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Sand returns to Kailua Beach, but time will tell if it remains

Strong trade winds could result in more erosion of shoreline

By **Eloise Aguiar**
Advertiser Staff Writer

KAILUA — Suddenly, something has put the "beach" back in Kailua Beach Park.

The only question is whether it's going to last.

About this time last year, five years of heavy erosion had left the beach — long known for its broad expanse of fine sand — little more than a narrow walking path, even at low tide.

Dozens of trees were cut to prevent them from falling as waves undermined their root system. Irrigation lines were exposed and the lifeguard station near Ka'elepulu Stream had to be moved back for a second time. Where there was once a gently sloping shoreline stood 10-foot-high cliffs of sand.

But lately, the popular beach has been showing

obvious signs of recovery.

Experts say the recent period of kona conditions that shrouded the Islands in vog and an El Niño weather pattern have played a part in the sand's return.

But only time will tell whether it's here to stay.

Bryan Amona, 56, who lives across from the beach, sees the return as another cycle in the beach's history. Given global warming and higher tides, Amona said full recovery for the beach is doubtful.

"It came back real quick," Amona said recently. "But I don't think it will last."

Research on wind patterns dating to World War II shows that the shoreline responds when the winds shift, said Charles "Chip" Fletcher, a University of Hawai'i coastal geology professor.

Typically, trade winds blow from the east and northeast and during extended trade-wind periods sand disappears from the south (or boat ramp) end of Kailua Beach Park, he said.

But from at least December through much of February, kona conditions prevailed — meaning weak winds from the south or southwest or virtually no wind at all — and the sand began to return, Fletcher said. Something similar happened in 1998, the last time a strong El Niño condition appeared, he said. But that year, the sand came back so strongly that it buried the boat ramp.

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"The sand returning this time is not really that strong," said Fletcher, who chairs the UH Department of Geology and Geophysics.

However, El Niño, a weather pattern in which the Pacific Ocean around the equator warms and contributes to the kona conditions, is not the only factor that affects shoreline change, he said. Big swells that wrap around the island also play a role.

"So if the trades are starting to come back now, over the course of the next year or so would be the time to see if that sand is stable," he said.

rapid erosion

For decades the beaches on Kailua Bay were accreting sand, building wide beaches. But that changed several years ago at the beach park when the sand started to erode at the boat ramp. Before long, erosion was occurring at an extreme rate as high as 8 feet per year.

At first, the situation didn't cause any alarm because the sand had always come back before.

But by last year, nearly 40 yards of shoreline at the boat ramp was gone and experts and residents alike wondered if the beach would ever recover.

Today, there are several signs that the sand is returning:

- Sand grabbers placed on the beach 20 years ago and exposed for several years by erosion, are covered again.
- Narrow shorelines where beach towels couldn't be laid out without getting wet are wide enough now for sunbathing.
- Some people have even reported that they can walk on the sandy bottom all the way out to the buoys that mark the swimming area.

Maintenance plan

Dolan Eversole, who heads a team that is developing a dune management plan for Kailua Bay, also said the erosion from the south end of the bay is trade-wind driven but added that sand maintenance practices at the mouth of Ka'elepulu Stream contribute to the problem.

Eversole, a coastal geologist with the UH Sea Grant Program, said a draft plan to manage the dunes should be out soon but won't specifically address the erosion problem.

He said the city and Army Corps of Engineers are working on a better beach maintenance plan and, if necessary, the beach could be restored using offshore sand.

"It's not like the sand has disappeared and we don't really know where it is," Eversole said. "We have a pretty good understanding of where things are going. We just need to improve our management techniques around the stream mouth. That's the first thing to do, at least."

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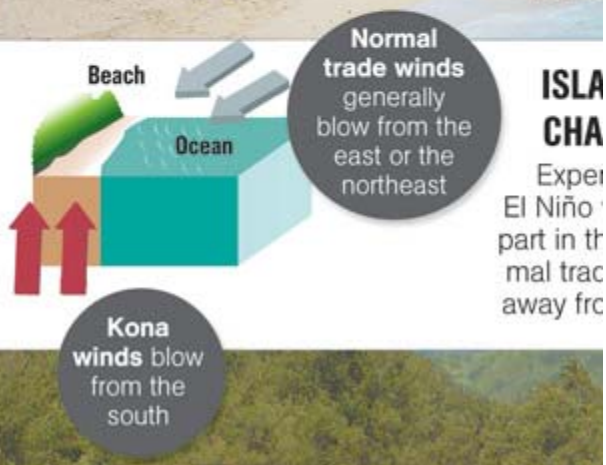
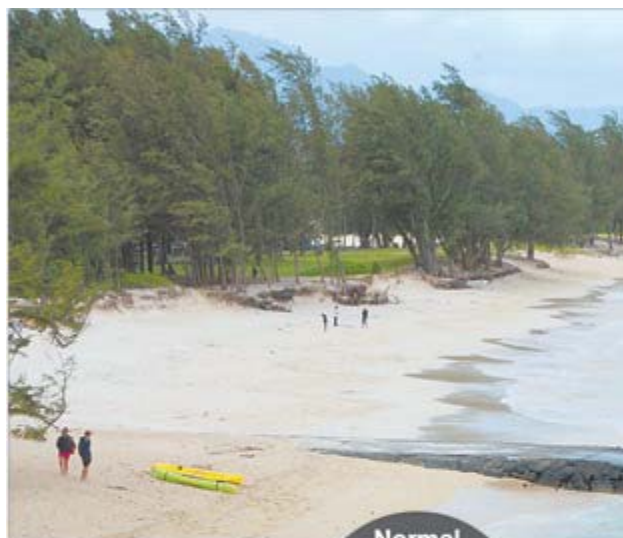
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