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November 9, 2005

I received the following letter on November 8, 2005 by email from:

Eddie Fisher
Director of Coastal Stewardship
Coastal Resources Program
Texas General Land office
P.O. Box 12873
Austin, TX 78711-2873

“Dear Dr. Watson:

Thank you for your October 30, 2005, letter regarding your concerns about the beach maintenance activities of the City of Port Aransas. Your observations and suggestions are vital to us as we strive to work with local government to manage the Texas beaches to ensure adequate public access and dune protection.

The City of Port Aransas (City) approached us within the past year regarding their management of accumulated seaweed during spring and summer months. Our observations indicate that this portion of the Texas coast receives a substantially larger amount of Sargassum weed than the other parts of the coast. Due to the City's practice of stockpiling the large volume of seaweed at the seaward toe of existing dunes, it was reported to us that the dunes were accreting faster than the beaches and the useable portion of the public beach easement was being decreased due to the artificial accretion of the dunes. The seaweed management alternatives presented to the Land Office by the City were deemed to be acceptable as long as any accumulated sand was returned to the littoral system. This decision was based on the fact that the beaches of concern were documented to be accreting. We felt that placement of sand at the waters edge continued to provide storm damage protection benefits as the sand would still be within the littoral budget. We did not feel that sand placed at the water's edge was being lost from the system. However, based upon the information you provided to us, we will be coordinating with the City and a panel of advisors to review your information so that beach maintenance activities in the City can be modified to ensure the greatest dune protection benefits possible while maintaining adequate public access. We will be in communication with you in the future as we continue to work with the City on this issue.

I appreciate your suggestions regarding additional options that should be evaluated when vehicular restrictions to beach areas are proposed by local government. We intend to look at these during our review of the proposed beach access changes.

Please feel free to contact me at (512) 463-9215 or by email at eddie.fisher@glo.state.tx.us, or Mr. Ray Newby at (512) 475-3624 or at ray.newby@glo.state.tx.us for more information or updates regarding this matter. “

Sincerely,

Eddie Fisher

Response from Richard L. Watson:

Dear Mr. Fisher:

Thank you very much for your letter of 11/9/05 quoted above.

According to your letter, the City of Port Aransas has been given permission to place seaweed at the toe of the dunes and stockpile it to later return it to the edge of the surf where it will stay in the littoral system. *“The seaweed management alternatives presented to the Land Office by the City were deemed to be acceptable as long as any accumulated sand was returned to the littoral system. This decision was based on the fact that the beaches of concern were documented to be accreting.”* However, this is NOT what the City is doing. They are scraping the road at the foot of the dunes with a grader and returning that pure dune-quality sand to the sea. It was NOT brought up to the dunes mechanically with or without sargassum, but it was brought to the road area by the wind where it gathers and impedes traffic. In short, it was sand naturally on its way to grow and enhance our dune protection.

The following photos show how the road grader has scraped the clean sand from the road and accumulated it as a “bench” in front of the dunes. It is clean wind-blown sand accumulating on the road that is being carried back to the water, not sargassum mixed sand from the water’s edge. This clean dune-quality sand should be allowed to build our dune ridge higher and wider as it is trying to do naturally.



Your letter continues; *“We felt that placement of sand at the waters edge continued to provide storm damage protection benefits as the sand would still be within the littoral budget. We did not feel that sand placed at the water's edge was being lost from the system.”* While the sand may not be lost to the system, its value as hurricane surge overwash protection on the lower beach or in the bar system is minimal compared with its excellent protection in building the height, width and storage capacity of our natural dune seawall. It is also likely that some or all of the sand placed back in the surf will migrate downdrift to beaches further south along Mustang Island. While that is good for those beaches and dunes, it is most certainly bad for the dunes protecting

the major developed section of Port Aransas. There is little significant difference between preventing natural dune growth and destroying existing dunes. Both will result in a smaller and weaker dune system for the future.

The following photographs clearly show that this is pure dune-quality sand and not Sargassum and trash laden sand. The photo on the right shows the huge volume of sand that has been trucked to the surf.



I am amazed that there is such resistance to making minor changes in our beach management practices, changes which will reduce the cost of beach maintenance, allow our protective dune ridge to grow stronger and still provide an excellent pedestrian beach with adequate parking.

All that we need to do to accomplish those objectives is shift the beach road a short distance seaward and place a row of posts to protect the area in front of the dunes so that a new ridge can grow and weld onto the existing ridge.

The following photo shows the amount of sand accumulated in a new dune ridge in about 8 years since I convinced the previous city council and manager to install a row of posts seaward of the main dune ridge and move the road a bit seaward. This demonstrates just how quickly our storm protection dune ridges can build if we will only let them. This photo is looking south at Avenue G.



The following photo is looking north at Avenue G. The line of posts on the right are the posts that the City installed at my request about 8 years ago. Initially coppice dunes formed, then they vegetated and grew into the substantial ridge that is now welded onto the main dune ridge.



Note the very wide roadway between the line of posts with the red line on the right and the posts seaward of the car on the right. The trash barrel is in the middle of the present roadway. Much of the high maintenance cost is that windblown sand is accumulating on the road just in front of the dune ridges. I would like to see the roadway moved $\frac{1}{2}$ of its width seaward. It would be ideal to place a row of posts where the trash cans are now located and move the seaward posts further seaward to accommodate traffic and parking. At any rate, a row of posts should be put at least as far seaward as $\frac{1}{2}$ the distance between the posts at the right hand red line and the trash barrels. In another 10 or 20 years when this has built a dune ridge, the road should be moved seaward again, if possible.

This minor change should reduce maintenance costs and allow our dune ridge to grow stronger and protect the entire City from hurricane surge overwash while still providing an excellent tourist beach with a roadway and parking. Nature will build the very best hurricane protection, a strong dune system, if we will only allow it to happen.

Sincerely,

Richard L. Watson, Ph.D.
Consulting Geologist