THE CALIFORNIA COASTAL MANAGEMENT PROGRAM A Model for Coastal Conservation and Management in Chile?

UC SANTA BARBARA Ocean and Coastal Policy Center

Background

In the 1960s, the coast of California was being overwhelmed by rapid and uncontrolled development, resulting in the steady loss of public shoreline access and devastating environmental impacts. Multiple nuclear power plants were proposed. Offshore oil spilled onto the beaches in Santa Barbara. Marinas, resort hotels and new highways were planned for sensitive wetland and beach areas. Residential development was sprawling into rural and scenic agricultural lands. It seemed that nearly every coastal community was under attack from unchecked development. A social and political movement "to protect the coast" was born.

In 1972, California voters pass the *Coastal Initiative* (Proposition 20), declaring that "the permanent protection of the remaining natural and scenic resources of the coastal zone is a paramount concern to present and future residents of the State and nation." Four years later the legislature passed the *California Coastal Act* to carry forward the citizen's vision. The new law created a program to manage development on the coast in order to protect public shoreline access, and so that the spectacular natural and cultural resources of the coast would be protected into the future.

The California Coastal Management Program has since been recognized as one of the most successful in the world. Hundreds of public beach accessways and trails to and along the coast have been saved and expanded. Vital wetlands, unique terrestrial habitats, and threatened and endangered species have been protected from encroaching development. Thousands of acres of stunning rural and agricultural landscapes have been preserved. California has also led the way regulating new offshore oil and other harmful industrial activity in the coastal zone.

California's success protecting its coast has not been without conflict. The Coastal Act is a strong law. The California Coastal Commission, which implements the Coastal Act, is known for its tough regulation of development. But nearly fifty years ago, Californian's decided that protecting the coast for everyone was worth the fight. One compelling piece of evidence for this: California's coastal economy exceeds \$40 billion a year – a testament that strong coastal protection and a thriving economy can go hand-in-hand.

There is much to learn from the California coastal management experience. This document summarizes the key aspects of California's success, but also the continuing challenges, especially the looming threats from global climate change.

Coastal Zone Management (CZM) in California

In the United States, the Coastal Zone Management Act of 1972 states a national interest in the "effective management, beneficial use, protection, and development of the coastal zone." Under this law, the federal government provides financial and technical support to 34 coastal states that have adopted management programs to "achieve wise use of the land and water resources of the coastal zone, giving full consideration to ecological, cultural, historic, and esthetic values as well as the needs for compatible economic development." Since the 1970s, California has received nearly \$100 million from the federal government to support management of its coast.

CALIFORNIA'S APPROACH

California's federally-approved coastal zone management program officially includes three agencies: the California Coastal Commission, managing the 1,100-mile long outer coast; the San Francisco Bay Conservation and Development Commission (BCDC), managing the inner San Francisco Bay; and the State Coastal Conservancy, funding coastal restoration and land acquisition in coastal watersheds and San Francisco Bay counties. But there are many other agencies that also manage coastal resources, including the State Lands Commission (responsible for public tidelands), California State Parks, (covering more than 25% of the outer coast), and the Ocean Protection Council, which coordinates ocean and coastal policy and science for the state. The Department of Fish and Wildlife and the Fish and Game Commission are responsible for fisheries management and marine protected areas in state waters. Figure 1 illustrates the core coastal management actors in California. This summary focuses on the work of the California Coastal Commission and local governments managing development along the outer coast.

THE CALIFORNIA COASTAL ACT

The *California Coastal Act of 1976* created a Coastal Commission to implement state coastal protection policies in partnership with local government. The policies address a wide variety of resource concerns, including public shoreline access and recreation, marine, wetland and coastal habitats, coastal hazards, agriculture, scenic





resources and public services for urban development. The Coastal Act also includes broad policy direction to encourage affordable housing in the coastal zone and address environmental justice, meaning "the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies."

THE COASTAL COMMISSION

The California Coastal Commission is an independent government agency within the California Natural Resources Agency (Figure 1). The twelve voting commissioners are appointed equally by three different political authorities: California's Governor, the Senate Rules Committee, and the Speaker of the Assembly. Hence, no single political authority controls the decisionmaking of the Coastal Commission, a fact that is sometimes credited for the Commission not being unduly captured by development interests. Six of the Commissioners must be locally-elected officials, either a city council person or county supervisor. The other six are "at-large" and come from all over the state and with a variety of backgrounds. This split helps to assure a balance between state and local government perspectives in the Commission's work.

The Coastal Commission's mission is to protect and enhance California's coast and ocean for present and future generations, using "careful planning and regulation of environmentally-sustainable development, rigorous use of science, strong public participation, education, and effective intergovernmental coordination." The Commission is supported by a professional staff, including planners, scientists and lawyers, who review coastal plans and development proposals and make recommendations for action to the Commission.

THE COASTAL ZONE

The heart of the Coastal Act is a set of comprehensive planning and regulatory permit requirements for new development in the coastal zone. This zone includes California's ocean waters (out to 3 miles from shore) and varies in width on land, from as narrow as a few hundred feet in some urban areas, to up to five miles inland in many rural areas, such as the coastal watershed in Morro Bay (Figure 2). Early planning efforts had recommended that the coastal zone management area generally be tied to the ridgeline of the first coastal mountain range

MAJOR CALIFORNIA COASTAL ACT RESOURCE POLICIES:

- Provide maximum shoreline public access and recreation, consistent with public safety needs, public rights, private property rights, and protection of natural resource areas from overuse.
- Protect and provide lower cost visitor and recreational facilities.
- Protect ocean-front land for recreational development, and give visitor-serving development priority over residential, industrial, or commercial development.
- Maintain and restore marine resources, and the biological productivity and quality of coastal waters, streams, wetlands, estuaries, and lakes.
- Prevent significant disruption of environmentally sensitive habitats.
- Prohibit the fill or degradation of coastal wetlands and riparian areas.
- Protect against spillage of oil, gas, and other hazardous substances.
- Stabilize urban-rural boundaries and protect coastal agriculture.
- Protect scenic landscapes and vistas.
- Provide for coastal-dependent and related uses, such as boating and commercial fishing facilities, aquaculture, and certain energy and industrial development.
- Minimize coastal hazard risks and avoid shoreline structure development (for example, seawalls).
- Protect cultural and historic resources, and the character of special coastal communities.

("coastal watersheds"). But the final boundary was negotiated in the legislature in 1976. This resulted in a



Figure 2. Coastal Zone Boundary at Morro Bay

much narrower coastal zone in urban areas, such as Los Angeles, because it was thought that the state didn't have the same interests in coastal resource protection and local land use decisions, like questions about in-fill housing, in highly urbanized areas farther from the shoreline (Figure 3). This remains generally true, although California has learned that many activities that potentially affect shoreline resources, including affordable housing, transportation planning and nonpoint source pollution, not only have a statewide interest but must also be addressed through planning that is broader than the coastal zone as defined by the Coastal Act.





PLANNING AND REGULATING DEVELOPMENT

The Coastal Act regulates development in the coastal zone, on land and in the ocean. The Coastal Act's definition of development is broad, and includes structural development, division of land, and changes in the intensity or density of land and water use. For example, a new offshore wind turbine or oil pipeline must receive a coastal development permit. But a management plan or local access restriction, such as limiting the location or hours of surfing, may also need a permit if it results in a change in access to the water.

Most development is permitted either by the California Coastal Commission, or by one of the 76 local governments with land in the coastal zone (15 counties, 61 cities) pursuant to a local coastal program (LCP) approved by the Coastal Commission. This is because the legislature determined that local government implementation was essential to effective coastal planning and development regulation. Under the law, the Coastal Commission has permit authority over all development in the coastal zone except above the mean high tide in those local jurisdictions where the Commission has approved an LCP as adequate to carry out the Coastal Act's policies

THE IMPORTANCE OF LOCAL GOVERNMENT

Local government implementation of LCPs is critical to the success of the Coastal Act. An LCP includes a Land Use Plan (LUP), which identifies the kinds, locations and intensities of allowable development in the coastal zone, as well as other policies to protect coastal resources; and an Implementation Plan (IP), which includes the zoning ordinances and other specific measures necessary to carry out the LUP. For example, an LUP might include a local policy, based on the Coastal Act, that requires new development to avoid wetland areas. The IP might include more detailed corresponding rules that define "wetlands" and specify a minimum wetland development setback distance, such as 100 feet from the wetland's edge.

Today, most local governments have approved LCPs which together cover about 87% of California's coastal zone land area. Because of this, about two-thirds of authorized coastal development is permitted by local government, not the Commission. However, the Commission retains appellate review authority over some local government development approvals, including along the immediate shoreline and adjacent to wetlands and creeks. Between 5 and 10% of local permits are appealed.

THE IMPORTANCE OF NON-GOVERNMENTAL ORGANIZATIONS AND PUBLIC PARTICIPATION

Broad public participation as well as active nongovernmental organizations or "public interest groups" are key to the success of California's coastal program. The Coastal Commission holds a monthly public meeting to hear staff recommendations on development applications and local planning matters, such as proposed LCP amendments. Every item on the public agenda includes time for the public to speak to the Commission and, except for certain confidential litigation or personnel matters, the Commission must deliberate and make a reasoned decision on each matter in public. Local governments must also conduct a public process for every coastal permit and planning item. protection in the coastal zone.

Although the coastal permit review process is rigorous, and can be contentious, more than 90% of development applications are approved. Because of this, the most important work of the Commission and local governments happens through the process of agency staff (both Commission and local government) working with project applicants to identify project modifications and other special conditions that must be met in order for a project to be approved. For example, a development proposal near a sensitive wetland or habitat will generally be required to stay at least 100 feet away from the resource in order to gain approval. This is how many coastal resources are protected over the long run. Similarly, the LCP amendment process requires sometimes lengthy

Figure 4. Community Members Participate in a Meeting about Sea Level Rise in Pacifica, CA.



The political activism of public interest groups was central to the creation of California's coastal program. Now, groups like the Surfrider Foundation, Sierra Club, Azul, and many local environmental organizations participate in the decision process of the Commission. In so doing, they help to offset the political pressure on the Commission from development, industrial and other economic interests. There are also groups that advocate for the rights of private property owners and other economic interests, such as fishing and agriculture.

Sometimes public interest groups will file lawsuits on behalf of their members and the public, in order to ensure that coastal resources are being protected to the fullest extent required by the Coastal Act. For example, in the 1990s, the Bolsa Chica Land Trust challenged a Commission decision that would have allowed new development in a wetland area, in court, leading to the judicial reversal of the decision and the affirmation of the core Coastal Act policies that require wetland and habitat negotiations between the state and local government to reach agreement on how to address specific coastal planning concerns.

PUBLIC EDUCATION

The Coastal Commission also administers an education program that sponsors the successful annual Coastal Cleanup Day, and that provides grants to hundreds of organizations and schools to support environmental education and stewardship programs for children. These are funded in part by fees collected from the Commission's popular "Whale Tail" automobile specialty license plate program.



Coastal Management in Action: Planning, Law, and Science

Land use planning for future development is critical to successful coastal management. For example, because of the Coastal Act's strong policies to direct new growth to already-developed areas, maintain stable urban-rural boundaries, and protect coastal agricultural lands, the Coastal Commission and local governments have been able to use LCPs and local land use planning to significantly limit urban sprawl. In fact, while much of the southern California coast was already developed when the Coastal Act was passed in the 1970s, the urban footprints of most communities to the north of Santa Barbara are substantially the same as they were 50 years ago – a direct result of the Coastal Act and strong local land use plans with urban limit lines.

Figure 5. Dillon Beach: Stable Urban Development Edge.



Project, www.californiacoastline.org

PUBLIC ACCESS TO THE SHORELINE

The Coastal Commission has used the development permitting process effectively to protect and expand coastal shoreline access for California citizens and visitors. The public is able to get to the shoreline in many desirable

Figure 6. Public Accessway to Exclusive Carbon Beach.



locations that might otherwise be private, exclusive, and blocked by development or locked gates, such as Carbon Beach in Malibu (Figure 6).

Protecting public shoreline access requires vigilance, especially in urban coastal areas, where there can be tension between residents and visitors. The Coastal Commission has an active enforcement program to monitor beach access, parking rules, and other potential impacts to the public's right to get to the shoreline.

USING SCIENCE TO DETERMINE DEVELOPMENT CONSTRAINTS

The Coastal Act is a powerful law, but its resource policies are also broad. For example, the law requires that development not occur in "environmentally-sensitive habitat areas" (ESHA) unless the development is dependent on the habitat itself to occur, such as a habitat restoration project. The law defines ESHA broadly as:

any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.

The Commission employs expert coastal biologists to help determine which coastal habitats are so rare or especially

valuable that they should be designated as an ESHA. Once this occurs, the area must be protected from development impacts. Over the years the Commission has required many thousands of proposed developments to be relocated, redesigned or in some cases not built at all because of the presence of an ESHA, such as a critical nesting location or migration corridor for a threatened or endangered species.

The Coastal Commission has used science effectively to better understand entire coastal ecosystems and important ecological relationships. The best example, perhaps, is the Commission's designation of nearly



50,000 acres of the Santa Monica Mountains near Los Angeles as an ESHA because of its unique Mediterranean

climate and associated biodiversity. This science-based determination now supports a "transfer-of-development" program in the Los Angeles County LCP that directs applicants and development proposals away from sensitive habitat areas to locations more suitable for development.

The Commission made another such "landscape-scale" decision when it designated remaining native populations of Monterey pine forest at Pebble Beach as ESHA. Monterey pine is one of the most abundant trees in the world (grown in Chile, for example, as a timber product), but its *native* range is limited to just four locations, three in coastal California, including the Del Monte forest of Pebble Beach (Figure 7). This forest population also includes numerous sensitive species and wetland environments. Because of the sensitivity of this area, the Commission worked with the Pebble Beach Company to avoid a proposed new golf course, agreeing instead to a much smaller forest impact from a coastal inn and clustered residential development.

PROTECTION OF COASTAL WATERS

The Coastal Commission protects California's coastal waters through the regulation of potential pollution sources on land, and through the permitting of any industrial and shoreline development, including energy facilities, ports and harbors, piers and breakwaters, and dredging and beach replenishment projects. The State Lands

Figure 7. Monterey pine forest in Monterey, CA.



Commission must also authorize any development on public tidelands (see below). Commercial fishing and boating are priorities under the Coastal Act, and the Coastal Commission rarely directly regulates fisheries. However, California's Fish and Game Commission and Department of Fish and Wildlife do, and they also implement a strong marine protected area program.

The Coastal Commission also protects marine resources through its "federal consistency" authority. In addition to funding and technical support, the federal Coastal Zone Management Act gives coastal states a special legal authority to review federal government and permitted activities for consistency with their state coastal program policies. California has used this authority proactively and effectively to address the coastal resource impacts of many different kinds of industrial, commercial and governmentally-sanctioned activities. Similar to the permit process, most activities (95%) are approved, and the most important work occurs through the negotiation of project changes and conditions (see inset).

Challenges Ahead: Sea-Level Rise and Coastal Resilience

Despite its success, the California Coastal Program is facing perhaps its greatest challenge yet: sea-level rise due to global climate change. Sea levels are projected to rise by as much as six or even ten feet by 2100, depending on future greenhouse gas emissions and global ice melt. Under the guidance of the Coastal Commission, many local governments are now assessing their vulnerabilities to this projected rise, including the likely impacts to development, property and natural resources from increased erosion, flooding and extreme events, such as major storms during El Niño years.

One of the most difficult challenges is the potential loss of beaches and natural coastal wetland environments due to the "coastal squeeze". Many coastal areas have already been armored with rocks or seawalls. These places will lose beaches and wetlands, as they are squeezed out between the rising ocean and the now immovable shoreline. The Coastal Commission works hard to assure that new development avoids hazard zones, and to regulate proposed seawalls for developments that are already located in harm's way.

THE PUBLIC TRUST

Protection of tidelands and submerged lands below the mean high tide is another important component of California coastal management. The State Lands Commission has direct oversight over these "public trust lands," held in trust for the benefit of all people of the state, including future generations. Protected public trust land uses include maritime commerce, navigation, fishing, boating, shoreline access, water-oriented recreation, visitor-serving facilities, environmental protection and restoration. Non-water dependent uses such as residential and general office or commercial uses generally do not qualify as allowable uses of public trust lands. Because the mean high tide line is "ambulatory," protection of public tidelands will become increasingly difficult in developed areas as sea level rises, and private development begin to encroach on public land.

FEDERAL CONSISTENCY REVIEW

 Offshore Oil and Gas Development. The Coastal Commission has reviewed hundreds of offshore oil and gas proposals, including proposed leases of federal waters, exploration plans, and drilling projects. The Commission has worked with oil companies to minimize the risk of oil spills and impacts to coastal waters.



- The Commission objected to the **Navy's use of sonar** during training impacts due to acoustic impacts to sensitive marine mammals. The Navy eventually agreed to certain modifications to reduce the concerns.
- The Commission objected to high-energy seismic surveying proposed by the Diablo Canyon Nuclear Power Plant looking for earthquake faults, because of the impacts to sensitive marine species. The proposal was eventually dropped.
- In 2008, the Commission's objection to a new federally-funded highway that would have gone through a state park and sensitive coastal area was upheld by the federal government. The so-called "toll road" hearing was one of the largest in the Commission's history.
- The Commission also objected to a proposed border fence at the international boundary with Mexico, due to habitat and watershed impacts. The U.S. Congress ultimately exempted the fence from the authority of the CZMA.
- In one of its earliest decisions, the Commission objected to the abandonment of a rail corridor for private development, leading to the creation of the popular Monterey recreational bike path.

The Californian and Chilean Coasts Compared





Coastal Geography Facts

Approximate Population

- California: 40 million
- Chile: 19 million

Approximate Geographic Extent of Shoreline

- California: 650 miles
- Chile: 2500 miles

Climate

California is one the few places where five major climate types occur in proximity. Here, the Desert, Cool Interior, Highland, and Steppe climates border a smaller region of Mediterranean climate. Perhaps the only other place like California is central Chile, where this convergence in made even more extreme by the dramatic Andean topography (Kaufmann, 2003).



Additional Resources

SCIENTIFIC PUBLICATIONS:

- Lester, Charles. CZM in California: Successes and Challenges Ahead. Coastal Management 41: 219-244 (2013).
- California Sea Level Rise Guidance: <u>https://www.coastal.ca.gov/climate/slrguidance.html</u>.
- Center for Ocean Solutions. 2017. The Public Trust Doctrine: A Guiding Principle for Governing California's Coast Under Climate Change. Stanford Woods Institute for the Environment, Stanford University, California. https://biotech.law.lsu.edu/blog/Public-Trust-Doctrine_-Consensus-Statement.pdf.
- Kaufmann, Eric. 2003. Atlas of the Biodiversity of California, Climate and Topography, California Department of Fish and Wildlife, <u>https://wildlife.ca.gov/Data/Atlas</u>.

COASTAL MANAGEMENT LINKS & DOCUMENTS:

- The California Coastal Commission: <u>https://www.coastal.ca.gov/</u>.
- California Coastal Act: <u>https://www.coastal.ca.gov/laws/</u>.
- California Public Shoreline Access: <u>https://www.coastal.ca.gov/YourCoast/#/map</u>.
- NOAA's Office for Coastal Management: <u>https://coast.noaa.gov/</u>.



Support for this project was provided by The Pew Charitable Trusts, Austral Patagonia Programa of the Universidad Austral de Chile, and the Chile-California Conservation Exchange.





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