

## Nov 14 2018 - BBRRCT Meeting Summary

Welcome - Everingham

(on the line) Gary Milano, Troy Hill, Melody Hunt, Sarah Bellmund, Joan Lawrence

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Marine Health Summit Update - Luis Rodrigues & Emilio Lopez w/ water Pollution Biscayne Bay

- Summit statistics
- Issues > seagrass, litter in biscayne bay from sewer
- Summit report - 10 yr action plan water quality assessment
- Funding through private company: update at the end of the month
- Improve health of Bay for tourism
- Develop policies and incentives

Miami Dade County + SFWMD > to integrate goals of task force

Emilio Lopez

- Clogging storm drains > blowing debris into it / oil clogging
- Filters being made to keep litter out
- Next Summit: "Action Summit"
  - Action items & action item owners for accountability and updates

Phil Everingham: we are limited as this group cannot recommend as BBRRCT, but can recommend to Working Group and in our individual chains of command.

- Tom: Make more places recycle, litter found in the water, businesses would like assistance in recycling

Carrie: Pilot storm drain project helps w/ litter but not chemicals/nutrients. What can we do about reducing the nutrients - should there be something specifically incorporated for that?

- Action on it - quantify, measurable solutions to reach goal
- Goal is a healthier Bay
- Joan: What comes out of the goals? (Spoke to Wolfe/ Antonio Avila) what happens when the control gates open? Any cleaning strategy ideas? Different strategies for different areas.

Craig: Does water management collect trash before they open? I don't know. District operation is responsible. Several gates are also operated by the county.

- Carrie: Does the county clean the floating debris?
- Craig: City of Miami barge created but I don't know if it's still in operation.
- Dan: Ask Fredrigo Hernandez directly

- Joan: Pilot study or machine
- Dan: Miami Beach Plastic free worked! If 3rd part is agreed on

Dan & Tom: Hemp + Corn based plastic can be recycled many times.

- Tom: Luis and Emilio send PPTX to Carrie. Action item list.
- Carrie: Biscayne National Park could be a partner for tours and pre-events
- Luis Rodrigues - received first grant of City of Miami for \$15,00
- In need of Committees and members
- Carrie: Prepare email w/ action action items to Tom for team. When do you want to hear back? And list of committees. 2018 initiatives and summit ideas.
- Craig:
  - With regard of the time of the next summit. Every year Biscayne holds a month long celebration by Miami-Dade County in March- April. Whether or not interest would be there to combine or become a part of it from both parties.
  - Action item relating to water quality. Make them more actionable.
  - Downfalls are located - could you ask each to report back which is the most impaired / polluted basins. Updates on worst drains to track progress. Under DEP if they concur on ranking of most contaminated areas and specific drains.

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Shimelis Dessu & Dr. Rene Price (FIU) - Effects of Sea level rise + freshwater management - Florida Coastal Everglades

- Freshwater Flow (everglades) restore flow
- Sea level rise challenge

Rodrigues: Ave elevation in FL Bay 9 cm. 4 inches above sea level currently.

- Joan: Sea level @ Key West used to compare.
- 13 cm annual sea level rise from 2001-2015
- 10 cm increase in lowest monthly sea level (dry season)
- Salt water rising above fresh water ground level
- Salt water coming in if freshwater is not pushed and increased.
- Sea level above (May)
- Joan: Current in Key west carried water far. Would currents be a factor?

Dan: How much did sea level jump? - 10 cm (dry season)

- Joan: Where did you measure the salinity? - SRS4 right after freshwater right before brackish water

- Dan: How many miles from coast 14 kilos?
- Joan: (Shark River)
- Craig: is it in the mangroves? - Yes
- Dan: 9 milles. Wow.
- Carrie: Salty 30% of the time.
- Dan: it is diluting now
- Carrie: NT Measurements

Sara: When wilma 6-7ft of water blown. It took 6-7hrs. to come back. Water nutrient and sediment changed dynamic. Almost to intercoastal. Effects - check elevation stations

- Soil dynamics - where is the source of nutrients
- Dan: will 30% kill the fresh water and turn it into salt.
- it is possible there is enough fresh water being provided to combat the salinity but we do not know for sure the outcome.
- Joan: Key west water level decreasing? Why?

July before May reduce salinity. Freshwater delivery earlier in dry season.

- Emilio: existing instruments adequate to provide data on new changes - although more data might be needed
- Joan: Central FI Bay?

Rene: Freshwater done though EDEN (USGS) waterhead in key west

- Taylor Slough vs FL bay different systems
- New tool PRIME developed in SRS for groundwater flow pattern and seal level tracking
- Over 37km - Taylor Slough

Freshwater appears to be increasing but sea level is catching up. (cross site annual status map)

High salinity during 3 month lag end of dry season (calendar year)

- Future work - compare long term trends with costal ever and timing differences

Emilio: what is missing? -Data analysis, monitoring, money?

Rene: long term 16 years data needed (daily preferred, Monthly is ok).

Sara: Troy is doing inventory data looking at inflow + downstream effects. Data based on YSI water pressure. Water level + sea level data lacking in the Bay

- Key west data usable as a comparison site
- Most important data comes from not moving the sensors- if the sensors are moved we need to know by how much- so calculations can be made to calculate for the distance

Rene: use virginia key and Bay salinity

- Water management marine 52 salinity points. Coastal site salinity

Tom: Real time measurements

Dan: Saltwater brings Phosphate - TP in lake Okeechobee - is there much more than salt water giving us - depends on how close you are to the lake.. After treatment and cleaning how much phosphate is in the salt marine. Salt water is worse than clean fresh in Ever + Shark

Craig: Phosphorus released in salt or brackish over time from sediment. Not brought in by the water.

Rene: Studies show low level - chloride 100 mg dissolves phosphorus. Ground mixing has higher levels of phosphorus. Disorption predictions.

Dan: Dug up 4mill put in 300 years - grass all died due to limestone placed in litigation site. Raw limestone in salt water system crash in canal.

Craig: water levels in wetland in marsh. When sea level rise expect ground surface nearshore to as well? - does level rise near coast relate to sea level rise. How much does ground level rise in unmanaged system? Ground water to sea level rise. Difficulty in predicting changes. What does the data show

Brackish - sea + freshwater go together. Fresh SRS - ground higher in fresh - sea did not get all the way in

- Brackish site - going up more with sea level now than before

Carrie: 1:1 ratio? Well more like a 1:1.2 - Surface with sea level depends on pit layer. It is higher in coastal than inland areas. More compressed

- 2008 - 3 briefings - fight sea level rise
- USGS - downscale for sea level rise - explaining jump. District

Sam Davis "True Value of wetlands"

- Agency has less communication with Non-Gov agencies
- Lacking communication with National Parks

FL fact sheet - last slide [Dogwoodalliance.org/interactive/map](http://Dogwoodalliance.org/interactive/map)

Tom: Submerged wood increasing?

Sam: No. It is a niche market, imported-deported

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Approval Letter = Carrie Beeler

- Added a recommendations and corrected typos. The team was in favor of forwarding to WG Chair
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Carrie: Nov 28 WG and SCG meeting. Agenda years priority independent science review.

- End of Jan Task Force meeting

Tom: Finally one month pre booked. 3 speakers spots filled ahead of time, 1 spot open.

FPL - Nuclear plant - Against clean waters act. Order argument Dec 4th 8:30am-4:30pm City of Homestead.

Dan: Gov and State rules on marketing water management

- Funding and passed things but water quality concerns.
  - Feeder streams being removed that is not full at all times. 70% protection of rivers not running full time nationwide being removed.
  - Stop Blasting sediment and taking it in chunks
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