PROJECT DESCRIPTION

Comment [Diana1]: Up to 5 pages

Introduction

San Francisco's Coastal Zone extends approximately six miles from Fort Funston in the south to Lands End in the north.The majority of the Coastal Zone, including Ocean Beach, the Great Highway, Lands End, Sutro Heights Park, Golden Gate Park, the San Francisco Zoo, Lake Merced and Fort Funston, is public property. An estimated #### visitors per year use the diverse array of public recreational facilities in the Coastal Zone.

Comment [Diana2]: Ben/Shannon – do you have this number?

Only 14 percent of the total land area within the Coastal Zone is privately owned. Of that area, 9 percent is open space (the Olympic Club Golf Course) and the remaining 5 percent is fully built-out with existing residential and commercial development. The Olympic Club owns the only privately held lands lying between the first public road and the sea; these lands are open to the public under a public access and open space easement granted to the Golden Gate National Recreation Area (GGNRA). As a result, San Francisco does not experience the development pressures and related resource protection and public access challenges typical in other coastal communities.

Comment [Diana3]: Ben/Shannon – can you confirm?

As discussed below, San Francisco's coastal zone management issues are limited primarily to: (1) maintenance and improvement of existing public recreational facilities and related infrastructure; (2) protection and maintenance of public wastewater infrastructure; and (2) erosion of the beach and bluff in the area south of Sloat Boulevard. The LCP amendments proposed under this grant application would address all of these challenges.

Shoreline Erosion

Severe erosion of the beach and bluff at Ocean Beach in the area south of Sloat Boulevard has resulted in the loss of beach parking and periodic closures of The Great Highway. Continued erosion of the shoreline in this area threatens to damage major wastewater infrastructure complex beneath and adjacent to The Great Highway, including the Lake Merced Tunnel and the Oceanside Water Pollution Control Plant. This infrastructure plays a vital role in providing public services to the City (see sidebar). For example, the control plant treats 20 percent of the City's wastewater and is at the early stages of its operating cycle. Sea-level rise, and increased frequency and severity of storms anticipated as a result of climate change, will likely exacerbate the shoreline erosion problem.

To date, the City's efforts to stabilize the shoreline south of Sloat Boulevard and protect public infrastructure, including The Great Highway and critical wastewater infrastructure, have proven ineffective. Constructed dunes and sand berms have been quickly washed away during winter storms, and rubble and riprap revetments impede public access, present a hazard to surfers, displace sensitive habitat, and degrade the scenic quality of our shoreline. A better approach to managing shoreline erosion in this area – one that minimizes adverse effects on public access and coastal recreation,

Wastewater Infrastructure

San Francisco is the only major city on the California coast with a city-wide combined sewer system. The wastewater load fluctuates depending on weather conditions. In dry weather sewage travels through a network of pipes to the Westside Transport Box, a rectangular tube under the Great Highway between Lincoln and Sloat Boulevards. From there it flows to the Westside pump station at Sloat Boulevard, where it is pumped to the Oceanside Water Pollution Control Plant for treatment. The secondary-treated effluent is discharged 4.5 miles out to the ocean through the 80 feet deep Southwest Ocean Outfall. When the plant's capacity is overwhelmed in extreme wet weather conditions, the transport box and the Lake Merced Tunnel fill up and retain the combined flow. Overflow there is decanted and pumped to the deep ocean outfall. Only when that system's capacity is exceeded do combined discharges occur, through two large outfall structures on Ocean Beach.

protects sensitive habitat and preserves scenic quality while maintaining critical City infrastructure – is clearly needed.

Sea-Level Rise

The Federal Emergency Management Agency (FEMA) selected San Francisco's Pacific coast for a pilot study to analyze future coastal flood risks that takes into account sea-level riseand the associated changes to wave hazards, depth and extent of inundation, and storm induced erosion as part of the California Coastal Analysis and Mapping Project Open Pacific Coast Study. San Francisco will use the study, anticipated to be completed in the summer of 2014, to increase public awareness and develop floodplain management standards that account for future sea-level rise.

In parallel, the San Francisco Public Utilities Commission (SFPUC) is conducting a detailed sea-level rise vulnerability analysis under the City's Sewer System Improvement Program. This analysis, also due to be completed in the summer of 2014, uses a 1-meter horizontal grid resolution digital elevation model based on the 2010/2011 California Coastal Mapping Program LiDAR, and incorporates FEMA water level and storm surge data and coastal hazard analysis methods that consider shoreline types (i. e. , sandy beaches, dunes, bluffs), presence of coastal structures, and erosion potential. The inundation maps will include a range of sea-level rise estimates from 12 inches to 66 inches, and will account for the dynamic overland water levels associated with sea-level rise-driven changes to the 100-year coastal storm surge and wave hazards.

Ocean Beach Master Plan

Working in cooperation with a host of federal, state and local agencies, community stakeholders, and the public, SPUR, a San Francisco nonprofit think-tank, spent over 18 months developing a plan for the stewardship of Ocean Beach. The Ocean Beach Master Plan, released in 2012, is a non-regulatory document that recommends six "key moves" that chart an ambitious and proactive vision for managing a changing coastline, protecting critical sewer infrastructure, and upgrading public access to the beach over a nearly 40-year period. The City and County of San Francisco has embraced this plan and is committed to implementing its recommendations.

a. Goals and objectives

The goals and objectives of the proposed LCP amendment will reflect the vision presented in the Ocean Beach Master Plan to improve public access and coastal recreation, preserve and enhance sensitive habitat and scenic resources, and protect critical infrastructure in the area between Sloat and Skyline Boulevards. The plan calls for closure of the Great Highway south of Sloat Boulevard, rerouting of traffic around the inland side of the Zoo and Oceanside Wastewater Pollution Control Plant, pedestrian, bicycle and streetscape improvements along Sloat Boulevard and at key intersections, public beach parking, restoration of the beach and bluff, new trail connections linking Ocean Beach to Fort Funston and Lake Merced, and protection of the City's wastewater infrastructure. The proposed LCP amendment would develop this vision into actionable City policies under the certified LCP. In addition, the City proposes to develop and adopt a more general set of policies addressing sea-level rise adaptation throughout San Francisco's Coastal Zone based on the FEMA and SFPUC sea-level rise and coastal flood hazard studies described above. The proposed work plan for the LCP amendment is as follows:

Comment [SN4]: *Describe the specific project goals and objectives to be achieved. Goals and objectives should be specific for each year of the work plan presented. Recipients will be required to submit progress reports in which progress against these goals and objectives will be reported. Include a description of how you will accomplish each objective, and how your objectives will accomplish your goals.*

YEAR 1

Engage the Local Community and Western Shoreline Coastal Hazard Stakeholders

- Build on community and stakeholder engagement to date to ensure that the LCP amendment reflects the interests of the myriad stakeholders and users of San Francisco's coastal resources.

- Provide ample opportunity and atmosphere for public inputand engagement through a series of public workshops and media tools (e. g. , web site, surveys, social media).

Ensure Interagency Coordination

- Build on interagency engagement to date to ensure that the LCP amendment reflects the interests of the myriad public agency stakeholders of the western shoreline.
- Provide ample opportunity for interagency input through regularadvisory committee meetings and one-on-one consultations.

Develop Draft LCP Goals, Objectives, and Policies

- Summarize existing conditions based on existing data and maps.
- Develop draft goals, objectives, and policies that reflect the priorities of the public and vested agencies.

YEAR 2

Refine LCP Goals, Objectives, and Policies

- Incorporatecomments from stakeholders (community members and public agencies) into a final draft set of LCP goals, objectives, and policies.
- Work closely with CCC staff to reach consensus.

Receive Approval forLCP Amendment

- Present LCP Amendment to San Francisco Planning Commission and receive approval.
- Present LCP Amendment to San Francisco Board of Supervisors and receive approval.
- Present LCP Amendment to CCC for certification.

b. Approach

Comment [SN5]: *Identify specific tasks to be accomplished; explain the technical approach needed to accomplish the tasks; identify the roles of partners and cooperators; and identify potential obstacles to successful completion of the goals and objectives. Describe how stakeholders will be involved in the planning or assessment process. If the project includes partners, the roles and responsibilities of the partners must be clearly identified*

Task One: Public and Agency Engagement

Technical Approach: Based on the International Association of Public Participation (IAP2) framework for engagement, a detailed public and agency involvement strategy will be developed to consider the views of the stakeholders affected by or concerned with sea-level rise along the western shoreline. The strategy will clearly identify public engagement goals and appropriate engagement techniques that are specifically targeted to individual stakeholder needs and interests. Each stakeholder group, or audience, does not require or even desire the same level of information or interaction. These considerations will be incorporated into the strategy.

We will hold four rounds of public meetings and each round will be held at different days/times to capture the widest audience. The first round will present existing conditions, the second will prioritize policies and strategies, the third will present the proposed draft LCP amendments, and the fourth will demonstrate how public comments were incorporated into the final amendments for submittal to the Planning Commission. Given the number of stakeholders and their diverse interests, we propose contracting with a professional facilitator to assist with this process.

We will also meet regularly with an Interagency Advisory Committee made up of local public agency stakeholders to ensure that project staff are up-to-date on other projects in the area and are able to integrate new information as it becomes available. These meetings will also be the means through

which we will develop a coordinated City voice around our approach to sea-level rise as well as our common sources of data, analysis and contacts.

Partners and Cooperators: Through strategic communication planning, our engagement efforts will recognize and appropriately plan for engaging a diverse range of stakeholders, as follows:

- **Decision-makers**, including the Mayor's Office, local elected supervisors and planning commissioners;
- **Ocean Beach Planning Advisory Committee**, an already formed group of community stakeholders and environmental activists, who have been involved in the Ocean Beach planning process for many years; and
- **Interagency Advisory Committee**, including representatives from the Public Utilities Commission, Department of Public Works, Municipal Transportation Agency, Recreation and Parks Department, Capital Planning Commission, Zoo, GGNRA, and the Planning Department. We will also involve the U. S. Army Corps of Engineers periodically to brief them on policy options and status.

Planning Department staff will also continue to work closely with SPUR throughout this task. SPUR built important relationships with stakeholders during the development of the Ocean Beach Master Plan, and we want to build on those relationships to support this next step. Planning staff will meet in person with SPUR biweekly in the first few months of the project and on a regular basis after that to ensure understanding of stakeholder concerns and engagement outcomes to date.

We will also meet regularly with CCC staff and Ocean Protection Council staff, based on their desired level of involvement.

Potential Obstacles: There are many users of this urban coastal area and their individual priorities will, at times, conflict. For example, although re-routing and reducing the number of lanes of the Great Highway can provide ways to increase shoreline protection and beach access, many stakeholders are concerned with the resultant impacts on neighborhood traffic. The need for compromise will be emphasized at the outset and proper techniques and atmosphere will be employed to promote consensus.

In addition, each agency has its own political and administrative process, so coordinating and reaching agreement could be challenging. We will address this by: (1) continuing to involve SPUR, who established an atmosphere of collaboration and consensus; (2) ensuring that each City agency designates a single staff member with decision-making authority to the Interagency Advisory Committee and (3) communicating regularly and frequently with interested agencies and stakeholders.

Task Two: Existing Data and Analyses

Technical Approach: Planning Department staff will rely on the SFPUC sea-level rise study described above to identify, at a plan level of detail, areas and facilities south of Sloat Boulevard that are vulnerable to hazards related to future sea-level rise. This assessment will inform the development of sea-level rise adaptation policies proposed to be included in the City's LCP.

Partners and Cooperators: We will work with the Interagency Task Force, along with SPUR and a consultant very familiar with the best available science to accomplish this task.

Potential Obstacles: The science associated with sea level rise is continually being updated, revised, and strengthened. Although there is no doubt that sea levels have risen and will continue to rise at an accelerated rate over the coming century, it is difficult to predict with certainty what amount of will occur at any given time in the future. To address this uncertainty, the City will propose policies that

provide flexibility in updating sea-level rise adaptation plans and policies as needed based on the release of new information.

Task Three: Policy Development

Technical Approach: Planning Department staff will integrate public comments, agency priorities, and the recommendations of SPUR's Ocean Beach Master Plan into a draft set of policies that will address sea-level rise on San Francisco's western shoreline. We will also include recommendations from other policy documents and relevant work, such as the National Research Council Report,CCC Draft Guidance, and the Intergovernmental Panel on Climate Change 5th Assessment Report. Planning Department staff will establish a detailed review calendar to coordinate draft review by agencies well in advance of the public comment period(s).

Partners and Cooperators: We will work closely with SPUR, our consultant, and the Interagency Task Force to define the structure and organize the content of the policies, as well as establish the review calendar. We will also work iteratively with the Ocean Beach Planning Advisory Committee, decision-makers, and members of the public to ensure that the policies reflect their comments.

Potential Obstacles: Ocean Beach is a national park, a popular urban open space, the site of a major infrastructure complex and a beloved San Francisco landscape. It faces a wide range of complex challenges—including severe erosion, jurisdictional issues, a diverse array of beach users and points of view, and the looming challenge of climate-induced sea-level rise. Although the Ocean Beach Master Plan achieved a high level of consensus amongst stakeholders, given the challenges and complexities of the coastal zone, additional consensus building techniques will need to be employed.

Task Four: Approvals Process

Technical Approach: The amendments will be presented for approval to the Planning Commission, the Board of Supervisors, and the California Coastal Commission. Because of the existing level of consensus amongst stakeholders, we anticipate this process will take approximately 12 months.

Partners and Cooperators: We will partner with all decision-makers and stakeholders.

Potential Obstacles: Depending on the questions and concerns of CCC staff and the approving bodies, it can be difficult to anticipate how long the process will take. We anticipate a year, although acknowledge that it could take longer. The City will ensure that adequate staff time is budgeted to acquire all of the necessary approvals.