

Herschel T. Vinyard, Jr., Secretary
Florida Department of Environmental Protection
3900 Commonwealth Blvd. MS 35
Tallahassee, Florida 32399

Dear Secretary Vinyard:

Below is a statement from several Coastal Scientists regarding the Florida Department of Environmental Protection (FDEP) memorandum dated April 15, 2011 entitled "Beach Program Improvements".

The undersigned coastal scientists represent more than 200 years of experience working on coastal science and management in Florida. We are dismayed at the recent attempt by FDEP to reinterpret many long-standing rules, practices, and policies for the permitting of beach nourishment projects along Florida's beaches.

The rationale to loosen permit conditions is not science-based and the results will decimate the "Sand Rule" leaving communities, property owners, beach users, and ecosystems unprotected and gravely threatened. We urge FDEP to immediately reconsider these changes and to work with the scientific community to develop adequate standards for testing borrow material to ensure that native beach quality sand is used and to ensure that Florida's beaches remain the important economic resource that they are. The revised interpretation is likely to "kill the goose that laid the golden egg".

Details:

Section 1) The new Sand Rule interpretation abandons the spirit of the Sand Rule which is to maintain a beach that is "similar in character" to the native beach. The memo argues that this general provision can be abandoned and that the borrow material need only meet the specific criteria listed in 62B-41.007(2)(j) which reads:

-shall be similar in color and grain size distribution (sand grain frequency, mean and median grain size and sorting coefficient) to the material in the existing coastal system at the disposal site **and** shall not contain:*
- 1. Greater than 5 percent, by weight, silt, clay or colloids passing the #230 sieve (4.0f);*
 - 2. Greater than 5 percent, by weight, fine gravel retained on the #4 sieve (-2.25f);*
 - 3. Coarse gravel, cobbles or material retained on the 3/4 inch sieve in a percentage or size greater than found on the native beach;*
 - 4. Construction debris, toxic material or other foreign matter; and*
 - 5. Not result in cementation of the beach.*

In our opinion, the key word in 62B-41.007(2)(j) is "and". The preamble is not a general provision overridden by additional specific provisions. It is specific and the contaminants described add additional specific information. The Rule clearly states that the "material" shall be similar in color and grain size distribution to the

“material” in the existing coastal system. AND, it may not contain the contaminants listed (1-5) as described. The new interpretation of the Rule would abandon the heart of the Rule and enforce only the items 1-5. This would permit all beaches in Florida to contain 5% mud and 5% gravel and the material could be of any color as long as the material doesn’t result in cementation. You could replace a white, sugar-sand quartz beach with a brown, carbonate dominated beach containing a significant mud fraction. It is hard to imagine that this is the kind of beach nourishment program that the people of Florida want or intended by Legislature under Chapter 161. In our opinion, there is no scientific basis for this change, and that this interpretation will result in beaches that are definitely not “similar in character”. The re-writing of the Sand Rule will have environmental impacts and long-term economic impacts as the quality of the material on Florida’s recreational beaches will go down.

Finally, the memo suggests that when evaluating a borrow area, the contractor need only examine the sand size fraction of the borrow material and not the bulk characteristics of all the components. Clearly, the intent of the Rule is to match the “material” not to match only the sand. This suggested reinterpretation is scientifically nonsensical and will result in disastrous beaches for Florida that will need even greater financial support to fix them. The State of Florida was the first in the nation to codify the need to ensure that the material placed on our recreational beaches be of high quality in order to preserve the economic and environmental vitality of the coast. This FDEP Rule re-interpretation abandons that statutory intent.

Section 2) Memo section two first states the obvious– you can’t do every study, but then narrows the ability of experts to comment on the design and impacts of a project. This section suggests that only engineering studies and engineering testimony be relied upon for finding of reasonable assurance. It should be made clear that many other disciplines are relevant to providing reasonable assurance that a project will not have impacts including: physical oceanography, coastal geology, marine ecology, marine biology.

Section 5) This statement is scientifically inaccurate and shows a lack of understanding of the term habitat and a complete lack of understanding of how a dredge and fill project operates. Benthic habitat is impacted and destroyed (at least temporarily) when borrow material is excavated. The suspension of fine sediments during this process can impact habitat surrounding the borrow area. Intertidal and benthic nearshore habitat is destroyed by placement of the borrow material on the beach and in the nearshore waters. The re-interpretation of the Sand Rule in this memo could result in the significant alteration of dry beach and dune habitat if there is a substantial change to the nature of the material. Finally, mobilization of beach fill can bury nearshore hard bottoms and coral reef habitat. The idea that, bigger beach = more habitat is inaccurate and unscientific to the extreme.

Section 6) This portion of the memo seeks to eliminate the need for a Joint Coastal Permit for any work upland of the Mean High Water Line (MHWL). Of course, this is the bulk of the recreational, dry beach. It is difficult to understand why FDEP wants to reduce oversight for the most critical portion of the beach? By this definition, one could carry out a de facto beach nourishment project of the upper beach without a JCP.

Section 8) We agree that monitoring has been a problem for beach nourishment projects. It is typically done on the cheap and results are typically ignored or rationalized away if a project doesn't behave as designed. Part of the problem is that the same firm that built the project almost always carries out the monitoring. For the sake of objectivity and transparency, a subset of beach nourishment projects should be monitored in great detail by an independent monitoring group .

Finally, state support for beach nourishment projects is largely driven by the determination that a beach is "critically eroded". We recommend that the process of designating beaches as critically eroded and the tools used in this process be described in detail and submitted for scientific review.

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