

April 28, 2006

Dear US Coral Reef Task Force members:

Please consider this document as official comment from the 2,800-member Broward County Sierra Club highlighting specific concerns with impacts to the South Florida coral reef system.

South Florida is home to the only living coral reef system in the continental United States. Our coral reef system plays a vital ecological and economic role in south Florida. While coral reefs only occupy 0.2% of our ocean floor, they are home to 25% of all marine life. Reefs also protect coastlines from erosion and provide sand for beaches. Florida coral reefs provide critical habitat for juvenile fish, thereby helping to sustaining healthy fisheries for the \$7 billion per year recreational fishing industry in Florida. The economic benefit to Broward County from reef related scuba diving and recreational fishing exceeds \$2 billion per year.

In spite of the environmental and economic value of Florida's coral reefs, human-induced impacts are threatening the long term existence of the coral reef system. It has been well documented that a large percentage of our reefs are dead or dying. There are a host of factors contributing to the rapid decline of our reefs. The more insidious stressors on our coral reefs include: point source sewage outfalls; beach widening projects; underground injection control wells; coastal development; and CO<sub>2</sub> related global climate change and ocean acidification.

While the impacts of global warming and related ocean acidification are best handled by capping CO<sub>2</sub> emissions via federal policy, the other stressors above are created locally and thus can be solved through changing local governmental behavior.

#### Sewage Outfalls

There are currently 6 sewage outfall pipes in Broward County, Miami-Dade and Palm Beach County that discharge over 300 million gallons of partially treated sewage every day of the year. The discharge is rich in nutrients, such as nitrogen, phosphorus and ammonia that lead to algae growth that smothers the reefs.

The link between sewage outfalls and harmful algae growth is undeniable. While the Florida Department of Environmental Protection insists on more studies, the reef system surrounding the outfall areas continues to degrade. A recent government funded study by Phillip Dunstan professor of Biology at the University of Charleston found that corals near sewage pipes are being negatively impacted.

Likewise, Palm Beach County Reef Rescue conducted a compelling private study showing a direct correlation between Delray Beach sewage outfall nutrient levels and damage to the Gulf Stream Reef. The reef, 1.5 miles down current and in direct line with the sewage outfall pipe was covered in deadly red algae blooms. Yet, the Delray Beach

public utility claims that there may be other causes of red algae – although they haven't named any. There will always be a degree of uncertainty in any scientific debate.

Under the scientific precautionary principle, such evidence would have been enough to demand that local governments clean wastewater to tertiary standards – thereby eliminating harmful nutrients. Yet no action has been taken. Some have cited the higher cost of providing water as a disincentive to further treatment of the discharge. If a cost-benefit analysis were performed on the cost of raising water utility rates by several cents compared to the economic loss from a degraded or extinct coral reef system, the conclusion would inevitably be that increasing utility rates in order to save our unique coral reef resource would be economically advantageous.

\* We urge you to err on the side of caution and quickly advise the regulatory agencies that the practice of dumping partially treated sewage into our ocean is harming our reefs and should be halted.

#### Beach Widening Projects

Widening beaches by pumping sand onto shore is a costly, taxpayer-funded, unsustainable practice that destroys corals. Recent beach widening projects in Delray Beach and South Broward are two projects that killed corals by causing sand and sediment to settle onto the reefs. These projects are undertaken by dredging companies with inadequate governmental oversight to ensure compliance to turbidity standards and other environmental permit requirements.

Coastal development contributes to storm water runoff into our oceans. Impervious surfaces such as roadways, parking lots and buildings increase natural runoff rates. The runoff carries a mixture of dissolved substances into coastal waters. Moreover, outfall pipes from coastal buildings increase beach erosion by flushing sand into the sea.

We encourage the task force to recommend the following actions to local government officials in order to increase the longevity of beach widening project:

\* Broward County must add a sand bypass at Port Everglades. The Port Everglades inlet is acting as a dam, blocking the natural southward flow of sand from Fort Lauderdale toward Dania Beach and Hollywood.

\* Require beaches to add dune vegetation to retain sand and reduce erosion. The USDA has offered free vegetation and labor assistance with dune vegetation projects.

\* Discontinue future beach widening projects – and require that any such projects already permitted have some credible environmental protection enforcement mechanism.

\* Close coastal building outfalls in order to prevent beach erosion

May 2006 Public Comment: George Cavros & Pedro Monteiro

#### Underground Injection Control Wells

Broward County has the dubious distinction of leading the state of Florida in the amount of partially treated sewage pumped underground via Underground Injection Control (UIC) wells. The partially treated sewage is intended to remain confined under a “boulder zone.” Instead, many of the wells have detected migration into drinking water aquifers, and; recent studies have found a compelling correlation between UIC wells and nutrient pollution in our oceans. The lateral migration of nutrients to our oceans adds to an already nutrient loaded ocean – adding to stress on the reefs.

\* We urge the task force to consider recent studies on UIC well discharge migration and recommend action to phase out of such ecologically harmful wastewater disposal practices.

Thank you for considering the above comments. We look forward to working with the task force in making the long term survival of our coral reefs a reality.

Sincerely,

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