#### **Local Coastal Plan and Resiliency**

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**Professional Geologist** 

Permit Sonoma







- Local Coastal Plan Update
- Major hazards to the Sonoma Coast
- Adaptation and Resiliency



## Local Coastal Plan (LCP)

- Required for all coastal jurisdictions
- Implements the California Coastal Act
- Allows for local control of most land use decisions

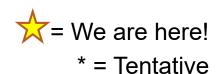
Policies only apply within the Coastal Zone



#### **LCP Timeline**

- 1 Project Launch
- 2 Preliminary Draft
- 3 Preliminary Draft (2015) Workshops
- Public Review Draft Release
- 5) Public Review Draft Workshops
- 6 Planning Commission Hearings \*Spring 2020
- 7 Board of Supervisors Hearings \*Summer 2020
- (8) Coastal Commission Hearings \*Fall 2020
- Oertification





## Local Coastal Program

#### Local Coastal Plan (Part I)

Land Use Plan

- Currently being updated
- Long-range planning document

#### Coastal Zoning Code (Part II)

Implementation Plan

Chapter 26C of the County Code

- Implements the Local Coastal Plan
- Will be amended once LCP is certified
- Future changes will have separate public outreach

#### Administrative Manual (Part III)

- Describes procedures, guidelines, and standards
- Assists in processing permit applications

## **LCP Update Goals**

Comply with the provisions of the Coastal Act

Modernized for public use

Update information and policies in five key areas:

- Geologic Hazards
- Sea Level Rise
- Water Quality
- Public Access
- Biotic Resources



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## LCP Organization

Introduction

**Elements** 

- 1. Land Use
- 2. Agricultural Resources
- 3. Open Space & Resource Conservation
- 4. Public Access

5. Water Resources

6. Public Safety

7. Circulation & Transit

8. Public Facilities & Services

9. Noise

**Appendices A-J** 

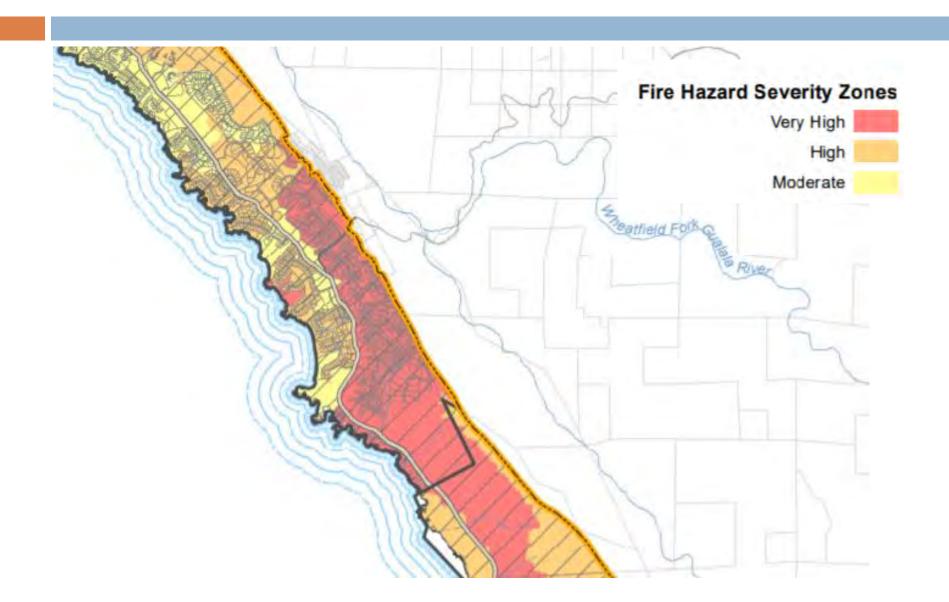
Individual communities and sub-areas are discussed throughout the plan

## **Public Safety Element**

- Discusses Major Hazards
  - □ Fire
  - Seismic
  - Sea Level Rise and Coastal Erosion

Focused Vulnerability Assessment for Bodega Bay

## Wildfire Hazards



#### Wildfire Hazards

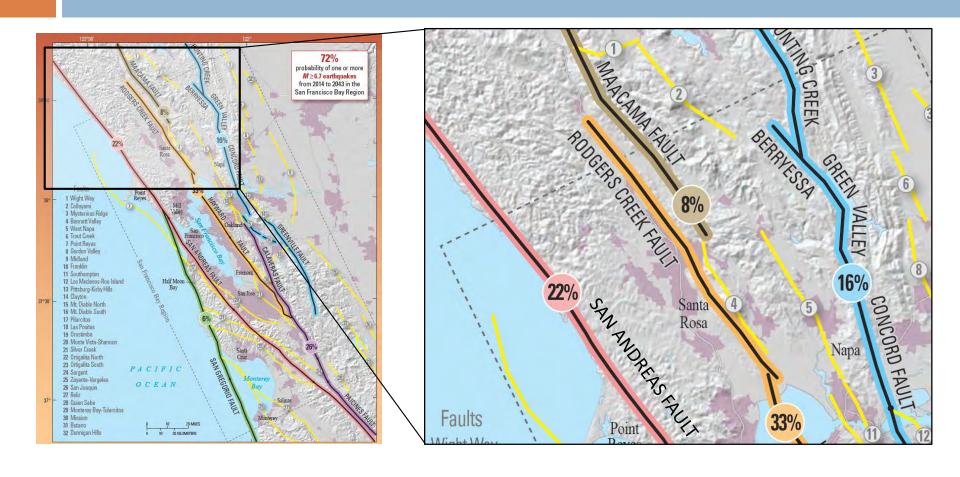
- Select LCP Policies
  - Encourage fuels management, controlled burns, fire roads...
  - Consider fire hazards in review of proposed projects, refer to the Fire and Emergency Services for review and comment
  - Require fire management plans for subdivisions and new or expanded recreational facilities

### Seismic Hazards

- Ground shaking
- Ground failure (liquefaction)
- Seismic inducedlandslides
- Surface fault rupture



### Seismic Hazards



## Seismic Hazards

- Select LCP Policies
  - Geologic hazards report with recommended mitigations
  - Fault Study (projects within Alquist Priolo Fault Zone)
  - Release of liability to County if within high hazard area





## **Bluff and Coastal Erosion**

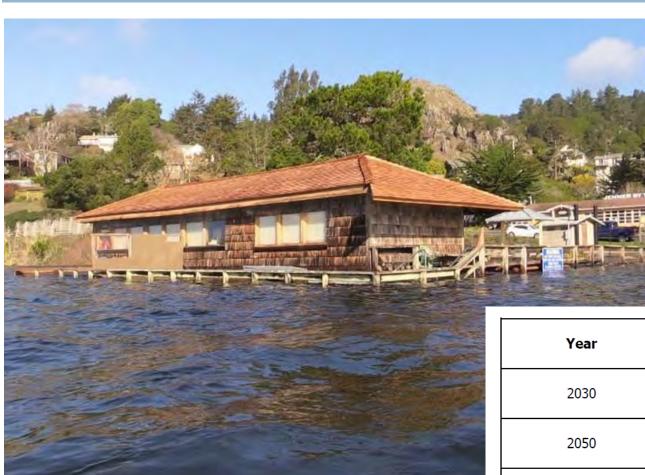


#### **Bluff and Coastal Erosion**

- Select LCP Policies
  - Coastal bluff erosion hazards report for new or redevelopment
  - □ 100 foot minimum setback
  - Where existing development is threatened:
    - first priority shall be to relocate
    - Only when all other options are deemed infeasible should shoreline protection structures be considered.

#### **Bluff and Coastal Erosion**

- Shoreline Protection Guidelines
  - Only for existing structures (prior to 1977), roads, and public beach
  - No significant impact to sand supply, natural landform, wetlands...
  - If built deed restriction specifying landowner responsibility to maintain and remove.
    - Bond for removal cost, monitoring ...

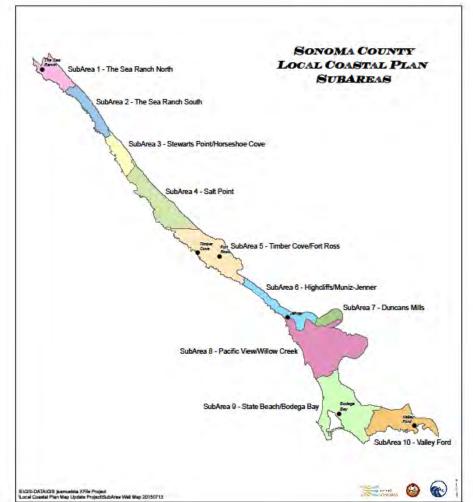


| Year | Projected Rise in Sea Level       |  |  |
|------|-----------------------------------|--|--|
| 2030 | 0.13 – 0.98 feet<br>(4 – 30 cm)   |  |  |
| 2050 | 0.39 - 2 feet<br>(12 - 61 cm)     |  |  |
| 2100 | 1.38 – 5.48 feet<br>(42 – 167 cm) |  |  |

Source: National Research Council (2012)

- Select LCP Policies
  - □ Flood hazard report (year 2100 sea level at high tide + storm)
  - Minimum 100 foot buffer from wetlands (high tide) or riparian zones (for new development on undeveloped site)
  - Release of liability to County if within inundation area

General Vulnerability Assessment - 2016



#### □ Focused Bodega Bay Vulnerability Assessment - 2016

| Scenario Projected Sea Level Rise feet cm | Sea Level |                              | Storm<br>Event               | Westside Regional Park<br>(PUBBACC-1)<br>12.54 acres |                           | Doran Beach Regional<br>Park (PUBACC-2)<br>102.51 acres |     |
|---|-----------|------------------------------|------------------------------|--|---------------------------|---|-----|
|   |           | Inundated<br>by<br>Sea Level | Plus Storm<br>Event<br>Flood | Inundated<br>by<br>Sea Level                         | Plus Storm<br>Event Flood |   |     |
| 1 - 2016                                  | 0         | 0                            | annual                       | 1000   |                           | < 1%  | 8%  |
| 2 - 2030                                  | 0.83      | 25                           | 20-year                      | p.52-2-  | 1994                      | 7%  | 17% |
| 3 - 2050                                  | 1.67      | 50                           | 20-year                      |  | 2%                        | 12%   | 20% |
| 4 – 2100<br>Best Case                     | 3.33      | 100                          | 100-year                     | < 1%   | 83%                       | 19%   | 35% |
| 5 – 2100<br>Worst Case                    | 6.56      | 200                          | 100-year                     | 98%  | 100%                      | 36%   | 75% |



- Bodega Bay Vulnerability Assessment
  - Three strategies
    - Protect (soft or hard)
    - Accommodate (elevate, setbacks)
    - Retreat (remove, relocate, "down zone")
  - Vulnerable Assets
    - Doran Park, West Side Park, Marinas
    - Westshore, Eastshore, Bay Side roads

## LCP Programs

- Adaptation plan and incentives for retreat
- Focused vulnerability and risk Assessments
- Geologic Hazard Abatement District
- Flood Hazard Area Combining Zone
- Fire safe standards and wildfire risks
- □ ....

# Discussion/Comment





#### Thank You

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## **Principally Permitted Uses**

(**Principal Uses**): Currently described in the County Coastal Zoning Code. Not a change in zoning

- Coastal Act requires identification of Principally Permitted Uses
- Coastal Permit for principal use is not appealable to the Coastal Commission under the Coastal Act, but still subject to permitting by, and appeal to the County
- Requires a discretionary Coastal Permit, unless exempt or otherwise categorically excluded by order of the Coastal Commission
- Nothing is principally permitted in an environmentally sensitive habitat area or major view designated in the Open Space and Resource Conservation Element
- Subject to site development standards. Outside commercial zones all commercial uses that require a coastal permit are appealable to Coastal Commission

## **Energy Exploration and Oil Drilling**

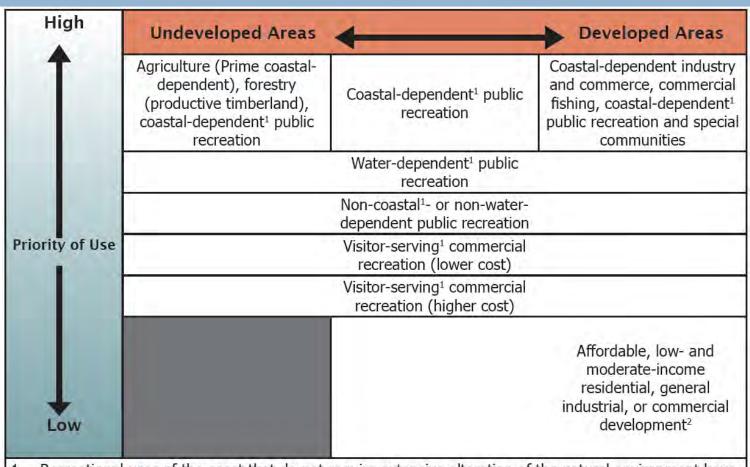
#### Land Uses Section 3.1.1

- Offshore facilities are discouraged though outside of jurisdiction
- Onshore support facilities are prohibited without voter approval (Policy C-LU-1a)
- Under U.S. Coastal Zone Management Act of 1972,
   Coastal Commission is review authority for offshore drilling within 3 miles of coast.

## **Implementation**

- Programs: identifies necessary or potential steps for implementation; for example, further study and development of plans of ordinances
  - Adoption of future plans or ordinance will have their own outreach process and be subject to certification
- Other Initiatives: non-binding, advisory statements of intent, encouragement, or pledges for specific endeavors, programs, or outcomes
  - May set guidelines and priorities for County actions

## Implementation of the Coastal Act



- 1 = Recreational uses of the coast that do not require extensive alteration of the natural environment have priority in intertidal and waterfront areas over recreational uses that would result in substantial alteration.
- 2 = Concentration of development policies limit development in rural areas.

#### **Environmentally Sensitive Habitat Areas**

#### **ESHA**

- Expanded ESHA definition
- Anything meeting new definition of ESHA, including potential ESHA are considered/protected as ESHA
- Policy for minimum buffers around habitat areas
- Updated mapping based on LiDAR and current listed species [C-OSRC-2 (a-k)]