ETAP Protocol
- Developing web-based reporting

# LITTER GITTER IN ACTION

# LITTER GITTE

# LITTER GITTER IN ACTION

# LITTER BOAT


AL-0722-FV
NISSAN

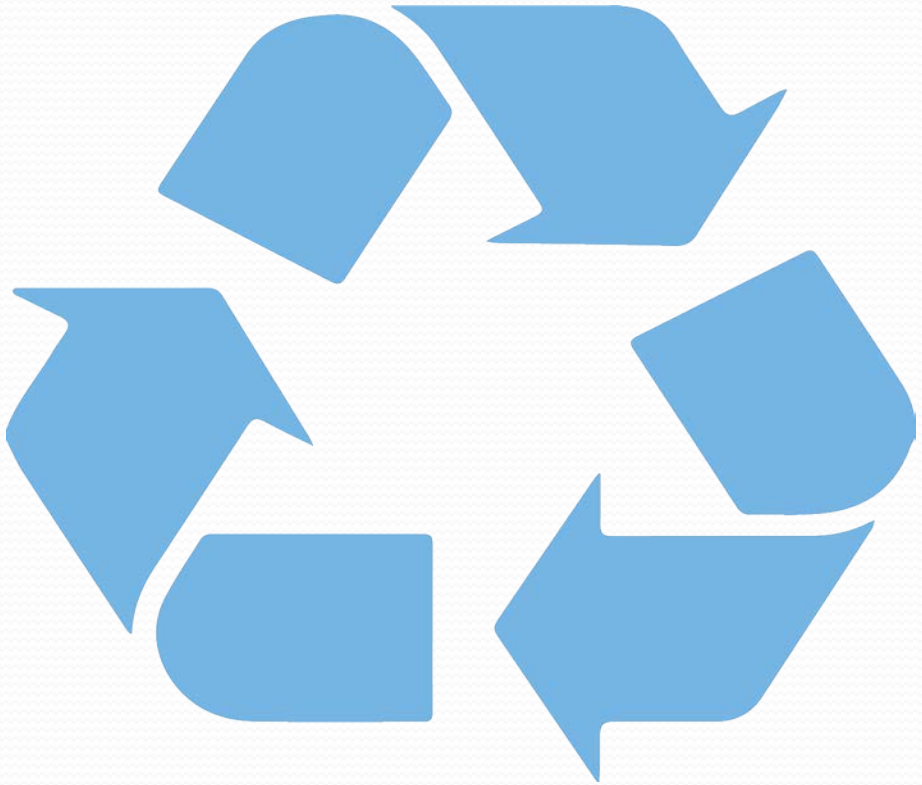

AL-0722-FV
JAN


AL-0722-FV
JAN
3/7/19, 12:47 PM
+30.630864,-88.100169
Mobile, AL 36605


AL-0722-FV
JAN

# PHILOSOPHY

# THE FUTURE



REDUCE

REUSE

RECYCLE

# City of Atlanta - National Recreation and Parks Association: Proctor Creek Trash Trap Grant

Department of Parks and Recreation

Department of Watershed Management

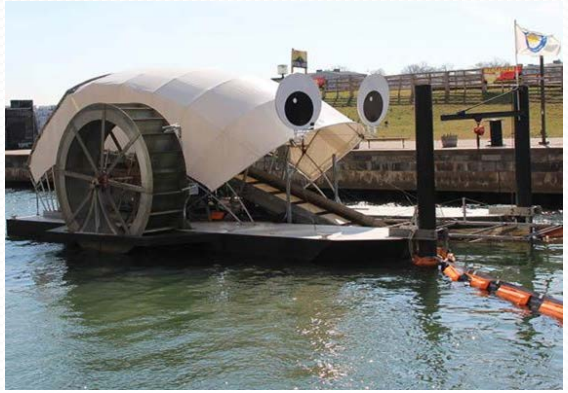
**John Dargle, Commissioner**
Department of Parks and Recreation

# Why trash traps in Atlanta?

**Goals**

- Address community concern and pollution.
- Educate community
- Capitalize on experienced leaders
  - Watershed Commissioner Kishia Powell led the Trash Wheel effort in Baltimore
- Build on previous efforts – GaTech design project, planned Greensferry trash trap
- Provide a sustainable model for maintenance and workforce development

Trash in Proctor Cr Watershed

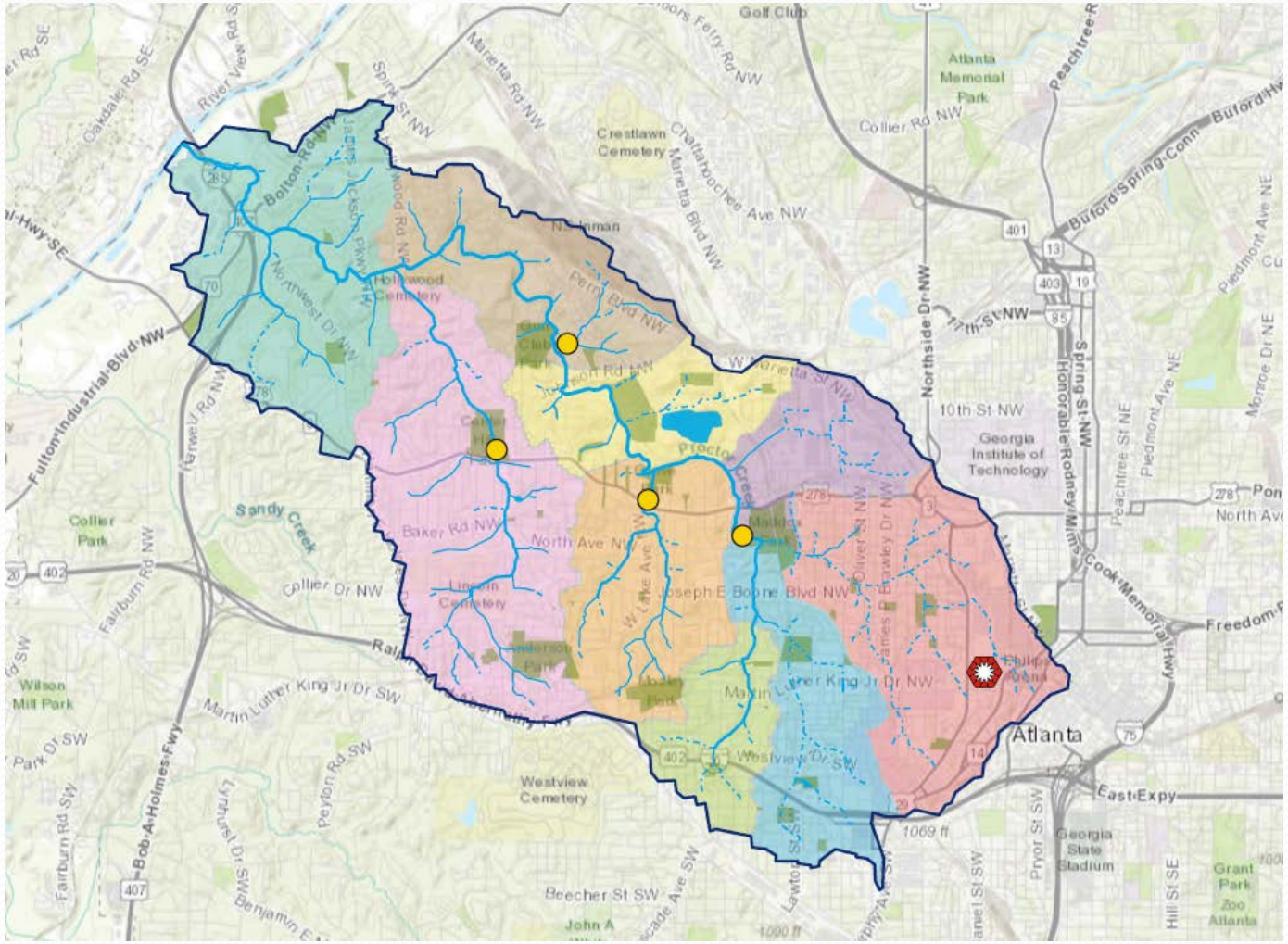


Baltimore Water Wheel

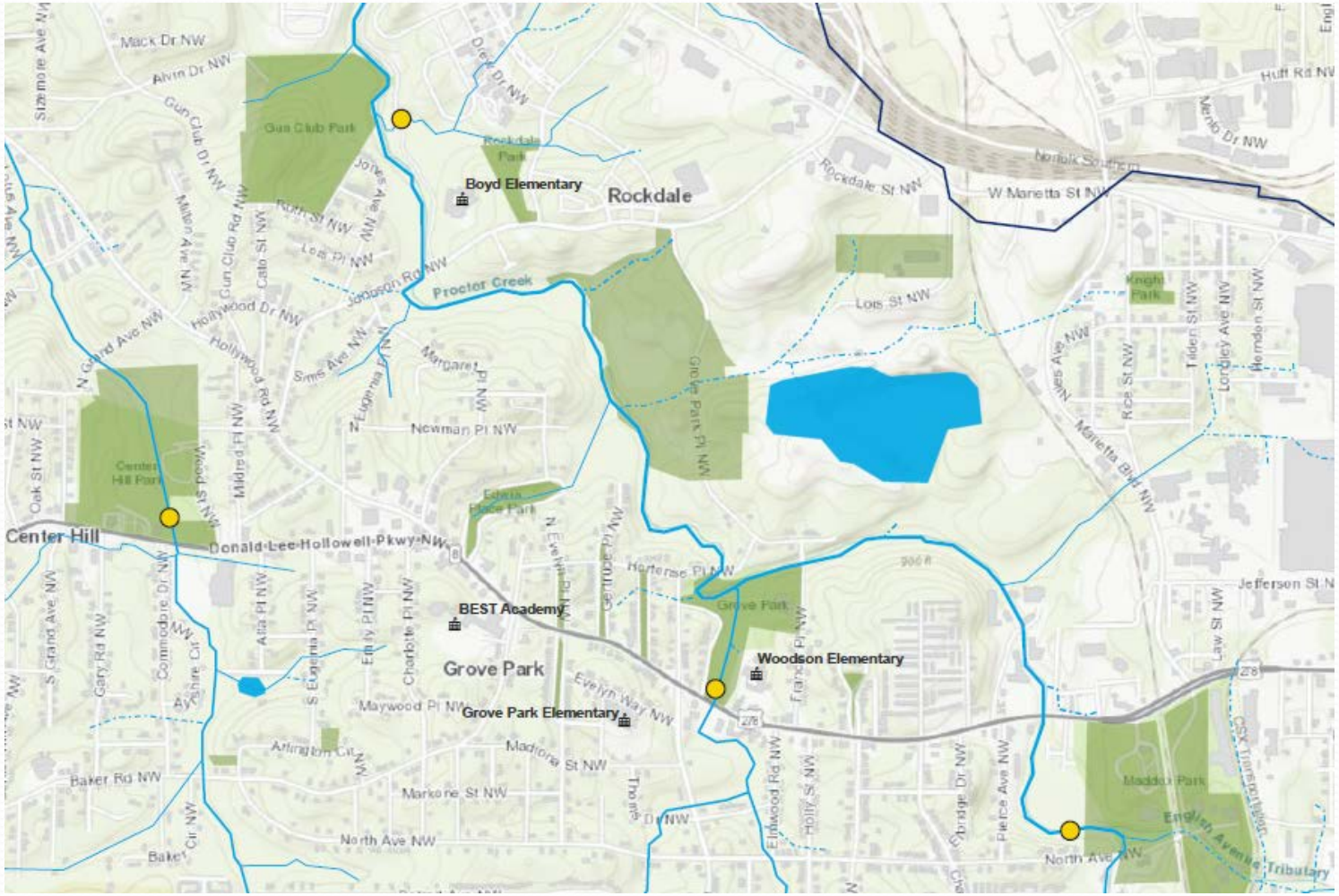
## Goals

- Install 2 types of trash traps at 3 different locations along Proctor Creek within Parks.  Operate and Maintain the trash traps, including removing and safely disposing trash
- Sort and count trash to determine effectiveness of trash traps.
- Install educational signs on and near trash traps to educate the public about trash trap operation and how trash gets to Proctor Creek.
- Conduct educational outreach and programing to reduce trash loads and educate the public about the problems that trash creates in aquatic environments

# Proctor Creek Watershed



# Proctor Creek Trash Trap Locations



## Sites

- Proctor Park (Bandalong) - Mainstem
  - Future Park adjacent to existing Maddox Park
  - Trap will be located near MARTA rail and planned pedestrian bridge
  - Site will require preparation/clearing

## Sites

- Grove Park (Litter Gitter) – Tributary
  - Adjacent to Hollowell Parkway
  - Visibility at Park entrance
  - Near Future Elementary

## Sites

- Proctor Creek Greenway / Boyd Elementary (Litter Gitter)- Tributary
  - Adjacent to public access greenway
  - Near Boyd Elementary

## Sites

- Center Hill Park (Litter Gitter) - Tributary (if funding available)
  - Near Park entrance
  - Close to Hollowell Parkway

# Sustaining the Project

**Challenges**

- Keeping the community engaged
- Establishing future capital
  - Continuing education efforts
  - Continuing maintenance efforts
  - Installing additional traps at other needed locations

# Challenges


# Grant Allocation

| GRANT TOTAL | $345,000 |
|---|---|

| Description | Total Cost |
|---|---|
| Trash Trap installation (3) | $250,000 |
| Maintenance Program | $48,000 |
| Educational Program | $24,000 |
| Miscellaneous | $13,000 |
| Additional Trash Trap (if funds available) | $25,000 |

# Next Steps

- TFW programs at the national, state, and local levels should focus on upstream prevention, source reduction, and capacity building

- EPA should establish standardized sampling methods for extraction, quantification and characterization of microplastics from any sample type

- A human health risk assessment for microplastics should be conducted.

# EPA TFW Contacts

**Headquarters**

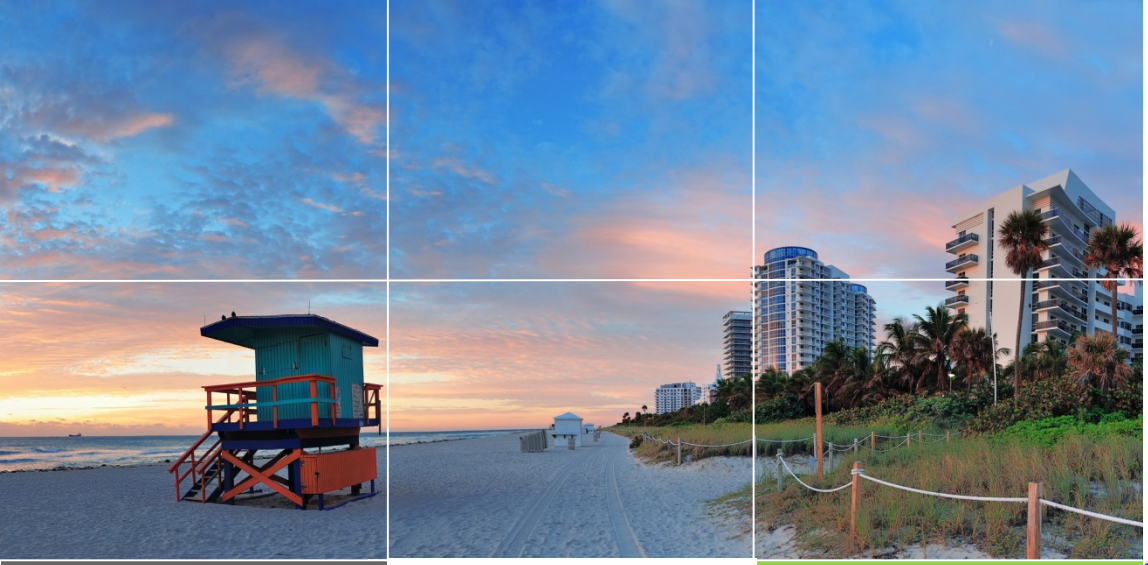
**TFW Team**

- Romell Nandi, 202.
- Bob Benson, 202.566.2954, benson.robert@epa.gov

**EPA Region 4 Team Leads**

- Jay Bassett, 404.562.8559, bassett.jay@epa.gov
- Christopher Plymale, 404.562.9794, Plymale.christopher@epa.gov

# Questions?

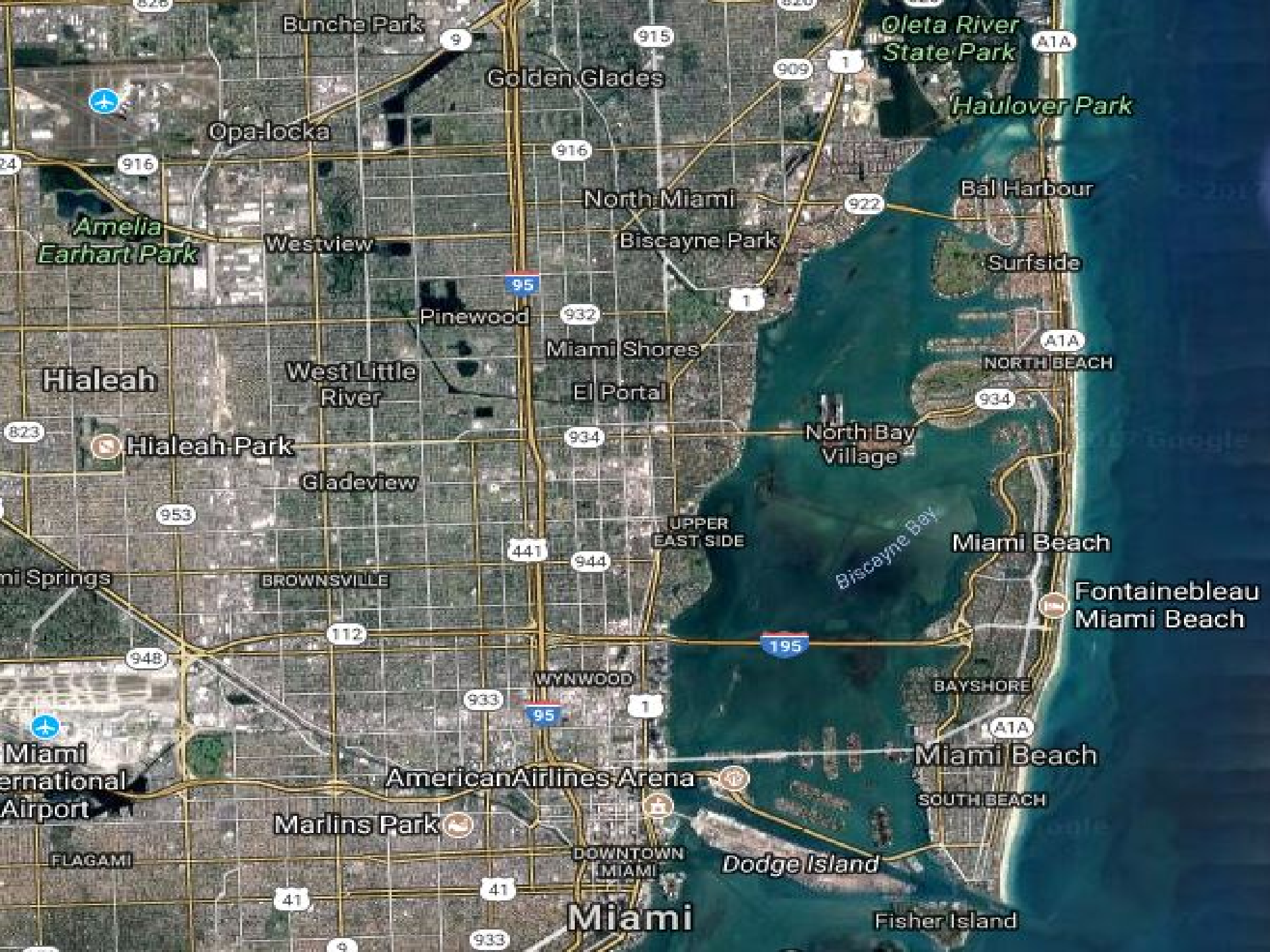


# Stormwater Infrastructure, Maintenance and Data Collection

**Margarita Kruyff (Wells)**
Environment & Sustainability

March 22, 2019

MIAMIBEACH
RISING
ABOVE


Bunche Park
Oleta River State Park
Golden Glades
Haulover Park
Opa-locka
North Miami
Bal Harbour
Amelia Earhart Park
Westview
Biscayne Park
Surfside
Pinewood
Miami Shores
NORTH BEACH
Hialeah
West Little River
El Portal
Hialeah Park
North Bay Village
Gladeview
UPPER EAST SIDE
Biscayne Bay
Miami Beach
BROWNSVILLE
Fontainebleau Miami Beach
WYNWOOD
BAYSHORE
Miami International Airport
AmericanAirlines Arena
Miami Beach
SOUTH BEACH
Marlins Park
FLAGAMI
DOWNTOWN MIAMI
Dodge Island
Miami
Fisher Island
9
915
909
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A1A
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112
948
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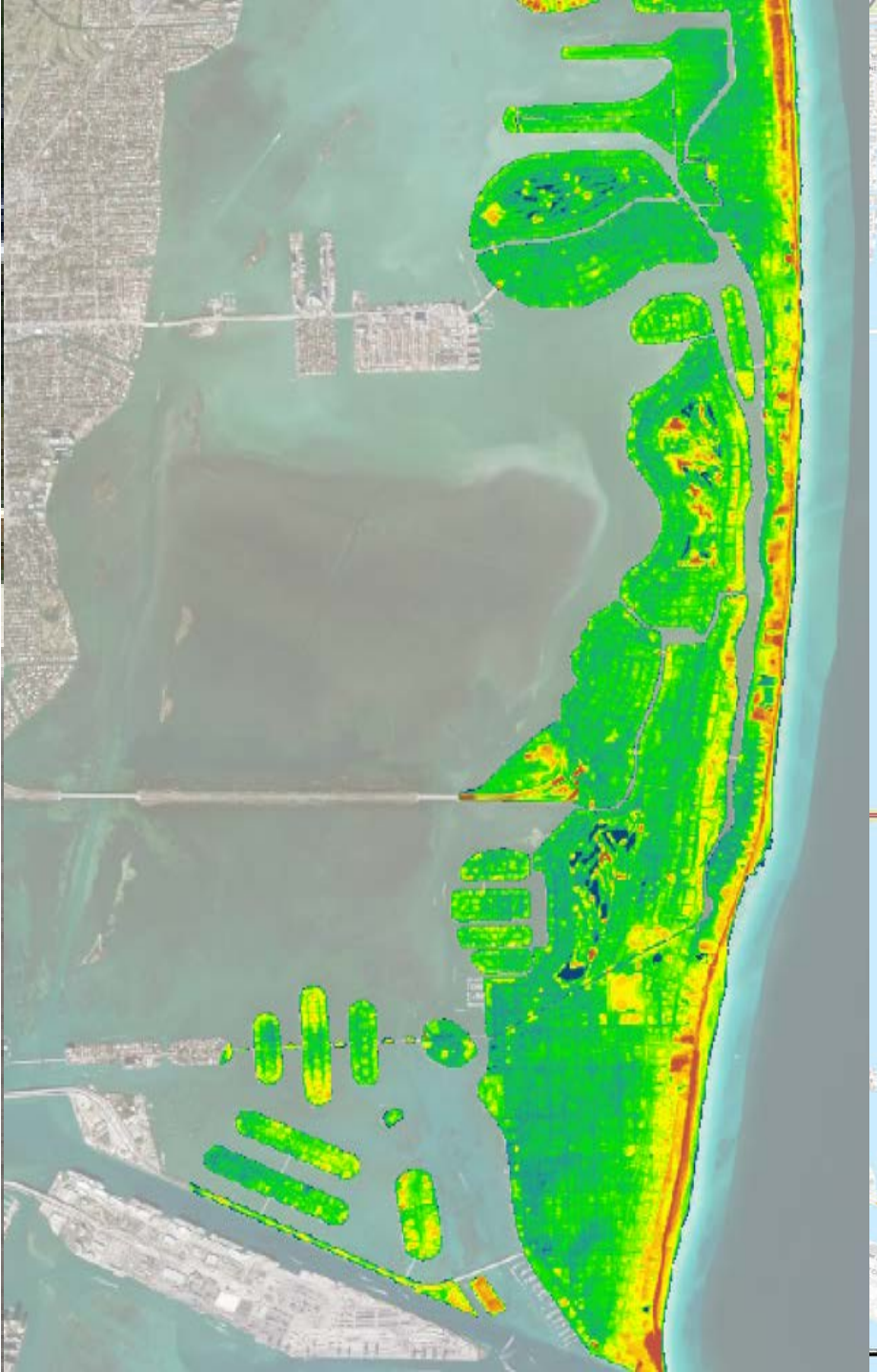
933
41



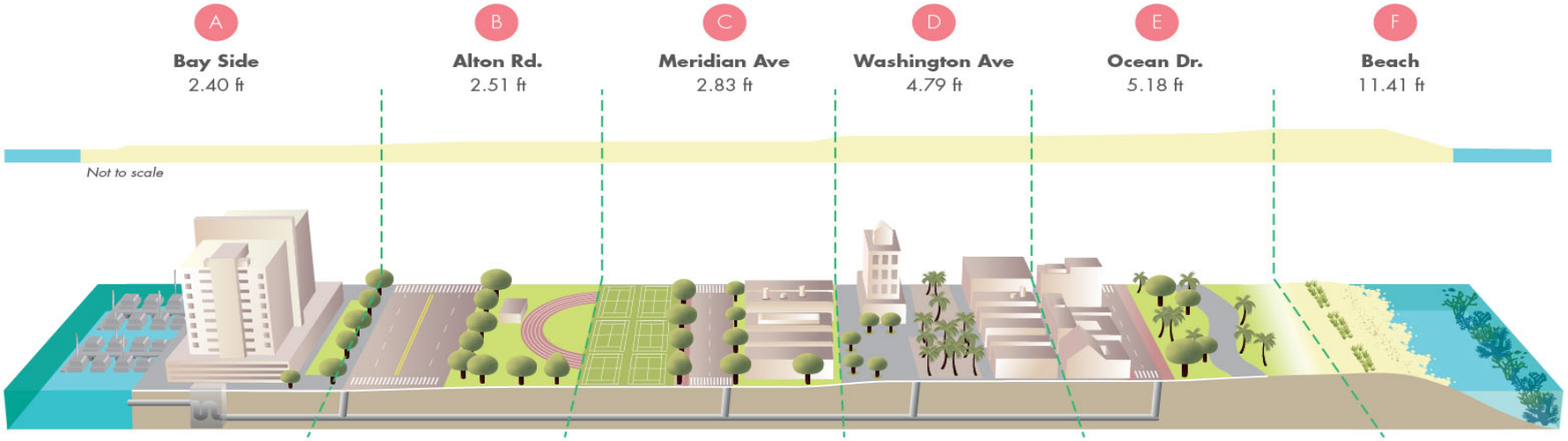

Length of Roads in Linear Miles

| Elevation Intervals | CMB | FDOT | MDC | Total |
|---|---|---|---|---|
| ≤2.0 | 21 | 2.5 | 0.5 | 24 |
| > 2.0 - ≤3.2 | 67 | 14.5 | 2.5 | 84 |
| > 3.2 - ≤5.0 | 29 | 12 | 4.5 | 45.5 |
| >5 | 7 | 9 | 1.5 | 17.5 |
| Total | 124 | 38 | 9 | 171 |

# TOPOGRAPHIC DATA

MIAMIBEACH RISING ABOVE

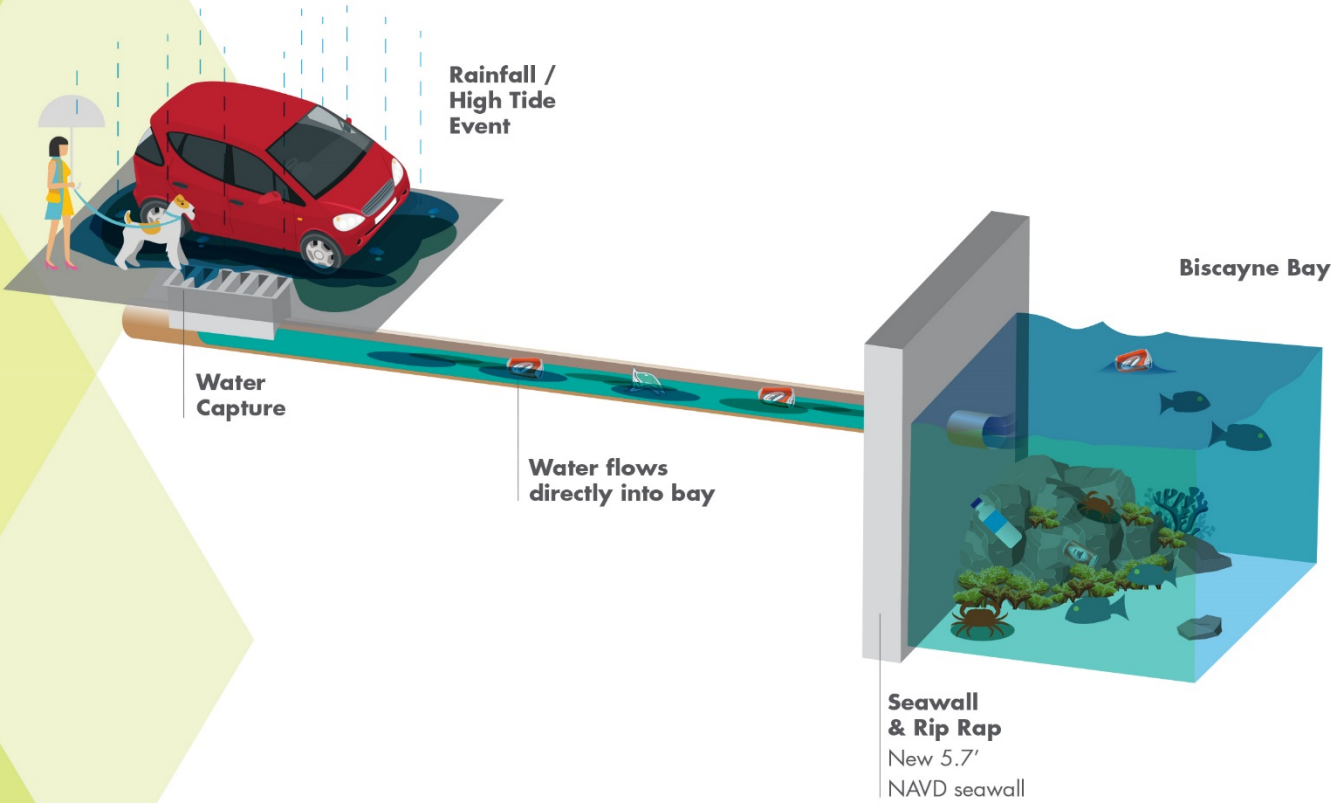
## SOUTH BEACH CROSS SECTION




Source: Google Earth

# Gravity SYSTEM

MIAMIBEACH RISING ABOVE



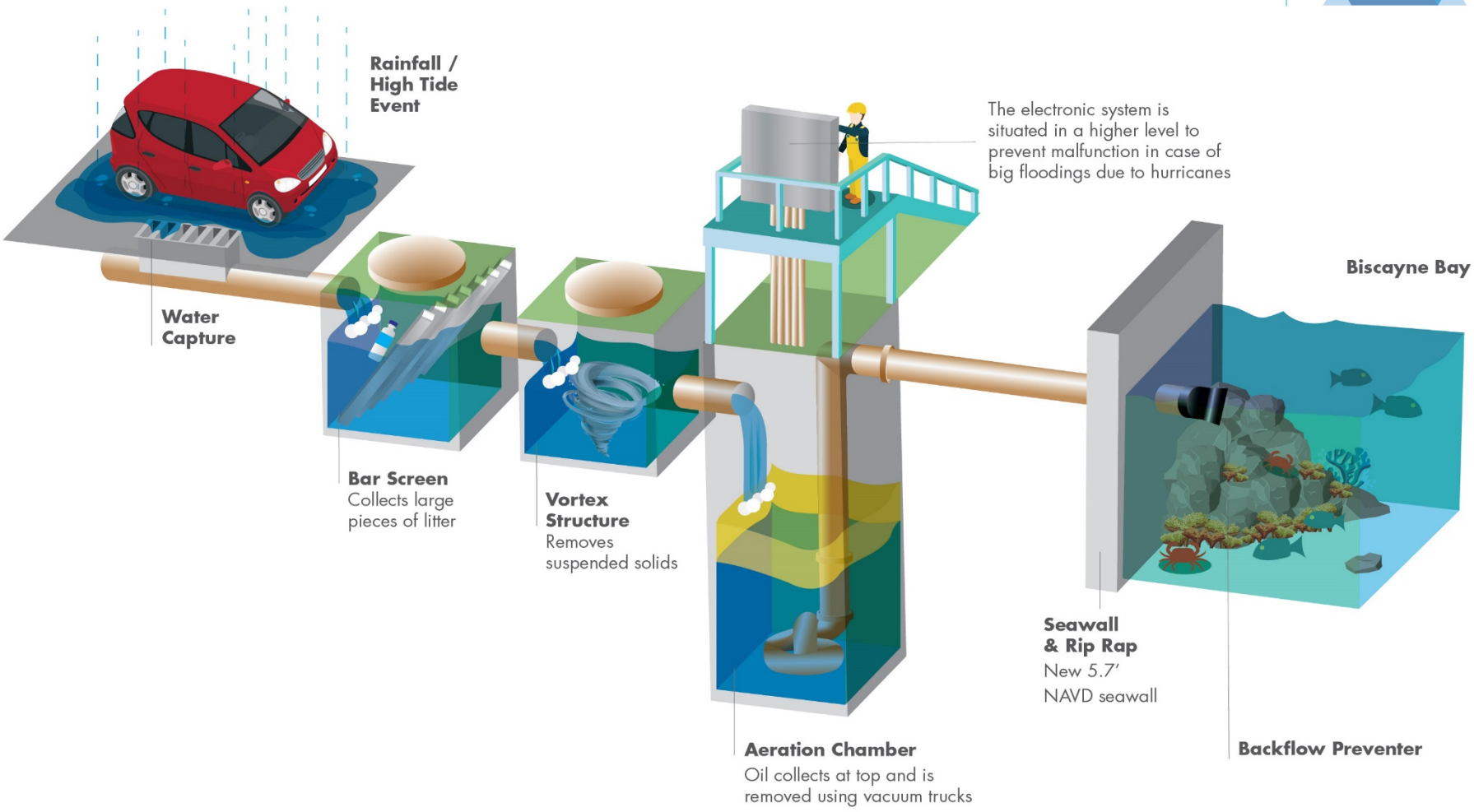
"It takes no imagination and really very little thought to just simply wave goodbye to places on a map – places that mean so much to so many.

It takes real thought, real imagination and real courage to work toward solutions and to focus on what's possible rather than on what's already lost."

**Steve Adams**
Institute for Sustainable Communities
10th Annual Southeast Florida
Regional Climate Leadership Summit

# Stormwater Pump Station UPGRADES

MIAMIBEACH RISING ABOVE




2013
BEFORE


2017
30
AFTER

Pollution Prevention:

# Education & Outreach





**LEVEL 1**
Plastic Bags or straws

**LEVEL 2**
Plastic bags, straws, and one more item

**LEVEL 3**
100% Plastic Free

# Education & Outreach Impact

25,000 lbs textiles recycled

14,000 lbs hazardous waste collected

45 outreach events (3,000 attendees)

700+ social media posts (2.9 million impressions)

110 #PlasticFreeMB businesses at launch

Photo credit: Ben Hicks

Pollution Prevention:

# Policy Changes

## WHAT & WHY

- Expanded Polystyrene is a petroleum-based plastic product
- It is non-biodegradable and not readily recyclable
- Contains the toxic substances Styrene and Benzene
- Expanded polystyrene can have "serious impacts on human health, wildlife, the aquatic environment and the economy" (EPA-842-B-02-002)

**PHASE I**
APR/2012

Beaches

**PHASE II**
JUL/2014


City facilities, parks and beaches, and sidewalk cafes

**PHASE III**
FEB/2015

Marina, docks, piers, and boat ramps

**FINAL PHASE**
SEPT/2015

City-Wide Ban - Food service providers or stores (sale and use). Exceptions: Pre-packaged, raw food, school districts, county, state, and federal governmental agencies


**FINAL PHASE I**
SEP - MAR/2016

Public education & outreach

**FINAL PHASE II**
MAR - SEP/2016

Written Warnings
(except coolers & ice chests)

**FINAL PHASE III**
SEP/2016

Enforcement & Penalty
*$50 **$100 ***$500

Pollution Prevention:

# Policy Changes

- Changing Habits:
  - Polystyrene Ban
  - Plastic Straw/Bags Ban
  - Recycling Ordinance
  - Green Procurement
- Institutionalizing Sustainability:
  - Green Building Ordinance
  - EV Charging Stations Network
  - Beachwalk Projects
- Measuring and Monitoring:
  - GHG inventory
  - Fleet Assessment
  - Energy Assessment
  - Recycling Assessment
- Upcoming Milestones:
  - Climate Action Plan

**Ordinance 2018-4208**: Extends our existing single-use plastic straw/stirrers ban from beaches to all city properties, including marinas, parks, piers, docks, boat ramps and sidewalk cafes (as well as contractors and special events permitees).

**Ordinance 2018-4205**: This ordinance will prohibit the use/distribution of single-use carry out plastic bags on the right of way and to sidewalk café patrons.

Pollution Prevention:

# Cleaning & Maintenance (Street Level)

Stopped

6,000+ lbs Sediment

1,030 lbs Nitrogen

660 lbs Phosphorous

from entering Biscayne Bay

Pollution Prevention:

# Cleaning & Maintenance (In-System)

Cleaned

8,912 inlet/catch basins

145 miles of pipes

280 pollution control boxes

45 pump stations

35 major outfalls

Removed

3,279,660 lbs trash

Pollution Prevention:

# Cleaning & Maintenance (Waterways)

Removes an average of

100,000 lbs litter

per year

# “Trust but verify.”


**Margarita Kruyff**, Assistant Director
Environment & Sustainability Department
margaritakruyff@miamibeachfl.gov