



Community Pines for Beach Season

By Dr. JoAnne Castagna

If you make a trip to Bradley Beach on the New Jersey shore during the winter months, you may be surprised to see residents walking their dogs along the water, riding bikes on the promenade, and surfing the ice-cold waves in wet suits.

A team of United States Army Corps of Engineers® personnel witnessed this on a February day a couple of years ago when they visited this beach that draws more than 100,000 beachgoers annually. It was obvious that the residents yearn for beach season. Especially since the very dunes they were observing were created by the residents themselves, using donated Christmas trees, in an effort to protect the mile-long shoreline the Corps had restored earlier.

The Bradley Beach shoreline had experienced erosion due to previous storms and was in need of sand nourishment. In July 1999, the New York District began a sand nourishment project on Bradley Beach in Monmouth County as part of the Corps's Sandy Hook to Barnegat Inlet Beach Erosion Control Project. The Corps had 3.1 million cubic yards of sand placed on the shore, which added over 200 feet of beachfront and created seven groin notches and four outfall extensions.

Dunes weren't needed for protection in this area because of the naturally high backshore, so they weren't included in the Corps's project. However, after the project was completed in January 2001, Bradley Beach residents wanted to take an additional step to protect the Corps's work, so they started creating beach dunes using donated Christmas trees. According to the operating supervisor of the Public Works Department for Bradley Beach, a life-long resident there, they

wanted to protect the beach's promenade from future storms and give it a look that no other town had.

Beach dunes control erosion by limiting windblown sand loss. In addition, residents wanted to block out noise on the beaches. Now the only noise heard is the sound of the waves and birds. The dunes also protect beach residents' homes and provide them a beautiful oceanfront and privacy.

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Bradley Beach isn't the first community along the 21-mile Sandy Hook to Barnegat Inlet Beach Erosion Control Project area to create dunes—Manasquan Beach and Monmouth Beach created dunes using fencing and dune grass or a combination of planting and fencing—but they are the first to use Christmas trees. Every January, the residents place their donated pine Christmas trees on the curbside and a Public Works Department truck picks them up.

In 2005, to support the dunes that were being created, the community designed a dune system called a sawtooth design.



Photo by Bradley Beach Public Works Department

Christmas trees from the past holiday season are placed on the ocean side of the sand dunes where they capture sand blowing inland from the ocean and eventually form permanent dunes.

Snow fences were placed on an angle along the promenade side of the dune to support the dune system and make the beach look appealing from the shore side. As trees are being collected, the Bradley Beach Public Works Department places them on the ocean side of the sand dune where they eventually form permanent dunes. This year the trees were laid down north to south on the east side of the beach, and next year they will do the west side.

As in previous years, dune grass will be planted on top of the dunes. When the project first began, residents of Bradley Beach planted 50,000 plugs of dune grass on the dunes to keep them anchored. The community is in the process of receiving a grant for an additional 25,000 to 50,000 plugs of dune grass that was planted this spring.

The beach dunes have proved to be successful, and the placement of Christmas trees—in combination with the snow fencing and dune grass—has been effective in capturing sand blowing inland from the ocean. Since the beginning of this community project, an estimated 28,000 trees have been used to create a stretch of dunes 25 feet wide and 10 feet high along the mile-long oceanfront.

Community officials are very supportive of the project and think it's beneficial to the public. The mayor of Bradley Beach, a strong supporter and the financier for the project, stated that walking through the dunes from the promenade to the beach feels like leaving one world for another. He will be funding

the project until 2008, the year the dune project is expected to be completed. It's this type of community involvement that the Corps likes to see. A proactive municipal Public Works Department is a beneficial addition to any federal or state beach erosion control project. Bradley Beach is trying to aggressively maintain the sand that was placed there and is an active participant in the project's success.

The dunes at Bradley Beach have also proved to be beneficial to the environment, because they provide a more diverse habitat than just sand alone—creating a sanctuary for sparrows and attracting all kinds of insects for wild birds to eat. The residents also find the dunes appealing. Not only are they excited about the beautiful scenery, but they now have a personal connection with the beach since their donated trees will be there forever.



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