A Coast for All Californians -

Exploring the Relationship between Coastal Ecosystems and Disadvantaged Communities

Alyssa Mann
Coastal Project Director
The Nature Conservancy

The Nature Conservancy
Protecting nature. Preserving life.
90 SCIENCE PUBLICATIONS making the case for nature-based solutions that reduce risk

Over 100 COMMUNITIES trained in 11 COUNTRIES

Decision support tool applied to more than 25 RESTORATION or CONSERVATION actions

Influencing business practices in TECHNOLOGY, ENERGY, INSURANCE, and HUMANITARIAN sectors

ASSESS RISK
IDENTIFY SOLUTIONS
TAKE ACTION
MEASURE EFFECTIVENESS
Social Vulnerability in the Coastal Zone

“Despite persistent beliefs that living on the coast is reserved for the wealthy, there are large social disparities in coastal areas that vary regionally”

- National Climate Assessment, Chapter 25: Coastal Zone Development & Ecosystems

“In California, 18% of those exposed to high flood risk by 2100 also fall into more socially vulnerable categories”

- Pacific Institute, 2012
CA Coastal Commission
Draft Environmental Justice Policy

STATEMENT OF PRINCIPLES

- Coastal Access
- Meaningful Engagement
- Respect Tribal Concerns
- Accountability & Transparency
- Habitat & Public Health
- Access to Process
- Climate Change
Coastal Resilience Los Angeles

Objective:
Understand and map the relationship between coastal habitats and disadvantaged communities

Areas of Interest:
• Jobs
• Access
• Recreation
• Education
• Spiritual
• Subsistence Fishing
• Pollution Burdens
• Social Vulnerability
Coastal Resilience Los Angeles

Project Steps:
1. California Coastal Assessment (Updated w/ CoSMoS 3.0)
2. Review Social Vulnerability Studies & Available Data
3. Focus Groups
4. Map and Understand Relationship Between Coastal Ecosystems & Socioeconomic Issues
5. Online Webtool
For L.A. City, Venice, low-lying San Pedro and Wilmington have the highest social vulnerability on the coast.

Source: Ekstrom & Moser, 2013; USC Sea Grant 2014
Benefits of Coastal Ecosystems to People

• Public health & well-being
• Educational enrichment
• Important spiritual sites
• Recreational & Commercial Use Contribute $2B to the GDP
• Filtration of runoff and pollutants
• Nursery habitats for fish
• Support to commercial fisheries
• Buffers against wave and storm surge
• Carbon sequestration
Conserving California’s Coastal Habitats: A Legacy and a Future with Sea Level Rise
59% of California's coastal habitats is **highly vulnerable** to 5 feet of sea level rise.

39 rare, threatened, and endangered species are highly vulnerable to 5 feet of sea level rise.

41,000 acres of coastal conservation lands are projected to be submerged by subtidal waters.
Coastal Assessment Findings

• 57% of all coastal habitats in L.A. County are highly vulnerable to 5 feet of sea level rise.

• That includes 89% of the County’s upper beaches.

• Habitats provide important health, well-being and economic benefits to the people of L.A.

• L.A. is a coastal county with already constrained and “rare” coastal habitat.
### Habitat Vulnerability & Conservation Status: South Coast & L.A.

<table>
<thead>
<tr>
<th>Type</th>
<th>Geography</th>
<th>Area (km²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tidal Flat and Salt Panne</td>
<td>South Coast Ecoregion</td>
<td>8.3</td>
</tr>
<tr>
<td></td>
<td>Los Angeles County</td>
<td>4.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.5</td>
</tr>
<tr>
<td>Swash Beach</td>
<td>South Coast Ecoregion</td>
<td>1.3</td>
</tr>
<tr>
<td></td>
<td>Los Angeles County</td>
<td>6.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.9</td>
</tr>
<tr>
<td>Upper Beach</td>
<td>South Coast Ecoregion</td>
<td>3.4</td>
</tr>
<tr>
<td></td>
<td>Los Angeles County</td>
<td>3.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7.8</td>
</tr>
<tr>
<td>Rocky Intertidal</td>
<td>South Coast Ecoregion</td>
<td>1.1</td>
</tr>
<tr>
<td></td>
<td>Los Angeles County</td>
<td>2.9</td>
</tr>
<tr>
<td>Regularly-flooded Estuarine Marsh</td>
<td>South Coast Ecoregion</td>
<td>3.8</td>
</tr>
<tr>
<td></td>
<td>Los Angeles County</td>
<td>3.4</td>
</tr>
<tr>
<td>Irregularly-Flooded Estuarine Marsh</td>
<td>South Coast Ecoregion</td>
<td>4.7</td>
</tr>
<tr>
<td></td>
<td>Los Angeles County</td>
<td>7.4</td>
</tr>
<tr>
<td>Freshwater Wetlands</td>
<td>South Coast Ecoregion</td>
<td>10.1</td>
</tr>
<tr>
<td></td>
<td>Los Angeles County</td>
<td>6.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.0</td>
</tr>
<tr>
<td>Terrestrial Habitats</td>
<td>South Coast Ecoregion</td>
<td>4.7</td>
</tr>
<tr>
<td></td>
<td>Los Angeles County</td>
<td>3.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.4</td>
</tr>
</tbody>
</table>

**Key**
- Vulnerable non-conserved
- Vulnerable conserved
- Resilient non-conserved
- Resilient conserved
Disadvantaged Communities in L.A.

• 50% of all disadvantaged communities in CA are in LA County.
• 47% of L.A. County’s population live in disadvantaged communities.
• Most are not on the coast (with some exceptions- i.e. San Pedro, Wilmington and parts of Long Beach).

Source: SB 535 Disadvantaged Communities (2017)
Coastal Jobs Analysis

Paired Analysis - Low Paying jobs

Jobs held by DAC's residents ($1,250/month or less)
- Low
- Medium-Low
- Medium
- Medium-High
- High

Paired Analysis - Low Paying jobs
Coastal Jobs Analysis

• 16% of the jobs in L.A. County are coastal jobs.
• 52% of those jobs are very or extremely low paying.
• Over 30% of all jobs on the coast are held by residents of disadvantaged communities.
• 39% of these jobs are very or extremely low paying.
• Concentrations/hotspots in Santa Monica and Long Beach
Case Study – Long Beach

- 39% of coastal jobs in Long Beach are held by residents of disadvantaged communities
- 47% of workers travel >10 miles for their job
- 49% of those workers hold very/extremely low paying jobs
Coastal Access

- Access to coastal resources is an equity issue.
- As sea levels rise, coastal access points are threatened.
- The average distance to a coastal access point in Los Angeles County is 14 miles.
Coastal Access

Census Tracts
Median Income Percentile
- 89-100% (Highest Median Income)
- 79-89%
- 69-79%
- 59-69%
- 49-59%
- 39-49%
- 29-39%
- 19-29%
- 9-19%
- 0-9% (Lowest Median Income)

Sandy Beach with Parking and Restrooms
Distance as the crow flies to nearest sandy beach with facility
- Lower than average for LA County
- About average for LA County
- Higher than average for LA County

Median Income: $39,502
Distance to nearest sandy beach with facilities: 32.5 km
Avg. Distance LA County: 7.07 km
Online Webtool
maps.coastalresilience.org/california/

Disadvantaged Communities & Coastal Habitat
might have a disproportionate impact on low income jobs and low income residences within Los Angeles County.

Choose a Geography
Los Angeles County

Choose a Coastal Habitat or Conservation Strategy

Learn About Coastal Jobs

Learn About Coastal Access

$63 K is the average household median income of census tracts in the county

14 mi is the average distance between census tracts and the nearest coastal access

coastal access points include sandy beaches with facilities -- click on a census tract in the map for more details

Learn About Disadvantaged Communities
Lessons Learned Along the Way

• Terminology matters
• Need for strategic partnerships & building those partnerships takes time
• Need for higher resolution data
• Jobs/habitat link
• Other geographies could yield different results
• Fisheries should be included
• Gentrification and affordable housing
• Link to education
Thank you to our funders, partners and participants!