

# **Port Aransas Beach Committee**

## ***Recommendations for Changes in Beach Maintenance Practices***

Compiled by Richard L. Watson, Ph.D.

8/12/2006

The recommendations for changes in beach maintenance by the individual committee members and by City staff will be presented with the recommendations of each individual member. This document is organized by beach sections. The sections are from Lantana St. to Access Rd. 1A, from Access Rd. 1A to Access Road 1, and from Access Rd. 1 south to the City limits. Photographs of each section were taken by RLW on 8/11/2006 and are included.

### **Lantana St. to Access Rd. 1A.**

#### **Scott Holt, Chairman:**

- **Problem:** Moving sand to maintain drivable roadway from Lantana to Access road 1A.
- **Action(s):** Move safety area bollards seaward 40 feet and move roadway same distance. Allow dunes to rebuild seaward. Keep road “drivable” with application of water when too soft.

#### **Noyes Livingston, Vice Chairman:**

- Install new dune protection bollards 30 feet seaward of the existing dune bollards or the dune face where no dune bollards are present along the entire section from Lantana to 1A.
- Leave existing dune protection bollards in place to help build dunes.
- Move pedestrian safety bollards and trash barrels appropriate distance seaward for adequate driving and parking.
- Maintain roadway with machinery as seldom as possible.
- Remove beach seaweed only during periods of heavy deposit.
- Employ workers to constantly remove trash and litter from the beach.
- This section is the “commercial” beach.

**Jim Freeman, committee member:**

- Where the beach is wide enough we could try moving the bollards seaward and start a new row of dunes. This will probably be like putting a band aid on a 6 inch cut, but we could try.
- The seaweed and sand mix used to form the new dune row should be hand picked for trash before being deposited.

**Murray Judson, committee member:**

**SAND**

- Move safety and dune Bollards 25 ft seaward.
- Minimize road grading by using a water truck to firm up soft sand.
- If sand is removed start a second dune ridge behind the present dunes.

**SEAWEED**

- Use beach rakes and handpick trash at low seaweed times.
- In heavy times, front end loading to remove seaweed and fill in dune gaps, or dry and blow into the dunes with a snow blower or place behind the main dunes to start a second dune ridge or blade some of it back into the sand.
- Look into possible commercial uses for seaweed.

**Tony Amos, committee member:**

- The practice of moving sand to maintain the driving lane and depositing it seaward is destructive and I would like to see the bollards moved seaward to create an area where sand and Sargassum weed can be deposited to build up the dune line "defense" that protects the City from storm surge.
- I want to stop the practice of removing sand from this area by the truckload for re-depositing at Access Road #1.
- I would like to see raking the weed rather than using road graders and front-end loaders. Lets do some equipment testing.

**Richard L. Watson, ex-officio committee member:**

- Move safety bollards 30 ft. seaward and move the road at least 30 ft. seaward.
- Install a new set of dune protection bollards at least 30 ft. seaward of the bollards directly in front of the dune line to create a new dune line. This can be allowed to grow naturally, or be started by placing sand and/or weed there at a low height and then allowed to grow naturally. It is important to have a natural slope on the face of this new “foredune.” Do not continue to stack new sand and weed on top of it to the level of the present foredune. Get it started and let it grow naturally. Remove all trash from weed and sand before placing in the new dune area.
- After this dune line builds, or simultaneously, create a new dune ridge landward of the present foredunes on GLO land with sand and seaweed from this area. This must be carefully watched to make sure that it stabilizes with vegetation. If it starts to migrate, then it will need to be mulched, perhaps seeded and watered.
- Avoid transporting sand seaward from the road. It should be naturally or with help transported to the dunes to enhance their growth for our hurricane surge protection.
- Maximize the use of hand picking to remove trash from the beach and from the seaweed. Use heavy equipment ONLY when absolutely necessary and do not remove light seaweed accumulations.
- Try stabilizing the roadway with water, instead of removing sand and using maintainers. This will likely be less expensive and certainly be less damaging than removing sand mechanically.
- Investigate broadcasting cleaned weed into the dunes with a snow blower as suggested by David Parsons.

**City Staff recommendations, Michael Kovacs, David Parsons, Crockett Moreno:**

- Move bollards out approximately 25'.
- For seaweed, use rakes. This seaweed/trash mixture should be hauled to the transfer station and spread out in a "drying out" area. When this seaweed shrivels up (by 80% or more), haul it and the embedded trash to the landfill.
- For removal of sand in roadway area, identify areas behind the foredune ridge and develop a mitigation program that would allow us to create new dune complexes that would be vegetated. (Experimental concept):
- At heavy seaweed times, have crews walk and hand pick trash from the seaweed where it lies, front end loaders then scoop up seaweed and form a berm 5'-10' from the toe of the foredune ridge (on the driving area).
- Front end loader with snow blower attachment then blasts seaweed/sand up and over the dunes dispersing the seaweed and fertilizing the dune vegetation.

## **Access Rd. 1A to Access Rd. 1**

### **Scott Holt, chairman:**

- Problem: Road maintenance at dune edge. Access road 1A to 1 and 1 to city limits
- Actions: Allow road to be wider (i.e. closer to the beach) to take advantage of “natural” driving areas. Water roadway if necessary. No heavy machinery necessary here.

### **Noyes Livingston, Vice Chairman:**

- Remove any existing pedestrian safety bollards from this section. This will make this section uniform.
- Employ minimal mechanical road maintenance.
- Employ minimal beach seaweed removal.
- Constantly pick up trash and litter.
- This section is a transition beach from Lantana to the City limits.

### **Jim Freeman, committee member:**

- I do not believe that anyone has yet to offer a workable solution for the beaches south of Access Rd. 1A.
- It is my recommendation that the City continue doing what it has been, taking the sand where it is accumulating and moving it places where it has been receding.
- It is important to do this with the least amount of impact on the natural environment.

### **Murray Judson, committee member:**

- Same as Lantana to 1A but less intense. No safety bollards, only dune Bollards.

### **SAND**

- Minimize road grading by using a water truck to firm up soft sand.

### **SEAWEED**

- Use beach rakes and handpick trash at low seaweed times.
- In heavy times, front end loading to remove seaweed and fill in dune gaps, or dry and blow into the dunes with a snow blower or place behind the main dunes to start a second dune ridge or blade some of it back into the sand.

**Tony Amos, committee member:**

- The beach in this section is too narrow to move bollards, so I'm not sure what to do about this part.
- It seems to work fairly well for the part that has no bollards.

**Richard L. Watson, ex-officio committee member:**

- Remove the bollards south of 1A or move them seaward to eliminate the road sand trap where the driving area is so narrow. This could be done by tapering the bollard line to the south.
- Place any removed sand and weed in low areas in the foredune ridge or behind the foredune ridge with the cooperation of the upland landowners. The landowners should NOT be charged for this.
- Avoid further narrowing of the beach by weed stacking in front of the dunes and avoid transporting sand seaward.
- Minimal use of heavy equipment in this section.
- Minimal removal of weed in this section.
- Remove trash and litter by hand picking.
- Try using water to stabilize the road.

**City Staff recommendations, Michael Kovacs, David Parsons, Crockett Moreno:**

- Same as Lantana to 1A, but only after the Lantana to 1A section has been completed. Leave road where it is.

## **Access Rd. 1 to City Limits**

### **Scott Holt, chairman:**

- Problem: Road maintenance at dune edge. Access road 1A to 1 and 1 to city limits
- Actions: Allow road to be wider (i.e. closer to the beach) to take advantage of “natural” driving areas. Water roadway if necessary. No heavy machinery necessary here.

### **Noyes Livingston, Vice Chairman:**

- No roadway maintenance of any type.
- No seaweed removal of any type.
- Large pieces of natural driftwood left in place.
- No roadway maintenance or seaweed removal in front of condos or subdivisions, even if requested.
- Constant and scrupulous trash and litter removal by dedicated crews.
- This beach section is a “native” seashore except for energetic removal of trash and litter.
- This section is a test case or demonstration beach for ceasing to groom roadways in the other two sections in the future.
- This section is also a laboratory for natural beach and dune development on a beach used by vehicles.

### **Jim Freeman, committee member:**

- I do not believe that anyone has yet to offer a workable solution for the beaches south of Access Rd. 1A.
- It is my recommendation that the City continue doing what it has been, taking the sand where it is accumulating and moving it places where it has been receding.
- It is important to do this with the least amount of impact on the natural environment.

### **Murray Judson, committee member:**

- Maintain areas in front of condos and residences.
- Pick trash and maintain possible road closer to the water.
- Leave areas in between more natural.

**Tony Amos, committee member:**

- Would like to see this section left alone but may not be acceptable.
- Weed removal only opposite condominium walks, but deposit weed/sand in front of condos, not on either side.
- Encourage owners to clean up trash on their beaches.
- One mile test section with no weed removal. Will volunteer to observe and measure the difference from maintained area.
- Prefer to not maintain driving lane.
- Only do weed removal when necessary, not every day, it ruins beach combing.
- Scraping eliminates birds.

**Richard L. Watson, ex-officio committee member:**

- Any weed removal to be placed in low areas in the dune ridge or behind the present foredune ridge with cooperation of the owners.
- It would be o.k. to transport this material a short distance up or down the beach for a suitable placement area that strengthens the dune ridge.
- Avoid transporting any sand in a seaward direction.
- It would be best to do as little maintenance and modification of this section of the beach with the exception of removing trash and litter by hand picking.

**City Staff recommendations, Michael Kovacs, David Parsons, Crockett Moreno:**

- Less road maintenance.
- Same style of maintenance just in front of residences. Hand pick larger trash items. Leave road where it is.

## **Additional Comments and Suggestions**

### **Scott Holt, chairman:**

Problem: Excessive beach trash/seaweed

Actions: Primary response should be to find a “rake” that will pick up all but the heaviest influx. May need to pick out trash by hand but that will depend on how much trash TCEQ will allow to remain and not call it trash. If it is not all declared to be trash we might consider a snow-blower remedy. If it is called trash then transport it (with little or no sand) to landfill. Light amounts of seaweed can be left on the beach, especially south of Access 1A.

### **Noyes Livingston, Vice Chairman:**

Let a towing contract to a provider who commits to patrolling the beach from 30 min after sun up to 30 minutes before sun down from memorial day to labor day or other suitable schedule. Spend maintenance savings on litter & trash pickup to City limits. Ask merchants to display "No Glass Containers on Beach" signs. Spend possible savings on public education information on beaches dunes, endangered species, trash, hazards to wildlife, etc.

### **Jim Freeman, committee member:**

I would also suggest that the City experiment with the use of machines which could possibly separate the seaweed from the sand. I think the City of Port Aransas and the GLO should continue to work closely together to keep the beaches clean, safe, and open for all to enjoy.

### **Murray Judson, committee member:**

Water trucks and the roadway closer to the water (and water table) should reduce the amount of sand removal (and grading) - With the money saved on machines, trucks, gas and manpower, that money can be used to provide more hand-picking crews and surf rakes.

Look into possible commercial uses for seaweed.

### **Tony Amos, committee member:**

Educate the beach maintenance personnel, lifeguards and park personnel. They should have some knowledge of seasonal changes in tides, birds that visit the beach, sea turtles, nesting cycles for both, dolphins, fish, the dreaded weed itself, sea grasses, driftwood, and the water (harmful algae, etc.) I would be happy to conduct some training sessions. Condo, R/V park and private house owners should know who to call to report various events.

**Richard L. Watson, ex-officio committee member:**

We definitely should work to educate Port Aransans and our visitors to the importance of our dune and beach system both for the local ecology and for protection from hurricanes. Perhaps hotel/motel taxes can finance the creation of a pamphlet and web pages for this purpose. I am willing to teach this material as well. The beach is our greatest asset and the dunes are our seawall that protects from major hurricane damage. We need to take care of both of them and to understand that this is a dynamic, constantly changing system.

**City Staff recommendations, Michael Kovacs, David Parsons, Crockett Moreno:**

Dune growth debate – concede it's good.

Seaweed disposal site. Place in landfill or blast into dune system for fertilizer.

**Photographs of Each Section.  
Lantana to Rd. 1A**

**North from Avenue G on the left and South from Avenue G on the right.**



## **Photos taken at Road 1A**

**Left is north from just south of 1A and right is south from same position.**



## **Access Rd. 1 to City Limits**

**Left is north from El Cortez, right is south from El Cortez**



**Natural Beach in State Park south of Access Rd. 2**

