

Stay or go? Some towns are eyeing retreat from sea

June 3 2012, by ALICIA CHANG

(AP) — Years of ferocious storms have threatened to gnaw away the western tip of a popular beachfront park a two hours drive north of Los Angeles. Instead of building a 500-foot (150 meter)-long wooden defense next to the pier to tame the tide, the latest thinking is to flee.

Work is under way to gauge the toll of ripping up parking lots on the highly eroded west end of Goleta Beach County Park and moving a scenic bike path and buried utility lines inland away from lapping waves.

Up and down the California coast, some communities are deciding it's not worth trying to wall off the encroaching ocean. Until recently, the thought of bowing to nature was almost unheard of.

But after futile attempts to curb coastal erosion — a problem that is expected to grow worse with rising seas fueled by global warming — there is growing acknowledgment that the [sea](#) is relentless and any line drawn in the sand is likely to eventually wash over.

"I like to think of it as getting out of the way gracefully," said David Revell, a senior coastal scientist at ESA PWA, a San Francisco-based environmental consulting firm involved in Goleta and other planned retreat projects.

The issue of whether to stay or flee is being confronted around the globe. Places experimenting with retreat have adopted various strategies. In Britain, for example, several sites along the Essex coast have

deliberately breached seawalls to create salt marshes, which act as a natural barrier to flooding.

In the U.S., the starkest example can be found in Alaska, where entire villages have been forced to move to higher ground or are thinking about it in the face of melting sea ice. Hawaii's famous beaches are slowly shrinking and some scientists think it's a matter of time before the state has to explore whether to move back development.

Several states along the Atlantic coast have adopted policies meant to keep a distance from the ocean. They include no-build zones, setbacks or rolling easements that allow development but with a caveat. As the sea advances, homeowners promise not to build seawalls and must either shift inland or let go.

Over the past half-century, the weapon of choice against a shrinking shoreline has been building a seawall or other defense. Roughly 10 percent of California's 1,100-mile (1,770-kilometer) coast is armored. In Southern California, where development is sometimes built steps from the ocean, a third of the shore is dotted with man-made barriers.

While such buffers may protect the base of cliffs, and the land and property behind them, they often exacerbate the problem by scouring beaches, making them narrower or even causing them to disappear.

This is one reason state coastal regulators in 2009 turned down a proposal by Santa Barbara County to fortify an eroding section of Goleta Beach park lashed by periodic storms. A rock wall was built as a temporary stopgap, but a long-term solution was needed. After the state rejected the construction of another hard structure, park officials, working with environmentalists, came up with a Plan B: Move gas, water and sewer lines out of the risk zone. Relocate a bike path to higher ground. Demolish 150 parking spaces and allow the acre of asphalt to be

reclaimed by the beach.

Last month, the county Board of Supervisors gave the go-ahead for an environmental review. Work could begin next year if the \$4 million plan passes other regulatory hurdles.

Around California, relocation of coastal infrastructure and development is being pushed by the Surfrider Foundation and other environmental groups. But the efforts also are being driven by increased awareness of climate change. Sea level has risen by 7 inches (18 centimeters) over the last century in California. By 2050, it's projected to rise between 12 to 18 inches (30 to 45 centimeters) .

San Francisco is mulling a significant retreat on its western flank where the scenic Great Highway is under assault from the Pacific. Erosion has inched closer to the roadway each year, and the U.S. Army Corps of Engineers continues girding segments with broken-up rock, a costly temporary fix that has had limited success.

The San Francisco Planning and Urban Research Association favors mixing retreat with coastal armoring. City, state and federal agencies are considering the group's plan, which calls for moving segments of the Great Highway inland and allowing sand dunes to reclaim some of the paved-over space. The group also wants a temporary seawall to protect a sewer tunnel that's part of a multi-billion dollar sewage and storm water system expected to be affected by sea level rise while money is raised to relocate it in about 50 years.

South of San Francisco, the beach town of Pacifica has been an early adopter of planned retreat as it battles constant erosion. The city in 2002 purchased some homes that were at risk of falling into the sea and demolished them.

This summer, the city of Ventura is pressing ahead with its \$4.5 million retreat. Last year, crews removed a disintegrating oceanfront bike path at Surfer's Point, a popular surfing spot, and built a new one farther inland. The beach was widened and cobblestone was put down.

Mark Gold, associate director at UCLA's Institute of the Environment and Sustainability, commended local efforts but thinks a large-scale approach is needed.

"It's definitely something that needs to be taken a lot more seriously," Gold said.

So far, most of the scaling back in California has occurred on public land. It's a harder sell for private property owners to take the same action unless beachfront homes are on the verge of being submerged. The state, however, has a built-in retreat: People who want to build new oceanside construction agree not to build a seawall if their homes become threatened in the future.

Charles Lester, executive director of the California Coastal Commission, said planned retreat is an attractive option in theory, but it's hard to execute in densely populated coastlines where there may not be room to move back. Still, he said it's a tool worth using where possible.

Just don't call it surrender.

"I don't think it's giving up. It's about making a smart, sustainable decision," said Gary Griggs, who studies coastal erosion at University of California, Santa Cruz.

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