WELCOME

VENICE LOCAL COASTAL PROGRAM UPDATE:
COASTAL HAZARDS
Introducing the Team

Hosted by the Department of City Planning and grant funded in part by the California Coastal Commission
Workshop Purpose

- Review Local Coastal Program (LCP) Update Process & recap Vulnerability Assessment results for Venice
- Present adaptation strategies
- Facilitate community input and discussion on adaptation strategies
Today’s Workshop Format

1. PRESENTATION
   • Review Local Coastal Program process
   • Recap Venice Vulnerability Assessment results
   • Present draft adaptation strategies

2. WORKSHOP STATIONS
   • Venice Local Coastal Plan Update
   • Sea Level Rise Mapping
   • Increase Resiliency
   • Permit & Development Standards
   • Community-Scale Adaptation
   • Building Knowledge

3. WRAP UP
   • Share information for next steps and how to stay involved
   • Door prize drawing
California Coastal Act of 1976 requires local governments to have a Local Coastal Program (LCP)

- LCPs regulate and guide development in the coastal zone

Source: Visitcalifornia.com
Venice Coastal Zone Land Use Plan (LUP)*
Updated 2001
Certified by CCC

Implementation Plan (IP)
N OT C e rtified b y CCC

Local Coastal Program (LCP)

*Department of City Planning is currently updating the Venice LUP
Overall Project Goal:
Incorporate sea level rise into the Venice Local Coastal Program
1. Develop range of **sea level rise projections** relevant in LCP planning area

2. Identify anticipated **sea level rise impacts**

3. Assess **risks** to coastal resources and development

4. Identify **adaptation strategies** to translate into LCP policies

5. Draft **updated** and **new** LUP policies and IP measures for LA City Council approval and CCC certification

6. **Implement** LCP and monitor and revise as needed
Workshop Themes

- Canal & Beach Hazards
- Beach & Canal Habitat
- Infrastructure
- Protect Housing
- Community Involvement
- Flooding

Venice Community & Historic Character

Elevation Map
Coastal Hazards Overview

Venice Sea Level Rise Hazards Summary Diagram

Beach erosion
Wave action
Flooding

Flooding

Tidal Gate functions as levee
Venice Vulnerability Assessment Results

VENICE LCP SEA LEVEL RISE HAZARDS

CURRENT SEA LEVEL +0.0 ft.
VENICE LCP SEA LEVEL RISE HAZARDS

50CM (1.6FT) SEA LEVEL RISE
Venice Vulnerability Assessment Results

VENICE LCP SEA LEVEL RISE HAZARDS
100CM (3.3FT) SEA LEVEL RISE
Venice Vulnerability Assessment Results

VENICE LCP SEA LEVEL RISE HAZARDS
150CM (4.9FT) SEA LEVEL RISE
Venice Vulnerability Assessment Results

VENICE LCP SEA LEVEL RISE HAZARDS
200CM (6.6 FT) SEA LEVEL RISE
Vulnerability Assessment Risk Matrix

Risk = Consequence + Urgency

<table>
<thead>
<tr>
<th>Consequence</th>
<th>Urgency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Short-term SLR Threshold</td>
</tr>
<tr>
<td></td>
<td>SLR &lt; 3.3 ft.</td>
</tr>
</tbody>
</table>

**HIGH**
- Permanently damaged
- Large Impact on system
- Large loss of value or life

<table>
<thead>
<tr>
<th>HIGH RISK</th>
<th>MED-HIGH RISK</th>
</tr>
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**MEDIUM**
- Temporarily damaged
- Moderate impact on system
- Medium loss of value

<table>
<thead>
<tr>
<th>MED-HIGH RISK</th>
<th>MED-LOW RISK</th>
</tr>
</thead>
</table>

**LOW**
- Temporarily damaged
- Low impact to system
- Small loss of value

| MED-LOW RISK      | LOW RISK                     |
Venice: Six Asset Groups

Infrastructure

Property

Civic

Cultural

Coastal Amenities

Ecological
Venice Infrastructure Risk

High Risk: VSPP

Med-High Risk: Outfalls
Venice Property Risk

High Risk: North Venice

High Risk: Southeast Venice
Venice Coastal Amenities Risk

High Risk: Beach Recreation

Med.-High Risk: Venice Beach Boardwalk
Venice Ecological Risk

High Risk: Ballona Lagoon

High Risk: Sandy Beach Habitat
Venice Cultural Risk

- **Med-High Risk:** Venice Canals HD
- **Medium Low Risk:** Coastal Historic Monuments
Audience Participation
Audience Participation: Polling

TEXT:
To: 22333
Message: HAGUSOLOMONC860

WEB:
PollEv.com/hagusolomonc860
Audience Participation: Polling

Web interface

Text interface
How did you get to the meeting today?

A. Drove/Car Pooled
B. Walked
C. Took Public Transit
When I think about how sea level rise will affect my community, I feel like:

Packing my bags and heading for the hills, I didn’t move to Venice to become a merperson!

Becoming more informed about the best adaptation strategies for my community, time to start burning the midnight oil!

I’m staying put and will turn my house into a boat if I have to, drop the anchor!
Who should pay for sea level rise adaptation?

If I'm in the hazard zone, I'm paying. If not, I'm not!

Create a Venice Coastal Zone Tax District, we’re all in it together!

It's the City's job, we didn't create the problem!
How would you like to see Venice Beach evolve with sea level rise?

Coastal armoring: Just build seawalls, bulkheads, and jetties. I don't mind some beach loss or accelerating erosion downshore if it means protecting my neighborhood.


Re-nourishment: Pile on the sand. Keep things the way they are, even if it costs me a lot of money.
Moving to Adaptation

Adaptation Planning:
Avoidance or minimization of risks to coastal development and coastal resources.

"Since we can’t beat global warming, I decided to try to adapt."
Adaptation Planning Resources
Adaptation Workshop Concepts

- Increase Resiliency
- Development & Permit Standards
- Community-Scale Adaptation
- Build Knowledge
Prioritize Natural Infrastructure

**Green - Softer Techniques**
- **Vegetation Only**
  - Provides a buffer to upland areas and breaks small waves. Suitable for low wave energy environments.
- **Edging**
  - Added structure holds the toe of existing or vegetated slope in place. Suitable for most areas except high wave energy environments.

**Gray - Harder Techniques**
- **Sills**
  - Parallel to vegetated shoreline, reduces wave energy, and prevents erosion. Suitable for most areas except high wave energy environments.
- **Breakwater**
  - (vegetation optional) - Offshore structures intended to break waves, reducing the force of wave action, and encourage sediment accretion. Suitable for most areas.
- **Revetment**
  - Lays over the slope of the shoreline and protects it from erosion and waves. Suitable for sites with existing hardened shoreline structures.
- **Bulkhead**
  - Vertical wall parallel to the shoreline intended to hold soil in place. Suitable for high energy settings and sites with existing hard shoreline structures.

**Living Shorelines**
**Coastal Structures**
Adaptation Strategy: Increase Resiliency (Station 3)

Example:
Beach Nourishment & Sand Retention

• 35 million cubic yards of sand placed on beaches since 1930s

• Hyperion, Marina Del Rey and Airport development

• Breakwaters, groins and jetties have helped retain wide beaches

Source: Perry, 2012
Adaptation Strategy: Increase Resiliency (Station 3)

**Example: Dune Creation**

“Before-view” and rendering of “after-view” of the restoration site from the central walking path, facing northwest with the Malibu coastline in the background.
Adaptation Strategy: Increase Resiliency (Station 3)

Example:
Upgrade Existing Infrastructure

The capacity to withstand and recover quickly from hazards

Venice Pumping Plant
Adaptation Strategy: Development & Permit Standards (Station 4)

Avoid siting new development or perpetuating redevelopment in hazard areas.

Example: Adaptive Design

Elevated Living Space

https://www.dwell.com/article/a-modern-coastal-home-in-stinson-beach
Adaptation Strategy: Community-Scale Adaptation (Station 5)

Example: Financing Adaptation

Strategies that require a larger “community-wide” approach

Broad Beach, Coastal Records Project
Adaptation Strategies: Build Knowledge (Station 6)

Increase the community’s understanding about baseline conditions in order to plan more effectively for the future.

*Example: Drainage Study*
Adaptation Strategies Respond to Coastal Hazards

Venice Sea Level Rise Hazards Summary Diagram

1. Coastal Hazards
   - DUNE CREATION
   - BEACH NOURISHMENT
   - ADAPTIVE DESIGN
   - DRAINAGE STUDY
   - FINANCING ADAPTATION
   - UPGRADE EXISTING INFRASTRUCTURE
Workshop Stations

Station 1: Venice Local Coastal Plan Update  
Station 2: Sea Level Rise Mapping  
Station 3: Adaptation Station: Increase Resiliency  
Station 4: Adaptation Station: Development & Permit Standards  
Station 5: Adaptation Station: Community-Scale Adaptation  
Station 6: Adaptation Station: Build Knowledge  

Feel free to visit tables in any order you please and be sure to get a “passport stamp” to enter into a drawing.
Tips for Productive Discussions

- Let one person speak at a time
- Help to make sure everyone gets equal time to give input
- Keep your input concise so others have time to participate
- Actively listen to others and seek to understand their perspectives
- Offer ideas to address questions and concerns raised by others
1. Do you have any questions or feedback about any of the strategies?
2. Are there any benefits that are missing?
3. Are there any constraints that are missing?
4. Do you have any additional ideas for adaptation strategies?
Next Steps for Public Input and Involvement in Sea Level Rise Planning

- **Public Workshop, ~Summer 2018**
  - *Draft Land Use Plan and Proposed development regulations*

- **Public Hearing, ~Fall 2018**
  - *Public comment on the Draft Venice Coastal Zone Land Use Plan*

Source: venicelcp.org

[www.venicelcp.org](http://www.venicelcp.org)
THANK YOU

www.VeniceLCP.org