Linda Mar Beach Dune Restoration, Pacifica (Photo courtesy of Peter Baye)

CAN A DUNE SYSTEM HELP PROTECT STINSON BEACH?

WHY? | Sea level rise will increase flooding of shoreline development as well as increase beach erosion

Homes and businesses in Stinson Beach may be subject to incremental impacts of sea level rise, including increased storm and wave activity and eventually inundation. Beach erosion and "beach squeeze" between rising water and development will be some of the first impacts to impair public access and reduce beach use, impacting our community's economy and our livelihoods. What kind of solutions are available to address the initial impacts of sea level rise?

WHAT? | The Marin County Community Development Agency initiated a dune feasibility study

We know how to build seawalls and revetments, but hard shoreline armoring can have adverse beach impacts and is becoming more difficult to permit. A dune system is a nature-based alternative that can provide protection for shoreline development while nourishing the beach to minimize erosion.

The goal of the dune study is to determine whether an enhanced or modified dune system is feasible at Stinson Beach. The study will examine different alternatives for constructing dunes and provide the following information:

- how much protection from flooding and erosion dunes would provide
- the effect of dunes on habitat, public access and recreation
- costs of different alternatives
- sources of sand
- regulatory pathways for approval
- amount of public support

Nature-Based Infrastructure

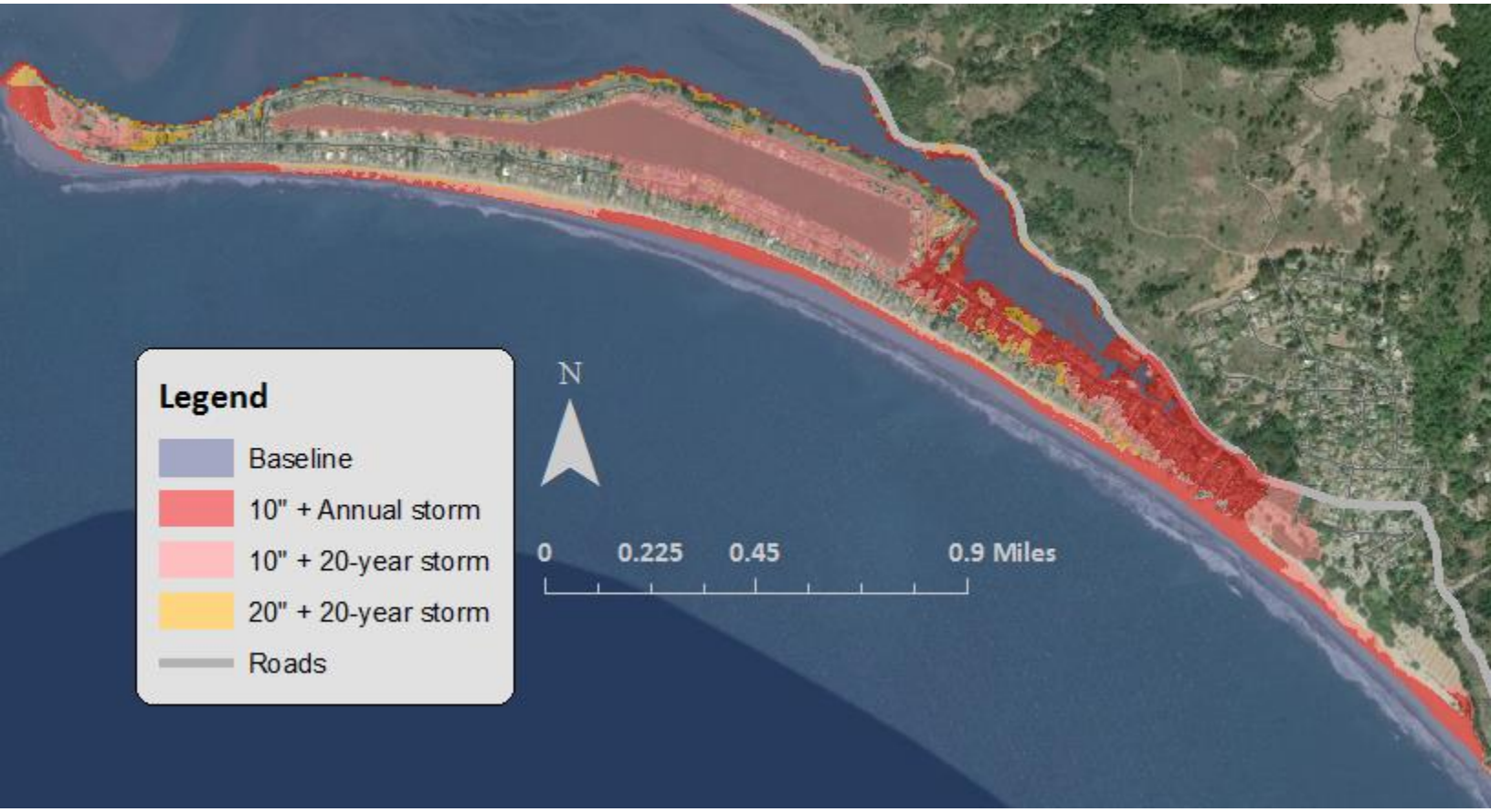
Nature-based infrastructure (also called living shorelines) is used to adapt to sea level rise by taking advantage of natural features and processes to protect homes, businesses, and shoreline communities from flooding.

Dunes are examples of nature-based infrastructure that function well on the ocean coast. They increase resilience to sea level rise and provide shoreline protection from incremental impacts of sea level rise by:

- buffering from storms and flooding
- decreasing wave energy and run-up

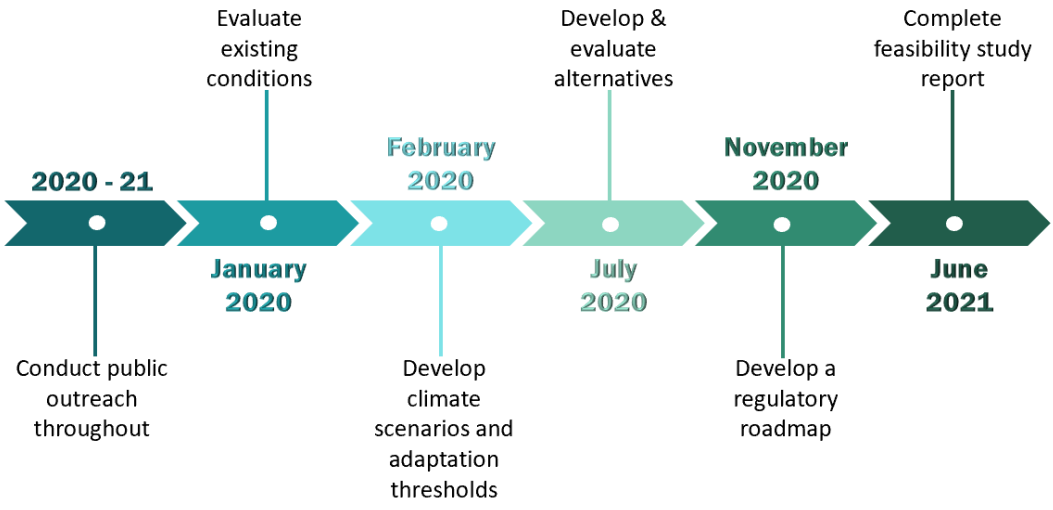
Santa Monica Dune Resoration, Bay Foundation

WITHOUT ACTION | The coastline floods with just 10 inches of sea level rise and an annual storm



How Long? — The feasibility study report will be completed in April 2021

The project includes six major tasks with public outreach events throughout. See below for more information on how to get involved.



HOW CAN YOU PARTICIPATE?

The dune study is part of a larger County effort, called C-SMART, to assess vulnerability to sea level rise and develop ways to adapt. Public meetings to gather input and provide information are planned throughout this project. You can find more information about the Stinson Beach Nature-Based Adaptation Feasibility Study and sign up for notifications at MarinSLR.org or contact Leslie Lacko at llacko@marincounty.org