Inaugural Biscayne Bay Marine Health Summit Report

Prepared by:

Tiffany Troxler[1], Frank Leone[1], James Fourqurean[1], Joel Trexler[1], Steve Sauls[1], Dave Doebler[2], Luiz Rodriguez[3], Dara Schoenwald[2], Camila Quaresma-Sharp[4], Candice Allouch[1]

[1]Florida International University, [2]VolunteerCleanup.org, [3]Eco-Logical Solutions, [4]Sharp Dentistry

FIU Institute of Water and Environment
Florida International University

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Florida International University

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Luiz Rodrigues, Eco-Logical Solutions, Founder
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Dave Doebler, Co-Founder, VolunteerCleanup.org

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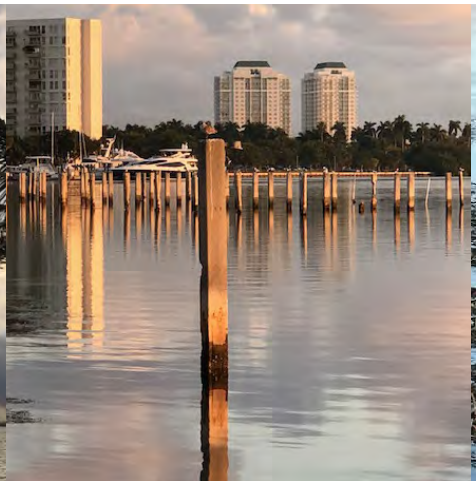
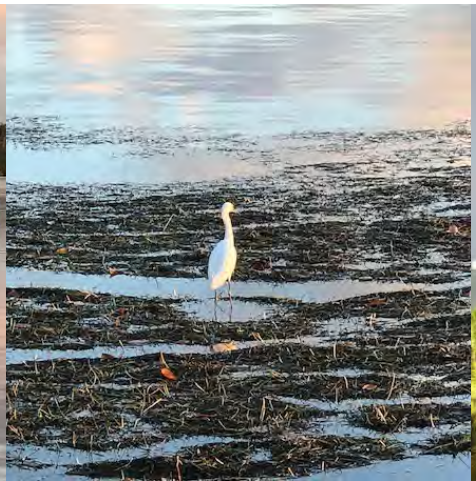




Foreword by
Steve Sauls

The sold-out Biscayne Bay Marine Health Summit yesterday @FIU's Biscayne Bay Campus was a great success. Over 200 registered participants gained greater awareness of the bay as an ecological system and the challenges it's experiencing today including inundation of marine debris, other pollutants, and massive die off of sea grasses which will take years to recover.

The diverse group of environmental advocates, governmental officials and private sector participants pledged to collaborate to support healthy bay initiatives including the Biscayne Bay Restoration Initiative (BBRI), and implementation of NOAA's Florida Marine Debris Reduction Guidance Plan as part of a new 10-year action plan. The Summit also began the process of formulating a rigorous research agenda, called for a more comprehensive water quality monitoring and assessment plan, and need for greater communication and public outreach.

The highlight of the morning was Harvey Ruvin who pioneered the first bay recovery initiative and called for renewed efforts to address the current crisis, and remarks by Miami-Dade County Commissioner Daniella Levine-Cava, who sponsored the commission resolution supporting the Summit.

The Summit awarded Commissioner Daniella Levine Cava the first Harvey Award in honor of Clerk of the Courts Harvey Ruvin for Biscayne Bay leadership. Now the hard work begins.

The best part for me in addition to working toward real improvements in the bay was getting to know so many good and knowledgeable people committed to our community. Thank you Luiz Rodrigues for your inspiration for the Summit and commitment to the environment, and too many others to thank in this post.

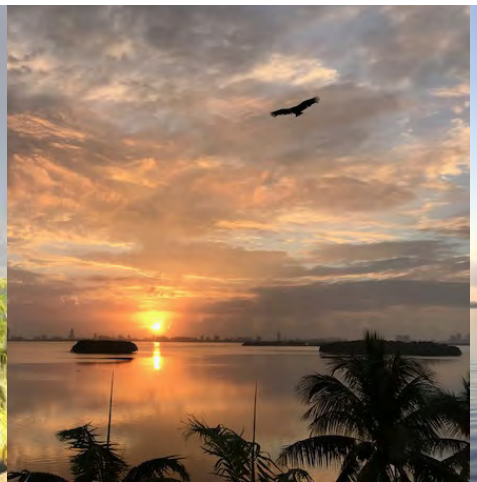
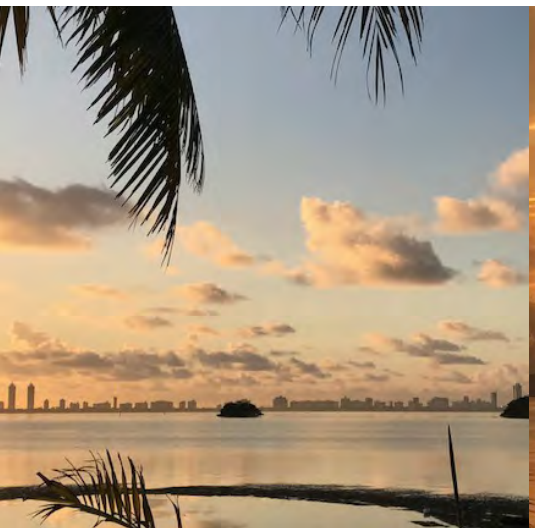
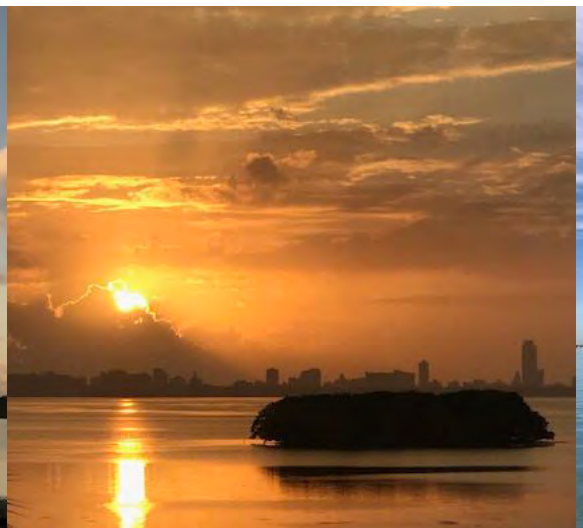


TABLE OF CONTENTS

I. Summary Recommendations

- Develop a new 10-Year Action Plan
- Integrate, more actively support and implement activities of the Biscayne Bay Restoration Initiative at the county level and NOAA's Florida Marine Debris Reduction Guidance Plan as part of a new 10-Year Action Plan;
- Develop a research agenda to assess outcomes and support adaptive management of 10-Year Action Plan, including more comprehensive water quality monitoring and assessment;
- Develop and implement communication and public outreach campaigns as part of a new 10-Year Action Plan, including sustained coordination and information exchange through the implementation of annual summits;
- Improve the health of the Bay and experience for visitors, tourists and residents alike through the implementation of important tools such as ecosystem restoration and coastal ecosystem management. Ecotechnological remediation also shows great promise to manage stormwater and minimize potential for pollutants released into Bay. i.e. identify problem areas and apply eco-technological remediation at pilot scale;
- Develop policies and incentives to sustain the health of the Bay and develop a report card for key indicators of Bay health, including economic benefits (Medium to long-term)


II. Agenda

SCHEDULE	TOPIC	SPEAKERS
8:00am – 9:00am	Registration / Breakfast / Exhibitor Fair	
9:00am – 9:15am	**Welcome Remarks by Organizers & Mayor / Elected Officials**	**Luiz Rodrigues** – *Biological Oceanographer, Director of Sustainable Ventures & Summit's Founder* **Steve Sauls** - *Former FIU VP for Governmental Relations & Consultant for FIU Strategic Issues & Summit Steering Committee Member* **Evelyn E. Gaiser, Ph.D.** – *FIU Executive Director, School of Environment, Arts and Society; Professor, Department of Biological Sciences and Southeast Environmental Research Center & Institute of Water and Environment; Lead Principal Investigator, Florida Coastal Everglades Long Term Ecological Research Program* **Daniella Levine Cava** - *Miami-Dade County Commissioner, District 8*
9:15am – 9:30am	**Summit Kick-Off Remarks & Stakeholders Introductions**	**Hon. Harvey Ruvin** - *Clerk of the Courts, Miami-Dade County*
9:30am – 10:30am	**State of the Bay:** Introduction to Biscayne Bay ecology, economic importance and challenges	**Dave Doebler** – *Founder of VolunteerCleanup.org, Chair of the City of Miami Beach Sustainability Committee, Environmental Activist, & Summit Steering Committee Member* **Jamie Monty** – *MDC Restoration & Enhancement Section Manager for DERM* **Captain Dan Kipnis** - *Serves on the Biscayne Bay Regional Restoration Coordination Team and as Chair of the MB Marine Authority. Past member of the State of FL Marine Fisheries Commission, Biscayne Bay Management Committee, and City of Miami Waterfront Board*
10:30am – 10:45am	Break - Refreshments	
10:45am – 11:00am	**NOAA's Florida Marine Debris Reduction Guidance Plan**	**Charles Grisafi** – *NOAA's Marine Debris Program Regional Coordinator for Florida & Caribbean*
11:00am – 12:00pm	**Pollution - Sources and Solutions:** Types of pollution threatening the bay and best practices to keep it out of the water	**MODERATOR - Dr. Rene Price** - Professor and Chair of the Department of Earth and Environment, FIU **Charles Grisafi** - NOAA's Marine Debris Program Regional Coordinator for Florida & Caribbean **Patrick Shearer** - Project Engineer and Lead Stormwater Design / Ecological System Restoration Engineer at ESciences Incorporated **Dr. James Fourqurean** - Professor of Biological Sciences and Director of the Marine Education and Research Center, FIU **Tiffany G. Troxler, Ph.D.** - Director, FIU Sea Level Solutions Center, Research Associate Professor, Southeast Environmental Research Center - Urban Resilience to Extremes Sustainability Research Network
12:00pm – 1:00pm	Lunch & Vendor Exhibit	*Special Presentation by* **Dr. William C. Dennison**, *Vice President for Science Applications, University of Maryland Center for Environmental Sciences: The Chesapeake Bay Success Story*
1:00pm – 2:00pm	**Success Stories** • Stormwater Solutions • Community Activism and Engagement • Legislation and Policy • Living Shorelines & Wetlands Restoration	**MODERATOR - Dave Doebler** – Founder of VolunteerCleanup.org, Chair of the City of Miami Beach Sustainability Committee, Environmental Activist, & Summit Steering Committee Member **Stormwater** **Margarita Wells** – City of Miami Beach's Acting Environment and Sustainability Director **Engagement Activism** **Dara Schoenwald** – Executive Director, VolunteerCleanup.org and Business Development for Woosh Water **Policy Wins** **Matt Anderson** - City of Coral Gables Sustainability Specialist @ the Transportation & Sustainability Division **Cleaning a Dirty Bay** **Dr. Walter Meyer** - Adjunct professor at Parsons The New School for Design, founding Principal of Local Office Landscape Architecture, and designer for 'Parque del Litoral', in Mayaguez, Puerto Rico
2:00pm – 3:00pm	**BREAKOUT WORKING GROUPS:** **Group 1 - Governmental Policy & Responsibility** Facilitators: State Senator Jose Javier Rodriguez & Steve Sauls - Former FIU VP for Governmental Relations & Consultant for FIU Strategic **Group 2 - Infrastructure and Public Works** Facilitator: Jane Gilbert – City of Miami Chief Resiliency Officer & Dave Doebler – Founder of VolunteerCleanup.org, Sustainability Committee Chair for the City of Miami Beach & Environmental Activist **Group 3 - Education & Outreach (NGO, City Comms, Educators)** Facilitator: Dara Schoenwald – Cultural Anthropologist, & VolunteerCleanup.org Executive Director **Group 4 - Researchers and Research Needs** Facilitator: Dr. Joel Trexler – Director of Marine Science, Dept. of Biological Sciences, at Florida International University	
3:00pm – 3:15pm	Break - Refreshments	
3:15pm – 4:15pm	**Recap: Recommendations and Goals Report** Group 1 | Group 2 | Group 3 | Group 4	
4:15pm – 4:45pm	**What's Next & Goal Setting:** Design and Implementation of a 10 Year Acton Plan	**Irela Bagué** - public affairs consultant and President & CEO of Bagué Group **Steve Sauls** - Former FIU VP for Governmental Relations & Consultant for FIU Strategic Issues – Summit's Steering Committee Member
4:45pm – 5:00pm	**Closing Remarks**	**Jim Murley** – *Miami-Dade County Chief Resiliency Officer*
5:00pm – 6:00pm	Networking / Exhibitor Visit	

III. Presentation Summaries

The **first annual Biscayne Bay Marine Health Summit (BBMHS)** consisted of eight presentations by expert scientists, prominent regional political figures, and leaders of relevant non-profits and NGOs. Below are short summaries of each presentation.

The **"Marine Debris" presentation by Dave Doebler** explained that each cleanup event collects 300-500 pounds of trash. Trash from the Bay is 80% land derived and 20% ocean derived. Land trash consists of street litter, garbage blown out of trash cans and poor storm drain maintenance. While there has been progress (unencapsulated foam has been banned in many cases arount the Bay area), marine debris may still threaten integral economic activities in Biscayne Bay if not addressed.

In her presentation, **"Biscayne Bay: Past, Present, and Future," Jamie Monty** explained that Miami-Dade County operates many Bay maintenance activities. She illustrated that North Bay is most affected by urban runoff and canal discharge and South/Central Bay is variable with a high percentage of natural ecosystem. Threatened species within the Biscayne Bay area include manatees, crocodiles, Johnson's seagrasses, and wood storks. Jamie also identified nine bodies of water that are out of fecal coliform compliance. All of these issues are consequences of a threatened and polluted Biscayne Bay.

"Seagrass Dieoff in Biscayne Bay", Captain Dan Kipnis, illustrated major challenges for the Bay including uncertainties of the effects of increased stormwater runoff associated with flood mitigation efforts. Captain Dan also showed satellite images showing 75% of the seagrass has died off over the past 2 years (see Appendix 10 for images).

"Our City. Our Water" by Kelly Cox (unscheduled presentation) explained the Miami Waterkeeper Alliance's goal, which is to protect Miami residents' rights to clean water and promote thriving South Florida marine environments. Kelly touched on the raw sewage leak that occurred on June 20, 2017 into the Bay, the sorts of detrimental effects to the Bay that the Miami Waterkeep Alliance hopes to address.

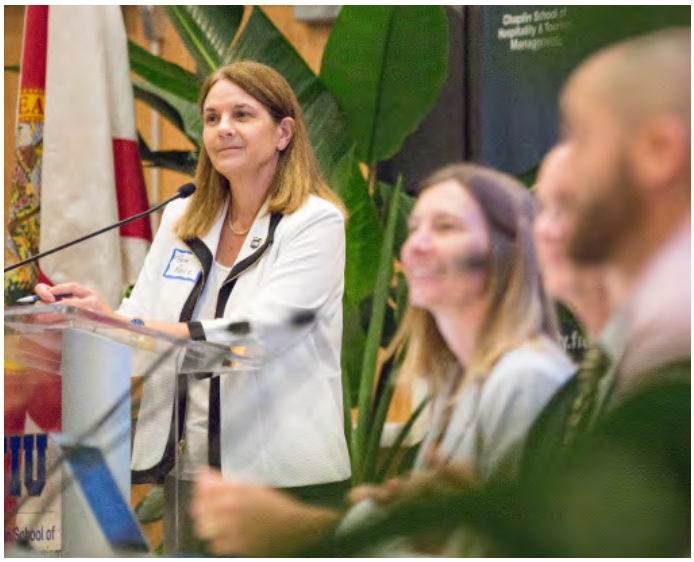
The **"NOAA Marine Debris Program" presentation by Charles Grisafi** touched on the history of and work being done by the NOAA Marine Debris Program (MDP). The MDP was developed in 2006 as the federal lead to address marine debris issues. Charles explained that the NOAA MDP works to determine sources of, assess, prevent, reduce, and remove marine debris through 5 program pillars: removal, prevention, research, emergency response and regional coordination. Charles also discussed the development and implementation of the Florida Marine Debris Reduction Guidance Plan. Charles explained how the plan is a compilation of recommended strategies and actions toward reducing the impacts and amount of marine debris in Florida.

"Miami Beach Stormwater Solutions" by Margarita Wells focused on how Miami Beach is responding to stormwater issues. She says that "dealing with stormwater is an ancient issue that is especially important in the low-lying Biscayne Bay area". She identified that Miami Beach accounts for 4% of discharge into the Bay. The region's new stormwater systems are designed to address rising sea levels with pump stations to prevent flooding with the added benefit of debris removal before discharge. Miami Beach has succeeded in preventing 1,308,000 pounds of trash from entering the Bay thanks to these initiatives.

Dara Schoenwald's presentation "VolunteerCleanup" explained the organization's successes and future initiatves. Dara stressed the use of social media for Bay protection awareness, including Facebook and Twitter. She explained that VolunteerCleanup has advocated for a successful Styrofoam ban and has organized thousands of hours of community service around the length of Biscayne Bay. The organization's future focus will be on stopping trash before it enters the Bay (implementing a preemptive solution to Bay pollution), as well as reducing single use plastics, like highly inefficient and wasteful plastic grocery bags.

In the **"City of Coral Gables: Sustainability Initiatives" presentation, Matthew Anderson** explained the City's goals and initiatives for addressing threats to Biscayne Bay. He said that the City of Coral Gables has set goals to lower waste by 2020-2025, including replacing the work car fleet with electric models (lowering emissions by 22,000 pounds) and improving and expanding bike lanes (in order to lower emissions by motorized transport). Additionally, Coral Gables has a famous tree canopy that removes carbon dioxide from the atmosphere and is the first city in Florida to ban single use plastic bags.

Dr. Walter Meyer, in his presentatinon "Local Office: Landscape and Urban Design," focused on nature-based infrastructure. He explained that he contributed to building the largest solar array at 10 stories in Puerto Rico, providing 50% of neighborhood food. He also remediated historical Puerto Rican wetlands preventing improper drainage. Walter is in the process of planning drainage infrastructure to account for rising sea levels (>7inches of rain/hour) in Miracle Mile. He is also developing a CSO-to-go, a wetland landscape on a barge, to treat water before discharge and has had successes with this project in New York City.



Drs. Tiffany Troxler (left) and Jim Fourqurean (right) speak on a panel of experts about the state of Biscayne Bay at the first inaugural Biscayne Bay Marine Health Summit (BBMHS).

The "Harvey Award" is awarded to Miami-Dade County Commissioner Daniella Levine-Cava (holding the award). The Harvey Award was created in honor of Harvey Ruvin (standing next to Ms. Levine-Cava), Clerk of Courts for Miami-Dade County and one of the strongest supporters of Biscayne Bay. The award itself was a sculpted piece of a man rigging together a boat of some kind. The sculpture was created from plastic marine debris by Keith Clougherty.

IV. Breakout Grou Summaries

BREAKOUT GROUP #1: Infrastructure

- **Purpose:** Discuss infrastructure ideas to keep pollution out of the Bay
- **Objective**: Identify specific and actionable goals to improve infrastructure design and maintenance to be implemented in the 10 year plan
- **Activities**: Brainstorm ideas and prioritize actions
- **Deliverables (see below for a list of selected ideas)**: Short-term (<2 years), Medium-term (5 year), Long-term (10 year) goals

1) **Short-term:** Enforce existing environmental laws, regular cleaning of storm drains, more renewable energy for all new infrastructure, education funding to teach eco-friendly lifestyles in school, parks should have water bottle refill stations, etc.

2) **Medium-term:** Clean up existing nutrient "hotspots" by updating technology, ban plastic bags in all of Miami-Dade County, address canals as large sources of pollution, host public awareness campaigns about waste, increase regular water quality sampling, implement storm drain pollution technology, etc.

3) **Long-term:** Eliminate septic tanks and connect to sewer, establish regional water quality goals and pollution reduction targets, tax violators and polluters, develop recycling plant with capacity to process South Florida recyclables, do water treatment plant and commercial and residential upgrades to reduce pollution, etc.

BREAKOUT GROUP #2: Government and Government Policy

- **Bay Harbor Island Mayor Leonard**, chair-elect of the Miami-Dade League of Cities, gave a brief presentation of what one city can do and is doing.
- **Four "Consensus Priorities" were discussed** at the end of the breakout session (these priorities were presented at the concluding session of the Summit and received overwhelming support):
  1) Support for Biscayne Bay Restoration Initiative (BBRI)
  2) Support for NOAA's Florida Marine Debris Reduction Guidance Plan (FMDRGP)
  3) Address pollution sources to change outcomes of current policies/practices
  4) Support for a consumer education campaign.
- **Timeline for implementing recommendations** was discussed:
  1) **One-year plan**
     a) Update the Biscayne Bay Economic Impact Study; commit to a source of funding for permanent updates
  2) **Five-year plan**
     a) Implement the NOAA Florida Marine Debris Guidelines
     b) Re-engineer Miami-Dade Water/Sewer System
     c) Institute comprehensive monitoring and assessment program
     d) Implement pro-active enforcement of a fertilizer ordinance
  3) **Ten-year plan**
     a) Inspire the youth/the next generation to support environmental stewardship
     b) Actual, physical improvement in the health/water quality of Biscayne Bay
- At the beginning of the Government break-out session, **participants were asked to prioritize various ideas.** Those specific ideas receiving the most support (not in priority order) included:
  1. Increase solid waste fee and designate specific ally for street maintenance and storm drainage cleaning
  2. Ban plastic, specifically plastic bags
  3. Utilize Parks Dept. to manage spoil islands
  4. Establish a citizen-led sustainability committee
  5. Implement Septic tank inspections
  6. Close the FPL cooling canals; install cooling tower instead

ps:
and Takeaways

BREAKOUT GROUP #3: Research Needs

• The ideas developed during this breakout session were separated into **four main areas: research, monitoring and remediation.** Priority ideas are listed below:

1) **Research Needs:**
    a) Toxic algae tie to human diseases
    b) Water circulation (e.g. flushing time, residential time)
    c) Real time monitoring stations for temperature, salinity, nutrients, oxygen, pesticides, bacteria
    d) Ground water monitoring (water flow and chemistry)
    e) Data mining of existing dataset
2) **Monitoring:**
    a) Seagrass loss
    b) Microplastic pollution
    c) Restoration goals
    d) Fishery and nursery habitat monitoring
    e) Impact of pollutants on marine life
3) **Remediation:**
    a) Look for existing filter in the market

BREAKOUT GROUP #4: NGOs, Non-Profits, and Educators

• **Purpose:** Determine the ways NGOs can help prevent or reduce marine debris from entering into and harming Biscayne Bay, or participate in cleanup activities
• **Objective**: Generate a set of short, medium, long-term goals to inform a comprehensive 10-year Action Plan
• **Activities**: Discuss, Brainstorm goals, vote to prioritize, and then categorize goals according to the timeframe in which they can be completed
• **Deliverables (see below for a list of prioritized ideas)**:

1) Focus on engaging diverse communities, not just the environmental groups,
2) Need for broad PSA, awareness, marketing campaigns
    a) Target visitors at coastal, public parks with brochures/literature that speak to these specific issues (marine debris, pollutants, dumping)
    b) Billboards, viral pictures (liter shaming) on social media
3) Declare State of Emergency to restore Biscayne Bay
4) Find ways to integrate environmental education into schools
    a) As part of community service requirements
    b) Make curriculum meet STEM requirements
    c) More funding for field trips
5) Garner support for policy decision to reduce nutrient loading into the bay

NOTE: For additional notes on the breakout group session, see the Appendices at the end of this document.

V. State of Biscayne Bay Research: Current Status of Information

A published literature search produced nearly 100 articles on Biscayne Bay, with topics primarily focused on water quality (suspended particles, pollutants (agrochemicals, fish biology, industrial sustainability and use of historic data (Table 1). A bibliography of these published articles is provided in the following section. More information is provided by unpublished research ("gray" literature) and those presentations and handouts provided as part of Biscayne Bay Restoration Regional Coordination Team meetings in the last 3 years.

Specific continuous work on water quality is conducted as part of the Department of Environmental Resource Management's National Pollution Discharge Elimination System (NPDES) monitoring program. This program provides water quality monitoring of nutrients, chlorophyll and fecal coliform monthly at 87 designated sampling sites around Biscayne Bay and drainage creeks/canals entering it (Figure 1), and annual sampling for potential contamination associated with pesticides and organic contaminants among them. According to the County's website, "water quality and supported habitats in some portions of the Bay, canals and rivers exhibit signs of human impact. Portions of a number of canals in urbanized areas do not meet one of more water quality criteria and are designated by the State of Florida as "impaired".

The County also cites several ways in which water quality can be improved including "development and use of best practices, improvements in pollution prevention technology, air and water quality treatment, land-use and stormwater regulations and environmental remediation and restoration." Protection of natural resources was also cited "to prevent or reduce the occurrence or magnitude of pollution that can enter surface water..."

MAIN CATEGORY	SUBCATEGORY	NUMBER
Water Quality	Plastic Debris	6
	Suspended Partices	22
Pollutants	Heavy Metals	3
	Endocrine Disruptors	5
	Agrochemicals	15
	Sewage	3
Biology	Mollusks	2
	Echinoderms	1
	Reptiles	1
	Algae	4
	Sponges	2
	Fungi	1
	Fish	13
	Invasive Species	2
	Crustaceans	3
	Diatoms	2
	Insects	1
	Marine Mammals	1
	Plankton	4
	Foraminifera	2
	Bacteria	1
Environmental Quality	Industrial Sustainability	15
	Historical Data	10
Pesticides	Insecticides	3
	Endosulfan	1
	Herbicides	3
	Toxicity	1
	Algicides	1

MAIN CATEGORY	SUBCATEGORY	NUMBER
Nutrients	Amino Acids	3
	Carbon	4
	Nitrogen	4
	Phosphorus	8
Baseline Water Chemistry	Salinity	8
	Surface Waters	1
Circulation	Tides	4
	Groundwater Discharge	5
	Heat	8
	Waves	2
	Larval Transport	1
Shoreline Habitat	River	6
	Reef	6
Bay Habitat Restoration	Seagrass Beds	3
	Mangrove Forests	4
Other	Marine Debris	6
	Stormwater	5
	Stabilization	6
	Wave Energy	3
	Living Shorelines	6
	Artificial Reefs	3

Table 1. *Web of Science keyword search on Biscayne Bay*

Figure 1. *The Department of Environmental Resource Management's (DERM) National Pollution Discharge Elimination System (NPDES) Monitoring Plan. The map above identifies the monitoring program's sampling stations.*

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For presentation links, please visit: https://evergladesrestoration.gov/bbrrctm/

VII. Appendices

1. Press Coverage

Achei Newspaper - *May 2017*

Circulando – A Coluna da Comunidade

Por **Circulando** · 26 de maio de 2017

Luiz Rodrigues (Foto: Carla Guarilha)

Saúde da Biscayne

O biólogo Luiz Rodrigues, incansável batalhador pela causa ecológica em Miami à frente da Environmental Coalition of Miami & Beaches (ECOMB) e da Eco-Logical Solutions, organiza esta semana o Biscayne Bay Marine Health, um seminário sobre propostas para o combate à poluição e limpeza da Baía de Biscayne, em Miami. O evento acontece no dia 28 de junho, no campus da FIU (Florida International University – 3000 NE 151 Street). Quem estiver interessado pode ligar direto para o Luiz pelo email luiz@ecologicalsol.com.

Por uma justificativa

O jornalista Marcos Ommati, que entre outras atividades comandou a redação do antigo jornal Florida Review, o primeiro em português a circular em Miami, lançou uma campanha pelas mídias sociais contra a atitude arbitrária de um banco que cancelou sua conta corrente de mais de vinte anos sem qualquer justificativa ou aviso. Apesar de a lei permitir que os bancos encerrem as contas dos clientes sem razão aparente, Ommati justificadamente queixa-se da falta de respeito e consideração do banco e do incômodo que isso lhe causou, já que foi repentinamente obrigado a abrir outra conta em outra instituição, transferir pagamentos automáticos, sustar cheques etc., tudo de uma hora para outra. Para formalizar o protesto, Ommati criou uma campanha no Avaaz, pedindo aos congressistas que façam alguma coisa para acabar com a arbitrariedade bancária de fechar contas sem justificativa. Para apoiar a iniciativa basta assinar a petição de Ommati no Avaaz.

Encontro de Titãs

O CRBE (Conselho de Representantes do Brasil no Exterior) esteve reunido em Atenas, na Grécia, neste mês de maio. Criado para dar voz à diáspora brasileira junto ao governo brasileiro, levando a ele reivindicações e propostas dos brasileiros que moram no Exterior, o CRBE é formado por indivíduos nomeados diretamente pelas embaixadas e consulados brasileiros pelo mundo. O que foi discutido no encontro é uma incógnita, já que não houve nenhuma comunicação à imprensa a respeito, que aliás só ficou sabendo do encontro através das belas fotografias da Acrópole postadas no Facebook por alguns felizardos participantes.

Achamos a Chris

O AcheiUSA tem o prazer de receber a partir da próxima edição os textos do jornalista Chris Delboni, publicados originalmente no seu blog Direto de Miami (chrisdelboni.com), que serão reproduzidos nas nossas páginas e no nosso website acheiusa.com. Chris passou por grandes redações do Brasil e foi News Director no South Florida News Service da FIU (Florida International University). Bem-vinda, Chris.

Grosso e o presidente

O cartunista colombiano Jorge Grosso, que assina charges e caricaturas no AcheiUSA, foi recebido em gabinete pelo presidente da Colômbia, Juan Manuel Santos, ganhador do Nobel da Paz no ano passado. Grosso foi a Bogotá em busca de apoio para projetos culturais envolvendo o trabalho de diversos desenhistas colombianos. Grosso saiu otimista do encontro.

Cartunista Jorge Grosso do lado esquerdo do presidente da Colômbia

Paris em Miami Beach

Mais nova sensação gastronômica de Miami Beach, o restaurante Paris 6 agora oferece um presente para os leitores do AcheiUSA. É só apresentar o cupom publicado no nosso Guia Gastronômico (página 33) para ganhar um desconto de 20% na conta. Quem se esquecer de recortar o cupom pode acessar o jornal pelo celular e mostrar a página, que também está valendo. Inaugurado há menos de um ano, o Paris 6 já é um dos points mais charmosos de Miami Beach, com sua decoração e cardápio tipicamente parisienses. A casa de Miami Beach é a sexta da rede de restaurantes fundada por Isaac Azar no sixième arrondissement, em Paris, daí o nome. Entre as delícias da casa, a sobremesa Grand Gateau não pode faltar.

Beteliz Nunes, diretora de Marketing do AcheiUSA, com Michel Vigano, sócio-proprietário do Paris 6

Bay Harbor Islands NewsWaves - *August 2017*

Bay Harbor Islands
AUGUST 2017 • VOLUME 62 NUMBER 8
NewsWaves
Celebrating 70! 1947-2017

A Message from the Mayor
GOODBYE & WELCOME BACK

Council Update - Page 2
National Night Out Event - Page 3
Community Services - Page 4-5
Connect with New BHI Mobile App - Page 6
Sign Up For Alerts - Page 5
Back to School Safety - Page 7

On Monday, August 21st students will be back at Ruth K. Broad Bay Harbor K-8 Center and nine other surrounding schools.

This new school year also brings a new principal to Town. Congrats to Mr. Scott Saperstein on his appointment as the new principal of RKBBH K-8. Mr. Saperstein, who previously served as principal of Virginia A. Boone Highlands Oaks Elementary, was appointed over the summer and is already working hard to make his own mark.

Congratulations also goes to Dr. Maria Rodriguez on being promoted to principal of Miami Beach Senior High, which is one feeder pattern high school. We owe a huge thank you to Dr. Rodrigues for serving our community for the last decade as our principal. Her constant professionalism, dedication and love for our children helped make RKBBH K-8 one of the best public schools in the County and the State. As sad as I am to see her leave, we are blessed that she is not going far. Good luck Dr. R and know that "Once a Bobcat, Always a Bobcat!"

With the new school year is also a new reminder to drive with caution throughout the Town in the morning and afternoon. The green paths are currently being installed along the perimeter of the East Island in order to promote a safer, and more sustainable, environment. Please use them when walking your children to and from school. If you drive your child or live near the school, please be aware of the traffic pattern for picking up and dropping off children. Parents should never use parking spaces of neighboring buildings or let their children jaywalk. Our crossing guards and the collective efforts of the Bay Harbor Islands, Surfside and Bal Harbour Police Department's will be visibly present every morning and afternoon to ensure that we all follow the rules that promote safety as our first priority. In addition, you can download the official Bobcat Safe Zone Map at....

http://bbbayharbor.dadeschools.net/pdf/Docs/Bobcat_Safe_Zone.pdf

Dr. Rodriguez also left us a parting gift when it was announced this past summer that Ruth K. Broad K-8 Center was ranked an "A" school for the 18th consecutive year. Congrats to her and the entire Bobcat staff, parents and students who made this possible.

Finally, condolences to Bay Harbor Islands Council Member Isaac Salver and Bal Harbour Village Assistant Mayor Seth Salver and their families on the recent passing of Isaac's father, David. He was a loving husband and father and will be missed.

Sincerely,

Jordan

TOWN COUNCIL UPDATE

Green Bike & Pedestrian Lanes to be Completed in August

The Town of Bay Harbor Islands is creating green-painted bike/pedestrian lanes on East & West Bay Harbor Drives. The painting began on July 18.

Phase I involves painting the outer lane only and the project should be completed in August. Residents should be aware that parking and driveway access may be affected during the painting, which will take place beginning at 9 a.m.

Vehicles will not be permitted to cross the green areas until the paint is fully dry - which takes up to 6 hours. The Town will provide you with a permit for alternate parking on the day your building is impacted, if needed. Parking lots with multiple access points will be restricted to one entrance/exit at a time but can be left open allowing you to enter and exit at will. If you are expecting a delivery of any kind, please inform the delivery personnel that they cannot drive, park or walk on or across the created, taped or barricaded area. The same applies to landscaping companies and other contractors. We will do our best to give each affected property ample notice as to when to expect the painting, but if a day's operation is rained out, it will need to continue the next possible weekday. Everyone's gracious cooperation is appreciated.

For more information or a parking permit, please call Bridget at Town Hall at 305-866-6241.

Mayor Speaks at Biscayne Bay Summit

On June 28th, Mayor Jordan W. Leonard joined community leaders, scientists, County Commissioner Daniella Cava, representatives from the offices of Congresswoman Wasserman-Schultz and Senators Bill Nelson and Marco Rubio at the Biscayne Bay Marine Health Inaugural Summit held at Florida International University. The purpose of the summit was to create an effective 10-Year Action Plan for reducing marine/estuarine debris and other water pollutants in Biscayne Bay as well as in Miami-Dade's canals, rivers and ocean beaches. Guest speaker Mayor Leonard discussed what we are doing within our own community to protect and preserve the Bay.

Mayor Honored as Home Rule Hero

Each year the Florida League of Cities recognizes legislators and local elected officials who work to promote strong and consistent support of municipal home rule issues by presenting the Defender of Home Rule Award. This tribute is for those officials who support local government authority and always provide a local perspective to an issue.

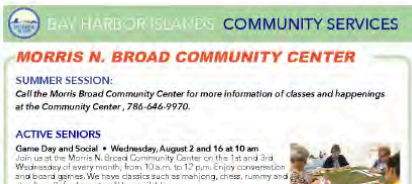
L-R) Commissioner Anthony DeFillipo of North Miami Beach, MDCLC Second Vice President George Vallejo and Mayor of North Miami Beach, Florida League of Cities Legislative Director Scott Dudley and MDCLC First Vice President Jordan W. Leonard, Mayor of Bay Harbor Islands.

BAY HARBOR ISLANDS • AUGUST 2017 NEWSWAVES

POLICE
NNO
NIGHT OUT
AUGUST 1, 2017 6-9 PM
NATIONAL NIGHT OUT BLOCK PARTY IN BAY HARBOR ISLANDS!
9665 BAY HARBOR TERRACE, BAY HARBOR ISLANDS, FL 33154

National Night Out is a family-friendly event dedicated to promoting crime prevention for safer neighborhoods through police-community partnerships. Join the BHI PD, your neighbors & friends for this fun-filled and informative evening! For more info call 305-866-6241.

Kenny Walker On-Air Host from 102.7 The Beach!
Adult Beach Cruiser Bike Give-away! Courtesy of Lee's Bike & Locksmith, Hollywood, FL.
K-9 Demonstrations
Police Motorcycle Units
Miami-Dade Fire Rescue
Info. on Local Programs for Residents & Visitors
Free Animal ID Tags & Bicycle Registration
Police Demonstrations
Police Equipment on Display
Food Trucks
Face Painting for the Kids!



BAY HARBOR ISLANDS COMMUNITY SERVICES

MORRIS N. BROAD COMMUNITY CENTER

SUMMER SESSION:
Call the Morris Broad Community Center for more information of classes and happenings at the Community Center, 786-646-9970.

ACTIVE SENIORS
Game Day and Social • Wednesday, August 2 and 16 at 10 am
Join us at the Morris N. Broad Community Center on the 1st and 3rd Wednesday of every month, from 10 a.m. to 12 p.m. Enjoy conversation and board games. We have classics such as mah jong, chess, rummy and checkers. Refreshments will be available.

Senior Matinee Movie • Friday, August 25, 2017 at 1:30 p.m.
Join us for a free viewing of the classic favorite, Ship of Fools. When an eclectic group of passengers boards a cruise ship bound for prewar Germany, they form a microcosm of 1930s society. During their weeks at sea, the group forges bonds and rivalries, and unearths secrets. Please arrive early for seating.

YOUTH
Our game room is OPEN! Come play on our new Ping-Pong table, basketball shooter game and classic board games. Join us on Wednesdays from 3:30 p.m. to 5 p.m. for Kids Game Day 8 years to 12 years.

Join us on Fridays from 3:30 p.m. to 5 p.m. for Teen Game Day for those 13 - 17 years.

SOCIAL MEDIA
On Facebook? So are we! Want to know what is happening now at the Morris N. Broad Community Center? Go to www.facebook.com and search for @BHICommunityServices. Get access to Community Events, Youth Athletic Highlights and New Updates for what's happening.

For more information about the Community Services Department, call the Morris N. Broad Community Center at (786) 646-9970.

BAY HARBOR ISLANDS • AUGUST 2017 NEWSWAVES

BAY HARBOR ISLANDS COMMUNITY SERVICES

BHI SPECIAL EVENTS

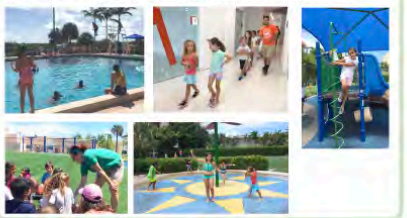
ACTIVE SENIORS ON THE GO

DOLPHIN MALL
Escape the summer heat and join Bay Harbor Islands as we take a trip to Miami's largest outlet shopping and entertainment center on **Thursday, August 24**
Cost: Free Departing at 10 am
Returning by 3 pm

Please contact the Morris Broad Community Center for more information and to register (786) 646-9970.

SUMMER CAMP HIGHLIGHTS

It has been an exciting summer season! More than 100 campers joined the eight-week Bay Harbor Islands Summer Camp, focusing on science, field trips and plenty of fun for all participants. Check out some of the highlights below, including movie day, playground fun and science experiments.



AFTER SCHOOL PROGRAMS
An update for the After School Program will be published in the September issue of the Bay Harbor Islands Newsletter. For any questions, please call the Morris Broad Community Center at: 786-646-9970

BAY HARBOR ISLANDS • AUGUST 2017 NEWSWAVES

How do I pay my water bill?
Where is the next council meeting?
I need to message the Mayor!
When is Tax Day?
There's an App for that! BHIConnect*
I want to report a code violation!
What is the phone number for that new restaurant?
*Available on Google Play and in the App Store

Get Daily Updates on Facebook and Twitter

Keep informed of the latest happenings in Bay Harbor Islands by following the Town on its Facebook page and Twitter. Receive up-to-the-minute news and information as well as answers to your questions. Go to:
- www.facebook.com/bayharborislands
- www.Twitter.com/BayHarborIsland
The BHI Police Department at
- www.twitter.com/BHIPolice
- www.facebook.com/BHIPolice

Register for Notifications and Emergency Alerts!

Residents are encouraged to sign up for the Town's Community Notification System, CodeRed. Both general and emergency notifications are sent through this system via telephone, text and/or email. It is a free service for all residents and businesses. Sign up online on the Town's website, www.bayharborislands-fl.gov or by visiting Town Hall.

Sign up for...
CODE RED
Keeping citizens informed.

BAY HARBOR ISLANDS • AUGUST 2017 NEWSWAVES

POLICE BEAT

Take this opportunity to ask questions and learn about keeping yourself and your loved ones safe. August's focus will be on Back-to-School.

Wednesday, August 16 at 11 AM - 12 PM at the Morris N. Broad Community Center, 1175 95th Street.

BOBCAT CORNER ACTIVITIES AT RKBBH K-8 CENTER

Ruth K. Broad K-8 Center Again Named an 'A' School

As the doors are opening for a new school year, Ruth K. Broad Bay Harbor K-8 Center has announced that it has been ranked as an "A" school for the 18th consecutive year. Congratulations to our on-going Principal Dr. Maria Rodriguez, her staff, our PTA parents, Miami-Dade County School Board member Dr. Martin Karp and all those who have worked to keep RKBBH K-8 Center at the top among schools in South Florida and across the State.

Back to School Safety Tips at RKBBH K-8 Center

Amid the excitement of the start of the 2017-18 school year, parents and motorists should take a moment and review the information below regarding safety in and around the Ruth K. Broad Bay Harbor K-8 Center.

- Parents, please pick up/drop off your children in the drop-off loop, located on 95 Street in front of the school. School staff is there to safely assist with your child. Please do not pick up your children on 95 Street.
- Please inform your children not to loiter around the businesses on 95 Street (Orlando's Pizza, Open Kitchen Mini Mart, Unico Cafe, or the Cleaners) unless they are customers. We have had many complaints of children loitering and blocking patron access to stores. Additionally the traffic congestion and large number of pedestrians creates a safety risk and slows the flow of traffic eastbound from the 1100 block.
- Parents, abstain from parking in the roadway of the 1100 block of 95 Street or in West Bay Harbor Drive roadway to drop off/pick up your children as this is a child safety issue. Do not park in residential spaces marked RESERVED. These spaces are for the use of the buildings' tenants only and you will be cited. The parking garage is available to you at no charge for the first hour of drop off and the last hour of dismissal.
- Always obey the Crossing Guards, they are there for your safety. Many parents have been observed crossing without the use of the guard. This encourages children to follow this practice. We will begin issuing warnings and ultimately pedestrian citations this year for illegal crossings.
- Be a courteous driver and pedestrian. Do not walk through private property or park in a private or dedicated parking area. THIS IS TRESPASSING and could result in charges being filed by the property owners.
- Obey all speed zones (15 mph) or slower, as the traffic dictates. Do not enter an intersection unless you have the room to clear "the box." Do not block crosswalks. Before making turns, always look for pedestrians.

Report any suspicious person, activity or problem to the Bay Harbor Islands Police Department.

Back to School Savings on August 3-5

Throughout the weekend of August 3-5, Floridians will be able to purchase specific school supplies, clothing and footwear without paying state and local sales taxes. The tax exemption applies to specific items of clothing and footwear that cost $75 or less, as well as certain school supplies that cost $15 or less. Shoppers and retailers can find a list of tax-exempt items by visiting the Florida Department of Revenue's website at http://dor.myflorida.com/dor/, in the "Common Topics" box. Economists estimate the tax break will save Florida families approximately $31.8 million.

BAY HARBOR ISLANDS • AUGUST 2017 NEWSWAVES

Jordan W. Leonard, Mayor
Stephanie Bonder, Vice Mayor
Joshua D. Feller, Council member
Kelly Reid, Council member
Isaac Salver, Council member
Elizabeth Telemaque, Council member
Robert Yedlin, Council member
Ronald J. Wasson, Town Manager
Madeleine M. Stegel, Town Clerk
Craig B. Sherman, Town Attorney
Sean Hemingway, Chief of Police
Alan Short, Finance Director

9665 Bay Harbor Terrace
Bay Harbor Islands, FL 33154

For information or emergencies:
Town Hall: (305) 866-6241
Building Department: (305) 993-1786
Police: (305) 866-6242
Emergency: 911
www.bayharborislands-fl.gov

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Upcoming Meetings

The Town Council welcomes your attendance at meetings. Regular Council meetings are scheduled for the second Monday of the month at 7 pm and the regular scheduled Planning & Zoning Board meetings are scheduled for the first and third Tuesday at 7 pm. To confirm all dates and times, contact the Town Clerk's Office at 305-866-6241. All meetings, unless regarding topics specifically exempt by state law, are open to the public.

- Planning & Zoning Board – Tuesday, Aug. 1 at 7 p.m.
- Regular Council Meeting – Monday, Aug. 14 at 7 p.m.
- Planning & Zoning Board – Tuesday, Aug. 15 at 7 p.m.

The following future meeting dates are tentative and subject to change. Check the Town's website, www.bayharborislands-fl.gov.

- Regular Council Meeting: September 11, October 16 and November 13, 2017
- Planning & Zoning Board Meetings: September 5 & 19 and October 3 & 17, 2017

ALL MEETINGS ARE SUBJECT TO CHANGE

No Council Meeting was held in July

Discussion Items for Aug. 14, 2017 Council Meeting
At the time of printing. All items are subject to change.

- **Consideration and Approval** of an ordinance on first reading regarding the installation of fences on vacant lots.
- **Consideration and Approval** of an ordinance on first reading amending the parking plan for construction sites in Town.
- **Discussion** requested Mayor Leonard of possible locations for a community pool.
- **Discussion** and direction on the addition and renovations to Town Hall.

Coconut Grove Chamber of Commerce - *June 2017*

ANNOUNCEMENTS

Is Biscayne Bay in Crisis?

POSTED ON JUNE 8, 2017 BY CGCC

Is Biscayne Bay in Crisis? A lot of people want to know!

The Coconut Grove Chamber of Commerce and The Biscayne Bay Marine Health Inaugural Summit (BBMHS) Steering Committee invite all Biscayne Bay Stakeholders to join us at the Summit on June 28th and, together, work towards a Healthier Biscayne Bay!

Creating Solutions Through Collaboration, Education and Innovation

Miami, Florida, June 8, 2017 –
Biscayne Bay is one of Miami-Dade County's most significant natural resources stretching from Key Largo to North Miami Beach, yet recent Miami Herald articles suggest that the bay is in trouble, particularly in the urban areas. Despite numerous studies and task forces over the years, the Bay is suffering from the lack of comprehensive, on-going attention. We need a better understanding of what is going on and why!

Over one year ago, a group of over 30 South Florida-based environmental NGOs and government entities came together to coordinate a stakeholder conversation to address the ongoing problems the Bay is experiencing. Despite a mix of governmental and volunteer activities addressing various aspects of the bay, a closer look is increasingly imperative. Adverse impacts include floatable litter (marine / estuarine debris) and other water pollutants (storm drain & surface runoff, canal drainage, residential & industrial waste and other chemical pollutants).

After a year of planning, the **Biscayne Bay Marine Health Inaugural Summit (BBMHS)** will be held June 28 at **FIU's Biscayne Bay Campus** hosted by the **Biscayne Bay Coalition** and **FIU the Institute for Water and Environment**.

FIU Biscayne Bay Campus – Biscayne Bay Campus, School of Hospitality, Room HM – 3000 N.E. 151st Street, North Miami, Fl 33181

June 28th, 2017 – 8:00 am to 6:00 pm | REGISTRATION: via Eventbrite – search for BBMHS2017

This **Inaugural Summit** is scheduled as a full day "sustainable" event, catered to an expected 200+ attendees and will take place on June 28th at the **FIU Biscayne Bay Campus, School of Hospitality**, in North Miami.

The purpose of the **2017 Biscayne Bay Marine Health Inaugural Summit (BBMHS)** is to establish collaboration amongst diverse stakeholders, in order to create an effective **10-Year Action Plan** for reducing these pollutants in Biscayne Bay as well as in Miami-Dade's canals and rivers.

The conference's main goals are to share the ideas, expertise and resources of Summit participants in order to design creative solutions (through: 1) Prevention and education, 2) Engineering and design improvements, 3) Enhanced research, 4) Enforcement of existing laws or creation of new ones, 5) Maintenance, and 6) Waste/recycling removal processes – including community cleanups. The Summit aims to include all Miami-Dade County municipalities surrounding Biscayne Bay, including inland communities along canals and Miami River.

Coconut Grove Chamber of Commerce's Sustainability and Resilience Committee supports this Inaugural Conference and is working with our Chamber and local community groups to educate and support conservancy efforts.

For over 70 years, The Coconut Grove Chamber of Commerce has represented the vital economic interests of the local business community and has worked diligently to improve the overall quality of life in our village.

For more information contact:

Luiz Rodriguez
Phone: 786-853-1855
luiz@ecologicalsol.com

Steve Saul
stevesaul@aol.com

FIU News - *July 2017*

South Florida comes together to help save Biscayne Bay

Posted by Evelyn B. Gonzalez

A 63-inch sewer line broke June 20, sending waste into Miami-Dade County's Biscayne Canal and Intracoastal Waterway. Although the "no contact with water" advisory for swimmers has since been lifted by the Miami-Dade water and sewer department, this incident is one of many disturbances impacting Biscayne Bay.

Members of the community, including FIU researchers, alumni and students, came together for the 2017 Biscayne Bay Marine Health Inaugural Summit. It was hosted June 28 at FIU's Biscayne Bay Campus in North Miami, Fla.

Nearly 200 people representing local businesses, colleges and universities, governmental agencies and environmental nongovernmental organizations were in attendance. Their goal was to create and launch a 10-year action plan to reduce debris and pollutants in Biscayne Bay and local canals, rivers and beaches.

FIU's Institute of Water And Environment was one of the summit's supporting partners. Institute researchers gave presentations and led workshops, including marine ecologist James Fourqurean, aquatic ecologist Evelyn Gaiser, geologist Rene Price, ecologist Joel Trexler and wetland ecologist Tiffany Troxler.

The talks were designed to help stakeholders understand the ecological importance of and challenges to Biscayne Bay, identify its main sources of pollution, identify prevention efforts, establish collaboration among stakeholders, and share ideas, expertise, resources and solutions to support the creation and launch of the action plan.

"Biscayne Bay is where we live, where our children swim and play. We should prioritize understanding and correcting the problems the bay faces in order to preserve it for current and future generations," said Todd Crowl, director of FIU's Institute of Water and Environment. "The summit was a first step in advancing that understanding. It was a collaboration of stakeholders who, together, bring the energy and ingenuity needed to restore and manage the bay and ensure our quality of life."

The institute was launched in 2010 to address water and environmental issues. It brings together some of FIU's top centers and programs to expand research and community engagement opportunities in the face of growing environmental threats, including the Center for Aquatic Chemistry and Ecotoxicology, Marine Education and Research Initiative, Sea Level Solutions Center and Southeast Environmental Research Center, as well as Everglades programs and international water programs.

Stretching 35 miles along South Florida's Atlantic coast, Biscayne Bay is home to diverse marine plants and animals, including the threatened Florida manatee. Debris, fertilizers, pesticides, pollutants, sewer and storm water and other human-made disturbances impact its health.

For Ross Boucek, Florida Keys Initiative Manager of Bonefish & Tarpon Trust, the summit was an opportunity to learn how to improve the health of Biscayne Bay, a lagoon that is home to ecologically and economically important bonefish, permit and tarpon.

"There are a lot of environmental problems with Biscayne Bay, but there's such a diversity of people working to improve the bay, from FIU researchers to municipalities and volunteers, something positive will get done. It's very exciting to see everyone communicating and working together," Boucek said.

Boucek earned a Ph.D. in biological sciences from FIU. He has conducted extensive research on some of the South Florida's most valuable recreational fisheries.

The 2017 Biscayne Bay Marine Health Inaugural Summit was spearheaded by Luiz Rodrigues, founder and owner of Eco-Logical Solutions. It was also organized by Steve Sauls, former vice president for governmental relations at FIU; Dave Doebler, co-founder of VolunteerCleanup.Org; Albert Gomez, vice president and co-owner of Industrial Components; and Ireia Bague, president and CEO of Bague Group.

If you're new here, you may want to subscribe to our newsletter. Thanks for visiting!

Tags: Biological Sciences · College of Arts Sciences & Education · Earth and Environment · Evelyn Gaiser · James Fourqurean · Joel Trexler · Rene Price · Ross Boucek · School of Environment Arts and Society (SEAS) · Tiffany Troxler · Todd Crowl

FIU SERC Webpage - *June 2017*

Arts, Sciences & Education

Southeast Environmental Research Center

School of Environment, Arts and Society

Latest News [helpful-linknews]

World Oceans Day: How do snook survive cold spells in Everglades waters? By heading for the depths

Upcoming Events [helpful-linkevents]

South Florida Regional Planning Council Board Meeting [http://sfrpcboard.org/event/sfrpc-june-29-2017/]

06/08/2017

When a cold spell grips the tropics, an animal's location at any given moment could be the difference between life and death. That was the case with a Florida Everglades fish called a common snook when a cold snap struck in 2010, scientists report today - World Oceans Day - in the journal Global Change Biology. The study involved FIU SERC researchers Mahadev Bhat, Rudolf Jaffe, Michael Sukop, Jennifer Rehage, Pallab Mozumder, and Ross Boucek.

CBS News: Lawmakers act to curb "scary" trend in Everglades – but another danger lurks

05/26/2017

The Everglades is the largest wetland of its kind in North America, but it's been under assault for generations by residential development, water diversion and pesticide runoff. Now, a massive proposal is one step closer to putting more fresh water back into the ecosystem that covers more than 2,000 square miles of south Florida. SERC researcher Dr. Tiffany Troxler discusses why this is important for the Everglades given sea level rise and saltwater intrusion.

Progress Toward Restoring the Everglades - The South Biennial Review (2016)

05/18/2017

The Everglades ecosystem is vast, stretching more than 200 miles from Orlando to Florida Bay, and Everglades National Park is but a part located at the southern end. During the 19th and 20th centuries, the historical Everglades has been reduced to half of its original size, and what remains is not the pristine ecosystem many image it to be, but one that has been highly engineered and otherwise heavily influenced, and is intensely managed by humans.

06/26/2017 10:30 AM

Jim Postgueran, Director of Marine Education and Research Initiative (MERI), will speak to the Council about seagrass die off in Biscayne Bay.

Biscayne Bay Marine Health Summit

06/26/2017 08:00 AM

The 2017 Biscayne Bay Marine Health Inaugural Summit aims to understand the ecological importance and challenges of the Bay, identify and understand its main sources of pollutants; identify existing studies and prevention efforts; establish a collaboration with stakeholders; coordinate and share creative solutions, ideas, expertise and resources, in order to support the creation and implementation of a comprehensive 10 Year Action Plan for reducing marine/estuarine debris and other pollutants.

Opportunities

Director, Sea Level Solutions Center

06/16/2017

FIU now invites applications for the Director of the Sea Level Solutions Center (SLSC).

Postdoctoral Position in Fish Modeling

06/07/2017

The US Fish and Wildlife Service Arcata Fisheries Program (USFWS) and USGS California Cooperative Fish and Wildlife Research Unit (CACFWRU) at Humboldt State University, are seeking a new research scientist with quantitative fishery biology and modeling skills. The successful applicant will pursue management-based research interests in the construction of fish population dynamics models. See here for more information.

Section Administrator Position for Coastal Ecosystems

05/30/2017

The South Florida Water Management District is recruiting for the position of Section Administrator for the Coastal Ecosystem Section within the Applied Sciences Bureau. The Coastal Ecosystems Section is composed of 16 biologists/ecologists and estuarine modelers. The goal of their work is to quantify the responses of estuarine ecosystems to changes in the quality and quantity of freshwater inflow. See here for more information.

Islander News - *June 2017*

http://www.islandernews.com/news/june-summit-will-focus-on-the-health-of-the-biscayne/article_39d85c86-4c6a-11e7-a813-0f43244db206.html

June 28 summit will focus on the health of the Biscayne Bay environment

Rod Coffee @rodcoffeeinc Jun 23, 2017

In what amounts a comprehensive environmental checkup on the local biosphere, the Biscayne Bay Marine Health Summit will conduct its inaugural meeting June 28 at Florida International University to share ideas and solutions to maintain and improve Biscayne Bay.

The event, hosted by the Biscayne Coalition, is designed to bring together experts and people concerned about the basin surrounding the Village of Key Biscayne in hopes of addressing issues they feel are pressing.

BBMHS founder and coordinator Luiz Rodrigues said the summit has been in the planning stage for more than a year, and the timing is right to bring the issues surrounding the bay to the forefront. "The summit is about bringing together all the business organizations, government entities and elected officials so we can address the very big and ongoing problem happening with Biscayne Bay and how it's affecting the health of the bay," Rodrigues explained.

More than 200 experts and officials are expected to attend the summit.

Biscayne Bay is approximately 35 miles long and 8 miles wide. Its area is 428 square miles, with a drainage basin that covers an expansive 938 square miles.

In 1975, the bay was designated as a state aquatic preserve.

Meanwhile, a seemingly never-ending stream of controversy surrounds Biscayne Bay and the diverse group of entities that use the lagoon for their own purposes, many of which have a negative impact on the physical body of the lagoon and the wildlife that live within. The fallout from having an unhealthy bay could eventually have a myriad of harmful effects on people in and around South Florida, including those on Key Biscayne.

"The bay is an important and delicate ecosystem and our tourist based industry depends on a healthy bay," Rodrigues said. "Number two, the bay is a very important estuary for many specifies of economical value for the whole Miami-Dade County region, so there are many very important elements. Everything is really connected to the bay."

Rodrigues went on to explain that important fish species use Biscayne Bay as a safe harbor.

"They depend on the calm waters of the bay, and they have their young and eventually they are ready to go back into the ocean. It's an important ecosystem," he said.

The local preservationist emphasized the need to preserve the seagrass beds that surround the area as well. "The seagrass is really important for small fish and manatees," he said. "As the seagrass diminishes, they no longer provide a food source, and it affects manatees, for example, and they are a protected species."

Those issues and more will be addressed at the all-day summit where some of the goals outlined by Rodrigues include preservation and education, engineering and design improvements, enhanced research, enforcement of existing laws and creation of laws, maintenance, and waste recycling removal processes, including community clean-ups.

Rodrigues laid out a list of issues having a negative impact on the bay. "Some of the main issues are plastic pollution and marine debris," he said. "The others are sewer contamination and chemical contamination from fertilizers, pesticides, herbicides and things like that."

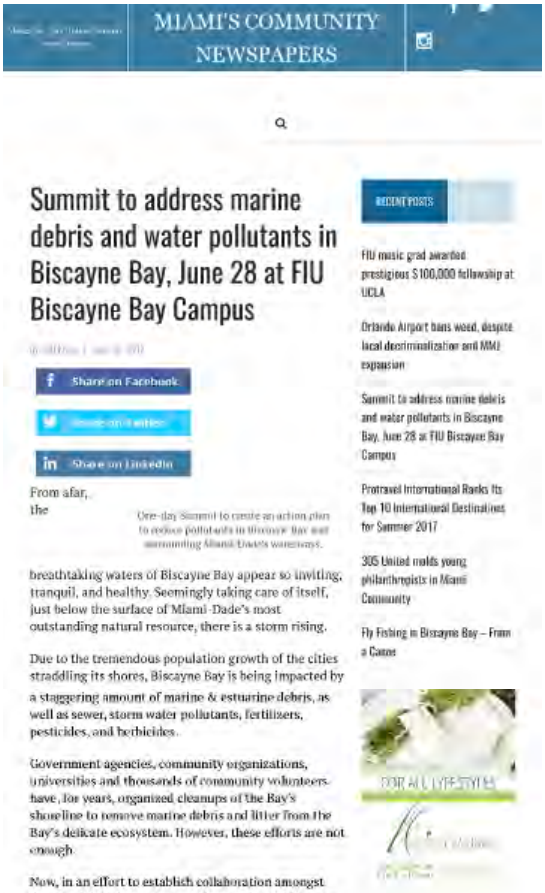
Politics, the environmentalist said, should not come into play when considering the health of the bay. "My position is I'm not siding with politicians or any parties," Rodrigues said. "I'm siding with what's important for our planet. The political side should be left out."

When it comes to at least one area that should concern Key Biscayne residents that isn't related to ecology, Rodrigues said, the environment is directly related to personal and public economy.

"If the bay is contaminated or not in good health, property values in the area will obviously be affected in a negative way, and I'm sure nobody wants that to happen," he said.

The summit is open to the public and tickets can be purchased for $25 by visiting Eventbrite.com and searching BBMHS2017 for more information. The entry fee includes breakfast, lunch and a post event reception as well.

Miami's Community Newspapers - *June 2017*



MIAMI'S COMMUNITY NEWSPAPERS

Summit to address marine debris and water pollutants in Biscayne Bay, June 28 at FIU Biscayne Bay Campus

Share on Facebook

Share on LinkedIn

From afar, the breathtaking waters of Biscayne Bay appear so inviting, tranquil, and healthy. Seemingly taking care of itself, just below the surface of Miami-Dade's most outstanding natural resource, there is a storm rising.

Due to the tremendous population growth of the cities straddling its shores, Biscayne Bay is being impacted by a staggering amount of marine & estuarine debris, as well as sewer, storm water pollutants, fertilizers, pesticides, and herbicides.

Government agencies, community organizations, universities and thousands of community volunteers have, for years, organized cleanups of the Bay's shoreline to remove marine debris and litter from the Bay's delicate ecosystem. However, these efforts are not enough.

Now, in an effort to establish collaboration amongst diverse stakeholders, a group of more than 50 Florida-based environmental NGOs, government entities, universities, and others are coming together to coordinate a summit to address these growing concerns.

During the 2017 Biscayne Bay Marine Health Inaugural Summit (BBMHS), June 28 (8 a.m. – 6 p.m.), participants will create and launch a 10-year action plan for reducing pollutants in Biscayne Bay as well as in Miami-Dade's canals and rivers. The Summit takes place at the Florida International University Biscayne Bay Campus, School of Hospitality, Room HM, 3000 NE 151 Street, North Miami, FL 33181. (Registration information below.)

The Summit's primary goal is to share ideas, expertise, and resources among Summit participants in order to design creative solutions through:

Prevention and education; Engineering and design improvements; Enhanced research; Enforcement of existing laws or creation of new ones; Waste/recycling removal processes, including community cleanups; and Maintenance.

The Summit aims to include all Miami-Dade County municipalities surrounding Biscayne Bay, including inland communities along canals and Miami River. Most of Biscayne Bay is designated as a State Aquatic Preserve or is part of Biscayne National Park, and is intended to be preserved for future generations as a public, shared natural resource.

Confirmed key speakers include:

- Harvey Ruvin, MDC Clerk of the Courts
- Daniella Levine Cava, Miami-Dade County Commissioner-District 8
- Ken Russell, City of Miami Commissioner
- Jim Murley, MDC Chief Resiliency Officer
- Evelyn E. Geiser, Ph.D., FIU Executive Director, School of Environment, Arts & Society
- Mike Heithaus, Professor, FIU Dean of College of Arts & Sciences
- Marine Sciences Program
- Charles Grisafi, Florida and Caribbean Regional Coordinator for NOAA's Marine Debris Program

RECENT POSTS

FIU music grad awarded prestigious $100,000 fellowship at UCLA

Orlando Airport bans weed, despite local decriminalization and MMJ expansion

Summit to address marine debris and water pollutants in Biscayne Bay, June 28 at FIU Biscayne Bay Campus

Protravel International Ranks Its Top 10 International Destinations for Summer 2017

305 United molds young philanthropists in Miami Community

Fly Fishing in Biscayne Bay – From a Canoe

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- Mike Heithaus, Professor, FIU Dean of College of Arts & Sciences
- Marine Sciences Program
- Charles Grisafi, Florida and Caribbean Regional Coordinator for NOAA's Marine Debris Program

This Summit is a full-day "sustainable" event, catered to an expected 200 attendees. In addition, a Summit Vendor's Exhibit is being is being offered.

Summit Steering Committee members include Luiz Rodrigues, Eco-Logical Solutions, Founder; Steve Sauls, FIU VP for Governmental Relations (retired); Irela Bagué – Bagué Group; Albert Gomez – South Florida Resilience System/Miami Sea Level Rise Committee, Coordinator; and Dave Doebler – Director VolunteerCleanup.org.

EVENT DETAILS:
The full-day Summit, which will include presentations, workshops, a potential small trade show and Bay tour, is geared towards NGOs, government staff, elected officials, educational institutions, national parks, as well as the fishing, boating, retail, hospitality, real estate, engineering, and waste/recycling industries, among others.

Through a series of carefully selected speakers, Summit attendees will learn about the present status of the health of the Bay, main sources of marine & estuarine debris as well as that of different point source & non-point source water pollutants, such as pesticides, herbicides, fertilizers, storm drain runoff, sewer, amongst others; explore strategies that may proactively reduce the impact of the above pollutants; initiate visualization strategies towards the design of the Action Plan to protect and preserve the Bay.

EVENT REGISTRATION:
Even registration, breakfast, networking and trade show begin at 8 a.m., and opening remarks at 9 a.m. Trade show vendors will be available through 5 p.m.

EVENT FEES:
The event is complimentary for university professors, members of NGOs, government staff and elected officials. A $25 fee will apply for students and $50 for general admission. Event attendance is anticipated at 220 and to be composed by heads of NGO's, university students and professors, government officers, elected officials and business executives. Breakfast, break snacks and lunch included.

SPONSORSHIPS:
Becoming a Sponsor of the Biscayne Bay Marine Health Summit, will further establish your company as a leader in the protection and preservation of Biscayne Bay for our future generations. The Summit will be promoted throughout South Florida on strategic partner websites and social media sites, on social and civic calendars, and through email blasts to over 2,000 stakeholders.
For sponsor and exhibitor information, contact Luiz Rodrigues via email at: luiz@ecologicalsol.com or call 786-853-1855.

GENERAL INFORMATION:
The 2017 Biscayne Bay Marine Health Inaugural Summit (BBMHS), takes place June 28 (8 a.m. – 6 p.m.) at the Florida International University Biscayne Bay Campus, School of Hospitality, Room HM, 3000 NE 151 Street, North Miami, FL 33181

- Register via Eventbrite at https://bbmhs2017.eventbrite.com
- Like us at: https://www.facebook.com/BiscayneBaySummit/

GENERAL INFORMATION:
The 2017 Biscayne Bay Marine Health Inaugural Summit (BBMHS), takes place June 28 (8 a.m. – 6 p.m.) at the Florida International University Biscayne Bay Campus, School of Hospitality, Room HM, 3000 NE 151 Street, North Miami, FL 33181

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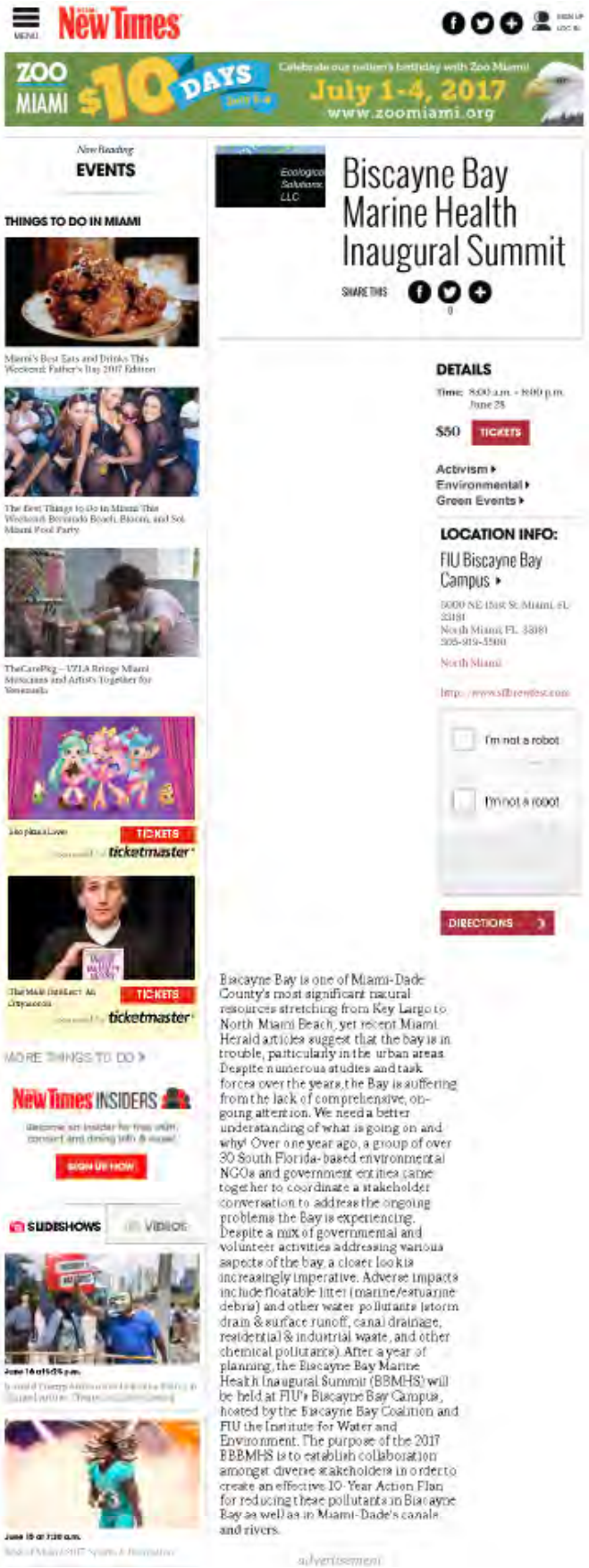
Miami New Times - *June 2017*



New Times

ZOO MIAMI $10 DAYS
Celebrate our oldest's birthday with Zoo Miami!
July 1-4, 2017
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Ecological Solutions LLC

Biscayne Bay Marine Health Inaugural Summit

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DETAILS

Time: 8:00 a.m. - 8:00 p.m. June 28

$50 TICKETS

Activism
Environmental
Green Events

LOCATION INFO:

FIU Biscayne Bay Campus

3000 NE 151st St, Miami, FL 33181
North Miami, FL 33181
305-919-5500

North Miami

http://www.sfbrewfest.com

I'm not a robot

I'm not a robot

DIRECTIONS

Biscayne Bay is one of Miami-Dade County's most significant natural resources stretching from Key Largo to North Miami Beach, yet recent Miami Herald articles suggest that the bay is in trouble, particularly in the urban areas. Despite numerous studies and task forces over the years, the Bay is suffering from the lack of comprehensive, on-going attention. We need a better understanding of what is going on and why! Over one year ago, a group of over 30 South Florida-based environmental NGOs and government entities came together to coordinate a stakeholder conversation to address the ongoing problems the Bay is experiencing. Despite a mix of governmental and volunteer activities addressing various aspects of the bay, a closer look is increasingly imperative. Adverse impacts include floatable litter (marine/estuarine debris) and other water pollutants (storm drain & surface runoff, canal drainage, residential & industrial waste, and other chemical pollutants). After a year of planning, the Biscayne Bay Marine Health Inaugural Summit (BBMHS) will be held at FIU's Biscayne Bay Campus, hosted by the Biscayne Bay Coalition and FIU the Institute for Water and Environment. The purpose of the 2017 BBBMHS is to establish collaboration amongst diverse stakeholders in order to create an effective 10-Year Action Plan for reducing these pollutants in Biscayne Bay as well as in Miami-Dade's canals and rivers.

advertisement

Midtown Miami Magazine - *July 2017*

« All Events

MEDIA ALERT SUMMIT TO ADDRESS MARINE DEBRIS AND WATER POLLUTANTS IN BISCAYNE BAY – JUNE 28TH, FIU BISCAYNE BAY CAMPUS

June 28 @ 8:00 am - 6:00 pm

« Chef Collective with Daniel Burns Pao by Paul Qui | Tuesday, July 25 | 7:00 pm

Magique Faena Theater | Sundays & Tuesdays through July 31, 2017 »

A group of over 30 Florida-based environmental NGOs, government entities, universities, amongst others, have come together to coordinate a summit to address the ongoing problem of floatable litter (marine / estuarine debris) and other water pollutants (Storm Drain & Surface Water Runoff, Residential & Industrial Wastewaters and other Chemical Pollutants) in Biscayne Bay: the Biscayne Bay Marine Health Inaugural Summit (BBMHS).

The purpose of the 2017 Biscayne Bay Marine Health Inaugural Summit (BBMHS) is to establish collaboration amongst diverse stakeholders, in order to create an effective 10-Year Action Plan for reducing these pollutants in Biscayne Bay as well as in Miami-Dade's canals and rivers.

The Summit's main goals are to share the ideas, expertise and resources of Summit participants in order to design creative solutions through: 1) Prevention and education, 2) Engineering and design improvements, 3) Enhanced research, 4) Enforcement of existing laws or creation of new ones, 5) Maintenance, and 6) Waste/recycling removal processes – including community cleanups.

The Summit aims to include all Miami-Dade County municipalities surrounding Biscayne Bay, including inland communities along canals and Miami River.

Biscayne Bay and its adjoining waters are among Miami-Dade's most outstanding natural resources. Shallow, clear water, seagrass meadows and coastal wetlands provide habitat and nurseries for key

fish species and wildlife, buffer our coast against storm erosion, support boating and water-related recreational activities, and provide over $6 billion annual revenue to our local economy.

Most of Biscayne Bay is designated as a State Aquatic Preserve or is part of Biscayne National Park, and is intended to be preserved for future generations as a public, shared natural resource.

However, due to the tremendous population growth Miami-Dade has experienced during the last few decades, the Bay is being impacted by a staggering amount of marine & estuarine debris, as well as sewer, storm water pollutants, fertilizers, pesticides and herbicides. Government agencies, community organizations, universities and 1000s of community volunteers have, for years, organized cleanups of the Bay's shoreline to remove marine debris and litter from the Bay's delicate ecosystem. However, these efforts are not enough.

CONFIRMED KEY SPEAKERS

*** Hon. Harvey Ruvin, MDC Clerk of the Courts**

*** Jim Murley, MDC Chief Resiliency Officer**

*** Mike Heithaus, Professor, FIU Dean of College of Arts & Sciences, Marine Sciences Program**

*** Charles Grisafi, Florida and Caribbean Regional Coordinator for NOAA's Marine Debris Program**

Format: This Inaugural Summit is presently scheduled as a full day "sustainable" event, catered to an expected 200 attendees. In addition, a Summit Vendor's Exhibit is being is being offered.

Steering Committee

Luiz Rodrigues – Eco-Logical Solutions, Founder | Steve Sauls – FIU VP for Governmental Relations (retired) | Inela Bagué – Bagué Group | Albert Gomez – South Florida Resilience System/Miami Sea Level Rise Committee, Coordinator | Dave Doebler – Director VolunteerCleanup.org

About Eco-Logical Solutions

Eco-Logical Solutions is a Miami-based sustainable operations and LEED consulting business, which assists businesses, homes and events on how to cut carbon emissions with solutions that will help them save money and the Earth's future. Eco-Logical Solutions evaluates, recommends and implements affordable green changes for hotels, offices, restaurants, homes, etc.

For additional information or interview purposes, please contact Luiz Rodrigues @ 786.853.1855 @ at luiz@ecologicalsol.com or Steve Sauls @ 786.239.8957 @ atstevesauls1@aol.com

CLICK HERE FOR

*** More info & to Register**

+ GOOGLE CALENDAR + ICAL EXPORT

Details

Date:
June 28

Time:
8:00 am - 6:00 pm

Event Categories:
Charity / Philantropy, Event, Other, Tech / Startup

Event Tags:
Biscayne Bay Marine Health Inaugural Summit, Florida-based, summit

Organizer

Email:
t luiz@ecologicalsol.com or stevesauls1@aol.com

Venue

FIU Biscayne Bay Campus – Biscayne Bay Campus

School of Hospitality, Room

[illegible] - 3000 N.E. 151st Street, North Miami, FL 33181 Miami , FL United States

+ Google Map

« Chef Collective with Daniel Burns Pao by Paul Qui | Tuesday, July 25 | 7:00 pm

Magique Faena Theater | Sundays & Tuesdays through July 31, 2017 »

Source Molecular - *July 2017*

info@sourcemolecular.com Call us: (786) 220-0379

Source Molecular

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Source Molecular Supports Biscayne Bay Summit

Source Molecular Corporation attended the 2017 Biscayne Bay Marine Health Inaugural Summit (BBMHS) on June 28, 2017. The event was held at the Florida International University Biscayne Bay Campus. Source Molecular was one of the exhibitors.

Representatives from various 30 Florida based environmental NGOs, government entities, municipalities, universities, and businesses attended. The stakeholders are working to create an effective 10 Year Action Plan. They seek to reduce marine/estuarine debris and other water pollutants in Biscayne Bay as well as in Miami Dade's canals, rivers and oceanic beaches.

The full day Summit consisted of presentations, workshops, a small trade show and Bay tour. Speakers at the Summit discussed the present status of the health of the Bay, main sources of debris, and the different water pollutants. Pollution sources include pesticides, herbicides, fertilizers, storm drain runoff, sewer, etc. They also explored strategies that may proactively reduce the impact of those pollutants.

Identifying and understanding Biscayne Bay's main sources of pollutants is one of the objectives that Source Molecular can play a role in. Accordingly, Source Molecular's Haley Gershon met with attendees and explained genetic testing services that could help solve the problem.

With close to 15 years experience, Source Molecular has helped various stakeholders address fecal pollution in water systems. Through advanced microbial source tracking methods, Source Molecular is able to distinguish whether the bacteria came from humans or animals. This helps watershed managers with scientific-based evidence to come up with more effective remediation plans.

Its laboratory can detect fecal contamination from 12 hosts — Human, Cattle, Swine, Gull, Goose, Chicken, Dog, Deer, Elk, Horse, Bird, Beaver and Ruminant. It also has a license to use EPA-patented tests for Human, Cattle, Chicken and fecal pollution. Source Molecular also offers digital PCR services. Digital PCR directly quantifies pathogenic viruses and bacteria resulting in greater sensitivity and much higher accuracy.

Related Posts

Source Molecular

SHIPPING ADDRESS:

Source Molecular Corporation
Fax: (786) 513-2783
Email: info@sourcemolecular.com
Address: 4985 SW 74th Court

Source Tracking Human Host
Source Tracking Chicken Host
Source Tracking Bird Host
Source Tracking Complete list
Source Tracking Swine & Pig Host
About Source Molecular

Source Tracking Cattle & Cow Host
Source Tracking Dog Host
Source Tracking Deer Host
Microbial Source Tracking
Bacterial Source Tracking
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WLRN - *June 2017*

'Let's Keep It Beautiful': Biscayne Bay Summit Brings Together Stakeholders To Develop Cleanup Plan

By KATE STEIN (/PEOPLE/KATE-STEIN) • JUN 28, 2017

(http://mediad.publicbroadcasting.net/p/wlrn/files/styles/x_large/public/201706/baynanza.jpeg)

Hundreds of volunteers clean up litter in and around Biscayne Bay at the annual Baynanza festival. In this 2015 file photo, volunteers work at Virginia Key Beach Park.

DANIEL BOCK / MIAMI HERALD

Listen
3:20

Biscayne Bay used to be a subtropical paradise with clear water and colorful coral. But urbanization and population growth have polluted the water and imperiled fish, birds, manatees and plants, particularly seagrass.

At the inaugural Biscayne Bay Marine Health Summit (http://wlrn.org/post/biscayne-bay-summit-seeks-10-year-plan-preservation) on Wednesday, a crowd gathered to discuss two main problems: litter and chemical contaminants, and a massive seagrass die-off (http://www.miamiherald.com/news/local/environment/article145863444.html) between the Venetian and Northeast 79th Street causeways.

Local officials, researchers, business owners and activists weighed in.

Daniella Levine Cava, Miami-Dade County commissioner, District 8:

"I have learned so much science about what is causing the problems in the bay. And I have learned that this scientific information is not getting to the policymakers. We have to close that gap, and we need to move quickly, not only to create an inter-agency task force, but to look at what we can do in the short term."

(http://mediad.publicbroadcasting.net/p/wlrn/files

A view of Biscayne Bay from the Julia Tuttle Causeway. Miami-Dade County biologists say about 21 square miles of the bay's seagrass have died off in the past decade.

CREDIT MARC AVERETTE VIA WIKIMEDIA COMMONS

Dave Doebler, co-founder of VolunteerCleanup.org (http://www.volunteercleanup.org/):

"My focus is on marine debris and plastic trash in the bay. I understand what I can see, but I've been learning about what I can't see that's causing tremendous problems. It's all about what we're putting into our bay.

"I'm mostly concerned right now about the impact of all of the water that's flowing off of our street levels into the bay, which is not only bringing trash and pollution but also street runoff, which is causing a massive seagrass die off."

(http://mediad.publicbroadcasting.net/p/wlrn/files/styles/x_large/public/201706/IMG_1741.JPG)

A poster at the summit, which took place at Florida International University's Biscayne Bay campus.

CREDIT KATE STEIN / WLRN

Margaret Goodro, superintendent of Biscayne National Park:

"It's going to take all of us working together to protect Biscayne Bay, which is really the largest economic stimulator for Southern Florida.

"It's going to take all of us working together at the state, local and federal levels."

Irela Bagué, Greater Miami Chamber of Commerce Resilience Committee; member of summit steering committee:

"We're very much concerned from the business community. In South Florida the environment is the economy, and we feel that a healthy bay is an economic engine for the sustainability of South Florida. We have multimillion-dollar properties along our waterfront. We have a thriving tourism industry, and fishing. We need to protect that."

Jane Gilbert, city of Miami chief resilience officer, 100 Resilient Cities (http://wlrn.org/term/100-resilient-cities) partner:

"I came here really curious to understand why we had such a rapid die-off of seagrass and declining quality of the bay.

"What gives me the most hope is the presence of all the different partners we need to engage on this issue.

"There are 14 municipalities that have frontage on the bay, but all of them actually have some contribution to the bay through their stormwater runoff. So we need to have that collaboration."

Harvey Ruvin, Miami-Dade clerk of courts; former chair of Biscayne Bay Management Committee; county commissioner, 1972-1992:

"My purpose here today is basically to point out that in the environmental community we all have to remain vigilant. Our victories are only temporary, whereas our defeats can be permanent."

"New York has Central Park. London has Hyde Park and we've got beautiful Biscayne Bay. Let's keep it beautiful."

(http://mediad.publicbroadcasting.net/p/wlrn/files

Discussion in the morning sessions centered on the state of the bay and sources of pollution.

CREDIT KATE STEIN

Capt. Dan Kipnis, fishing boat captain with 35 years experience on Biscayne Bay; served on Biscayne Bay Management Committee:

"We have problems with climate change, sea level rise, hotter water due to global warming, ocean acidification — all the stuff that compounds what's going on with Biscayne Bay. And if we don't start to act proactively now, we may lose the handle on it and not be able to get it back.

"Unfortunately, we don't have funding around the board. You have to have money to do this. Without money we can't even start."

Albert Gomez, co-coordinator of the South Florida Resilience System (https://southflorida.resiliencesystem.org/), member of summit steering committee:

"This is where the conversation starts.

"We can make serious change based on people having a handshake, having an open discussion about it and finding solutions together."

Comments have been edited for length and clarity.

TAGS: BISCAYNE BAY (/TERM/BISCAYNE-BAY) ENVIRONMENT (/TERM/ENVIRONMENT) RESILIENCY (/TERM/RESILIENCY) SEAGRASS (/TERM/SEAGRASS) RESTORATION (/TERM/RESTORATION) NEWS (/TERM/NEWS-0)

Tweet (http://twitter.com/intent/tweet?
url=http%3A%2F%2Fwww.tinyurl.com%2Fy98xrhr7&text=%27Let%27s%20Keep%20It%20Beautiful%27%3A%20Biscayne
Share (http://facebook.com/sharer.php?
u=http%3A%2F%2Fwww.tinyurl.com%2Fy98xrhr7&t=%27Let%27s%20Keep%20It%20Beautiful%27%3A%20Biscayne%20
Google+ (https://plus.google.com/share?url=http%3A%2F%2Fwww.tinyurl.com%2Fy98xrhr7)
Email (mailto:?
subject=%27Let%27s%20Keep%20It%20Beautiful%27%3A%20Biscayne%20Bay%20Summit%20Brings%20Together%20S

2. City of Miami Resolution

City of Miami
Legislation
Resolution

City Hall
3500 Pan American Drive
Miami, FL 33133
www.miamigov.com

File Number: 2485 Final Action Date:

A RESOLUTION OF THE MIAMI CITY COMMISSION SUPPORTING THE 2017 BISCAYNE BAY MARINE HEALTH INAUGURAL SUMMIT ("2017 SUMMIT") IN CONCEPT; DIRECTING THE CITY MANAGER TO PARTICIPATE IN THE 2017 SUMMIT AS APPROPRIATE AND FEASIBLE.

WHEREAS, the City of Miami's ("City") entire coastline is bordered by Biscayne Bay; and

WHEREAS, the health of Biscayne Bay is intrinsically linked to the economic well-being of the City through nature-based tourism and commercial and recreational boating, watersports, and fishing; and

WHEREAS, a study cited by the National Sea Grant College Program of the United States Department of Commerce's National Oceanic and Atmospheric Administration found that the economic activities related to Biscayne Bay-related uses contributed to approximately 10.2% of Miami-Dade County's total economy; and

WHEREAS, the Environmental Protection Agency's Science Advisory Board has indicated that ecosystems provide basic life support for human and animal populations and are a source of spiritual, aesthetic, and other human experiences that are valued in many ways by many people; and

WHEREAS, the Miami City Commission demonstrated its commitment to Biscayne Bay when it adopted Resolution No. 16-0562 where it urged the United States Army Corps of Engineers, the Florida Department of Environmental Protection, and the South Florida Water Management District to take all steps necessary to expedite and complete the construction of Phase I of the Biscayne Bay Coastal Waters ("BBCW") project, to expedite the planning of Phase II of the BBCW project, and adding the BBCW project to the City's legislative priorities; and

WHEREAS, the 2017 Biscayne Bay Marine Health Inaugural Summit ("2017 Summit") is the result of a joint effort of over thirty (30) Florida-based environmental NGOs, government entities, elected officials, universities, businesses, and other parties; and

WHEREAS, the purpose of the 2017 Summit is to establish collaboration amongst diverse stakeholders, in order to create an effective ten (10) year action plan for reducing marine/estuarine debris and other water pollutants in Biscayne Bay as well as in Miami-Dade's canals, rivers and oceanic beaches; and

WHEREAS, the 2017 Summit's main goals are to:

- Understand the ecological importance of and challenges to Biscayne Bay;
- Identify and understand the main sources of pollutants in Biscayne Bay;
- Identify existing studies and prevention efforts for Biscayne Bay;
- Identify and establish a collaboration with Biscayne Bay's main stakeholders; and
- Coordinate and share the creative solutions, ideas, expertise, and resources of 2017 Summit stakeholders in order to support the future creation of a comprehensive ten (10) year action plan; and

WHEREAS, the Miami City Commission is dedicated to the health, protection, and improvement of Biscayne Bay;

NOW, THEREFORE, BE IT RESOLVED BY THE COMMISSION OF THE CITY OF MIAMI, FLORIDA:

Section 1. The recitals and findings contained in the Preamble to this Resolution are adopted by reference and incorporated as if fully set forth in this Section.

Section 2. The City Commission supports the 2017 Summit in concept.

Section 3. The City Manager is directed to participate in the 2017 Summit as appropriate and feasible.

Section 4. This Resolution shall become effective immediately upon its adoption and signature of the Mayor.[1]

APPROVED AS TO FORM AND CORRECTNESS:

Victoria Méndez, City Attorney 6/13/2017

[1] If the Mayor does not sign this Resolution, it shall become effective at the end of ten (10) calendar days from the date it was passed and adopted. If the Mayor vetoes this Resolution, it shall become effective immediately upon override of the veto by the City Commission.

3. Miami-Dade County Resolution

MEMORANDUM

Agenda Item No. 11(A)(6)

TO:	Honorable Chairman Esteban L. Bovo, Jr. and Members, Board of County Commissioners	**DATE:**	June 6, 2017
FROM:	Abigail Price-Williams County Attorney	**SUBJECT:**	Resolution supporting the Biscayne Bay Marine Health Summit in concept and directing the Mayor to provide speakers for the summit, as appropriate and feasible

This item was amended at the 5-10-17 Parks and Cultural Affairs Committee to change a reference from a "25-year plan" to a "10-year plan." This plan was listed as one of the goals of the Biscayne Bay Marine Health Summit.

The accompanying resolution was prepared and placed on the agenda at the request of Prime Sponsor Commissioner Daniella Levine Cava, and Co-Sponsors Commissioner Jean Monestime and Senator Javier D. Souto.

Abigail Price-Williams
County Attorney

APW/smm

1

MEMORANDUM

(Revised)

TO: Honorable Chairman Esteban L. Bovo, Jr. and Members, Board of County Commissioners

DATE: June 6, 2017

FROM: Abigail Price-Williams County Attorney

SUBJECT: Agenda Item No. 11(A)(6)

Please note any items checked.

_____ **"3-Day Rule" for committees applicable if raised**

_____ **6 weeks required between first reading and public hearing**

_____ **4 weeks notification to municipal officials required prior to public hearing**

_____ **Decreases revenues or increases expenditures without balancing budget**

_____ **Budget required**

_____ **Statement of fiscal impact required**

_____ **Statement of social equity required**

_____ **Ordinance creating a new board requires detailed County Mayor's report for public hearing**

_____ **No committee review**

_____ **Applicable legislation requires more than a majority vote (i.e., 2/3's ____, 3/5's ____, unanimous _____) to approve**

_____ **Current information regarding funding source, index code and available balance, and available capacity (if debt is contemplated) required**

Approved _____ Mayor
Veto _____
Override _____

Agenda Item No. 11(A)(6)
6-6-17

RESOLUTION NO. _____

RESOLUTION SUPPORTING THE BISCAYNE BAY MARINE HEALTH SUMMIT IN CONCEPT AND DIRECTING THE MAYOR OR MAYOR'S DESIGNEE TO PROVIDE SPEAKERS FOR THE SUMMIT, AS APPROPRIATE AND FEASIBLE

WHEREAS, Biscayne Bay is located in Miami-Dade County and has immense value to the community because of its natural beauty, recreational opportunities, and environmental significance; and

WHEREAS, Biscayne Bay provides habitat and nursery grounds for important commercial and recreational fish, shellfish, and crustaceans, in addition to providing refuge to threatened and endangered species; and

WHEREAS, Biscayne Bay is contained in part within Biscayne National Park, which protects part of the third-largest coral reef system in the word and the longest remaining stretch of mangrove forest on the east coast of Florida; and

WHEREAS, the State of Florida has also recognized that Biscayne Bay deserves special protection, and parts of Biscayne Bay are protected as State of Florida Aquatic Preserves and Outstanding Florida Waters; and

WHEREAS, the water quality and ecological balance of Biscayne Bay are important issues that may have effects on human health, the health of the environment, and the local economy; and

WHEREAS, chemical and nutrient pollution, as well as marine debris in Biscayne Bay, poses a threat to aquatic life in Biscayne Bay and in the oceans in general; and

WHEREAS, as such, it is essential to address the various important issues related to Biscayne Bay in order to assure the future health of Biscayne Bay and protect valuable environmental resources so that future generations may enjoy the health, recreational, environmental, and economic benefits that can result from a healthy and debris-free Biscayne Bay; and

WHEREAS, Miami-Dade County has a long record of accomplishments through programs like spoil island restoration, bay bottom restoration, shoreline erosion control, and public education and participation events like Baynanza, which celebrates its 35th anniversary this year; and

WHEREAS, many of these successful programs came from community collaborations, starting with the Biscayne Bay Committee and Management Plan in the 1970s and the Biscayne Bay Partnership Initiative in the 2000s; and

WHEREAS, these previous community collaborations led to significant progress in reversing the decline of Biscayne Bay through innovative programs to restore and stabilize shoreline habitat and through comprehensive reports like the Biscayne Bay Partnership's 2001 report "One Bright, Great Bay"; and

WHEREAS, the Biscayne Bay Coalition Partners are following on this important work by gathering a broad coalition of academic, government, and civic organizations and individuals, and are currently organizing a Biscayne Bay Marine Health Summit, to be held in June 2017; and

WHEREAS, the goals of this Biscayne Bay Marine Health Summit may include promoting Biscayne Bay health-related initiatives; encouraging partnerships to support the health of Biscayne Bay; involving all stakeholders; and developing a >>10<<[[~~25~~]][1]-year plan to ensure the sustainable health of Biscayne Bay; and

WHEREAS, this Board wishes to support this Biscayne Bay Marine Health Summit in concept and directs the Mayor or Mayor's designee to provide speakers from Miami-Dade County for the Summit, as appropriate and feasible,

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF MIAMI-DADE COUNTY, FLORIDA, that this Board hereby expresses its support in concept for the Biscayne Bay Marine Health Summit, which is planned to be held in June 2017, and directs the Mayor or Mayor's designee to provide speakers from Miami-Dade County for the Summit, as appropriate and feasible.

The Prime Sponsor of the foregoing resolution is Commissioner Daniella Levine Cava, and the Co-Sponsors are Commissioner Jean Monestime and Senator Javier D. Souto. It was offered by Commissioner , who moved its adoption. The motion was seconded by Commissioner and upon being put to a vote, the vote was as follows:

Esteban L. Bovo, Jr., Chairman
Audrey M. Edmonson, Vice Chairwoman

Bruno A. Barreiro	Daniella Levine Cava
Jose "Pepe" Diaz	Sally A. Heyman
Barbara J. Jordan	Joe A. Martinez
Jean Monestime	Dennis C. Moss
Rebeca Sosa	Sen. Javier D. Souto
Xavier L. Suarez	

[1] Committee amendments are indicated as follows: Words stricken through and/or [[double bracketed]] are deleted, words underscored and/or >>double arrowed<< are added.

The Chairperson thereupon declared the resolution duly passed and adopted this 6th day of June, 2017. This resolution shall become effective upon the earlier of (1) 10 days after the date of its adoption unless vetoed by the County Mayor, and if vetoed, shall become effective only upon an override by this Board, or (2) approval by the County Mayor of this Resolution and the filing of this approval with the Clerk of the Board.

MIAMI-DADE COUNTY, FLORIDA
BY ITS BOARD OF
COUNTY COMMISSIONERS

HARVEY RUVIN, CLERK

By:_____
Deputy Clerk

Approved by County Attorney as
to form and legal sufficiency.

Abbie Schwaderer-Raurell

Biscayne Bay National Park during a sunset.
Photo by: Steve Sauls

4. List of Participants

First Name	Last Name	#	Affiliation/Ticket Type
Haley	Gershon	1	Business Exhibitor
Emilio	Lopez	1	Donation
Evelyn	Gonzalez	1	Donation
Emilio	Lopez	1	General Admission
Patrick	Shearer	1	General Admission
Mark	Samuelian	1	General Admission
Brian	Voelker	1	General Admission
RUBEL	SIDDIQUE	1	General Admission
Penny	Cutt	1	General Admission
Sophie	Mastriano	1	General Admission
Marc	Mastriano	1	General Admission
Claudia	Tenzer	1	General Admission
Laura	Reynolds	1	General Admission
Vanessa	Hassele	1	General Admission
Mariana	Framinan	1	General Admission
Lolly	Anderson	1	General Admission
Terry	Bastian	1	General Admission
Melissa	Munoz	1	General Admission
Claudia	Manriquez	1	General Admission
Laurie	Flink	2	Government
Vanessa	McDonough	1	Government
Charles	Grisafi	1	Government
John	Walker	1	Government
Eric	Buck	1	Government
Alfredo	Quintero	1	Government
Laura	Eldredge	1	Government
Matthew	Anderson	1	Government
Anthony	Mihalko	1	Government
Gregory	Netto	2	Government
Savanna	Christy	1	Government
Richard	Townsend	1	Government
LIZA	Herrera	1	Government
Kristen	Rosen Gonzalez	1	Government
Jamie	Monty	1	Government
Jane	Gilbert	1	Government
T. Joan	Lawrence	1	Government
Matt	Johnson	1	Government
Kristi	Kerrigan	1	Government
Josh	Mahoney	1	Government
Jim	Murley	1	Government
Tony	Brown	1	Government
Mario F	Nunez	1	Government
Barbara	Staals	2	Government
Boris	Rodriguez	1	Government
Ana	Zangroniz	1	Government
Eduardo	Salcedo	1	Government
Joe	Pena	1	Government
Daniella	Levine Cava	2	Government
Spencer	Crowley	1	Government
Sean	McCrackine	1	Government
Keren	Bolter	1	Government
Hermes	Diaz	1	Government
Shanna	Haley	1	Government
Guillermo	Olmedillo	1	Government
Marie	Talley	1	Government
Captain Dan	Kipnis	1	Government
Tom	Jackson	1	Government
Anna	Wachnicka	1	Government
Gustavo	Goni	1	Government
Tanya	Wilson-Sejour	2	Government
Christian	Avila	1	Government
Joan	Browder	1	Government
Elizabeth	Golden	1	Government
Shea	Bruscia	1	Government
Elizabeth	Golden	1	Government
Lisa	Toy	1	Government
Mallika	Muthiah	2	Government
Elius	Nortelus	1	Government
Margarita	Wells	1	Government
Stanley	Payne	1	Government
Ricardo	Salazar	1	Government
Kristen	Cumming	1	Government
Manuel	Vega	1	Government
Caroline	McLaughlin	1	Non-Profit Organizations
Kelly	Cox	2	Non-Profit Organizations
Caiti	Pomerance	1	Non-Profit Organizations
David	Doebler	1	Non-Profit Organizations
Dara	Schoenwald	1	Non-Profit Organizations
Theodora	Long	2	Non-Profit Organizations
Sylvia	Heller	1	Non-Profit Organizations
Adriana	Corral	1	Non-Profit Organizations
Mike	Gibaldi	1	Non-Profit Organizations
Jennifer	Stein	1	Non-Profit Organizations
MBelen	Valladares	1	Non-Profit Organizations
Lourrdes	Leconte	1	Non-Profit Organizations
Kristie	Wendelberger	1	Non-Profit Organizations
Teddy	Lhoutellier	1	Non-Profit Organizations
Marjorie	Weber	1	Non-Profit Organizations
Celeste	De Palma	1	Non-Profit Organizations
Erin	Clancy	2	Non-Profit Organizations
Paola	Pinedo	1	Non-Profit Organizations
kimberly	lewis	2	Non-Profit Organizations
Leigh	Buckner	1	Non-Profit Organizations
albert	poledri, jr.	2	Non-Profit Organizations
Michael	Chenoweth	2	Non-Profit Organizations
Esther	Alonso-Luft	1	Non-Profit Organizations
Sam	Van Leer	1	Non-Profit Organizations
Gary	Milano	1	Non-Profit Organizations
Ross	Boucek	1	Non-Profit Organizations
Julio C.	Cassels	1	Non-Profit Organizations
Karen	Keene	1	Non-Profit Organizations
Susan	Shapiro	1	Non-Profit Organizations
Cara	Mathison	1	Non-Profit Organizations
Chaunce	Oconnor	1	Non-Profit Organizations
Noah	Youngstrom	1	Non-Profit Organizations
Gary	Gromet	1	Non-Profit Organizations
Marcelo	Fernandes	2	Non-Profit Organizations
Nina	Jackson	1	Non-Profit Organizations
Brian	Gillis	1	Non-Profit Organizations
LWV	Miami-Dade	1	Non-Profit Organizations
Jose	Hernandez	1	Non-Profit Organizations
Alastair	Harborne	1	Scientists & Professors
Jose	Erin-Lopez	1	Scientists & Professors
Joel	Trexler	1	Scientists & Professors
John	Kominoski	1	Scientists & Professors

Olga	Melin	1	Scientists & Professors
Steven	Lee	1	Scientists & Professors
Mohammad	Jubair	1	Scientists & Professors
Gary	Milano	1	Scientists & Professors
Ximena	Mesa	1	Scientists & Professors
Tania	Madi	1	Scientists & Professors
Elsa	Alvear	1	Scientists & Professors
Joe	Serafy	1	Scientists & Professors
Juliana	Echavarria	1	FIU student
Daniel	Virden	1	FIU student
Michael	Leigh	1	FIU student
Jennie	Rivera	1	FIU student
Maria	Santos Crespo	1	FIU student
Rosario	Vidales	1	FIU student
Matt	Smith	1	FIU student
Savannah	LaBua	1	FIU student
Marta	D'Elia	1	FIU student
Daniel	Reed	1	FIU student
Stephanie	Maldonado	1	FIU student
Ximena	Mesa	1	FIU student
Armando	Vonhartz	1	FIU student
Maria	Pulido	1	FIU student
Natilia	Quinete	1	FIU student
Tatiana	Barreto	1	FIU student
Axel	Soto	1	FIU student
Jessica	Schaffer	1	Other student
Yenisleidy	Fernandez	1	Other student
Meike	de Vringer	1	Other student
Samantha	Dowdell	1	Other student
Abdulkadir	Abayomi	1	Other student
Luiz	Rodrigues	1	Organizers Only
Steve	Sauls	1	Organizers Only
Camila	Sharp	1	Organizers Only
Shamina	de Gonzaga	1	Organizers Only
Denise	Tubino	1	Organizers Only
Bill	Kress	1	Organizers Only
Michael	Leigh	1	Organizers Only
Irela	Bague	1	Organizers Only
Albert	Gomez	1	Organizers Only
Charles J.	Kropke	1	Organizers Only
Steven	Russi	1	Organizers Only
Paola	de Angeli	1	Organizers Only
Brett	Bibeau	1	Organizers Only
Ayssa	DiPietro	1	Scientists & Professors
FRANCISCO	BERON-VERA	2	Scientists & Professors
Robert	Mahoney	1	Scientists & Professors
Kelly	Montenero	1	Scientists & Professors
Laura	Bracken	1	Scientists & Professors
Larry	Brand	1	Scientists & Professors
Maria Josefina	Olascoaga	1	Scientists & Professors
Parker	Fink	1	Scientists & Professors
Amanda	Stoltz	1	Scientists & Professors
Brian	Haus	1	Scientists & Professors
veronika	lancaster	1	Scientists & Professors
Tamay	Ozgokmen	1	Scientists & Professors
Valentina	Caccia	1	Scientists & Professors
Pamela	Reid	2	Scientists & Professors
Evelyn	Gaiser	1	Scientists & Professors
Diego	Lirman	2	Scientists & Professors
Ian	Zink	1	Scientists & Professors
CJ	Reynolds	1	Scientists & Professors
Kristen	Rosen Gonzalez	1	Scientists & Professors
Alastair	Harborne	1	Scientists & Professors
Dong Yoon	Lee	1	Scientists & Professors
Lisa	Krimsky	1	Scientists & Professors
gary	gromet	1	Scientists & Professors
Brad	Schonhoff	4	Scientists & Professors
William	Anderson	1	Scientists & Professors
Venetia	Briggs-Gonzalez	1	Scientists & Professors
Todd	Crowl	1	Scientists & Professors
Tiffany	Troxler	1	Scientists & Professors
James	Fourqurean	1	Scientists & Professors
Kelly	Newman	1	Scientists & Professors
Rene	Price	1	Scientists & Professors
Alejandro	Quintas	1	Neat Sand
	Leidner	1	Self
Shauna	Mackey	1	Miami WaterKeeper
Duncan	Tavares	1	Town of Surfside
Marcelo	Ozzchen	1	
Willonstine	Lanson	1	Senator Bill Nelson
Caitlin	Calvo	1	Senator Marco Rubio
Bill	Kelly	1	Florida Keys Commercial Fishermen Association
Victoria	Garrastacho	1	Senator Marco Rubio
Alyn	Fernandez	1	Senator Marco Rubio
Otto	Zequiera	1	Tropical Audoban Society
Milagros	Zequiera	1	Tropical Audoban Society
Biu	Dennison	1	Spoalab
Lisa	Spadafina	1	MDC-DERM
Michael	Defilipp	1	
Walter	Meyer	1	Local Office Landscape Architecture
Margaret	Goodro	1	Biscayne National Park
Jenny	Staletovich	1	Miami Herald
Danila	Bonini	1	City of Miami Beach
Nick	Ogle	1	FIUSEAS
Bill	Chambalui	1	FIU Marine Science
Luisana	Perez	1	Senator Jose Javier Rodriguez
Jordan	Leonard	1	BHI
Camilo	Ignacio	1	RCR-DERM
Natalia	Repiso	1	E-Stellar
Bruce	Matheson	1	
Antoine	Dons	1	E-Stellar

5. Dr. Bill Dennison's Blog Entry on the BBMHS

Biscayne Bay Marine Health Inaugural Summit

The Biscayne Bay Marine Health Inaugural Summit was held at the Florida International University Biscayne Bay campus. I flew down at the invitation of Jim Fourqurean, my long time friend and seagrass colleague, who provided a very nice introduction. There were around two hundred people in attendance and my role was to provide a lunch time talk to relate some lessons from other locations that were relevant to Biscayne Bay. I chose to focus on lessons from Moreton Bay, Australia and Chesapeake Bay and to not use slides, but rather talk. I have provided the text of my speech in this blog.

Biscayne Bay Marine Health Inaugural Summit poster and logo. Image credit: Bill Dennison

Biscayne Bay is a shallow barrier island lagoon, some 35 miles long. It contains many islands and historically-supported seagrasses, sea turtles and manatees. It is experiencing some very serious environmental degradation, with 2.7 million people in the small but crowded watershed. I was surprised to learn that many homes, even ones close to the Bay, use septic systems. I also learned that the sheet flow of water over the Everglades used to pass through the Biscayne Bay watershed. Seagrass loss, algal blooms and increasing turbidity are being observed in the bay. However, the bay does have a very solid monitoring program, including 83 water quality monitoring stations and seagrass monitoring for the entire Bay.

The north end of Biscayne Bay from my airplane window. The large island in the middle is Dodge Island from where my research cruises departed. Image credit: Bill Dennison

The conference organizers were Luiz Rodriguez, Steve Sauls, Irela Bague, Albert Gomez and Dave Doebler, who did an amazing job of putting together a full program. I ran into former UMCES colleagues Joe Serafy and Eric Buck, as well as Larry Brand who I knew from Woods Hole and when he visited in Australia on a phytoplankton collecting expedition.

One of the things that I appreciated about the people attending the conference was the passion they had for Biscayne Bay. They presented the newly coined "Harvey Award" to Miami-Dade Commissioner Daniella Levine Cava. The name of the award was in honor of Harvey Ruvin, Clerk of Courts for Miami-Dade County who is one of the staunchest supporters of Biscayne Bay. The award, created by Keith Clougherty, was a very attractive 'sculpture' using plastic refuse as construction material.

Harvey Ruvin inspecting the award named in his honor. The first recipient, Daniella Levine Cava is standing next to him. Image credit: Bill Dennison

I appreciated that the conference, held in the building where the Florida International University students learn about hospitality, was a "Truly sustainable and zero waste event." The food and drinks were superb.

The 'Harvey' statue made out of marine debris, designed by Keith Clougherty. Image credit: Bill Dennison

Dave Doebler called himself just a "Dude in a kayak," but he had initiated some impressive plastic marine litter clean ups. Jamie Monty from Miami-Dade County spoke about the monitoring and restoration initiatives supported by the county. Captain Dan Kipnis provided some impressive photographs and underwater video and spoke about his passion for the Bay. Charles Grisafi from NOAA told us about the marine debris program. Rene Price led a panel that included Tiffany Troxler, Jim Fourqurean, Patrick Shearer and Charles Grisafi. Tiffany emphasized the issue of sea level rise adaptation, and Patrick emphasized stormwater runoff issues. Jim addressed the issue of phosphorus overenrichment in the phosphorus-limited carbonate system. He also brought up the issue of contaminants like endrocrine disrupters and heavy metals. In the afternoon, we heard impressive local initiatives from Margarita Wells, City of Miami, Dara Schoenwald, VolunteerCleanup.org, Matt Anderson, City of Coral Gables and Walter Meyer, Parsons The New School. We also had breakout sessions to discuss priorities for government policies, infrastructure and public works, education and outreach, and research needs. I was in the research needs session, which Joel Trexler from FIU facilitated. Jim Murley from Miami-Dade County provided closing remarks with a historical perspective.

My lunchtime remarks were as follows:

Lessons from Moreton and Chesapeake Bays for Biscayne Bay

28 June 2017
William C. Dennison

It is great to be with you here. Thanks to my colleague and friend Jim Fourqurean for arranging the invitation. Forty years and a couple of months ago I came Miami to board a tall ship (R/V Westward on Sea Semester) at Dodge Island near where we are now and sailed out into the Sargasso Sea, up through Chesapeake Bay where I work now and end up in Woods Hole on Cape Cod where I ended up doing my PhD. Years later, I came back to board various University of Miami research vessels (R/V Calanus and R/V Columbus Iselin) to head to the Bahamas with this cute little graduate student (who is now my wife). So this place was the beginning of important things in my life.

I am going to tell you two stories; one about Moreton Bay in Australia and one about Chesapeake Bay, and draw 12 lessons relevant to Biscayne Bay from these stories. And then I will make 3 observations about Biscayne bay as an interested observer.

Twenty five years ago I headed off to Brisbane, Australia to take a job at the University of Queensland. The real attraction for me was the proximity to the Great Barrier Reef off the Queensland coast, kind of like coming to South Florida for the Florida Keys reef tract. I soon found myself splashing around in the bay adjacent to Brisbane, a city of 2 million people. This shallow subtropical embayment is called Moreton Bay and it supports abundant seagrasses, sea turtles and dugongs (the Australian version of manatees). Moreton Bay is not unlike Biscayne Bay and I even had a graduate student who did a comparison study of nitrogen cycling in Moreton Bay vs. Biscayne Bay. My graduate students and I began to realize how special Moreton Bay was, but also appreciated its vulnerability. Like South Florida, Queensland was a popular destination for vacationing Australians and the resident population began to swell. In fact, during the ten years that I was living in Queensland, it was the fourth fastest growing region in the world. So with this crush of a growing population, there were signs that Moreton Bay was suffering just like Biscayne Bay. Seagrass beds began to disappear, algal blooms were causing fisherman's skin to peel off, and the water was becoming increasingly cloudy. Sound familiar?

Fortunately, the local elected officials turned their concern into action. They pooled their resources and funded the design of an integrated monitoring and research effort. We coined this effort the Healthy Waterways Campaign. Our tag line was "Because we are all in the same boat". One of the first things we did was to create a newsletter, using color graphics with maps, photographs, diagrams and graphs. We printed 30 copies, since we had 15 people in our technical group and thought a few extra copies would be good to have. After a week, all 15 people requested additional copies, so we printed a hundred copies. After another week, we were out of copies, so we printed 300, figuring that we would have a lifetime supply. After two more weeks, we printed a thousand copies, and that became our minimum print run going forward.

LESSON 1: There is a public appetite for synthesized information, presented clearly and attractively.

So our next step was to produce a short, colorful book which we called the Crew Members Guide to Healthy Waterways, which was an invitation to join the crew. I was interviewed and asked to provide a ranking for the different regions of Moreton Bay. We called this the report card of the Bay, and the truth of the matter was it was generated by gathering half a dozen of my graduate students around a map of the Bay and we said, well the Bremer River upstream from the Brisbane River was the worst, let's give that an F and the Brisbane River gets a D and the Eastern Banks with the seagrass and dugongs was the best, let's give that an A. And then everything else was ranked in between. We just made up the grades.

In the meantime, our Brisbane Lord Mayor, Jim Soorley, had launched a week long Riverfestival to celebrate the Brisbane River that ran through the center of the city, not unlike the Miami River. As part of the celebrations, which included boat races, open air concerts, amazing fireworks, he asked us to gather world experts to share their stories just like you are doing today. This led to the creation of the International Riversymposium. The Lord Mayor went to Martin Albrecht, the CEO of Theiss, a global construction company located in Brisbane. Jim Soorley pitched the idea of having a Noble prize for river management, funded by Theiss. Thus was born the Theiss International Riverprize. The first recipient was the River Mersey in northwest England. The River Mersey flows through Manchester and Liverpool, cities that launched the Industrial Revolution. This river was so polluted that the city of Liverpool literally could not give away riverfront property, even with tax incentives and a million pound incentive. But decades into the restoration, they had salmon returning, they ran swimming competitions in the river and had turned the Liverpool property that no one would take into a four star hotel. The civic pride that the folks from Mersey had about their river was palpable.

LESSON 2: Environmental restoration can be a source of civic pride.

Because of the amazing story of the River Mersey, we were hoping for some good local media coverage, but the headlines of the Brisbane Courier Mail led with "Brisbane River rates a D", and the TV stations showed footage of sand and gravel dredging in the river and reproduced the grades that we frankly made up one afternoon. And the story of the River Mersey ran on page 17, next to the local crime blotter. This was a wake up call for us in many ways.

LESSON 3. Local news outranked stories from far away.

Just as was said about politics "All politics is local", the news is also best when it is local. People care about what they can see themselves and what affects them. We learned to tailor our messages around the watershed to the most location specific as was possible.

LESSON 4. Report cards need to be backed with data.

As scientists, we really couldn't go around making up grades. So we created a monitoring program that we called the Ecosystem Health Monitoring Program. This program is still collecting data and producing annual report cards.

We had just launched our Healthy Waterways program and were hoping for some rapid progress. To hear from the Mersey folks that they were decades into the restoration and were anticipating decades more to go made us take pause.

LESSON 5. Ecosystem restoration takes time.

If you consider that we have generally degraded things over many decades to centuries, you really cannot expect to turn things around instantaneously. Part of what we starting saying publicly was that it was going to take a long time. This is just as relevant for Biscayne Bay as anywhere else.

Back to our little Crew Members Guide book. Our program got the attention of the federal government who had funded the local councils and the Minister for Forestry and Conservation asked for a briefing. I got up and made my ten minute pitch and handed him the Crew Guide and sat down. He started leafing through the book as the next five speakers had their ten minute pitches, and he pretty much ignored them. The speakers were getting aggravated and kept saying, "Minister you can see from this slide that such and such . . .", but he barely glanced up. At the end of all the presentations, he only had one question. "Where is my logo?", he asked, pointing to the book. I answered, "Well, Minister, we wanted to be inclusive, because the six local councils that started this Healthy Waterways initiative are expanding to 19 councils and we did want anyone to fell left out, so we created this logo and tagline to be inclusive." He said "Where is my logo?" again. So we ended up, at great expense, putting stickers on the back of the book to include his logo.

LESSON 6. It is important to share the credit, particularly with elected officials.

The local mayors also started to anticipate the report card and would call me up two weeks before the release and ask "How did I do?" And then "How did the mayor next door do?" They always wanted to see how they ranked relative to other jurisdictions.

LESSON 7. Peer pressure is a powerful human motivator.

And some of them would even ask if there was anything they could do for extra credit to improve the grades. Anyway, we went on to produce several books about Moreton Bay and Brisbane River, using the color graphics and synthesized information and provided everyone with the information about what was wrong with the Bay and where the problems came from. We were able to show using stable isotope tracers the extent of the sewage plumes from different sewage treatment plants, which catalyzed sewage treatment upgrades throughout the region. The sewage upgrades started to shrink the sewage plumes and this incentivized further studies and further improvements. We were able to show where the sediment runoff came from in the watershed and even identify that the cattle grazing in the stream was accelerating streambank erosion so fencing the cattle became the priority.

LESSON 8. Celebrate the small victories and build on success.

After ten years of doing this, I had the opportunity to try this Healthy Waterways experiment out on a bigger scale in Chesapeake Bay. Chesapeake Bay was ten times larger than Moreton Bay, had ten times the watershed size and ten times the population. So I waltzed into Chesapeake Bay, and said "Let's do a report card—we have lots of monitoring data, it should be easy." Well, that went over like a lead balloon. They said, "We have this fantastic model for the Bay that was better than monitoring data, and there was already enough information about Chesapeake Bay out there, in fact the Bay had its own monthly newspaper. We don't need your color graphics newsletter either. Why are you even here?" This was disheartening, and after some particularly no good horrible days, I even considered packing up my family and heading back to Australia. But then the local newspaper, the Washington Post, published an expose' on the over-reliance on the modeling—front page above the fold, and things began to change.

LESSON 9. Don't underestimate the power of getting the message out.

Since the U.S. Congress reads the Washington Post, they launched a Government Accountability Office investigation, sent the Office of Management and Budget to audit the Chesapeake Bay Program and the recommendations featured the need for independent rigorous verification of the restoration progress. Suddenly, this report card idea was not so far fetched. Eleven years ago, we produced our first Chesapeake Bay report card. The biggest surprise was not that the area around Baltimore was degraded—it is an old city right on the Bay—but that some of the rural areas on the eastern shore were just as degraded. This highlighted the need to understand what was happening and it became apparent that even though the human population is low on the Eastern Shore, the chicken population is huge—almost 600 million chickens produced every year. So the fertilizer used to grow the chicken feed (corn and soy) and the chicken manure from 600 million birds was causing water quality degradation. When the Eastern Shore counties found out that they were in almost as bad a shape as Baltimore, they were shocked into action. Back to LESSON 7, as peer pressure is indeed a powerful motivator. Baltimore did not want to continue to be the worst, so local business leaders have banded together and created the Waterfront Partnership. They bring Baltimore City and Baltimore County into their meetings and they ask how can we accelerate the clean up of the harbor? They have robots that crawl up stormwater drains to sniff out ammonia which detects illegal or leaky sewage seepages into the stormwater system. They bought boats to pick up floating trash, and even made giant water wheels that automatically scoop up trash that comes in from the major buried streams. They asked how they can reduce the waste streaming entering the stormwater system and the city officials said "We can't afford more street sweeper trucks" so the businesses bought more street sweepers, and the city supplies the manpower to run the equipment. They also bought more trash cans, so people aren't as tempted to litter. They planted more urban trees. There is a long term ecological research site in Baltimore (like the one in Florida Bay) and the scientists found that an increase in 10% urban tree canopy is correlated to a 12% decrease in theft, robbery, burglary and shooting. In fact, they are actively digging up asphalt playgrounds and planting grass to decrease impervious surfaces and reduce flashy runoff carrying 'urban slobber' into the waterways. An interesting aspect of this is that if you observe kids playing on hard urban surfaces, the stronger kids become dominant, but if you observe kids playing in nature, the smarter kids become dominant.

LESSON 10. There are co-benefits to improving ecosystem health.

We had a Republican governor Bob Ehrlich in Maryland who instituted a "Flush Fee" (being a Republican, he avoided the word tax) which was used to fund sewage treatment upgrades. Upgrading large urban sewage treatment resulted in some dramatic rapid improvements. We then had a democratic governor, Martin O'Malley who created a Trust Fund for septic system upgrades and agricultural incentives, in particular cover crops. This funding has been used to reverse some of the degradation of agricultural areas. The current Maryland governor, Larry Hogan, is fully funding both programs instigated by his predecessors and is actively pursuing Chesapeake Bay restoration, serving currently as chair of the multi-state Chesapeake Bay Program executive committee.

LESSON 11. Ecosystem restoration can and should be bi-partisan.

The Chesapeake Bay restoration effort started in earnest in 1983, but it was entirely voluntary until 2010 when the EPA created the Total Maximum Daily Load (TMDL) which is a mandatory nutrient diet. The other important thing that happened was instead of lofty, but distant, clean up goals that extended beyond the political life of elected officials, two year milestones were created to closely monitor the progress. This nutrient diet, with its tracking system, is starting to show real benefits. In addition to the federal and state monitoring programs, we are increasingly recruiting citizen scientists to aid in the monitoring efforts.

LESSON 12. Both carrots and sticks are important, but you need public accountability.

This year's report card in which the Bay is subdivided into 15 reporting regions, shows that 7/15 regions are significantly improving. This is great news. Now in our eleventh year of releasing the Chesapeake bay report card our media reach was over 150 million people—that is half the population of the US. We still have a long way to go, and we are not declaring "Mission Accomplished", but we are finally on the right track.

How do the Moreton Bay and Chesapeake Bay stories relate to Biscayne Bay?

First, in spite of population pressures, it is possible to reverse the negative trajectories, even though it will take time and sustained effort. From all accounts, Biscayne Bay is suffering and is heading in the wrong direction, but this can and should be reversed. Biscayne Bay would benefit from publicly released report cards to track progress.

Second, The world is looking for leadership. There are many tropical coastal megacities cropping up in the world, and Miami and Biscayne Bay can become a global model for sustainability. Biscayne Bay has been the forgotten Bay of Florida, adjacent to so many nearby icons like the world famous Miami beaches, the globally famous Everglades, Florida Keys and Florida Bay. It is time to allow the world to discover Biscayne Bay.

Third. The most important thing to do is what you are starting here today. Gathering elected officials, NGOs, scientists, elected officials, activists, and others to publicly declare "We care about the health of Biscayne Bay, which means we care about the city and the community as well". This passion, coupled with growing community knowledge, can motivate positive environmental change.

Coming to Biscayne Bay was the beginning of some great things in my life, and I sincerely hope that this day, 28 June 2017, will be remembered as the beginning of something lasting, something positive and something pretty great for all of you. Good luck on your journey.

6. Partner Resolutions

BISCAYNE BAY MARINE HEALTH SUMMIT
PARTNER RESOLUTION

RESOLUTION JOINING THE "BISCAYNE BAY MARINE HEALTH SUMMIT COALITION" IN SUPPORT OF ITS EFFORTS TO PROTECT AND PRESERVE THE ECOLOGICAL HEALTH OF BISCAYNE BAY

WHEREAS, the water quality and ecological balance of Biscayne Bay are essential for human health and safety, the health of the environment and our local economy; and

WHEREAS, marine debris poses a great threat to aquatic life in our Oceans and Biscayne Bay; and

WHEREAS, the Biscayne Bay is an important nursery ground for commercial and recreational fisheries vital to Miami-Dade's economy; and

WHEREAS, Biscayne Bay is protected as an aquatic preserve and protects 70,000 acres of submerged lands; and

WHEREAS, Biscayne Bay is an important natural estuary in need of ongoing monitoring and restoration; and

WHEREAS, Biscayne Bay supports endangered and threatened species;

Now, therefore, be it resolved that our organization, Bagué Group fully supports the efforts of the **Biscayne Bay Marine Health Summit Coalition** as well as the implementation of the **Inaugural Summit** to take place on the last week of June 2017.

This Resolution shall become effective upon the date of its passage and adoption herein.

Irela Bagué	Irela M. Bagué
NAME (SIGNATURE)	NAME (TYPE)
President	Bagué Group
TITLE	ORGANIZATION
May 8, 2017	
DATE	

Biscayne Bay Marine Health Summit Steering Committee
Luiz Rodrigues, Steve Sauls, Albert Gomez, Chelle King, Dave Doebler

BISCAYNE BAY MARINE HEALTH SUMMIT PARTNER RESOLUTION

RESOLUTION JOINING THE "BISCAYNE BAY MARINE HEALTH SUMMIT COALITION" IN SUPPORT OF ITS EFFORTS TO PROTECT AND PRESERVE THE ECOLOGICAL HEALTH OF BISCAYNE BAY

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This Resolution shall become effective upon the date of its passage and adoption herein.

Gregory Hamra
NAME (SIGNATURE)

Gregory Hamra
NAME (TYPE)

Group Leader
TITLE

CCL Miami Chapter
ORGANIZATION

10 May 2017
DATE

Biscayne Bay Marine Health Summit Steering Committee
Luiz Rodrigues, Steve Sauls, Albert Gomez, Chelle King, Dave Doebler

BISCAYNE BAY MARINE HEALTH SUMMIT
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CARLOS QUAREZMA
NAME (SIGNATURE)

CARLOS QUAREZMA-SHARP
NAME (TYPE)

BOD
CHAIR SUSTAINABILITY & RESILIENCE COMMITTEE
TITLE

COCONUT GROVE CHAMBER
ORGANIZATION

05/08/17
DATE

Biscayne Bay Marine Health Summit Steering Committee
Luiz Rodrigues, Steve Sauls, Albert Gomez, Chelle King, Dave Doebler

BISCAYNE BAY MARINE HEALTH SUMMIT PARTNER RESOLUTION

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This Resolution shall become effective upon the date of its passage and adoption herein.

Luiz Rodrigues
NAME (SIGNATURE)

LUIZ RODRIGUES
NAME (TYPE)

Founder
TITLE

ECO-LOGICAL SOLUTIONS, LLC
ORGANIZATION

3/28/17
DATE

Biscayne Bay Marine Health Summit Steering Committee
Luiz Rodrigues, Steve Sauls, Albert Gomez, Chelle King, Dave Doebler

BISCAYNE BAY MARINE HEALTH SUMMIT
PARTNER RESOLUTION

RESOLUTION JOINING THE "BISCAYNE BAY MARINE HEALTH SUMMIT COALITION" IN SUPPORT OF ITS EFFORTS TO PROTECT AND PRESERVE THE ECOLOGICAL HEALTH OF BISCAYNE BAY

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WHEREAS, the Biscayne Bay is an important nursery ground for commercial and recreational fisheries vital to Miami-Dade's economy; and

WHEREAS, Biscayne Bay is protected as an aquatic preserve and protects 70,000 acres of submerged lands; and

WHEREAS, Biscayne Bay is an important natural estuary in need of ongoing monitoring and restoration; and

WHEREAS, Biscayne Bay supports endangered and threatened species;

Now, therefore, be it resolved that our organization, _____ fully supports the efforts of the **Biscayne Bay Marine Health Summit Coalition** as well as the implementation of the **Inaugural Summit** to take place on the last week of June 2017.

This Resolution shall become effective upon the date of its passage and adoption herein.

	Hugh Gladwin
NAME (SIGNATURE)	**NAME (TYPE)**
Assoc Professor	Florida International University
TITLE	**ORGANIZATION**
May 8, 2017	
DATE	

Biscayne Bay Marine Health Summit Steering Committee

Luiz Rodrigues, Steve Sauls, Albert Gomez, Chelle King, Dave Doebler

BISCAYNE BAY MARINE HEALTH SUMMIT PARTNER RESOLUTION

RESOLUTION JOINING THE "BISCAYNE BAY MARINE HEALTH SUMMIT COALITION" IN SUPPORT OF ITS EFFORTS TO PROTECT AND PRESERVE THE ECOLOGICAL HEALTH OF BISCAYNE BAY

WHEREAS, the water quality and ecological balance of Biscayne Bay are essential for human health and safety, the health of the environment and our local economy; and

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WHEREAS, Biscayne Bay supports endangered and threatened species;

Now, therefore, be it resolved that our organization, Freehand Miami fully supports the efforts of the **Biscayne Bay Marine Health Summit Coalition** as well as the implementation of the **Inaugural Summit** to take place on the last week of June 2017.

This Resolution shall become effective upon the date of its passage and adoption herein.

Anne Posschelle
NAME (SIGNATURE)

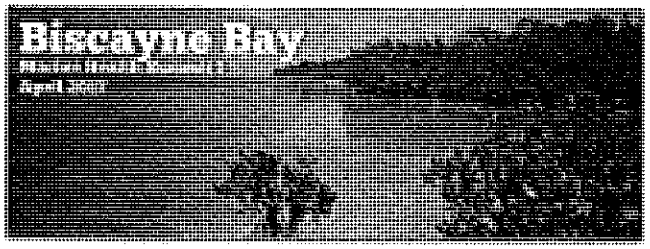
Anne Posschelle
NAME (TYPE)

National Director of Sales
TITLE

Freehand Miami
ORGANIZATION

~~April~~ May 8, 2017
DATE

Biscayne Bay Marine Health Summit Steering Committee
Luiz Rodrigues, Steve Sauls, Albert Gomez, Chelle King, Dave Doebler



BISCAYNE BAY MARINE HEALTH SUMMIT
PARTNER RESOLUTION

RESOLUTION JOINING THE "BISCAYNE BAY MARINE HEALTH SUMMIT COALITION" IN SUPPORT OF ITS EFFORTS TO PROTECT AND PRESERVE THE ECOLOGICAL HEALTH OF BISCAYNE BAY

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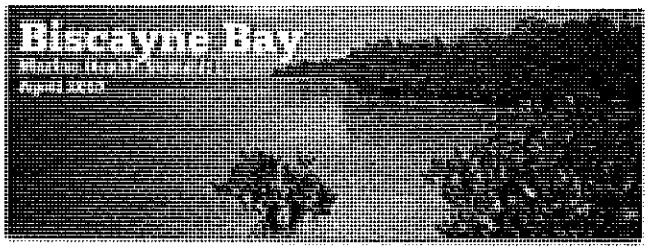
Now, therefore, be it resolved that our organization, South Florida Resilience System fully supports the efforts of the **Biscayne Bay Marine Health Summit Coalition** as well as the implementation of the **Summit** on a date to be determined by the Coalition during its upcoming meeting in February 2017.

This Resolution shall become effective upon the date of its passage and adoption herein.

NAME (SIGNATURE)	Albert Gomez NAME (TYPE)
Coordinator TITLE	South Florida Resilience System ORGANIZATION
3-2-2017 DATE	

Biscayne Bay Marine Health Summit Steering Committee
Luiz Rodrigues, Steve Sauls, Albert Gomez, Chelle King



BISCAYNE BAY MARINE HEALTH SUMMIT
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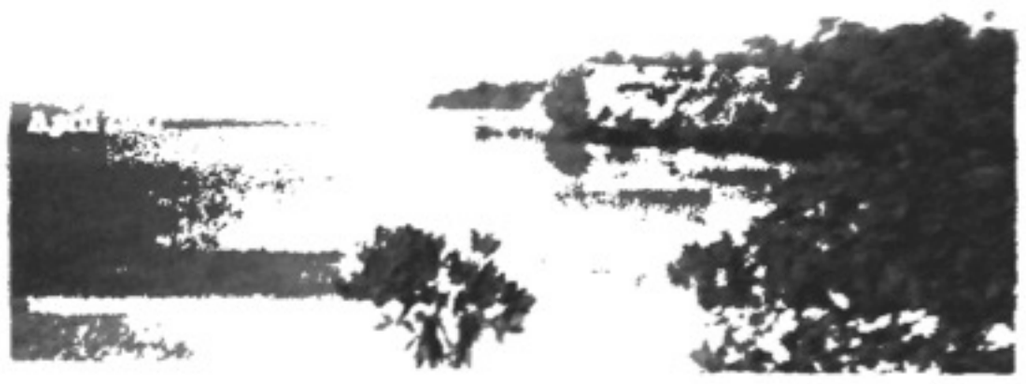
Now, therefore, be it resolved that our organization, ECOncrete fully supports the efforts of the **Biscayne Bay Marine Health Summit Coalition** as well as the implementation of the **Summit** on a date to be determined by the Coalition during its upcoming meeting in February 2017.

This Resolution shall become effective upon the date of its passage and adoption herein.

Albert Gomez	Albert Gomez
NAME (SIGNATURE)	NAME (TYPE)
Development Manager	ECOncrete
TITLE	ORGANIZATION
3-2-2017	
DATE	

Biscayne Bay Marine Health Summit Steering Committee
Luiz Rodrigues, Steve Sauls, Albert Gomez, Chelle King



BISCAYNE BAY MARINE HEALTH SUMMIT
PARTNER RESOLUTION

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WHEREAS, Biscayne Bay is an important natural estuary in need of ongoing monitoring and restoration; and

WHEREAS, Biscayne Bay supports endangered and threatened species;

Now, therefore, be it resolved that our organization, TROPICAL AUDUBON SOCIETY fully supports the efforts of the **Biscayne Bay Marine Health Summit Coalition** as well as the implementation of the **Summit** on a date to be determined by the Coalition during its upcoming meeting in February 2017.

This Resolution shall become effective upon the date of its passage and adoption herein.

NAME (SIGNATURE)	ERIN CLANCY NAME (TYPE)
CONSERVATION DIRECTOR TITLE	TROPICAL AUDUBON SOCIETY ORGANIZATION
2/19/17 DATE	

Biscayne Bay Marine Health Summit Steering Committee
Luiz Rodrigues, Steve Sauls, Albert Gomez, Chelle King

BISCAYNE BAY MARINE HEALTH SUMMIT
PARTNER RESOLUTION

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WHEREAS, Biscayne Bay is an important natural estuary in need of ongoing monitoring and restoration; and

WHEREAS, Biscayne Bay supports endangered and threatened species;

Now, therefore, be it resolved that our organization, VolunteerCleanup.Org fully supports the efforts of the **Biscayne Bay Marine Health Summit Coalition** as well as the implementation of the **Inaugural Summit** to take place on the last week of June 2017.

This Resolution shall become effective upon the date of its passage and adoption herein.

	David Doebler
NAME (SIGNATURE)	**NAME (TYPE)**
Co-Founder	VolunteerCleanup.Org
TITLE	**ORGANIZATION**
5/2/2017	
DATE	

Biscayne Bay Marine Health Summit Steering Committee

Luiz Rodrigues, Steve Sauls, Albert Gomez, Chelle King, Dave Doebler

7. Marine Debris Facts

Marine Debris Facts

Every year, up to 8 million metric tons of plastics enter our ocean on top of the estimated 150 million metric tons that currently circulate our marine environments. The majority is coming from rapidly developing countries in Asia that lack waste management.

Plastic has been found in more than 60% of all seabirds and in 100% of sea turtle species, which mistake plastic for food.

Plastic production and consumption are predicted to double over the next 10 years.

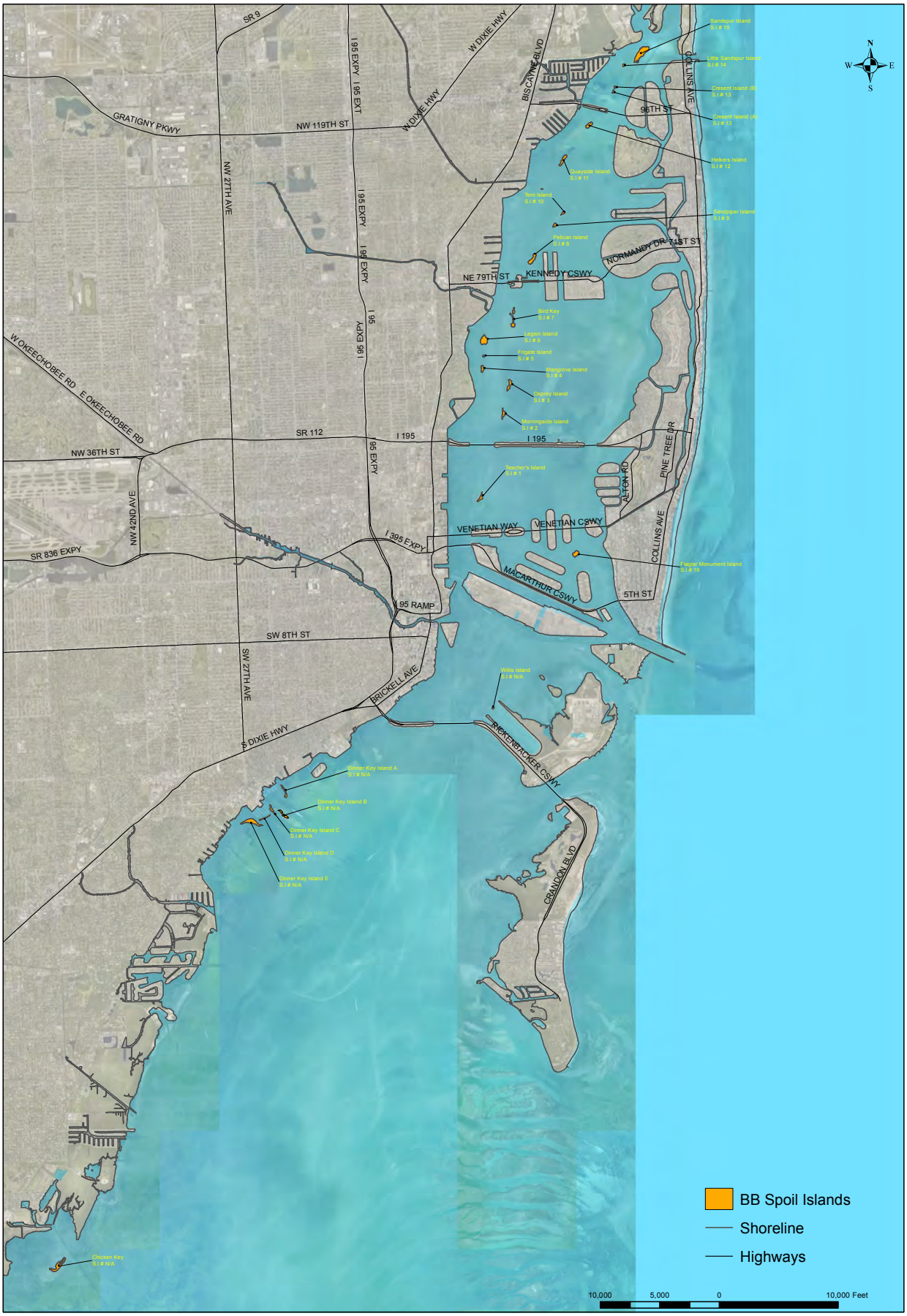
So much consumed plastic is ending up in the ocean that in just a few years, we could end up with a pound of plastic for every three pounds of fish in the sea.

Marine debris is not only an environmental issue, but also a health and economic one. Marine debris can also impact beach tourism and the commercial and recreational fishing industry.

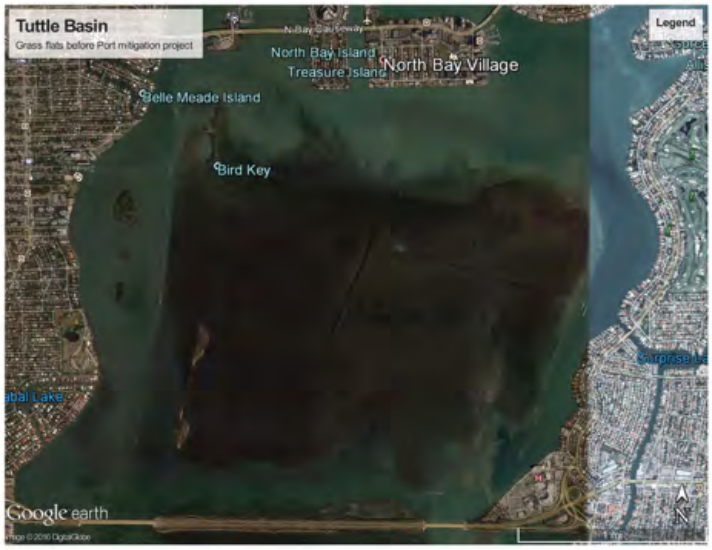
What to Do? Improve Waste Management

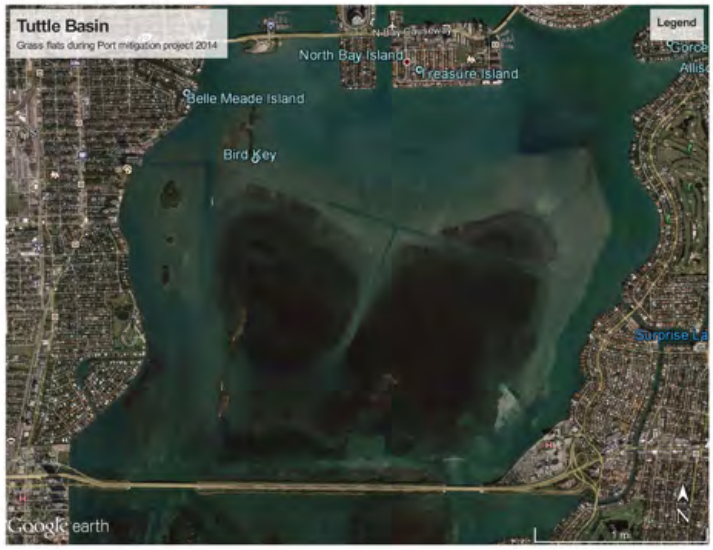
- Transform the role that plastic plays in the worldwide economy. With plastic production expected to double over the next 10 years, we need to develop better waste management and recycling systems both here and abroad. This includes ensuring that policy recommendations on recycling also address resource efficiency and other lifecycle impacts.
- Support the development of fundamental waste collection and management in countries with rapidly growing economies and increasing use of disposable plastic. Support policy environments, particularly in emerging economies, that incentivize investment in integrated waste management systems. This can keep plastics out of the ocean and support economic development.
- Implement waste collection and recycling globally, which can not only address the issue of ocean plastic pollution, but also improve public health by preventing the spread of infectious disease, reduce respiratory illnesses from open air burning of waste, and prevent food chain contamination of both livestock and fish and shellfish.
- Support coordination between plastic producers and waste management systems to make sure plastics being produced are recyclable and identify which areas in the lifecycle of a plastic product are vulnerable to improper disposal.
- Support public-private partnerships to promote innovation by the business community to address plastic input into the oceans.

8. Biscayne Bay Spoil Islands



9. Seagrass Dieoff in Biscayne Bay - Images





10. Breakout Group Sessions Full Notes

Breakout Group #1: Infrastructure

Purpose – Discuss Infrastructure ideas to keep pollution out of the bay

Objective – Identify specific and actionable goals to improve infrastructure design and maintenance to be implementedin the 10 year plan

Activities – Brainstorm ideas and prioritize actions

Deliverables – Short Term (<2 years), Medium Term (5 year), Long Term (10 Year) goals

What do we know?

- There is a problem
- We aren't stopping Pollution early enough
- Too much input

What we need to know?

- What is coming out of creeks / canals? Canal best practices
- Human health issues
- Economic value of Bay & Impact
- Report Card
- Connecting the dots
- Accessibility to data
- Monitoring of what is going in / out?
- Lack of collaboration

What's going well?

- Mangrove planting
- Volunteer efforts
- Partnershisps
- We've identified there is a problem
- City & County infrastructure is on board
- Pilot Programs to eliminate septic tanks / Septic Tank Matching Funds
- Academic interest
- Necessity of sea level rise requires new infrastructure investments
- Appetite to try new things
- Collaboration between cities (Business, NGO, Public Works)
- Talks about a Miami-Dade Green Committee
- Public Awareness of Algae blooms

What's NOT going Well

- Seagrass / Coral die offs
- Water Temperature/ Viruses/ Tridium/Nurtients /Salinity
- Data gaps
- Aging / Lack of infrastructure
- Knowing where infrastructure is
- Can't quantify monetarily
- Funding / Building the case to sell
- Political will
- Business as usual
- Skyrocketing population growth
- NIMB (Not In My Backyard)

Why is pollution getting through

- Public litter / Fertilizer
- Increased impervious surfaces
- We aren't keeping it out of the system
- We aren't cleaning enough
- We aren't budgeting for Cleaning / Maintenance
- 'One size fits all' cleaning
- Not integrated monitoring for baselines
- Sewage overflow into storm drains / illicit connections
- Trash not specifically mandated under clean water act

Short Term (Immediate – 1 Year):

- Enforce existing environmental rules & laws
- Biscayne Bay Coalition modeled after former Biscayne Bay Resoration / Establish a policy and finance working group to evaluate models
- Implement more scavenger decontamination vessels for surface debris, destroy viruses, inject O2
- Import fertilizer and herbicide bans for residential and commercial
- More solar panels and renewable energy in all new infrastructure
- Regular cleaning of storm drains (more VacTrucks) & community outreach of no trash / dumping
- Map all systems 100% MSSW
- Declare a public emergency of Biscayne Bay
- Evaluate every new hard infrastructure project against hybrid & green proposals and conduct CBA, sustainability, environmental, and societal factors
- Education Funding to teach eco-friendly lifestyles at schools
- City should lead monthly neighborhood cleanups & use volunteers
- Widespread ashcans in public spaces
- Do not pass UDB – build within it
- Making more greenspace and plant more tree canopees
- Reengineer stormwater overflow with coastal wetland solutions
- Incentivize businesses to replace impervious surface with planters for stormwater
- More street sweeping
- Require Landscape Best Practices for all Contractors or Licenses
- All new parks and retrofits should have water bottle refill stations
- Consolodate available data in a central location so it can inform decision making
- Trash Can on Every Corner in Downtown, Edgewater, Wynwood, Midtown, Etc
- Monitoring stations to sense chemicals or physical debris to find sources of pollution
- Full audit and reporting of sewage infrastructure and stormwater systems (not sure it exists)/ Survey drainage system

Breakout Group #1: Infrastructure (cont.)

Short Term (Immediate – 1 Year) (cont.):

- Prioritize surface water quality monitoring in Biscayne Bay as foundation of MD Charter and Budget
- Start a home water harvesting program to reduce water flowing off of land surface
- Increase and enforce litter fines
- Trash Can on Every Corner in Downtown, Edge water, Wynwood, Midtown, Etc
- Catch device / sock / net / booms at storm drain outfalls to capture trash until long term solutions can be implemented
- Rainwater irrigation is pH neutral avoids need for fertrilizer
- Zero waste goal for the bay
- Better signage about recycling / trash disposal
- Devices to prevent pollution on the street from getting into storm drains
- Garner public and elected official support for non-visisbile pollutions (go beyond litter)
- Create a citizen coalition to maintain drains and other pervious structures
- Work on making all new development LEED certified
- Monitor and maintain existing infrastructure

Medium Term (Immediate – 2-5 Years):

- Bond Tax so we can accelarate Biscayne Bay Action
- Use canals as 'water scrubbers' using mangroves and natural filters - Pump flood water in, filter, clean water comes out
- Storm Drain Grates to keep trash out of the drains
- Clean up existing 'Nutrient' hotspots by updating technology
- Create North Biscayne Special District to create habitat restoration, and provide incentives for coastal construciton with funding for maintenance
- Fund sewer infrastructure rebates for homeowners to switch from septic to sewer
- Address canals as large sources of pollution
- Ban plastic bags in all of Miami Dade County
- Dredge contaminated sediment from existing canals and bay
- Better Wastewater treatment - no more leaks and spills
- Public awareness campaigns about waste
- Debris capture devices at storm drain outfalls to capture / collect pollution and debris
- Increased regular water quality sampling of Bay
- Mandates at state level with dedicated funding
- Fund sewer infrastructure rebates for homeowners to switch from septic to sewer
- Distributed demand reduction for wastewater - private subsidy
- Develop a cooperative effort to foster research that documents the effectiveness of stormwater solutions with every possible opportunity

Medium Term (Immediate – 2-5 Years)(cont.):

- Create 'smart stormwater' system using sensors, analysis and data (determine when pollution controls are getting full)
- Debris capture devices and cleanup in canals (ie, Mr. Waterwheel)
- More trains and public transit
- Create a report card of progress including Miami Coalition
- Promote living shorelines for seawall repair, Make prefered permitting alternative, remove living shoreline implementation barriers
- Living shorelines with oyster reefs
- Seagrass and mangrove restoration
- Collectively request state and federal funding to implement solutions
- Establish Biscayne Bay Restoration alliance / council like Indian Lagoon to fund and coordinate
- Re-write construction code, gov policy, and tax benefits to forsee and prevent future issues
- Work with private sector and academics to develop and test new infrastructure designs
- Implement an ecosystem and economic value formula to define budget guidelines and appropriation
- Evaluate how frequently storm drains should be cleaned (some need more frequent cleaning than others)
- Prioritize retrofit schedule
- Conduct a study to quantify the cost of marine debris to the local economy
- Algal Turf Scrubbers for canals to remove nutriants from waters before they go to the bay
- Biscayne Bay monitoring and observing
- More catch basins to keep debris from entering the bay
- Tax on carbon pollution
- Map all Stormwater infrastructure and outfalls

Long Term (Immediate – 10 Years)

- Implement living shorelines mandate for all SLR and outfalls of stormwater
- Eliminate septic tanks and connect to sewer
- Sanctuary Oyster Reefs (not living shorelines) for nitrogen reduction, water quality improvement, phosphorus sequestration, and habitat creation
- Draining infrastructure improvements with water quality treatment
- Water treatment plant upgrades so not doing deep well injections
- 10 year specific and measurable targets to reduce debris and chemical pollution in the bay
- Establish regional water quality goals and pollutant reduction targets
- Work on making old infrastructure greener and environmentally friendly
- NGO / P3 buyouts and land swaps for vulnerable corridors
- Tax violators and polluter

Breakout Group #1: Infrastructure (cont.)

Long Term (Immediate – 10 Years) (cont.):

- Implement stormwater, wastewater, solid waste strategies
- A recycling plant with capacity to process South Floridas recyclables
- Use technology to improve water quality of storm water discharge
- "Save our Biscayne Bay" plan - Remove pollutants, reduce pollutant loading, restore ecosystem, monitor results and adjust
- Smart devices to monitor / control systems

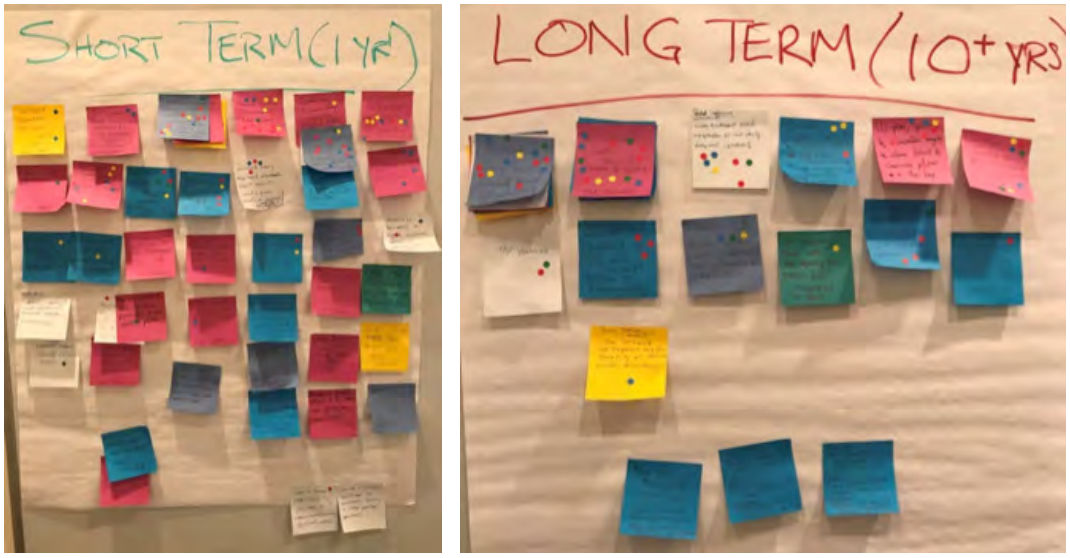


Figure 1. Some results from the Infrastructure Breakout Group post-it note interactive exercise

Breakout Group #2: Government and Governmental Policy

Bay Harbor Island Mayor Leonard, chair-elect of the Miami-Dade League of Cities, gave a brief presentation of what one city can do and is doing.

Consensus Priorities at the Conclusion of the Discussion:

1. Support for Biscayne Bay Restoration Initiative (BBRI)
   a) greater municipal involvement
   b) participation in BBRI working groups
2. Support NOAA's Florida Marine Debris Reduction Guidance Plan (FMDRGP)
3. Address Pollution Sources to change outcomes of current policies/practices
   a) Call for governmental policies review
   b) Review standards for bay pollution and develop standards as needed.
   c) Support greater enforcement
4. Support consumer education campaign

These priorities were presented at the concluding session of the Summit and received overwhelming support including:

1. Greater recognition of the problems in Biscayne Bay
2. A commitment to do something about them
3. Support for on-going Summit Coalition efforts.

Looking at a timeline for implementing recommendations, the group identified the following:

1. *One Year*
   a) Update the Biscayne Bay Economic Impact Study; commit to a source of funding for permanent up dates
2. *Five Years*
   a) Implement the NOAA Florida Marine Debris Guidelines
   b) Re-engineer Miami-Dade Water/ Sewer System
   c.) Institute comprehensive monitoring and assessment program
   d) Implement pro-active enforcement of a fertilizer ordinance
3. *Ten Years*
   a) Inspire the Youth/the next generation to support environmental stewardship
   b) Actual, physical improvement in the health/water quality of Biscayne Bay.

Breakout Group #2: Government and Governmental Policy (cont.)

The "Big Ideas" discussed included:

1. Sources of Pollution
2. Awareness of the Problems
3. Collaboration among stakeholders
4. Development of a 10 year action plan

Priority Setting Exercise

During lunch, prior to the break-out, attendees were asked to post stick-em notes on the sheets for the four break-out sessions identifying important issues. At the beginning of the Government break-out session, participants were asked to place up to five stickers to vote on/prioritize the various ideas.

Those specific ideas receiving the most support (not in priority order) included:

1. Increase solid waste fee and designate specific for street maintenance and storm drainage cleaning
2. Ban plastic, specifically plastic bags
3. Utilize Parks Dept. to manage spoil islands
4. Establish a citizen-led sustainability committee
5. Implement Septic tank inspections
6. Close the FPL cooling canals; install cooling tower instead

Other specific ideas which received the next level of support included:

1. Restore funding for Biscayne Bay long-term water quality monitoring
2. Ban plastic bags in Florida
3. Investigate Nashville's Adopt-A-Storm-Drain program deploying volunteers to adopt various storm drains to facilitate regular cleaning.
4. Fund infrastructure cleaning (storm drains)
5. Develop nature-based living shorelines at water front parks instead of seawalls

Ideas which received some support included:

1. Commit to zero trash through storm drains by 2022 and have (Miami-Dade) infrastructure develop a plan for how to implement
2. Educational recycling campaign
3. Ban un-encapsulated foam docks county-wide
4. Classify trash as "nuisance" would then require mitigation under the Clean Water Act and trigger other regulatory requirements
5. Establish a mechanism to preserve institutional memory and educate future generations of citizens and activists about historic battles to protect resources, battles that have been won and lost.
6. More funding for trash clean-up
7. Require use of best practices during licensing/ permitting process.
8. Instead of fines for civil infractions, encourage community service/highway cleanups
9. Ban shark hunting and fishing
10. Place tags on all lobster and crab traps

In conclusion, *Group 2 had a robust, well-attended session, with a strong consensus for the priorities reported to the general final session. It would have been nice to have had more time.*

Breakout Group #3: Research Needs

The ideas developed during the meeting were separated into four main areas: research needs, remediation, monitoring, parking lot.

List of Research Needs:

- Toxic algae tie to human diseases
- Water circulation (e.g. flushing time, residential time)
- Real time monitoring stations for temperature, salinity, nitrogen, oxygen
- Surface chemistry data
- Ground water monitoring (water flow and chemistry)
- Emergent contaminant
- Impact on wildlife : physical (e.g. from marine debris), chemical (contamination with toxins and antibiotics)
- Physiological impact and food web structure
- Identify Miami River input and output in order to understand budget
- Identify surface and ground water input
- Weather monitoring stations for wind data
- Non target analysis (to generate a list of contaminants)
- Identify pathogens
- Address inflow offshore (to asses impact on coral reef)
- Data mining of existing dataset

List of Monitoring Ideas:

- Identify biomarkers
- Identify Impact of pollutant on marine life
- Identify markers of ecosystem metabolism
- Identify targets
- Needed social scientist
- Monitoring debris (microplastic)
- Monitoring related to sea level rise: sediments elevation table, tidal cage, flooding variability
- Monitoring fisheries and nursery habitat
- Monitoring seagrass loss
- Monitoring mammals, turtle, birds
- Identify restoration goals

List of Remediation Ideas:

- Look for existing filter in the market

List of Parking Lot Ideas:

- Management plane for Loss of coastal habitat

Breakout Group #3: Research Needs (cont.)

List of Ideas that were considered priority:

Research Needs:

- Toxic algae
- Water circulation
- Real time monitoring stations for temperature, salinity, nitrogen, oxygen
- Ground water monitoring
- Data mining of existing dataset

Monitoring Ideas:

- Seagrass loss
- Microplastic
- Restoration goals
- Fisheries and nursery habitat
- Impact of pollutant on marine life

Breakout Group #4: NGO, Non-Profit and Educator

Purpose - To collaborate in determing the ways NGOs can help prevent or reduce marine debris from entering into and harming Biscayne Bay, or participate in cleanup activities

Objectives - Generate a set of short, medium, long term goals to inform a comprehensive 10 Year Action Plan

Activities - Discuss, Brainstorm Goals, Voting to Prioritize, and then categorize goals according to the timeframe in which they can be completed

Organizations Represented:

- Florida State Department of Environmental Protection (DEP)
- Miami Water Keeper
- State Park/Bill Baggs
- FIU
- Artists
- UF FL Sea Grant, Biscayne Bay Water Watch
- Biscayne Bay Aquatic Preserves
- Mast Academy
- Tropical Audubon

What's going well?

- Artists are getting engaged in the conversation, spreading information, recycling materials (marine debris) as statement pieces
- We are reaching out to certain communities (+) but leaving others out
- Wide range of educational materials available and local events
- Training Programs (teach the teacher)
    - Everglades as a teacher program
    - Miami Waterkeeper has a Jr. Water Keeper Program
- Grants funding available for new projects

Challenges/Areas of Improvement

- Lack of knowledge in the general public about BBMH issues (especially among new residents, tourists)
- Challenges within the school system to introduce children to the issues
    - Limited opportunities for field trips
    - So much emphasis on testing requirements
    - STEM education
    - Programs that meet these two criteria are prioritized

**Opportunity for us to develop trips, curriculum, presentations, learning opportunities that satisfy STEM requirements or testing skills*

Prioritized Initiatives:

- Focus on engaging diverse communities, not just the environmental groups
- Need for broad PSA, awareness, marketing campaigns
    - Target visitors at coastal, public parks with brochures/literature that speak to these specific issues (marine debris, pollutants, dumping)
    - Billboards, viral pictures (liter shaming) on social media
- Declare State of Emergency to restore Biscayne Bay
- Find ways to integrate environmental education into schools
    - As part of community service requirements
    - Make curriculum meet STEM requirements
    - More funding for field trips
- Garner support for policy decision to reduce nutrient loading into the bay
- Many other issues were put on sticky notes, but were not prioritized

We were limited in time and there were other ideas worth exploring in more detail eventhough they did not get the "most votes.

11. Memories


BBMHS - BISCAYNE BAY MARINE HEALTH SUMMIT 2017
Biscayne Bay
Marine Health Inaugural Summit
Creating Solutions Through Collaboration, Education & Innovation
FIU
Institute of Water and Environment
NOAA
Steve Sauls
VOLUNTEER CLEANUP .ORG
OPPENHEIM ARCHITECTURE
Kingdom of the Netherlands
PATHMAN LEWIS LLP
Event Visions
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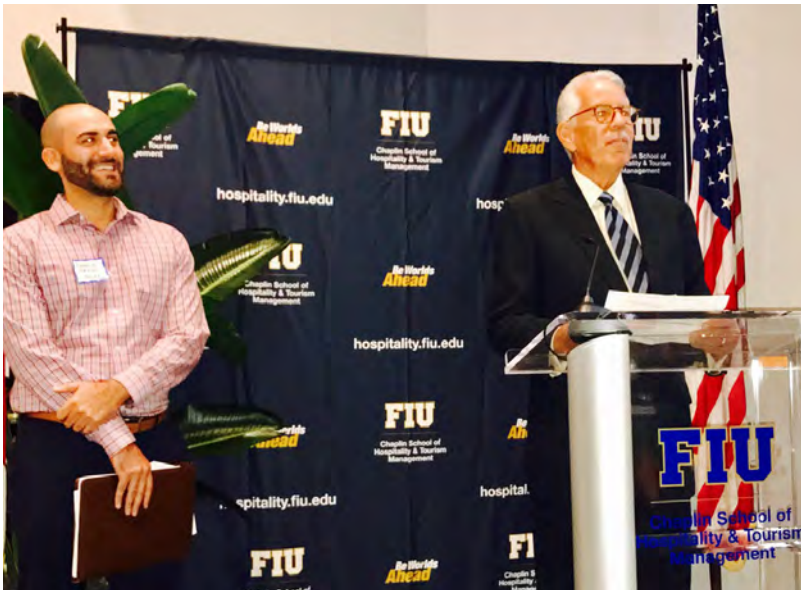
FIU
Re Worlds Ahead
hospitality.fiu.edu
FIU
Chaplin School of Hospitality & Tourism Management

FIU Institute of Water and Environment
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