

Appendix E

Sea-Level Rise Inundation Maps

Introduction

This appendix provides additional examples of the sea-level rise inundation maps available for Marin County, including maps provided by the Marin County Development Agency's Collaboration: Sea-level Marin Adaptation Response Team (C-SMART) partnership and a multi-stakeholder initiative called Our Coast, Our Future (OCOF) (County of Marin 2014; Our Coast, Our Future 2015).

The C-SMART partnership has developed a series of PDF maps of selected regions and communities along the coast of Marin County. These maps depict coastal assets that may be exposed to sea-level rise and storm surges. The regional maps show the location of each community as well as exposed assets between communities that could be inundated under the following sea-level rise and storm scenarios:

- 25 centimeter (cm) sea-level rise with an annual storm,
- 25 cm sea-level rise with a 20-year storm,
- 50 cm sea-level rise with a 20-year storm,
- 100 cm sea-level rise with a 100-year storm, and
- 200 cm sea-level rise with a 100-year storm.

The community maps show the land within each of the community boundaries that could be inundated under the same sea-level rise and storm scenarios detailed above, highlighting key assets within the communities and the inundation zones. The regional maps are provided for the northern and southern regions of Marin's ocean coast, while community maps are provided for Muir Beach, Stinson Beach (see **Figure 1**), Seadrift (see **Figure 2**), Bolinas (East), Bolinas (West), Inverness (North), Inverness (South), Point Reyes Station (see **Figure 3**), Eastshore (South), Eastshore (North), Marshall, and Lawson's Landing.

The OCOF web site houses a dynamic web tool that features the San Francisco Bay Area and depicts the extent of flooding, waves, current, duration, and flood potential under various sea-level rise and storm scenarios. The scenarios range from 0 to 500 cm of sea-level rise with the following storm scenarios: no storm, an annual storm, a 20-year event, a 100-year event, or a king tide scenario.¹ The OCOF web site also allows users to choose which layers to view, with topic data that include levees, place names, land use, protected areas, rivers and streams, cliff and shoreline retreat, shorebirds, coastal armoring, roads and transportation, trails, buildings, and utilities and services. The geographic coverage of the tool extends alongshore of the outer coast, from Bodega Head to just south of Pillar Point Harbor in Half Moon Bay. The figures below provide examples of the OCOF flood maps, which include a map of Sausalito flooding under a 200 cm sea-level rise and a 100-year storm scenario in **Figure 4**.

¹ King tide is a colloquial term for an especially high tide, which typically occurs when the earth is at its closest point in its orbit to both the moon and the sun at the same time.

Figure 1. Sea-Level Rise Exposure and Asset Identification Map for Stinson Beach, Marin County

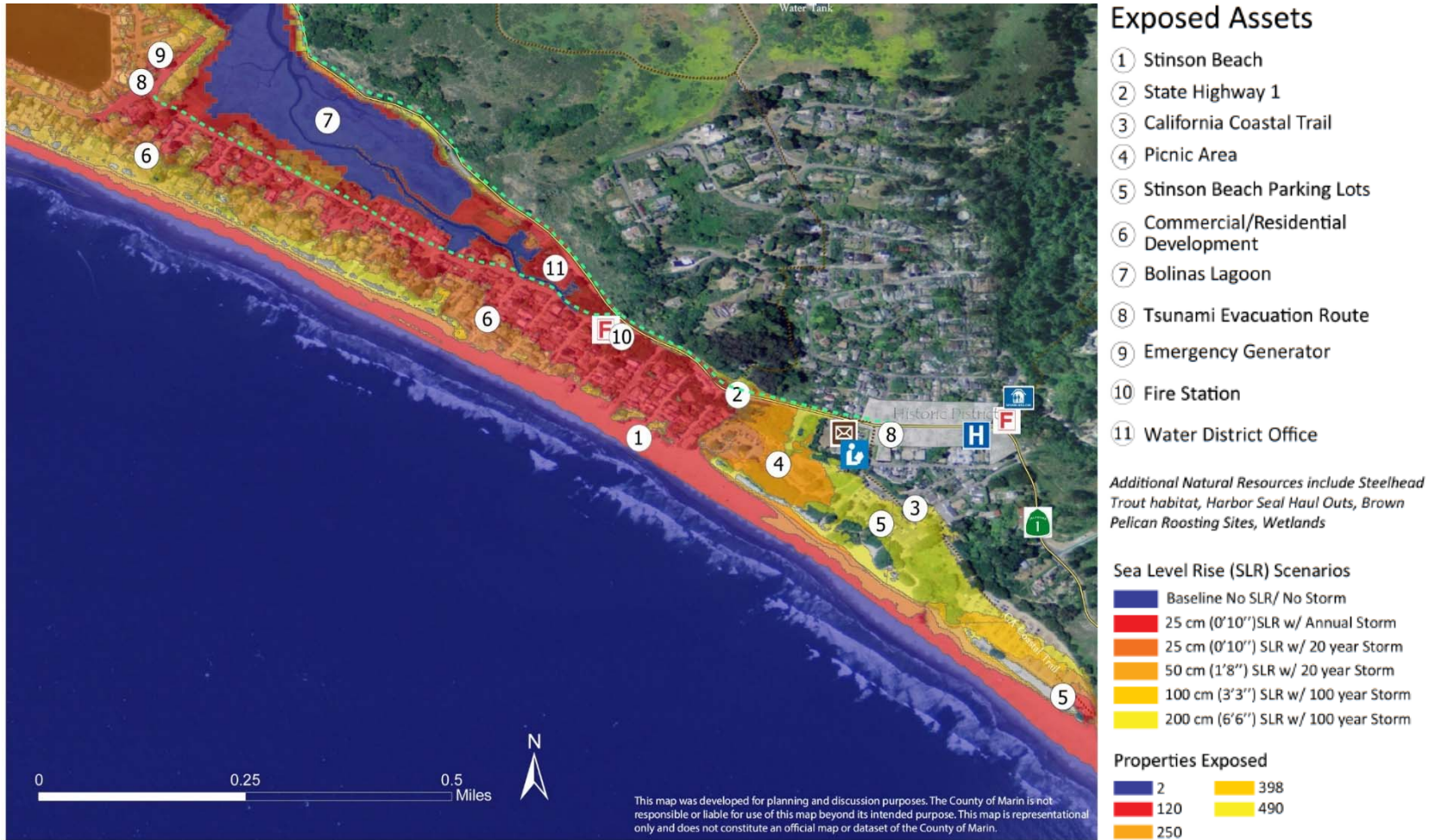


Figure 2. Sea-Level Rise Exposure and Asset Identification Map for Seadrift, Marin County

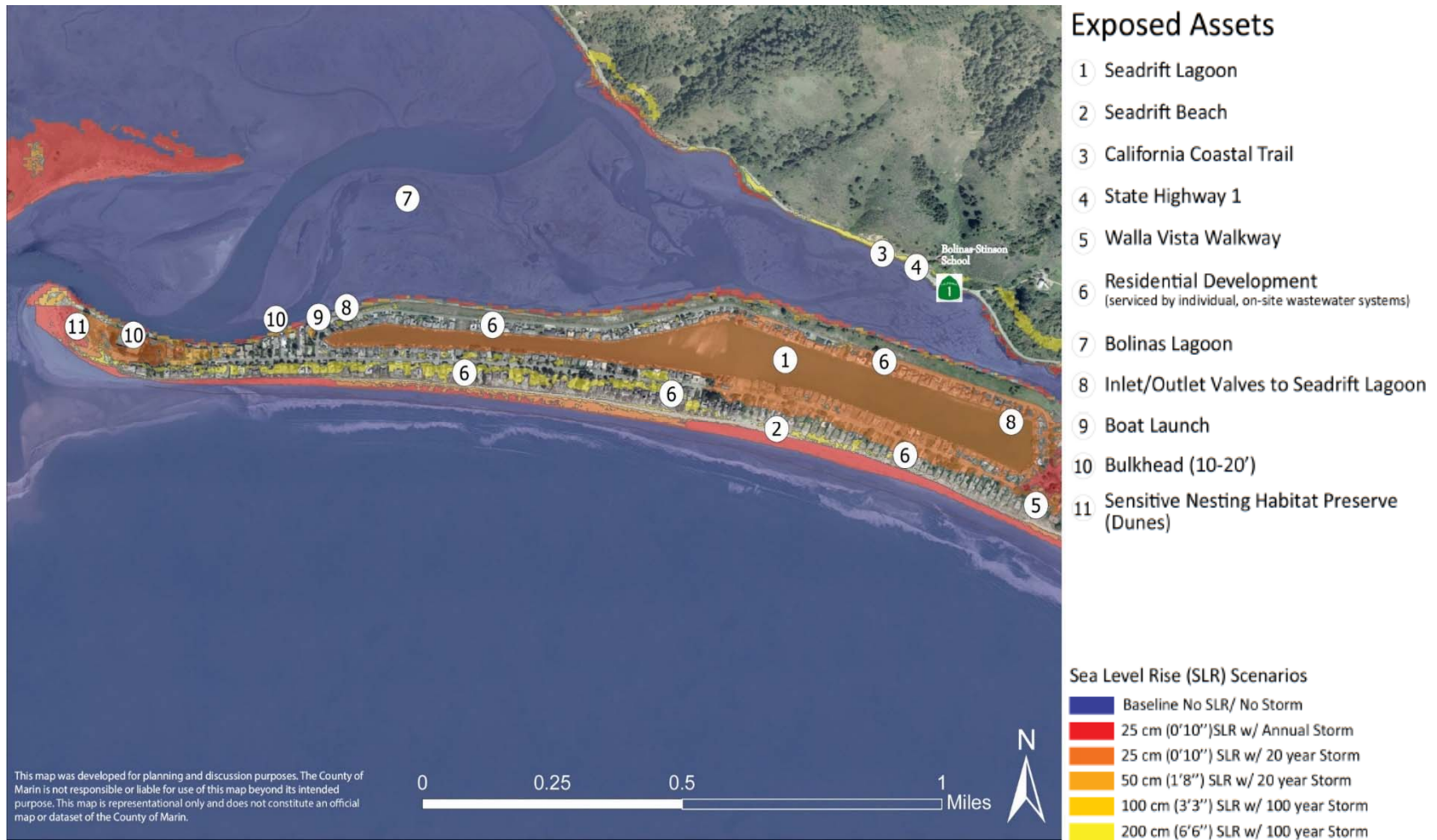


Figure 3. Sea-Level Rise Exposure and Asset Identification Map for Point Reyes Station, Marin County

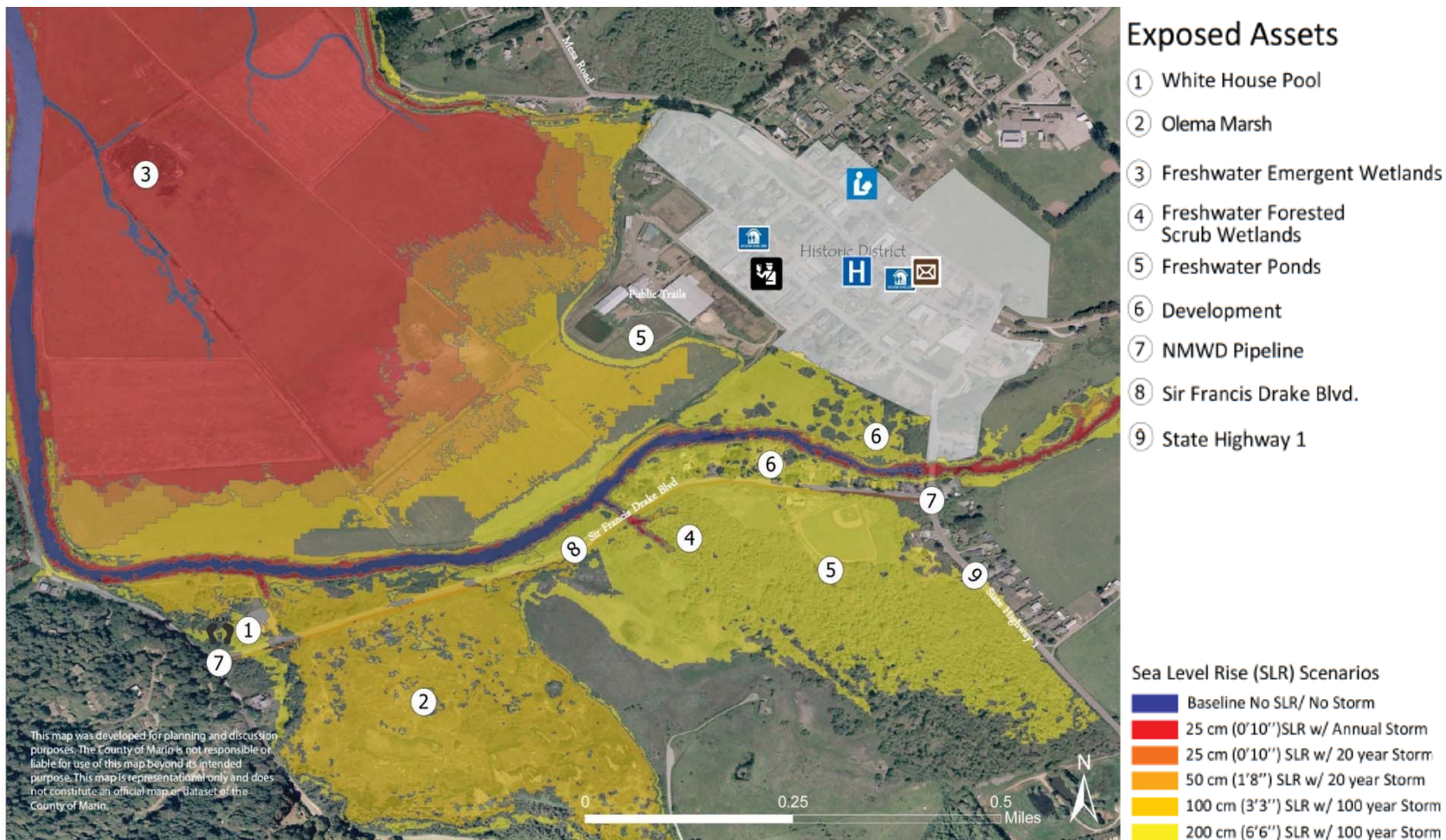
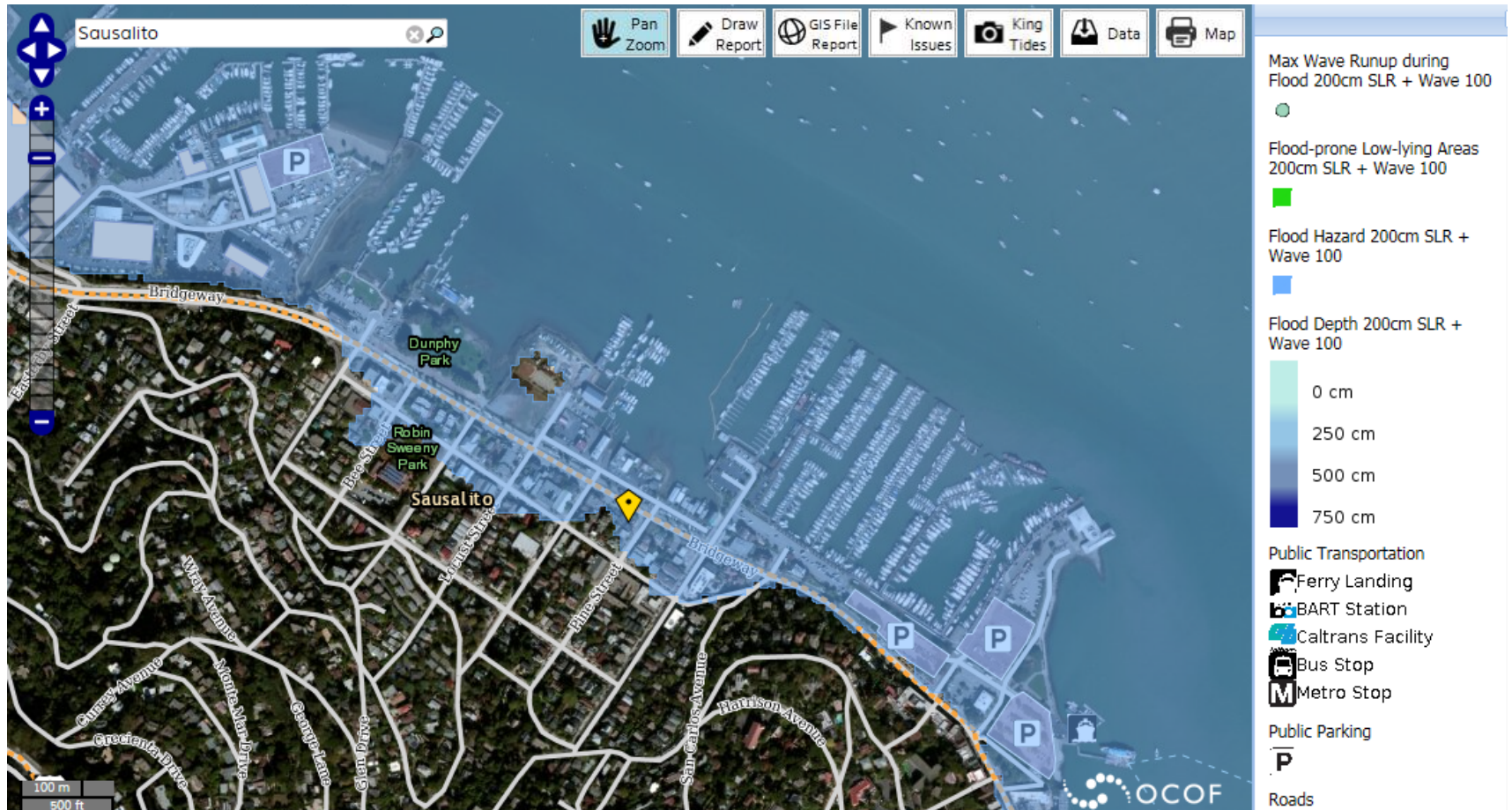


Figure 4. Flooding under a 200 cm Sea-Level Rise and 100-Year Storm Scenario at Sausalito, Marin County



Literature Cited

Marin County. 2014. *Exposure/Asset Identification Maps*. Marin County Development Agency's Collaboration: Sea-level Marin Adaptation Response Team (C-SMART) partnership. Available: <www.marincounty.org/depts/cd/divisions/planning/sea-level-rise/exposure-asset-identification>. Accessed: March 31, 2015.

Our Coast, Our Future. 2015. *Flood Map*. Available: <data.prbo.org/apps/ocof/index.php?page=flood-map>.