



introduction

about ocean beach

Ocean Beach is one of the gems of the San Francisco landscape, drawing more than 300,000 visitors each year. It is an important piece of the Golden Gate National Recreation Area, a wild landscape, an urban sea strand, a grand public open space. Ocean Beach is also home to major elements of San Francisco's wastewater and stormwater infrastructure.

Recent erosion events South of Sloat Boulevard and ongoing community efforts have created unprecedented momentum for a sustainable long-range plan. Drawing on the work of the Ocean Beach Vision Council and others, this plan addresses the impact of rising seas, the physical and ecological processes shaping the beach, and improved integration with its natural, recreational, and urban contexts.

climate adaptation

We know that sea levels are rising due to melting polar ice and thermal expansion

of the oceans. The State of California projects sea-level rise of 14 inches by 2050 and 55 inches by 2100. The frequency and severity of storms are also likely to increase, and local policymakers have no choice but to adapt. Climate-change adaptation consists of policy and design responses to the negative effects of climate change that have already been "locked in," regardless of how we address carbon emissions going forward. Adaptation will be required in many arenas, from water supply to biodiversity to extreme heat events, but few are as vivid and pressing as sea-level rise.

At Ocean Beach, this means that the sort of erosion episodes that took place in 1997 and 2010 will happen more frequently. As the shoreline recedes, critical wastewater infrastructure along Ocean Beach will face increasing pressure and will need to be protected, reconfigured or abandoned. Natural habitat and recreational amenities are threatened

as well. Although we have a pretty clear picture of what will happen as sea levels rise, there is a great deal of uncertainty about its timing and extent.

Ocean Beach is San Francisco's first real test in responding to the effects of climate change. The proximity of critical public infrastructure to the coast throws the challenges into high relief. Where should we hold the coastline? What is the economic value of a beach? A dune system? A threatened bird species? When and how will private property be exposed to coastal hazards?

There are also significant limitations in the available data about the effects of sea-level rise. Existing studies paint a general picture of likely impacts but do not account for local factors like coastal armoring and topography, which will shape coastal processes.

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multiple jurisdictions, no single lead agency

A key challenge at Ocean Beach is the numerous overlapping jurisdictions and boundaries. A host of City, State, and Federal agencies have different roles and responsibilities. SPUR's role is as an outside convener, facilitating communication and coordination while keeping the long view in focus.

partner agencies

- San Francisco Public Utilities Commission
- National Park Service/Golden Gate National Recreation Area
- San Francisco Department of Recreation and Parks
- California Coastal Commission
- US Army Corps of Engineers
- San Francisco Department of Public Works

erosion emergency: response and criticism

In the El Niño winter of 2009–2010, powerful storms battered the bluffs of Ocean Beach south of Sloat Boulevard, resulting in dramatic erosion. In some locations, bluff tops receded 40 feet, undermining the asphalt of parking lots and the shoulder of the Great Highway, which was closed southbound for much of the year. The episode was the most serious in a series going back several decades.

The City's response—the construction of 425 feet of rock revetments (embankments of boulder riprap)—has drawn criticism from environmentalists, who are concerned that such armoring often carries a heavy cost in beach and habitat loss. They ask whether an event as predictable as erosion at Ocean Beach can be meaningfully described as an emergency. Indeed, a similar episode in 1997 resulted in the

construction of rock revetments that are still in place. With no policy for how to address the inevitable, the City repeatedly finds itself in a reactive posture, shoring up the bluffs under an emergency declaration with the lukewarm sanction of the Coastal Commission and National Park Service. The 2010 storm may have been an emergency, but it was hardly a surprise and, above all, reflects the lack of a policy framework to guide action in a crisis.

The environmentalist response may be a fair criticism, but erosion meanwhile poses a very real threat to a critical sewage-treatment complex that we depend on to protect coastal water quality. In the absence of another approach, this infrastructure, some of which lies underneath the Great Highway, must be armored against coastal hazards.

In the summer of 2011, the California Coastal Commission unanimously denied a permit application from the

City and County of San Francisco for additional armoring and retroactive permits, leaving near-term hazards unresolved but sending a clear message that a new approach is needed. Recent proposals by city agencies reflect a shift toward a softer and more temporary approach to interim coastal protection, pending the outcome of this process.



introduction

Project Funders:

- / *California State Coastal Conservancy*
- / *San Francisco Public Utilities Commission*
- / *National Park Service*

about this project

what is the ocean beach master plan?

The Ocean Beach Master Plan is an interagency effort to develop a sustainable long-term vision for Ocean Beach, addressing public access, environmental protection and infrastructure needs in the context of erosion and climate-related sea level rise.

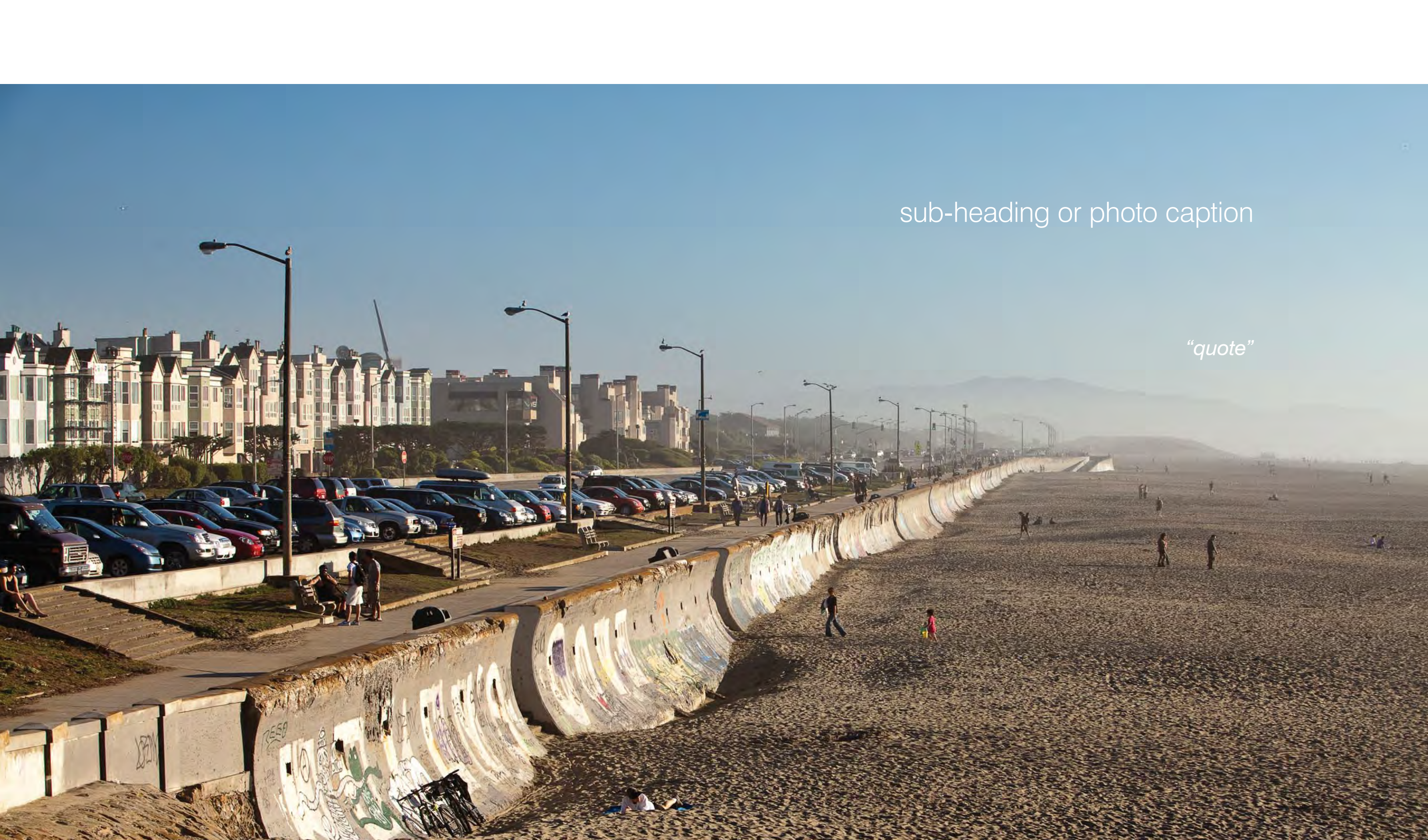
The Ocean Beach Master Plan process was the result of more than a decade of advocacy by community members, and increasing interest by advocates, community members, public agencies, and decisionmakers.

In 2009, the Ocean Beach Vision Council, a task force appointed by Mayor Gavin Newsom, submitted an application for planning funds to the California State Coastal Conservancy, with matches from the San Francisco Public Utilities Commission and the National Parks Service.

Because of the many overlapping

jurisdictions at Ocean Beach, an issue that had long been identified as impeding proactive planning, the need for an outside entity to convene a multi-agency, multi-objective planning process was identified. SPUR, the San Francisco Planning and Urban Research Association, was selected for its capacity, its history of effective engagement with challenging public policy questions, its involvement in the creation of the Golden Gate National Recreation area, and its recent body of policy research around climate change adaptation.

SPUR served as the grantee and project manager, beginning in June of 2010, and assembled advisory committees and a consultant team with the appropriate expertise in the wide range of relevant fields.



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about this document

This is a non-regulatory guidance document, which reflects a robust and inclusive public process. It presents a framework for understanding the wide range of issues and challenges at Ocean Beach.

The recommendations outline an ambitious approach to managing and improving Ocean Beach through 2050, while incorporating analysis and consideration of test scenarios through 2100.

This document is intended to:

- Articulate a compelling and rigorous vision for Ocean Beach's future, rooted in the complex realities and imperatives of all actors.
- Provide the basis of better and more coordinated management practices
- Provide guidance for decision making by public agencies and elected officials
- Provide a road map for implementation, technical studies,

project initiation, environmental review, and capital planning by various agencies

- Provide a consensus baseline against which future actions may be measured
- Provide guidance to public agencies in the development of policy and projects
- Promote better interagency coordination

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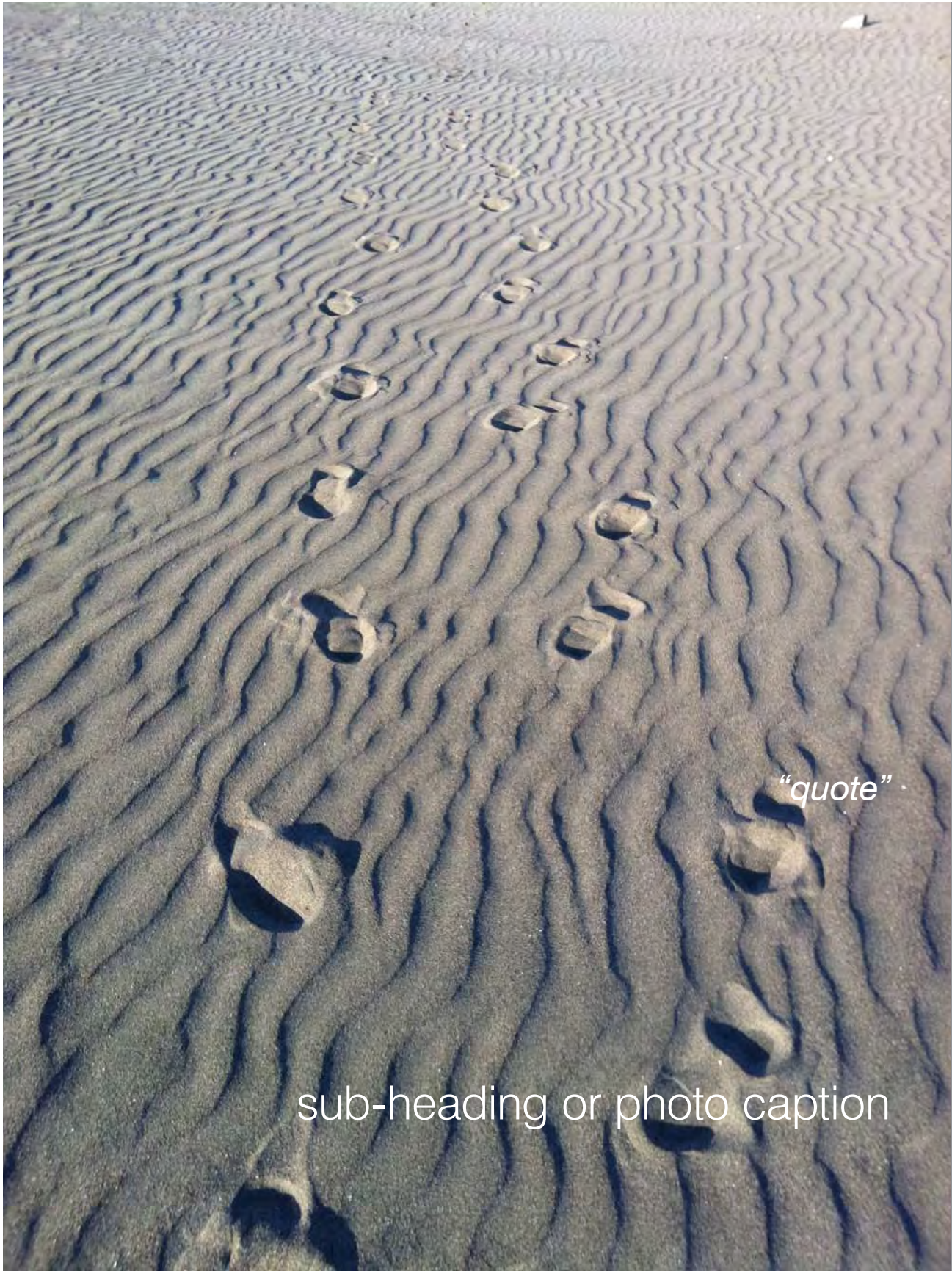
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scope and study area

The Ocean Beach Master Plan is charged with looking at all major aspects of the beach for the next 50 years and beyond. By taking a decidedly long view, developing a consensus vision and working backward to arrive at near- and medium-term actions, the master plan is intended to provide the framework that is missing from short-term decisions today.

The study area encompasses the beach and adjacent lands from the high-water mark to the property line at the eastern edge of the Lower Great Highway and excludes any private property. It takes in 3.5 miles of contiguous coastline from the beach’s northern extent to the Fort Funston bluffs. Of course, numerous processes and practices, from transit access to offshore dredging, must be considered as well. The plan will consider Ocean Beach as a whole place: as an urban promenade, a

changing coastline, a key segment of the GGNRA, a habitat corridor and a major infrastructure complex. But as much as these aspects are interdependent, the conversation about Ocean Beach invariably returns to the most pressing crisis: the erosion at the south end of the beach and the infrastructure that lies in its path. To plan meaningfully for Ocean Beach as an open space, we must define an approach to coastal management that balances infrastructure needs, natural-resource values and the realities of a changing climate.



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project goal + aspirations

chapter





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overall project goal

“To knit the unique assets and experiences of Ocean Beach into a seamless and welcoming public landscape, planning for environmental conservation, sustainable infrastructure and long-term stewardship”

project aspirations

The complex issues facing Ocean Beach are addressed through seven Focus Areas, each of which represents a key aspect of this Plan. To kick-off the planning process, the project team in collaboration with the Steering Committee and the Planning Advisory Committee prepared the following seven aspirations that correspond to each of the site's focus areas.



focus area 1 :
ecology

aspiration

Restore and establish conditions that support thriving biological communities.

focus area 2 :
utility infrastructure

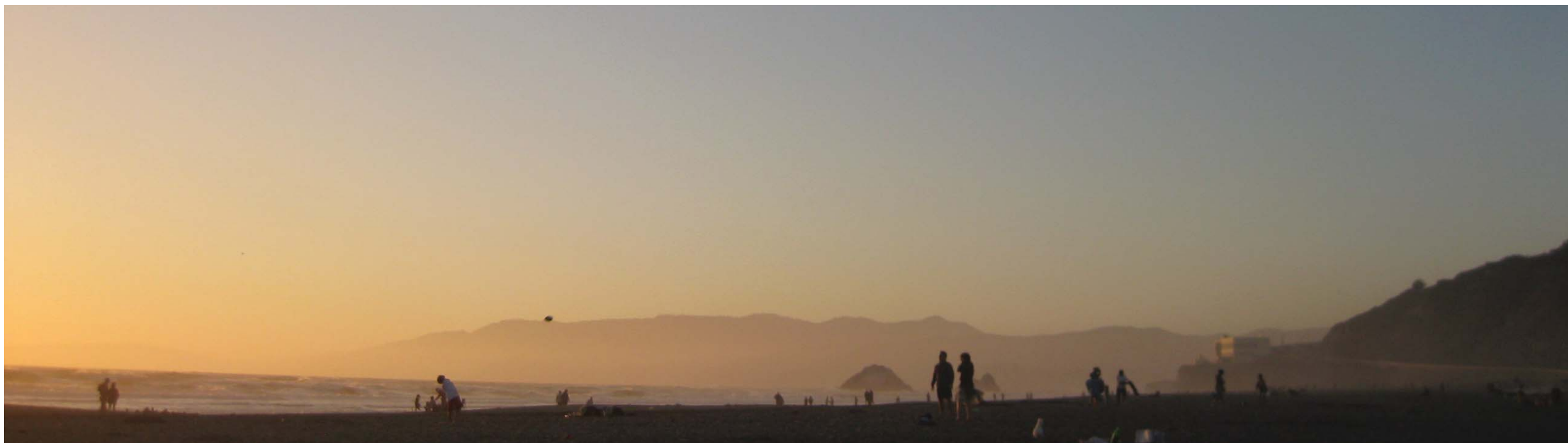
aspiration

Evaluate infrastructure plans and needs in light of uncertain coastal conditions, and pursue a smart, sustainable approach.

focus area 3 :
coastal dynamics

aspiration

Identify a proactive approach to coastal management, in the service of desired outcomes.



focus area 4 :
image + character

aspiration

Preserve and celebrate the beach's raw and open beauty while welcoming a broader public.

focus area 5 :
program + activities

aspiration

Accommodate diverse activities and users, managed for positive coexistence.

focus area 6 :
access +
connectivity

aspiration

Provide seamless and fluid connections to adjacent open spaces, the city and the region.

focus area 7 :
management +
stewardship

aspiration

Provide an approach to long-term stewardship across agencies, properties and jurisdictions.