CRY OF THE WATER

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November 17, 2008

Comments to U.S. Coral Reef Task Force November 2009

Dear Task Force Member

Thank you once again for the opportunity to send advanced comments to the members of the Coral Reef Task Force. These comments are for the members and the steering committee and we ask that they not be posted to the web. We will be giving public comments at the November 3 meeting and if there is opportunity for posting we ask that those comments be the ones posted on the web. These comments are intended to give a stakeholders perspective of the issues involving coral reef management in Southeast Florida. These stakeholder perspectives are often not included in reports delivered by the agencies. Below are several reasons we are looking forward to the change under the new administration.

On June 25, 2009 we released a Reef Damage Report for the Staghorn Ledge off Ft. Lauderdale, FL. (see attached report) We discussed this report during the USCRTF Education and Outreach working group conference call that same day. The attached report contains photos of the damage and links to videos on YouTube.

We have found out that the reef damage on Staghorn Ledge was caused by a recruitment study funded as part of the mitigation for a prior coral reef injury at Hillsboro Inlet. The recruitment structures that caused the damage on Staghorn Ledge were part of a 3-4 year project on recruitment put down by NOVA Southeastern University. After sending out our report to the agencies we were told that they did not need a Florida DEP permit because it was being done under the Consent Order. After talking to other agencies we learned that they should have obtained a Broward County License and an Army Corps permit. This is important because the Army Corps permit would have addresses the stability of the arrays and may have triggered review by some of the federal agencies. This may have also mandated better monitoring of the project.

A Florida Special Activity License (SAL) # 06-SRP-980 issued from FWC makes little mention of the structures but instead highlights the allowable take of 300 coral samples with a hammer and chisel off various coral communities in the area. There is no prevision for monitoring the impacts of chiseling pieces out of the corals or to learn if the host colony survived or was negatively impacted in any way.

This is the same high coral cover area that we have been reporting bleaching, diseases, green water events, excessive amounts of cliona and poor water quality for years. We received little help from the Southeast Florida Coral Reef Initiative (SEFCRI), the Florida Coral Reef Conservation Program or NOVA. We have been reporting our

findings to the names above and the SEFCRI TAC and we were told to go out and find funding and do it ourselves. Over the years it was Cheryl Woodley and Esther Peters that gave us help and a place to report some of our findings.

We did not understand the local reluctance to address the health and problems in the area with the highest coral cover and diversity including the field of Staghorn. We now have to ask that maybe their reluctance was due in part because they wanted to conduct projects in the area, such as this recruitment study and the proposed multimillion dollar Staghorn nursery that would take corals from the same reef.

This is very alarming that the disease work has not been done and they are talking about moving corals around. The only disease work that was conducted in the area that we are aware of, is the work we did with Cheryl and Esther at the Staghorn location. We believe that the Disease Consortium should receive more funding to better understand these diseases before removing corals from this heavily impacted area. On any dive to this area we can find Staghorn being affected by bleaching or diseases. We feel that it would be irresponsible to move corals any significant distance without first understanding the diseases affecting the area. If Staghorn is going to be moved around this reef adequate monitoring must be put in place. Proper permits must be attained so that there can be independent oversight of the nursery project. The nursery project must be handled better then the recruitment study.

Through our work with SEFCRI we have been asked to report high quality reef areas. We went to other long time divers in the area that we have worked with for years and asked them for GPS marks for their best locations. They asked us what we were going to do with the marks, when we told them we were going to give them to SEFCRI they said no. We now understand their reluctance to give the locations after we have seen what is being done in the best area we reported. We have other locations of large monument corals, pillar corals and Staghorn and Elkhorn but we too are now reluctant to share these locations, if they are only looking for locations for projects and not going to address water quality and diseases.

It was Alison Moulding of NOVA Southeastern University who held the Special Activity License # 06-SRP-980 for the recruitment panels that caused the coral reef injury on Staghorn Ledge. This is of particular concern since she has been chosen as the contractor for Maritime Industry and Coastal Construction Impacts (MICCI) Project 27,47,48; develop guidelines for future monitoring of permitted coastal construction and mitigation activities. Earlier as team members on the project we raised concerns that awarding of a no-bid contract to NOVA may be a conflict of interest because many of the projects being reviewed were monitored by NOVA. Including a number of which were being done for the Broward County Beach Renourishment (Segment III). Segment III beach dredge and fill caused extensive adverse impacts and may require millions of dollars in additional mitigation. We felt that NOVA staff or other institutions that worked on projects being reviewed should be excluded for consideration on MICCI 27,27,48. This would give us true independent oversight. When the SEFCRI staff said that they did not see any conflict of interest we reluctantly agreed not to pursue the conflict of interest issue if an independent review panel was appointed to monitor the progress of MICCI

27,47,48.

In light of what we have learned about the lack of proper monitoring on this recruitment study we now wish that MICCI Project 27,47,48 had been sent out for bid and another contractor would have been selected. It seems that NOVA has received the most no-bid contracts for projects from SEFCRI and maybe we should look at this practice for projects in the future.

Another issue that just recently came up involves a press release by Florida DEP. Please see Florida DEP press release and our attached response.

We hope that you will find time to review the information and consider these matters when funding future SEFCRI projects.

After raising many concerns over the effectiveness of monitoring in the SEFCRI area we have been repeatedly been told if we did not like the way it was being done, to go find funding and do it ourselves. We have found a new partner and will be announcing 2 very exciting new campaigns at the U. S. Coral Reef Task Force meeting.

Thank you very much for your time and for giving us the opportunity to send in advanced comments.

Sincerely,

Dan Clark

Attachments:
Reef Damage on Staghorn Ledge
Florida DEP Press Release August 26, 2009
Cry of the Water and GCRI response to FDEP Press Release

Coral Damage at Study Site Ft. Lauderdale Staghorn Ledge

Report Prepared by Cry of the Water P.O. Box 8143 Coral Springs, FL 33075 954-753-9737

On June 10th and 11th, 2009 Cry of the Water dived the high diversity ledge off Ft. Lauderdale between 12th Street and 16th Street to check the condition of this reef. There has been a significant change in this reef over the last 2 years including bio-erosion, cliona, cyanobacteria, bleaching, diseases, algae and the largest area we know of containing Ten-ray star coral (*Madracis decactis*) has lost many of its colonies.

The most disturbing change was finding a section of the reef we reported to the agencies has become a study site that damaged the reef. This large area has many manmade structures that appear to be abandoned and are damaging the corals. Large 10 panel (recruitment?) pads can spin freely on a single rod and are banging into the corals and damaging them. Panels can also pivot up and down on the single rod, hitting the corals in the current and surge. Some of the panels are shading coral. There are many of these panels in the two separate sections of the reef we were diving. Many panels are damaging this high coral covered area. We have to wonder how some of these panels were installed since there is no place to stand around all the coral mounds.

This is one of the few remaining areas in Broward County that has not been impacted by a dredge and fill project. Large Montastraea covernosa corals can be seen competing for space in this last remaining high coral cover / high diversity nearshore area left in Southeast Florida.

We would like to know if there is a reason in the methodologies or experimental test plan for the panels to be touching the corals. Are each of the panels mapped and photographed over time?

As reported to Florida DEP in May 2009 comments, there are problems with the health of this reef. Abrading and damaging corals in this area will leave them open for the introduction of diseases and boring organisms, further degrading the health of individual corals and the overall health of the reef.

This is on official request for the information listed below and response to our concerns

- We would like to know how many structures have been placed and who is responsible for this damage.
- Is there a permit for these panels? We are requesting a copy of it.
- Is there monitoring and maintenance of the panels and who is responsible?
- We are asking the agencies to have the panels removed that are touching and damaging the corals. Photo should be taken of the corals being abraded and those corals should be monitored to see if there are long term impacts. This area has an alarming amount of cliona and we should see if cliona colonizes these damaged areas or if diseases infect them.
- Secure the panels that moving freely.

We are in the beginning of hurricane season and move damage can be expected with any wave action.

Video of coral damage can be viewed at http://www.youtube.com/watch?v=HhYBDuyNIV8
Video of the current health at this location can be viewed at http://www.youtube.com/watch?v=GUCt7NE7kZA

AREA DOCUMENTATION

Cry of the Water first documented the high percentage coral cover and Acropora cervicornis area on the nearshore ledge off Ft. Lauderdale to save them from the destructive Broward dredge and fill project. At that time the EIS for the project said that there were no significant resources in the area.

The 2002 video tape Broward Nearshore Hardbottom Threatened by Dredging was created as the first video record for documentation of the rich marine resources in this area.

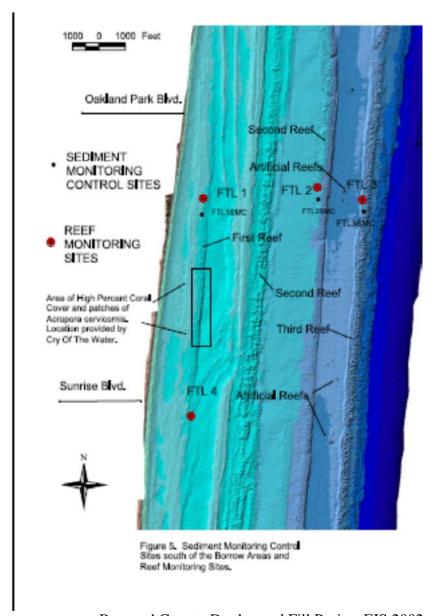
This video was sent to many local, state and federal reviewers and we asked that it be made part of the official record for the Broward Beach Project. DVD copies are available of the original video tape from Cry of the Water at reefteam2@yahoo.com.

As a result of this video a new Draft EIS, mapping and surveys of the area were required for the Broward County Beach Renourishment Project.

Although we reported high cover in the area from Sunrise Blvd north past the 3 nearshore finger ledges (just south of Oakland Park Blvd.) only a small section of the reef was highlighted in the EIS Figure 5. (See attached) This area also contained the Ft. Lauderdale field of Staghorn along with Staghorn colonies throughout the area, ancient monument and large pillar corals. Apparently the scientific community agrees that this is a special area in Broward County since several monitoring and experimental stations

have been set up at these locations. Stations can be easily spotted by the cinder blocks, metal cafeteria type trays, sediment bottles, stakes and/or markers.

There is in fact many sections of the nearshore area north of Port Everglades past Lauderdale-by-the-Sea pier that were not included in the EIS Figure 5. Much of the area behind Guilt Ocean Mile has just as valuable reef as is seen in the 12th to 16th Street area.



Broward County Dredge and Fill Project EIS 2002



South grouping of Panels June 10, 2009



South Grouping of Panels



South Grouping of Panels June 10, 2009



South Grouping of Panels June 11, 2009



South Grouping of Panels June 10, 2009



South Grouping of Panels June 10, 2009



South Grouping of Panels June 11, 2009



South Grouping of Panels June 11, 2009



South Grouping of Panels June 11, 2009





North Grouping of Panels June 11, 2009

FOR IMMEDIATE RELEASE: August 26, 2009

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THREATENED CORAL THRIVING OFF THE COAST OF FORT LAUDERDALE

BEACH

~DEP partners with local and federal agencies and scientists to demonstrate how staghorn coral is thriving in southeast Florida~

Fort Lauderdale Beach –The Florida Department of Environmental Protection's (DEP) Coral Reef Conservation Program (CRCP), the Broward County Environmental Protection and Growth Management Department (EPGMD), the National Oceanographic and Atmospheric Administration (NOAA), and the National Coral Reef Institute (NCRI) announced today that staghorn coral (*Acropora cervicornis*), a federally designated threatened coral species, is thriving off the coast of Broward County.

"There has been a steady decline of staghorn coral throughout the Florida Keys and the Caribbean," said Lee Edmiston, Office of Coastal and Aquatic Managed Areas (CAMA) Director. "So we are very fortunate to have one of the largest and healthiest remaining staghorn coral stands in Florida, right off of the beaches of Fort Lauderdale."

Since the late 1970s, staghorn and elkhorn (*A. palmata*) coral populations have declined up to 97 percent in the Florida Keys, Dry Tortugas, Belize, Jamaica and the U.S. Virgin Islands. Researchers identified poor water quality and white-band disease as the primary causes for this large-scale decline. This unprecedented loss led to the listing of both species as threatened under the U.S. Endangered Species Act (ESA) in 2006. The increased awareness generated by the ESA listing has resulted in more divers taking note of colonies they see and reporting them to scientists and resource protection agencies.

Today's tour follows the recent enactment of the Coral Reef Protection Act, which went into effect on July 1, 2009. Passed during the 2009 Florida legislative session, the law increases protection of Florida's vulnerable coral reefs by raising awareness of damages associated with vessel groundings and anchoring on coral reefs off the coasts of Broward, Martin, Miami-Dade, Monroe and Palm Beach counties. The law also authorizes civil penalties for the destruction of coral reefs and provides for efficient repair and mitigation of reef injuries.

"The persistence of such a large and healthy stand of staghorn coral off Broward County and the incredible assortment of marine life it supports is a testament to the biological value of southeast Florida's reefs," said Christopher Boykin with DEP's Coral Reef Conservation Program. "However, as the only known example of its kind in our region, this staghorn coral reef is also vulnerable to impacts from land-based sources of pollution, coastal development and climate change; underscoring the importance of doing everything we can to protect it."

While local, state and federal agencies are working together to protect Florida's coral reefs, residents and visitors alike can also help by implementing four simple tips:

- 1. Minimize the use of fertilizers, pesticides and herbicides which can contaminate groundwater and enter coastal waterways.
- 2. Dispose of household chemicals at designated hazardous waste facilities, which can be harmful to the environment if disposed of improperly.
- 3. Anchor boats in the sand or tie them up to mooring buoys to minimize damage to coral reefs.
- 4. Practice proper weighting and buoyancy when scuba diving, as having neutral buoyancy when diving prevents divers from being too close to fragile coral and prevents reef damage.

DEP protects the Florida Reef Tract through the work of the Coral Reef Conservation Program, the Florida Keys National Marine Sanctuary and several state parks. DEP's Coral Reef Conservation Program, housed

within CAMA, was established in 2004. CAMA also manages Florida's three National Estuarine Research Reserves and 41 Aquatic Preserves. CAMA's programs and activities are designed to protect Florida's most sensitive aquatic resources and help Floridians better understand and conserve these resources through research, education and preservation.

For more information on DEP's Coral Reef Conservation Program, visit www.dep.state.fl.us/coastal/programs/coral/.

CRY OF THE WATER AND GLOBAL CORAL REEF ALLIANCE STATEMENT ON DEP PRESS RELEASE ON CURRENT STATUS OF FT. LAUDERDALE CORALS

August 30 2009

DEP's press release highlighting exceptional Staghorn coral (*Acropora cervicornis*) reefs in Broward County implies that these reefs are new and are improving, when in fact they are long known and are currently declining. People seeing these reefs for the first time are not aware that they have deteriorated significantly since they were first described, the threats to them enumerated, and management plans proposed in the Cry of the Water / Global Coral Reef Alliance Report (T. Goreau and D. Clark, 2001, Reef Protection in Broward County, Florida): http://globalcoral.org/reef protection in broward count.htm. It is urgent that DEP immediately institute a comprehensive management plan for their protection.

The DEP press release and related newspaper articles paint a rosy picture of the current condition of this unique reef. On August 28 2009, immediately after publication of the DEP press release and newspaper articles, Cry of the Water divers again documented the current condition of the major field of Staghorn. Our videos show that coral health has gotten worse in the last month. Our video was shot on the same nearshore reef less than a mile south of where the press was taken (See Video at http://www.youtube.com/watch?v=oQDjX5Rkzbw and http://www.youtube.com/watch?v=ce2vjcC7mHk).

While Staghorn has spread and is growing in some patches, mass mortality is now underway in the major sections of the same reef. Coral die off is largely due to new diseases, bleaching caused by high temperatures, and *Lyngbya* (cyanobacteria) blooms caused by poor water quality due to sewage effluents to coastal waters.

Cry of the Water and the Global Coral Reef Alliance have provided DEP with photos and reports of diseases killing Staghorn and other corals on this reef for nearly a decade. The South East Florida Coral Reef Initiative Technical Advisory Committee (SEFCRI TAC) repeatedly told us that they were not monitoring coral diseases and we should find money to do disease assessment ourselves. With the assistance of one of the TAC members we were able obtain a Special Activity License to conduct an independent study. As we had no funding, Dr. Esther Peters, a leading expert on coral diseases, and our divers collected coral mucus, water, and sediment samples from healthy and diseased Staghorn and Elkhorn coral. These samples were processed and forwarded to NOAA. (see attached power point).

The August 2009 videos show a sharp increase in coral mortality, bleaching, and in recently dead coral caused by diseases. It is now the end of summer and the water is very warm. Year after year we have reported sharp increases in coral bleaching, diseases and overgrowth by Lyngbya blooms at this time of year. Our latest videos document that Lyngbya blooms are now found on the inside of the reef, smothering seagrass, and could expand into the Staghorn field, as we have reported in past years.

We are astonished by the claim "A few years ago, there was nothing out here, now its covered with coral". Anyone who has been diving in Broward County for the last 30 years knows that nearshore reefs are mere remnants of what they were. Staghorn and Elkhorn corals were formerly much more abundant than today. Cry of the Water has compiled diver statements and photographs of Staghorn and Elkhorn coral colonies in Broward County going back to the 1950's. The oldest divers from Dade, southern Broward, and Palm Beach County all told us that shallow inshore reefs where they used to lobster and spearfish were all killed by sediments—after dredge fill was dumped on the beaches, everywhere except this last

remaining segment. Extensive fields of Elkhorn are seen in photographs taken close to Anglers Pier in Lauderdale-by-the-Sea in 1957. The articles quote Prof Richard Dodge of Nova University (a major consultant for dredging projects) saying he "does not know why nearshore reefs in the Ft. Lauderdale area are doing better than other reefs". The reason is well known: Ft. Lauderdale has never had a massive beach dredge-fill project, unlike most of the rest of SE Florida.

No systematic coral reef surveys were conducted until AFTER nearshore reefs were killed by beach dredge-fill projects. Consultants and contractors failed to report coral reefs in dredging permit applications because it is in their client's interests to downplay coral resources that could be harmed. The first Environmental Impact Statement (EIS) for the Ft. Lauderdale dredge and fill project (Broward County Segment II) released in 1999 claimed that there was little or no coral in front of Ft. Lauderdale. Cry of the Water's surveys documented the highest density and diversity of corals and the largest field of Staghorn in Broward County in the same area reported by the dredging consultants to have little or no coral reef of value. DEP then approved plans to dredge and fill the beach in this last surviving nearshore coral reef. Ironically this was the ONLY place left in SE Florida where the original nearshore reef had survived because it was the only portion where the reef had not already been killed by beach dredge fill dumping!

After documenting this unique coral reef Cry of the Water was forced to file an Administrative Hearing to stop a million of cubic yards of poor quality sand from being pumped onto the Ft. Lauderdale beach right next to the last surviving inshore reef. The county was allowed to proceed with Segment III (South of Port Everglades to the County line). In Segment III we watched colonies of Staghorn and nearshore reef buried and smothered by dredge fill sand washed off the beach and onto the reef. The impacts of the beach dredge and fill project in Segment III have been far greater than predicted. The extent of coral burial and destruction along 8 miles of reef in Segment III can never be properly mitigated. The Staghorn colonies that were killed were just starting to come back after a previous beach project in the same area.

Reef managers are focused on recruitment and transplantation and not enough efforts are being focused on bleaching, diseases, water quality and sedimentation. If we do not address the fundamental environmental conditions that cause these corals to be killed, transplantation will be futile. Millions of dollars are proposed to be spent on transplantation, if corals are moved a significant distance it could spread diseases and do more harm than good. Broward County reefs need the same protection and management as the Florida Keys.