DAILY BREEZE



Manhattan Beach tries to re-create beach dunes to protect against erosion



Work is starting on a Manhattan Beach Dunes restoration project that will make the beach look more like it did hundreds of years ago. The effort by the Bay Foundation and the city is to bring back native habitat but also use the model to fight against sea-level rise and erosion. Volunteers were pulling up ice plant at 35th street on Friday January 21, 2022. (Photo by Chuck Bennett, Contributing Photographer)

By LAYLAN CONNELLY | lconnelly@scng.com | Orange County Register PUBLISHED: January 24, 2022 at 9:10 a.m. | UPDATED: January 24, 2022 at 10:08 a.m.

Southern California's beaches were once dotted with dunes, a safe haven where birds nestled into plants and wildlife thrived.

But in recent decades, homes were built, crowds flocked to beaches and the natural landscapes were replaced with groomed sand that made space for beach towels and easy strolls.

But a restoration project that kicked off Friday in Manhattan Beach is one of several at local beaches that aim to revive robust habitat and set a path for the future as seas threaten to wash away one of Southern California's most important recreational spaces.



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"At its heart, these pilot projects are demonstrations to see if this is a feasible means to combat climate change and increase coastal resiliency," said Chris Enyart, a program manager with The Bay Foundation, a nonprofit that is spearheading several similar projects across the Santa Monica Bay watershed.

The Manhattan Beach Dune Restoration isn't the first to sprout up at Southern California beaches. And as talks about how to fight against climate change and sea level rise continues, more coastal cities from Malibu to Dana Point and beyond are looking at using similar "living shoreline" methods to keep their beaches intact.

The Bay Foundation teamed with the city of Manhattan Beach, the Los Angeles County Department of Beaches and Harbors, the Los Angeles County Fire Department Lifeguard Division and the California State Coastal Conservancy for the north Manhattan Beach project, located between 36th and 28th streets and 26th to 23rd streets near the El Porto parking lot.

While the plans have been in the works for four years, the physical transformation of the site didn't start until Friday, when volunteers and helpers showed up to start pulling out ice plants, a non-native species that can choke out plants that are native to the habitat.

The California State Coastal Conservancy is fully funding the Manhattan Dune Restoration project through grants, which costs about \$340,000 to cover everything from planning and design, permitting, outreach and post-restoration monitoring and maintenance.

Workers in coming weeks will sprinkle seeds and plant native vegetation over about half a mile that will have also have interpretive signage to educate the public. Manhattan Beach is the first South Bay community to attempt to restore sandy coastal beach dunes.

"The development of the project will serve as a model for the region, exemplifying how nature-based solutions may be a cost-effective manner of providing protection to our beaches through restoring California's ecosystems," the city's explanation says.

Most people think the flat, sandy beaches they find today are natural, but the coast actually used to be covered in hilly dunes, which naturally help catch and accumulate sand. Sticky leaves in native plants trap sand and blocks it from being blown away by wind.

"We've really altered these systems," Enyart said. "There's not many natural dunes systems in Los Angeles County and we're really hoping to re-create some of that."

The idea is not to do away with the places where people recreate, but to add ways to coexist with the natural landscape. Birders, for example, will have more chances to see endangered and threatened species that may return to the area when the habitats sprout.

Enyart said The Bay Foundation's first project, started in 2016 in Santa Monica, was inspired by work done in Ventura at Surfer's Point after erosion destroyed that beach.

The concept in Santa Monica was simple — fence off a few acres of beach, throw out some native dune seeds and wait, he said.

"It really had no success criteria, but we were pleasantly surprised to see what the project turned into," he said. "Five years later, now it's covered in native dune species."

The 3-acre Santa Monica site is self-sustaining now, with the dunes at about 3 feet tall in some places.

In 2017, about a year after the project kicked off, the first western snowy plover nest in Los Angeles County in 70 years showed up and more of the federally threatened species have been seen foraging in the area.

"The beach and the wildlife, they don't need much. You just have to give them a little bit of room and they do their thing," Enyart said.

A new native plant species sprouted up in 2017 and has been consistently seen since, according to a 5-year recap report recently released.

"As the seeds of this species are not sold by the seed provider, it is probable that there was either an existing seed bank for this species already along Santa Monica Beach, or that it was transported by wind, waves, birds, or humans." the report said.

Dune beetles, which provide an increased layer of the food web available to foraging birds and wildlife, also showed up.

Other similar pilot projects have been spearheaded by The Bay Foundation and more are in the works. Malibu at Point Dume and Zuma Beach have similar sites set up and one will soon be put in place at Dockweiler Beach, with that project also incorporating eelgrass restoration offshore.

Further south, the OC Parks has been pitching the idea of a "living shoreline" — placing cobblestone and adding sand dunes with natural vegetation on top — to try and slow erosion in an area of Capistrano Beach in Dana Point that has been battered in recent years by the sea.

The hope is government agencies will adopt similar methods and stop deploying "hard armoring," which is the use of boulders or rip rap in response to erosion, Enyart said.

Those methods are typically used as a bandage fix in emergency situations, often meant to be temporary, but are rarely removed. Experts say such methods worsen erosion problems and alter natural sand flow.

Another perk of using living shorelines versus hard armoring is the cost is much less, Enyart said.

Dana Murray, environmental sustainability manager for the city of Manhattan Beach, attended the Santa Monica planning meetings five years ago. She recalled how several in the community came into the meeting suspicious and skeptical, but left supporting and in favor the project.

So when she started her job at the city shortly after, Murray helped develop a plan — along with The Bay Foundation and the L.A. County Department of Beaches and Harbors — which was approved by the City Council in 2019.

"I really see this as a unique opportunity to not only better protect our community and coastline from high-tide storm surge and sea level rise, but beneficial to habitat and a community beautification project," she said. "And one the community can come out and volunteer for."

In the long-term, it will create a resilient shoreline for the coast before it's too late, she said.

"If we waited until waves hit, it would be too late to put in a dune restoration," she said. "Right now is the perfect time, while we have beach to work with." Several public meetings were held as part of the 2021 Climate Ready MB initiative, she said, where residents wondered where else similar projects could take place.

"Now, we're starting to gain traction and will start to prioritize," she said. "I'm glad we had the connection, support and will to get this implemented in our city."

Want to help? Volunteers are needed for Jan. 28 and 29, with more opportunities in February. More info: <u>santamonicabay.org/events</u>

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