



Town of Surfside

9293 Harding Avenue, Surfside FL 33154

Sand Project Community Monitoring Committee Regular Meeting

**Wednesday, August 20, 2014 – 7:00 pm
Town Hall – Commission Chambers**

AGENDA

Committee Members

Joe Benton
Juan Borges
Lee Gottlieb
Marianne Meischeid
Jeffrey Platt
David Raymond
Scott Stripling

1. Call to Order and Roll Call
2. Recommendation on possible enhanced land development regulations specifically for Surfside regarding future sand transfer operations.
3. Other Issues
4. Public Comments
5. Thanks and Adjournment

Respectfully submitted,

Michael P. Crotty
Town Manager



Town of Surfside

MEMORANDUM

TO: Sand Project Community Monitoring Committee
FROM: Michael P. Crotty, Town Manager
SUBJECT: Final Meeting – Wednesday, August 20, 2014 (7:00 pm)
DATE: August 19, 2014

The final meeting of the Committee is scheduled for Wednesday, August 20th at 7:00 pm in the Commission Chambers.

The main topic (Agenda Item #3) for this final meeting is to provide recommendation(s) on possible enhancements to the land development regulations specifically for our Town regarding future development and resulting sand issues/transfer operations. The Committee and public are requested to come prepared to the meeting to identify specific proposals/regulations that should be considered to provide desired local control beyond the FDEP regulations.

We have asked our Special Land Use Counsel to research state law to determine specific authority the Town would have to adopt and enforce more stringent regulations than FDEP. Gordon Thompson has been in discussion with FDEP on this subject and will participate with the Committee on its deliberations. Also, Dr. Leatherman's information which was included in the August 18 meeting agenda package is enclosed.

Last evening, you were provided with report (copy attached) from George Kousoulas regarding his input on the August 18th agenda items. As the Committee considers Agenda Item # 3 it would be beneficial to include discussion on subparagraph "f" of his report which reads:

- f. Additional item: Creation of a Standing Committee on the Beach of Surfside** to evaluate and monitor all beach related regulations, improvements, and proposals, both public and private. The intent is to avoid future surprises, reoccurrences, and other actions that affect the beach. For instance, in addition to the sand issue, there are dune edge fence placement and Eruv pole placements that were not done with the greatest sensitivity or design oversight. These features and the benefits they provide could still take place but with better design oversight. A standing committee would be able to recommend design guidelines and monitor future actions so that our best physical asset-the beach-is always at its best.

See you Wednesday night at 7:00 pm.

Michael Crotty

From: Stephen Leatherman <leatherm@hotmail.com>
Sent: Wednesday, July 30, 2014 9:34 PM
To: Michael Crotty
Cc: flynnb@miamidade.gov
Subject: RE: Sand Compatibility

Michael,

Tim Kana's firm does many if not most of the beach nourishment projects in South Carolina and some in North Carolina. No helpful guidelines here.

Stephen

Date: Wed, 30 Jul 2014 15:41:40 -0400
From: tkana@coastalscience.com
To: leatherm@hotmail.com
Subject: Re: Sand Compatibility

Hi Stephen,

We hit a home run with the sand at Bridgehampton based on 55 borings (~1 per 12 acres) - "the beach 10,000 years ago."

To the best of my knowledge, SC hasn't codified a sediment standard - like NC did. But you can't get a permit from OCRM unless the sand is "compatible" and similar to native. We've never had any issues with that. As to color, we are not held to some 100% quartzite white standard given the admixtures of mineralogy and shells on the native beach, including significant percentages of mafics. Our 0.2 mm sand often looks muddy, but that's mainly because the majority of the subaerial profile is wet sand beach. The dry beach is generally pretty white because quartz is dominant and the shell material bleaches white. We also prefer coarse-skewed deposits or slightly coarser than native to give us better longevity.

In NC, you can put any sand size on the beach, but don't dare put mud or gravel that is 5% above ambient. That means you can legally place 0.1 mm sand (from, say, a bay channel) on Nags Head (0.4 mm). Watch that last!

Best,
Tim

On 7/30/2014 1:29 PM, Stephen Leatherman wrote:

Tim,

I understand from Aram that your beach nourishment project in Sagonack went very well.

I am working with the Town of Surfside in Florida, and they are interested in knowing what sort of standards are applied to nourishment material in terms of sand color and size. I would appreciate receiving information regarding the requirements for the State of South Carolina.

Many thanks,

Stephen

--

Tim Kana PhD

President

Coastal Science & Engineering

PO Box 8056

Columbia SC 29202-8056

803-799-8949 - Office

803-799-9481 - Fax

803-361-3583 - Mobile

www.coastalscience.com

Michael Crotty

From: Stephen Leatherman <leatherm@hotmail.com>
Sent: Thursday, July 31, 2014 4:32 PM
To: Michael Crotty
Subject: Sand Compatibility

Michael,

I talked with a number of beach managers and contractors (e.g., coastal engineering firms) regarding sand compatibility.

The two major beaches in Alabama--Gulf Shores and Orange Beach have no ordinances, just expectations that good, white quartz sand will be found and used for beach nourishment. It is really a cost exercise in terms of the borrow sites that are used--with the more distant ones costing much more money than nearby sites.

Pensacola Beach has undertaken two nourishments with another one forthcoming. They have strict guidelines on sand color:

Munsell Color Scale: 10 YR Hue, 9.25 Value, 0.5 Chroma

The value of 9.25 is off the scale for the Munsell Color Chart (e.g., the highest number is 8) so another chart termed the Munsell Nearly Whites Fan Deck is used.

There is no set grain size or grain size distribution that is specified, only that it nearly match the mean grain size on the beach (0.32 mm) and be well sorted with a range of 0.23 mm to 0.40 mm. Fines (silt, clay and organics) have to be below 2% by weight. Fortunately, there is great quality sand just offshore in large shoals and from Pensacola Pass, which washed off Pensacola Beach. Shell fragments/shell hash should be avoided in order to maintain the powder white crystalline quartz sand.

Best regards,

Stephen

TESTIMONY BEFORE THE SAND PROJECT COMMUNITY MONITORING COMMITTEE, TOWN OF SURFSIDE

August 18, 2014

To the Committee,

I thank you for all your hard work over the past weeks. I would like to comment on several of the items before you this evening and add an additional item for your consideration.

- a. **Agenda item 3, Final Review of Beach Sand Options:** Of the options before you I think the best are in order a) removal to an alternate location within the system or b) a combination of thin lift and till.

The combination of alternative (b) helps to ensure that a thin lift of less than 100% of the fill does not overwhelm the vegetation in the dune and that a tilling of the less than 100% of the fill creates a blend biased toward the sand. In any case before sand is lifted or tilled it must be thoroughly rid of debris.

The problem with a thin lift into the dune is that it is unlikely to be a regularly available solution. If the point of any thin lift is to not disturb dune vegetation, how can this be a solution to Chateau fill right on the heels of Surf Club fill.

- b. **Agenda item 4, Urging Resolution by Dr. Teaf:** I would go along with Dr. Teaf's input and, upon your satisfaction, with what he presents this evening. I would urge you to go with the maximum force of recommendation: since the final acceptance is up to FDEP, there is no point in communicating the intent of a recommendation at less than full volume.
- c. **Agenda item 5, Chateau Report:** The Chateau fill is of a similar magnitude to the Surf Club's fill. It will present us with the same issues as before. Given my reservations about "high lift" as a long-term solution (see 3, above), I urge you to strongly consider placement of Chateau fill elsewhere. This should be easier than you might think: the Chateau fill is currently stored off-site (in Opa Locka, I believe). It can be transported anywhere as easily as to Surfside (Miami Beach, Bal Harbour, a Miami-Dade stockpile, etc.).
- d. **Agenda item 6 Enhanced Regulations:** You should propose strong qualitative standards for future sand sources. At a minimum debris and contaminant controls should be rigorous. Sand characteristics should also be stronger. As we have seen, the difference between 7.5 and 6 in value (lightness-darkness) is significant, when you consider that the carpet below your feet is a 5 (halfway between white and black). Likewise, examination under a loupe showed an observable difference in typical grain sizes and hues, differences that were not distinguished by the gradations of the standards typically used.

I urge you to work with Dr. Leatherman to arrive at better standards. We should take a page from Pensacola. While we should not expect the Panhandle's white powder, we can stand up for the best standards for our beach.

Regarding land use standards, I would for example consider controls of excavation volume vs. lot area and off-site placement of fill vs. on-site retention. Some properties have made use of elevated pads behind their bulkheads. This should be seen as a first resort, not a last one.

This agenda item is complicated and may best be deferred to a new Standing Committee, see my item (f).

- e. **Agenda item 7 Martin County Sand:** While the samples will be interesting and a great preview of what is possible or likely, what can or should happen in 2016 or 17 will have to be revisited. Again, refer to my item (f).

- f. **Additional item: Creation of a Standing Committee on the Beach of Surfside** to evaluate and monitor all beach related regulations, improvements, and proposals, both public and private. The intent is to avoid future surprises, reoccurrences, and other actions that affect the beach. For instance, in addition to the sand issue, there are dune edge fence placements and Eruv pole placements that were not done with the greatest sensitivity or design oversight. These features and the benefits they provide could still take place but with better design oversight. A standing committee would be able to recommend design guidelines and monitor future actions so that our best physical asset—the beach—is always at its best.

FINAL WORDS:

Keep in mind that the reasons we are where we are that there was relatively little oversight into what was taking place: while the state's demands that sand remain near where it was found were adamant, the state's controls over how it took place were loose.

In the end we have a well intentioned state regulation that wants to keep coastal sand coastal, but cannot distinguish between the benefits of small amounts of sand and the negative impact of a similar amount of sand. The beach nourishment that took place in the 1970s involved several million cubic yards of sand. This nourishment created the beach we know today: all land from the hardpack eastward and in some cases even from the bulkhead eastward was underwater). The benefits of 20,000 cubic yards here, 20,000 there, maybe 100,000 cubic yards from ten conceivable projects is overstated. The detriment that one instance of 20,000 cubic yards from beneath an old building is clear.



George Kousoulas NCARB