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The following Forum article appeared in the Corpus Christi Caller-Times today.

URL:
http://www.caller.com/ccct/contributors/article/0,1641,CCCT_879_4224228,00.html

We must protect, not destroy, our natural seawall

By Dr. Richard L. Watson
November 9, 2005

PORT ARANSAS - Heavy equipment operated by the city of Port Aransas and Nueces County is removing hundreds of tons of sand from the upper beach and transporting that pure dune-quality sand to the water for it to wash away and be lost to our natural dune seawall forever.

Most Texas beachfront communities are spending millions of dollars to put sand on their upper beaches, the very place where we are removing it.

As Hurricanes Katrina and Rita have shown, coastal towns with no natural dune seawall are totally destroyed in such storms.

Our natural dune seawall on Mustang and Padre Islands is our only protection from total destruction by overwash of the islands in a major hurricane.

Mustang and Padre Islands are the first line of defense from hurricanes for Corpus Christi. A strong dune system is critical in preventing overtopping of the islands and increased flooding of the inland bay shorelines, including Flour Bluff, Ingleside, Aransas Pass and Rockport.

Interfering with nature

Our beaches and dunes undergo a cycle of erosion during major storms and rebuilding in the calm between storms.

We have broken that cycle in Port Aransas by not allowing the critical coppice (baby) dunes to rebuild seaward and extend the foredunes since Hurricane Allen eroded them 25 years ago.

The Port Aransas Coastal Management Plan states (Italics mine.):

"The City of Port Aransas shall prohibit beach maintenance activities unless maintenance activities will not materially weaken dunes or dune vegetation or reduce the protective functions of the dunes. The City of Port Aransas shall prohibit beach maintenance activities which will result in the significant redistribution of sand or which will significantly alter the beach profile.

"All sand moved or redistributed due to beach maintenance activities shall be returned to a location seaward of a dune protection line or within critical dune areas."

More recent General Land Office (GLO) regulations add more regulations:

"All sand moved or redistributed due to beach maintenance activities shall be returned to the area between the line of vegetation and mean high tide. The General Land Office encourages the removal of litter and other debris by handpicking or raking and strongly discourages the use of machines (except during peak visitation periods) which disturb the natural balance of gains and losses in the sand budget and the natural cycle of nutrients."

Removing hundreds of dump-truck loads of sand from the upper beach and dumping them in the surf, well below the high tide line, is definitely violating both state and Port Aransas beach management regulations and threatens the future of our natural dune seawall protection.

Our dunes must adequately protect us from not just one major storm, but at least two storms in quick succession, as Hurricanes Katrina and Rita have demonstrated.

If we continue with this short-sighted method, we will have a net loss of sand needed to build our natural dune seawall with each succeeding storm.

A retreating dune line

The main dune line will retreat further with each storm until, finally, there is no natural dune seawall to protect us at all.

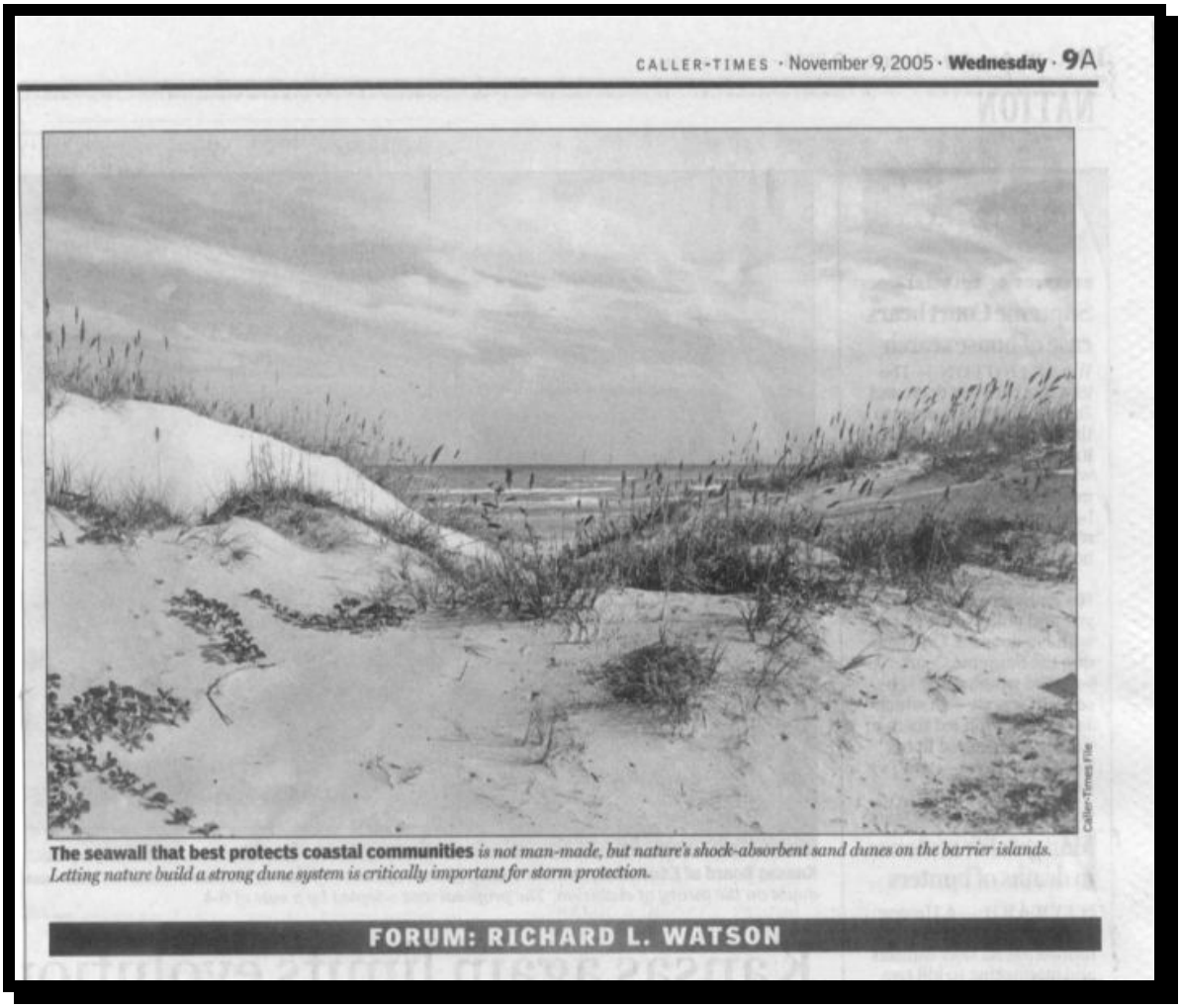
We are spending a fortune to unsuccessfully maintain a driving lane in the nursery where critical dunes and pioneer vegetation grow, weakening the future of our natural dune seawall at the same time.

The dune system will strengthen itself naturally if we leave it alone and stop trucking tons of sand to the surf.

We could shift the beach road seaward and allow our critical natural dune seawall to grow for our protection.

This will reduce beach maintenance costs, continue to provide a protected pedestrian beach, still have plenty of parking, and allow nature to enhance our hurricane protection by building a stronger dune seawall, all at no cost to us.

Dr. Richard L. Watson is a coastal geologist with 40 years experience studying the Texas coast. E-mail: Richard@TexasCoastGeology.com. More information can be found at http://www.TexasCoastGeology.com/beach.pdf.



Caller-Times File

The seawall that best protects coastal communities *is not man-made, but nature's shock-absorbent sand dunes on the barrier islands. Letting nature build a strong dune system is critically important for storm protection.*

FORUM: RICHARD L. WATSON

The picture caption reads, "**The seawall that best protects coastal communities** ia not man-made, but nature's shock-absorbent sand dunes on the barrier islands. Letting nature build a strong dune system is critically important for storm protection."