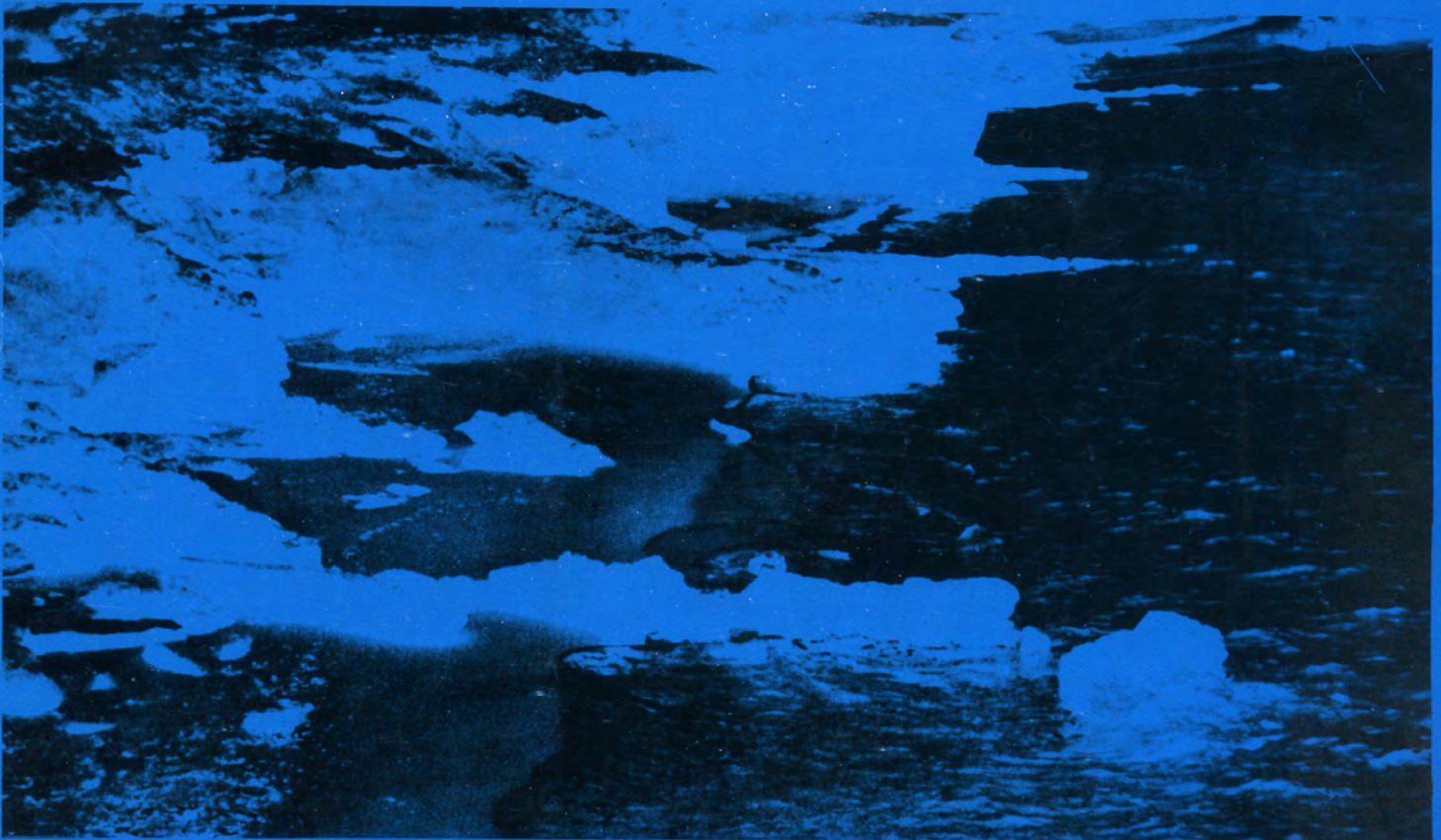


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the problems and science of
**HUMAN
SETTLEMENTS**



COASTAL MANAGEMENT

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Urban development along the California coast

Harry Antoniades Anthony and Kathryn H. Anthony

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The California coastline spans some 1,800 kilometers (1,072 miles) of land and water coveted by every imaginable special interest group. The unique qualities of this exquisitely beautiful, awe-inspiring, and resource-rich zone along the shimmering Pacific Ocean have put it under pressure from housing developers, restaurant owners, hotel builders, recreation seekers, fishermen, agricultural interests, power companies and oil drillers. But this was not always the case.

Until the 1930s, most urban development along the California coastline was centered around its ports. The post-World War II growth boom changed that pattern. City and county governments tended to welcome urban growth as it expanded their tax base. Public policy on coastal growth became fragmented.

In the meantime, the magical, if not magnetic, attraction of the coast made it a most popular building site. Developers were rapidly creating a wall which all but blocked any view of the ocean from Pacific Coast Highway and points inland. Because the great majority of shoreline parcels were privately owned, public access to the beaches was severely restricted. And environmental degradation, particularly of lagoons and marsh areas up and down California's coastal zone, was a growing threat.

During the late '60s and early '70s, the environmental protection movement in California became a popular force. Coastal management legislation was introduced into the state legislature in 1967, but failed. It was reintroduced in 1968, 1969, 1970, 1971 and 1972, and was defeated again each year despite popular backing. Formidable opposition by labor unions and influential developers and builders won out.

Finally, in 1972, environmentalists decided that six years of fighting a losing battle against the wealthy and powerful lobbyists in Sacramento, the state capital, was enough. They joined forces and took to the streets and to the shopping centers with Proposition 20, the Coastal Initiative.

The Coastal Initiative removed land use control from city and county governments within 8 kilometers (5 miles) of the shore and 4.83 kilometers (3 miles) out to sea; this amounts to one tenth of the state's total area! A new state agency, the California Coastal Commission, and six

regional agencies were created to monitor new local coastal plans and programs that would comply with the initiative's mandate of preserving the coastal zone. The Commission was to complete a state coastal plan by 1975, and then be abolished. The legislature since extended the life of the regional commissions to June 30, 1981, to oversee local planning. The State Coastal Commission became permanent, to also act as a Board of Appeals. It still reviews permits for most new structures. Permit applications are now submitted to local offices and classified as administrative (when the Executive Director can issue permits for minor types of development), consent (when no discussion is required and no significant issues are raised), or needing a public hearing before the Commission (when a case requires individual analysis, discussion and a separate vote by the Coastal Commission).

When the Coastal Commission began its work, its tasks seemed insurmountable. Within the 1,800 kilometer (1,072 mile) zone, almost every possible development controversy could be found. Agriculture was being priced out; lagoons, marshes and wetlands were being dredged and filled; fisheries were losing productivity; air quality was deteriorating; and esthetics and public access to the shoreline were being compromised by rapid urban development. All these issues were tackled by the Coastal Commission in its now famous 1975 California Coastal Plan, whose innovative policies and programs provide a model for other coastal areas throughout the world.

The next sections highlight the major environmental issues addressed by the California Coastal Plan. They encompass water quality, air quality, esthetics, coastal development, wetlands, agriculture, energy, transportation, housing, access and recreation.¹

Water quality

The pollution of oceans, lakes and bays is a problem common to all the earth's urbanized coastal areas, and California is no exception. The state's fishing industry had been particularly hard hit by increasing water pollution. The amount of fish caught along California's coastal waters, especially near urban areas, had declined dramatically. Popular fish and shellfish had been overharvested and waste products had been carelessly dumped into the ocean. To exacerbate the problem, coastal wetlands, the mating grounds for many species of fish and wildlife, had been dredged and filled for development.

The Coastal Plan requires a program of resource management to maintain high yields of fish. It also gives high priority to meeting the needs of commercial fishermen and to expanding "aquaculture," growing marine organisms under controlled conditions. Waste discharge standards have become more stringent, and the release of effluent into streams, wetlands, enclosed bays and estuaries is being phased out.

Oil pollution had become a major problem in California's coastal waters, many of which are rich in oil reserves. Oil seeps into the ocean from several sources, including tankers, ship accidents, vessel operations and shipyards, sewage effluents and fallout from air pollution. Most damaging effects tended to be from refined products rather than from crude oil, and occurred in nearshore rather than deep water. Ever since the devastating oil spill off Santa Barbara in 1969, Californians had become increasingly aware of the dangerous effects of oil in the ocean. The problem has become one of international concern.

But oil spills not only affect the quality of the water and marine life. They may also have a psychologically damaging impact on shoreline communities. Along with their odors and unsightly traces along the beaches, oil spills can temporarily tarnish the image of a community and its inhabitants. When news of the accident is in the limelight, residents may perceive it as a stigma to live in an area which has suffered from an oil spill.

The California Coastal Commission has responded to this problem with a strict permit issuance procedure. A case in point occurred during the summer of 1981, when the Atlantic Richfield Company (ARCO) proposed to drill up nine exploratory wells on state tidelands, about 9 miles west of Santa Barbara. The case was the first permit to come before the Commission for offshore oil drilling.² The Coastal Commission granted the permit, but only under the following conditions:

1. The project must be approved by and comply with all conditions imposed by the Santa Barbara County Air Pollution Control District.
2. Oil spill containment and cleanup equipment must be maintained at the drilling site.
3. During the first month of the drilling program, the Coastal Commission and/or the US Coast Guard must hold an unscheduled, simulated oil spill at the drilling site. Unless ARCO'S cleanup response is satisfactory, drilling would be halted.³

Esthetics

Piecemeal, sprawling urban development had all but eliminated the visual delight and sensual quality of many of California's coastal areas. Never-ending walls of housing and nondescript commercial structures with gargantuan neon signs seemed to be devouring much of the coast. Incompatible development had marred the scenic beauty of many areas. The scale, height, materials and colors of buildings have been inconsistent with existing patterns; colossal signs blocked views and created clutter; and natural landforms had been cut, graded and filled. Precious coastal views had been at a premium in many coastal communities.

The plan contains policies which protect the coastal viewshed: lands and waters visible from major coastal access roads, trails and railroads, public vista points and recreational areas, and the water's edge. It calls for coastal cities and counties to establish design procedures and standards. The overriding design goal is to subordinate new development to its natural setting. Specific design guidelines are outlined for beaches, sand dunes, coastal bluffs, wetlands, estuaries, islands, hillsides, canyons, upper terraces and plains, rivers and streams. New developments within the coastal jurisdiction are now subject to design review by architects, landscape architects, urban designers, planners, engineers and other professionals.

Coastal development

California's Coastal Plan does not stop growth altogether. Instead it "concentrates new development by promoting infill of existing urban centers on the coast, limiting sprawl and providing for orderly, planned expansion of developed areas where needed... Development should first be channeled into existing developed areas able to accommodate it, ie where necessary services, such as roads, water and important commercial services are available and where the additional development will not impair coastal resources or public access to the coast."⁴

Top priority is given to "coastal-dependent" developments, such as ports and tourist-related recreational facilities. Residential development is given lower priority. Rural areas are seeking to maintain open space and will serve the needs of coastal visitors with riding stables, campgrounds and tourist accommodations.

The plan proposes policies to restrict new development in naturally hazardous areas subject to floods, earthquakes, landslides, erosion and tidal waves. It curtails new development in floodplains, requires that a geological hazards description be made a part of sales information, places limits on high-risk land uses, prevents public subsidies for hazardous development and provides setbacks from erosion-prone bluffs.

Wetlands

Wetlands — saltwater and related freshwater marshes and mudflats — are among the state's most environmentally sensitive areas. They are of paramount importance to the marine ecosystem and are the most biologically productive parts of the sea. While California's coastline originally embraced 120,000 hectares (300,000 acres) of wetlands, only 28,000 hectares (70,000 acres) remain. Restoration is the main thrust of the Coastal Plan, and about 2,470 hectares (6,100 acres) have been preserved by estuarine designation. Before granting any development permits in wetland locations, habitat protection and vegetation buffers are now required.

Agriculture

The combination of the moderating effect of the sea, rich alluvial soil, frost-free crops, and an extended growing

season help make California's coastal lands among the most agriculturally productive in the United States. Crops which can grow along the coast often cannot grow anywhere else. Yet, the pressure of urban development was making farming increasingly difficult.

The Coastal Plan actively promotes methods to preserve the state's precious agriculture. In San Mateo County, the size of lots and density of development in agricultural areas depend on the productivity of the land and the availability of water. Humboldt County imposed a 24 hectare (60 acre) minimum lot size in its agricultural areas where only farming structures are allowed. In Santa Barbara County, other uses are allowed on only 3 percent of an agricultural parcel, but only if it is not prime agricultural land. Timber preserves are an essential component of the Sonoma County Plan.

Energy

While energy-producing corporations have found it convenient to locate their plants along the coast, these facilities are major pollution threats. The plan does not exclude energy installations from the coast. However, it requires that alternate locations inland be fully evaluated. Until more conclusive research on public safety is completed, only one liquified natural gas terminal is permitted, and it must be at a site far removed from heavily populated areas. New tanker terminals are only allowed after present site capacities have been reached. Large tankers which transport oil imports are restricted to deepwater offshore terminals away from environmentally sensitive areas.

Power plants cannot be built in highly scenic areas, and they cannot increase pollution in places where air quality is already a problem. They are permitted along the coastal zone at sites jointly certified by the coastal agency and the State Energy Commission.

The plan urges that utility rates be restructured to encourage energy conservation. It also recommends statewide energy conservation measures for new developments and sets standards for interior lighting, signs, space and water heating, building climate controls, pilot lights and gas flames, as well as street lighting systems. It suggests establishing energy budgets for new developments which specify performance levels for a range of building types, sizes, occupancies, projected levels of use and locations. A licensed engineer or licensed architect must sign that the energy inputs and outputs of the proposed development comply with the energy budget codes. Policies also encourage the development of alternative energy sources, such as solar heating and cooling systems, and windmill electric generators. They recommend tax incentives — income tax credits, reduced property tax rates and so on — for energy-efficient and energy self-sufficient development.

Transportation

Especially in dense urban areas, traffic along the California coast can be extremely congested. This is particularly true during weekends in the summertime, when not only local

residents but also millions of tourists flock to the sun, sand and surf. The number of second homeowners and long distance commuters has increased, and this too adds to the heavy volume of traffic. Furthermore, residents and tourists rely almost exclusively on private rather than public transportation for their excursions.

Rather than widening already overloaded roads, the Coastal Plan encourages that these roads be used more efficiently. Policies suggest increasing the use of public transit during weekends. Also, many school buses, vans, and city transit fleets that sit idle on Saturdays and Sundays could provide an excellent alternative to the private automobile for recreational travel to and from the beaches; an experimental bus running between downtown San Francisco and Marin County beaches has already proven extremely successful. In addition, the use of shuttle buses from inland parking lots is another way to reduce the dependence on private cars within coastal areas. Parking facilities near the beach should not be expanded, as this will invite more automobiles and add to the already existing problem of congestion. Expanded rail service in the coastal zone is encouraged.

Water and air transportation guidelines are suggested by the new policies. They state that no additional major ports are required, but rather that the use of existing ports should be maximized. The plan calls for an in-depth study to determine the feasibility of expanded commuter and recreational ferry service to provide an alternative means of transportation between coastal points. The expansion of coastal airports is limited, and mass transit systems, regional airline bus terminals, jitney service and park and ride lots are encouraged to reduce traffic congestion. In airports with large amounts of buffer land such as Los Angeles Airport and San Diego's Lindbergh Field, public access will be increased through bike paths, hiking trails, scenic turn-outs, and view-points.

Housing

Coastal areas are in high demand for expensive, luxury housing. As a result, a key goal of the California Coastal Plan has been to provide housing along the coast affordable to moderate and low income groups. This effort also was part of the plan's mandate to provide coastal access to all Californians. Local communities have tried to achieve this goal through the use of density bonuses, inclusionary zoning and land dedication in return for luxury tower permits. In traditional working class areas like Long Beach, near Los Angeles, and Pacifica, just south of San Francisco, a strong attempt has been made to protect existing affordable housing.

Nevertheless, the housing section of the plan has been extremely controversial, and as of 1981, the requirement for affordable housing has been dropped. Chief complaints claimed that the goals were too difficult to achieve and enforce, that few reasonably priced residential developments have actually been built, and that skyrocketing land costs made this goal economically unfeasible. Whatever the objections may have been, one can argue that this effort was a noble one and that affordable housing during the past few years would never have been constructed without the Commission's insistence.

Access

In highly developed coastal areas, public access to the beach can be an extremely volatile issue. While public access to the ocean is a right specified in the State Constitution, it had not always been enforced. Many parts of the coast had been fenced off from the public.

The Coastal Plan requires that public access be established in new developments along the coast and that existing legal access rights be enforced. In order to help control crime, litter and other problems that may increase in these newly acquired beachfront areas, policies call for a public agency to accept responsibility for maintenance and liability before the beach is opened to the public. To increase the amount of shoreline available to the public, the plan also encourages the multiple use of coastal lands now used as military installations — like Camp Pendleton near San Diego — and port facilities and power plants. The Coastal Commission recently published a 240 page book entitled *The California Coastal Access Guide*,⁵ which describes more than 700 public accessways to parks, beaches, coastal campground, hotels, marinas, piers, trails, stairways to the beach, bluff-top walkways and vista points.

Recreation

High priority is placed on acquiring more parking coupled with inland parking facilities near major urban areas. Where public purchase is not proposed, private developments serving recreational and visitor needs are favored. Policies encourage recreational facilities such as campgrounds, rental housing and resort hotels serving all income ranges. To protect wetlands, new or expanded boat marinas must be built in natural harbors, in water deeper than marshes and wetlands, and in areas dredged out from dry lands. More boating can also be provided by increasing dry storage, boat rentals and multiple boat ownerships.

Success or failure?

Have the California Coastal Commission and its Coastal Plan been a success? Have they in fact controlled development as intended? The answer is a guarded "yes." Since 1973, about 55,000 development applications were processed by the Commission. Ninety-five percent were approved, but many with radical changes. The plan has spurred government acquisition of land, and the amount of property acquired has nearly doubled the length of publicly-owned coastline from 439 to 719 kilometers (from 273 to 447 miles). Some 310 square kilometers (120 square miles) of wetlands have been preserved. No new power plants have been built. Two thirds of the coastal zone is now under agricultural classification. As many as 700 public access points have been mapped. Offshore oil leases have been stopped. And lawsuits against the Commission have finally tapered off.

A specific example of successful development control is the fiery case of the Irvine Company's development proposal in Orange County, just south of Los Angeles. As owner of the largest expanse of undeveloped, privately-owned Southern California coastline, the Irvine Company originally submitted plans for a four-lane highway and 12,000 dwelling units on that choice site. By contrast,

today's revised plan calls for 2,500 residences, 500 of which are "affordable," two hotels and 60 percent of the land reserved for recreation. The state purchased Crystal Cove State Park from the Irvine Company in 1979, the company donated an additional 202 hectares (500 acres), and a National Park is being proposed.⁶

But development has not been stopped altogether, as some would claim. One of the most controversial permit denials was the AVCO Community Developers proposal for 8,000 housing units near Laguna Beach. The issue reached the US Supreme Court, where the Coastal Commission's decision was supported. An economically feasible compromise of 3,000 units has since been reached, and development will proceed accordingly.

Another recent debate, where one of the authors was actively involved, centered around the construction of a proposed new Greek Orthodox Church complex in North San Diego County.

While the project was approved by the San Diego County Planning Commission and the County Board of Supervisors in 1981, it was strongly opposed by some local citizens who objected to the height of the church's dome and cross, projected to stand close to 23 meters (74 feet) above the ground and far in excess of the local 10.67 meter (35 foot) height limitation.⁷

When the proposal for the new church building complex came before the Coastal Commission,⁸ the technical staff's recommendation was denial. Among their reasons: setting a precedent for a land use more intense than that specified by the Land Use Plan for that location, and an adverse effect on the scenic value of the area due to the church's excessive height and volume. Plans for the church seemed doomed.

But during the public hearing, one of the authors, acting both as the architect and urban design consultant for the church complex and the principal spokesman for the new parish, of which he is a member, dismissed the controversy over the tall dome, saying it was a house of God and should be "allowed a little extra height. Had the church opponents been around in ancient Greek times, the Acropolis of Athens never would have been built!" After a long and heated debate, the mood of the 12-member Coastal Commission changed, and they approved the entire project on a 9 to 3 vote. This controversial case demonstrated that the Coastal Plan is not written in stone. As Executive Director of the Coastal Commission, Michael L. Fischer, has proclaimed, "Common sense and good judgment — and compromise — have always been the Commission's hallmark."⁹

The Commission's success has largely been due to the enthusiasm of its members and to their strict adherence to the process of true public participation. An effective public relations program has also played a key role in the Commission's triumphs. Publications such as the *Coastal News* magazine, *California Coastal Access Guide* and *Design Awards 1980* have all been inventive outreach tools.

However, the pitfalls have been numerous, too. Coastal land prices are now higher than ever. The approval process has been painstakingly slow. Los Angeles County's coastal plan is behind schedule. Although nine years worth of legislative bills introduced to water down the Commission's powers have failed, recent bills have been proposed

to remove certain land tracts from the Commission's jurisdiction. Constant opposition to the Coastal Act has come from powerful developers, the State Chamber of Commerce, the Council on Environmental and Economic Balance and the League of California Cities. Whatever the plan's drawbacks might be, a statewide opinion poll taken in mid-1980 revealed that 80 percent of all Californians endorsed the Coastal Commission's objectives.¹⁰

Implications

California's landmark coastal plan offers a shining example to environmentalists the world over. Its creation and overall successful implementation throughout recent years are major accomplishments. Sparked by a citizen-initiated legislative measure, the Coastal Commission has taken charge of the environmental decision-making process, removing power from various units of local government. Never before have such comprehensive controls been exercised over a coastal area in the United States of America.

Through its strict permit issuance system, and its insistence on congruence between coastal communities' local land use plan and the state coastal plan, the Coastal Commission has won both power and enemies. The following statement, summing up the legal basis for the plan, helps explain its controversial history.

... where the ecological or environmental impact of land use affect the people of the entire State they can no longer remain matters of purely local concern. (*CEEB v California Coastal Commission*, 118, Calif. Reporter 315, 1975).

The development battles fought by the California Coastal Commission have created a legal model for other coastal regions to follow and refine. But the main lesson to be learned from the California experience is that in order to

deal effectively with development forces, a strong public support base is paramount. Pressures for development along the California coast are ever-present. They are relentless. They are powerful. It remains to be seen whether or not all of the Coastal Plan's policies and programs will hold up in the long run. However, with the plan as a guide, future emphasis will be on publicly acquiring coastal property and creating a new structure of property rights through easements and other devices out of the developer's reach.

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7. Jon Daum, "Supervisors approve plans for Cardiff Church," *Coast Dispatch* (Oct. 17, 1981), p. 6.
8. The Commission public hearing on this project took place on January 21, 1982, in San Diego. The Church has since been named "Saints Constantine and Helen" at a ceremony held on February 14, 1982, at which Bishop Anthony of San Francisco officiated.
9. Michael I. Fischer, "Our style: cooperation, not confrontation," *Coastal News* 2:9 (Oct. 1979), p. 3.
10. Gladwin Hill, "California's Coastal Commission: ten years of triumphs," *Planning* (Jan. 1982), p. 14.