

City of Treasure Island Beach Stewardship Committee

October 9, 2002

1:30 PM

COMMITTEE PRESENT: Robert Minning, George Greenfield, Sully Lowe, Barbara Blush, Dennis Velasco, Sid Rice, Don Hambidge, Rick Raus; Cliff Truitt, Coastal Tech;

PUBLIC: Tim Engle, Bill Parnell; Beach Restoration, Inc.

Chairman Robert Minning called the Beach Stewardship Committee meeting to order at 1:38 PM in the City Hall auditorium, 108th Avenue, Treasure Island, Florida.

1. The draft minutes of the August 14, 2002 and the September 11, 2002 meetings had been distributed prior to this meeting. Upon appropriate motion the minutes were approved as drafted.
2. Representatives of a firm called "Beach Restoration, Inc" had asked for time to make a presentation to the Committee on an alternative technology which they believe can provide a long-term erosion control solution without creating adverse collateral issues. Don Hambidge introduced Tim Engle and Bill Parnell who made the presentation. Tim Engle said that the firm has tried to maintain a scientifically based approach to problem solving and has a number of well known technical experts on its board including Dr. Michael Bruno and Dr. Kelly Rankin both with Stevens Institute of Technology. The goals of the approach are to provide a long-term solution, to minimize collateral issues, and to not be a 'drain' on limited borrow sand resources.

He indicated that their approach was highly customized to local conditions and not necessarily intended as an 'across-the-board' substitute for conventional beach fill. Some erosion situations may require the re-creation of a storm berm using offsite fill, perhaps in combination with their proposed soft-structure technology. Other situations might benefit from using just the structures. A basic installation would consist of several low-profile, sand-filled geotextile tubes placed below the water's surface to stabilize the existing beach and essentially flatten the effective slope of the nearshore beach. They indicated that the approach has the potential to accumulate sand and increase the width of the lower beach in many situations, but they typically tell clients that the most likely outcome will be stabilization of the existing condition against further erosion. Bill Parnell continued with a discussion of details involved in the pre-construction site data collection program, project design, installation and follow-up monitoring.

Committee members responded with a numbers of questions:

Dr. Greenfield asked how sand that might accumulate along the sides of the tubes would make its way onto the dry beach. The answer was that tides and mild wave action could move the sand up on the profile, but there was no universal claim that this would occur in all situations.

Sid Rice asked whether the tube was porous. It allows for the drainage of water during filling with the sand slurry, but once filled, it is essentially a solid structure. The effective sand “permeability” of an overall installation results from the low crest elevation of the tubes which allows for sand bypassing, not from any actual porosity of each tube. Mr. Rice questioned what keeps the tubes in place during storms and whether they might scour into the beach bottom. The response was that some settlement is expected and accounted for in the initial design. Filter cloth may be used under the tubes to reduce the settlement.

George Greenfield asked how the approach differs from the ‘speed bumps’ proposed by Holmberg Technologies. The answer was that this approach was more customized to each site vs. a ‘standard’ installation; the tubes can be oriented at angles to the shoreline (an ‘aspect ratio’) to increase their effectiveness; they are filled with sand rather than concrete; and, the outer layer of the tubes can be tinted to make them more aesthetically acceptable.

Dennis Velsaco followed-up on Mr. Parnell’s description of a post-installation monitoring program and asked if the tubes are subsequently adjusted in some way. Typically it is not possible to move a filled tube, but the monitoring might indicate the need to add or remove tubes from the overall installation. Discussion continued about the likelihood of sand accretion. Mr. Engle quoted Dr. Bruno as saying that a better way to view the issue would be that the tubes might increase a scheduled maintenance interval from maybe 3 to 5 years out to 8 or 9.

Discussion continued in general about installation costs, return on investment and possible cost sharing by FDEP under the Beach Erosion Control Trust Fund program. Mr. Engle said that the cost was a function of how many tubes, length of shoreline, etc., but a typical \$1,000,000 project might have net return on the order of 20 to 30% in savings from reduced sand maintenance. He closed with a summary, left written materials for the Committee and offered to follow-up on any questions they might have.

3. Don Hambidge reported on attending the Florida Shore and Beach Preservation Association conference. Among other items, he noted that he had met with the Corps of Engineers Project Manger for Treasure Island, Rick McMillen. Mr. McMillen discussed with him the progress on permitting new offshore borrow areas for the Pinellas County projects. Eight areas identified offshore have as much or more sand (~ 15 MCY) as available in the present borrow areas at Egmont and Pass-a-Grille, and the offshore sand costs would be less. He did identify several potential problems including issues with NEPA coordination (environmental assessment) and the lack of project funding in the current Congressional Continuing Authority Resolution available to address the NEPA issues. He is trying to use other sources in the interim to keep the permit work going. Mayor Atkinson and Commissioner Ellsworth were also at the meeting and Mr. Hambidge discussed their reactions to a presentation by FDEP Parks Division staff on Egmont Key and a field visit to a “T-head” groin project generally similar to that proposed for Upham Beach.

4. Cliff Truitt provided an update on the Sand Sharing permit. All of the additional information items have been completed and sent to FDEP; we should expect their review and

second response by mid-November. There is still no response from the Corps of Engineer's Program Management staff. Cliff will call Rick McMillen before the November BSC meeting.

5. Mr. Minning reported that the beach vegetation education efforts with Paradigm Learning were making very good progress. Discussion is still continuing on who might act as facilitators, and what the appropriate target groups might be. A "train the trainers" session is scheduled for October 29th at Paradigm. Each of the City Commissioners will be asked to suggest at least one volunteer from their respective Districts who would be interested in participating in the program. Don Hambidge noted that everyone who has been involved to date recognizes the potential this learning product might have for markets beyond Treasure Island. So far the City and Paradigm have operated under a "gentlemen's agreement," acknowledging that Paradigm has donated considerable time and resources to develop the piece, but at the same time, noting that the City has also put its own staff, Consultant and volunteer time into the effort. It may be time for a more formalized relationship/agreement and this could be a topic for discussion on the 29th. A motion was made by Dr. Greenfield and unanimously passed to the effect that such an agreement be pursued. Commissioner Blush will consult with the City Manager and City Attorney for their input into what might be the City's goal for such a partnership.

6. Committee Member Remarks:

Dennis Velaso asked if Don Hambidge would check with Nicole Elko on the status of any monitoring surveys and the Corps' schedule for next spring.

Sid Rice observed that funding is always the first question that comes to mind in any of our discussions or ideas. He asked about support for some type of 'sand tax,' especially one that could be part of developers' agreements with the City. Barbara Blush said she would support that idea and that it was similar to other 'impact fees' routinely made part of such agreements. The money could go into the regular beach maintenance fund for use on a number of efforts like the trail development, beach clean-up and re-vegetation. Mr. Rice also suggested perhaps having one or more regular fund raising events.

Barbara Blush had received and provided a copy of Pinellas County's beach priority list. She noted that she had just returned from Galveston, Texas and although they have the well-known 17-foot high seawall, there are hotels that have been built waterward of the wall, essentially right in the Gulf.

7. The next regular Committee meeting date was set for November 13, 2002 at 1:30

The meeting was adjourned at 3:30 PM.