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TO: Daryll Joyner, Administrator
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FROM: Nicole S. Sharp, P.E.
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DATE: November 24, 2020

RE: Draft Coral Turbidity Criterion Implementation Document

The following document provides comments to the *Draft Implementation of the Turbidity Criterion for the Protection of Coral Reef and Hardbottom Communities* by the Florida Department of Environmental Protection (FDEP) dated October 2020.

1. The proposed change would affect a large number of coastal construction projects as it impacts any project in close proximity to hardbottom resources. Based upon the map provided (Figure 2), the range of counties and projects impacted include Pinellas County through Brevard County. This imposes a very strict limit on turbidity compliance to an expanded number of projects among many locations.
2. The dramatic reduction of the turbidity criterion may dictate that truck haul nourishments from clean, inland sources be the primary mode of beach nourishment in the effected Counties due to their low silt content. This would impose a substantial financial burden on the legislature as they are a large cost-sharing partner on these coastal projects.
3. The statistics of the turbidity seem to be focused on a short sampling period (over a few tide cycles). In order to truly understand each region's natural variability, it would best be measured over several seasons. Instead of taking a rushed approach, it is recommended that the Department conduct a regional study of seasonal turbidity standards within the impacted areas (including the nearshore zone) shown in Figure 2 of the document. While the waters of Broward County can be quite clear, the nearshore zone also can become quite turbid via passing frontal systems or storms or discharges from upland waterways and canals. In my opinion, as both a professional and resident of the area for over 10 years, I would not designate this condition as an outlier, rather the upper range of the natural occurring turbidity for the area.
4. In regards to the statement on page 8, "For instance, offshore south Florida was historically known for "gin clear water", this appears to be a statement of opinion and should be removed from the document if lacking factual support. As stated in comment 3 above, the waters off South Florida also have a proclivity to become turbid naturally.
5. Appendix A details the turbidity values (Table A-1) suggested by the Department for use if the permittee elects to not establish the natural baseline variability via data collection; however, the data presented within this table does not appear applicable for beach and inlet projects due to the following statement, " All turbidity data that passed quality assurance checks were included in the calculations, with the exception of data from stations within canals or within 200 meters of

shore, which were excluded from the analysis to avoid biasing the results.” As beach and inlet projects are located within this 200-meter range, the compliance value would be biased to a more quiescent state and would underestimate the turbidity criterion for the project, resulting in greater turbidity exceedances.

6. Permitted discharges, which can involve polluted fresh/stormwater, have the potential to impact corals and hardbottom areas on a more regular basis (both in duration and frequency) than coastal construction projects. The draft document goes into detail how coastal construction activities will be regulated; however, the process for regulating these discharges (listed on page 10 under ERP Program) are not detailed. These discharges also have the potential to smother coral reefs, speed the growth of damaging algae, lower water quality, impede coral growth and reproduction, and make corals more susceptible to disease.
7. Although informal discussions and/or workshops have occurred on the document, it is recommended that the document undergo a technical peer review by a broad range of professionals, including physical oceanographers, engineers, numerical modelers, and coastal zone managers within the areas impacted by the proposed criterion change.

While supportive of the need to protect regional hardbottom resources from impacts associated with turbidity, it appears that the criterion currently proposed is impractical and would result in negative operational and budgetary impacts to coastal construction projects throughout Florida.