

Balancing the Benefits, Weighing the Consequences: The Ventura River and the California Coastal Act

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Abstract: Four years after its construction on the Ventura River delta, the Ventura River inundated the Ventura Beach RV Resort. The facility had been permitted under the City of San Buenaventura's Local Coastal Program, in accordance with the policies of the California Coastal Act of 1976. These policies are intended to achieve multiple policy objectives, including the preservation of agriculture, protection of environmentally sensitive habitats, provision of public access and related visitor serving opportunities, and the minimization of risks due to coastal hazards such as floods. The planning and permitting history of the project illustrates the dangers of pursuing any one of the Coastal Act's policy objectives to the exclusion of others, and the wisdom of multiple objective planning which is a fundamental principle of the California Coastal Act of 1976.

Introduction

On February 12, 1992 the Ventura River over-flowed its main channel near the City of San Buenaventura, California and ran through a private recreational vehicle resort constructed on the delta of the river. (Figure 1) The facility is situated between two bridges constructed over a natural, historically active distributary channel of the Ventura River delta. The flood stranded over 100 individuals, and destroyed or damaged several dozen recreational vehicles, carrying several out to sea. The Ventura Beach RV Resort was permitted by the City of San Buenaventura under the provisions of its Local Coastal Program (LCP) which had been certified by the California Coastal Commission. Under the California Coastal Act of 1976, a local governing body is required to develop an LCP (consisting of a Land Use Plan and Implementing Ordinances) which ensures that development in the Coastal Zone will be consistent with the land-use and resource protection policies of the California Coastal Act. These policy objectives are to be achieved through cooperative efforts between state and local governments (California Legislature, 1976).

Several of the Coastal Act's most important policy objectives deal with the preservation of coastal agriculture (§30241-2); the protection and restoration of environmentally sensitive habitats (§30240); the provision of public access and recreational opportunities (§30222-3); and the avoidance of hazards associated with the Coastal Zone such as flooding (§30253). Because the California Legislature anticipated conflicts between individual coastal policies, the Coastal Act also includes a provision (§30007.5) for resolving such conflicts in a manner which, on balance, is most protective of coastal resources; this provision is intended to protect the resource base upon which all human uses of the Coastal Zone ultimately depend.

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The Legislature also assigned priorities to the various potential uses of the Coastal Zone, giving highest priority to coastal dependent/related industry, coastal agriculture, and visitor-serving recreational facilities. All uses are to be permitted consistent with the preservation of coastal resources and with the need to minimize risks from natural coastal hazards.

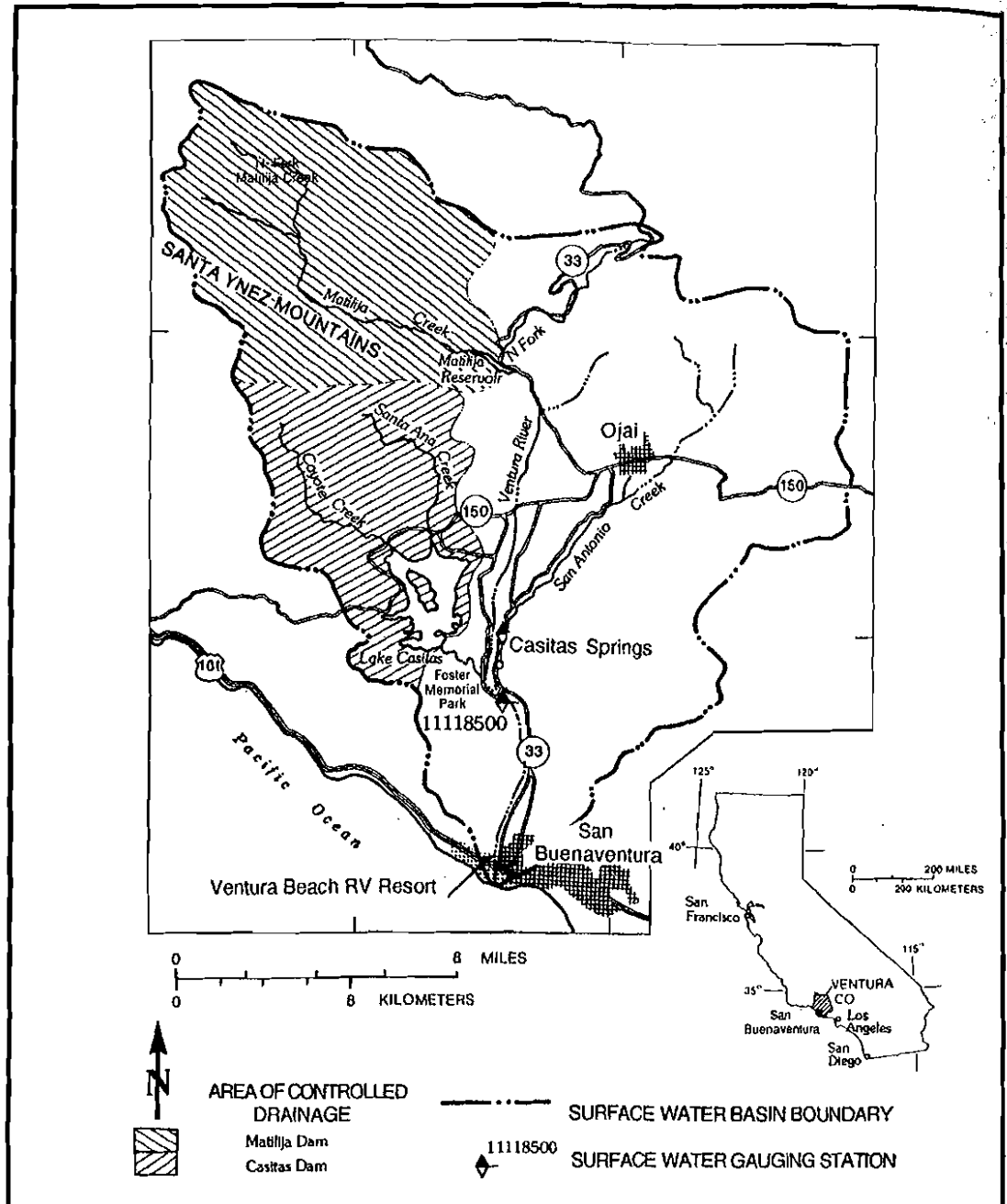


Figure 1. Ventura River Watershed, Ventura County, California

The establishment of coastal land-use controls for the site of the Ventura Beach RV Resort illustrates the dangers of emphasizing one major policy objective of the Coastal Act (to the exclusion of others) in the establishment of land-use designations and development controls, and the prudence of multiple objective planning which is a fundamental principle of the California Coastal Act of 1976. This paper focuses on the planning and political decisions that led to the construction of the Ventura Beach RV Resort on the delta of the Ventura River, despite concerns expressed by agencies and others regarding the flood hazards of the site, as well as the long-term impacts to coastal agriculture and environmentally sensitive habitats. Basic information on the hydrologic and geomorphic characteristics of the Ventura River system is included to provide a perspective on these decisions.

Ventura River System

The Ventura River watershed has its headwaters in the Santa Ynez Mountains north of the coastal City of San Buenaventura, California, and drains an area of about 585 km² (226 mi²) (U.S. Army Corps of Engineers, 1971). The Ventura River system is characterized by three distinct zones (Schumm, 1977).

Zone 1 is comprised of the mountainous headwaters and produces the majority of the runoff and sediment. The major tributaries include Matilija Creek, North Fork Matilija Creek, and San Antonio Creek. The Matilija reservoir on Matilija Creek with a storage capacity of less than $1.2 \times 10^6 \text{ m}^3$ (1000 acre feet), and the Robles Diversion on the upper Ventura River with a maximum capacity of 14 cms (500 cfs), play only a minor role in the control of major storm runoff. Coyote Creek and Santa Ana Creek also contribute storm water runoff and sediment from this portion of the system but are now partially controlled by Lake Casitas with a storage capacity of $31.3 \times 10^7 \text{ m}^3$ (254,000 acre feet) (U.S. Geological Survey, 1970; California Department of Water Resources, 1988). Zone 2 includes the main stem of the river downstream from the confluence of Matilija Creek and the North Fork of Matilija Creek to the delta of the river at the Pacific Ocean. Zone 3 is comprised of the delta and is characterized by shifting channels referred to as distributaries, and deposition of sediments. The Ventura River delta is a arcuate shaped land-form that extends from the Pacific Ocean upstream approximately 1.6 km (1 mi) and extends along the coast approximately 3.2 km (2 mi) (Keller et al., 1992).

As a result of rapid tectonic uplift in the watershed, the Ventura River has the highest suspended and bedload yield per unit area of watershed in Southern California (Brownlie and Taylor, 1981; Taylor, 1983). Deltas of such rivers are characterized by channels that cannot be maintained in one location for extended periods. The arcuate shape testifies to this tendency of channels to migrate back and forth (Bull, 1968; Graf, 1988; Schumm, 1977). Early mapping of the Ventura River delta shows the main stem of the river near its present position, with numerous distributary channels. Approximately 0.4 km (0.25 mi) to the west of the main river channel is a prominent distributary channel identified by the Southern Pacific Transportation Corporation as the "North Fork" of the Ventura River and is today known as the "Second Mouth" of the Ventura River (Keller, et al., 1992).

The Ventura River has a long history of flooding (U.S. Army Corps of Engineers, 1971, 1974a, 1974b; Ventura County Public Works Agency, 1983, 1990).

Since 1938 there have been nine major floods, the largest of which occurred in February 1978 with a peak discharge of 1,801 cms (63,600 cfs). This flow has an estimated recurrence interval of approximately 55 years. (Figure 2)

Portions of the distributary channel which runs through the Ventura Beach RV Resort and discharges through the "Second Mouth" of the Ventura River were used to pass flood waters during the 1969, 1978, 1982, and 1992 flood events, an average of once every six years during the previous 25 years (Keller et al., 1992).

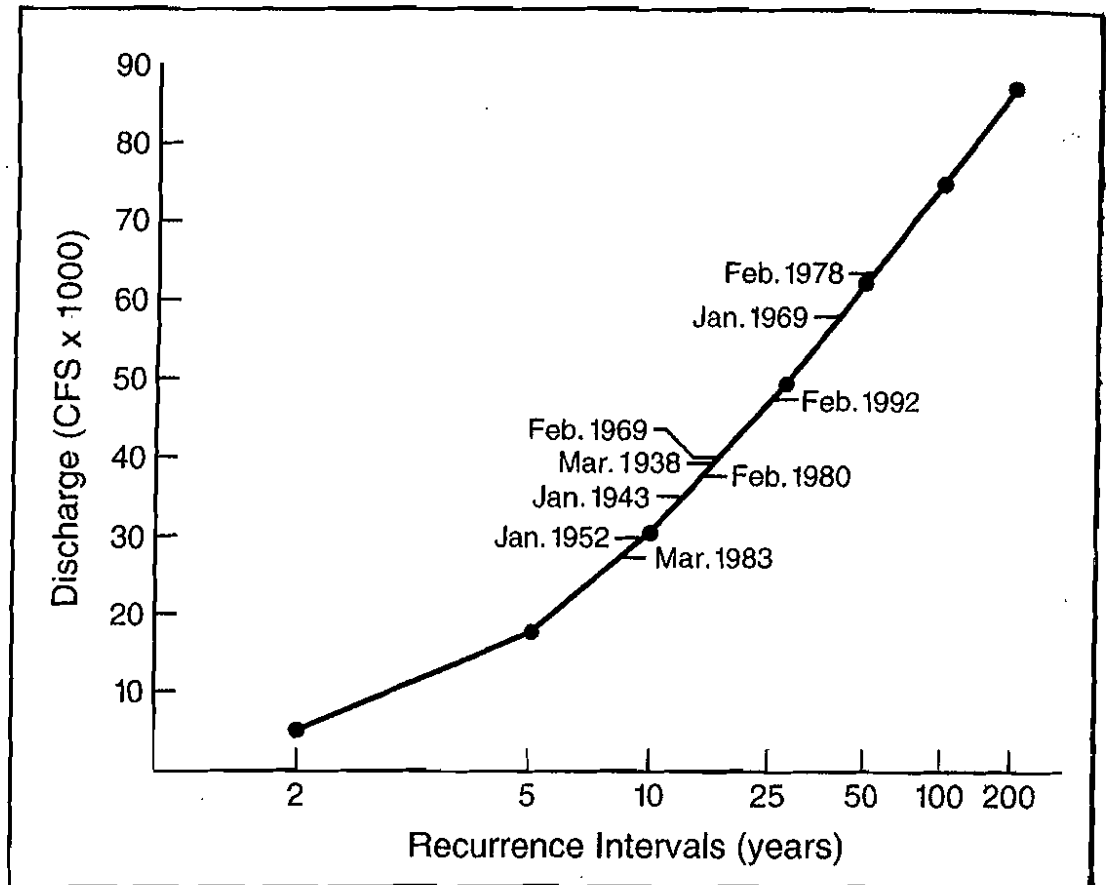


Figure 2. Magnitude and Recurrence Intervals of Historic Floods on the Ventura River, Ventura County, California, 1938-1992.

The City of San Buenaventura is protected from natural flooding of the Ventura River by a rock levee constructed on the east side of the main river channel by the U.S. Army Corps of Engineers in 1948 (U.S. Army Corps of Engineers, 1967). The levee effectively precludes development of distributary channels to the east of the present position of the main river channel.

While U.S. Army Corps of Engineers' levee protects the City from catastrophic flooding, it results in greater flooding activity in the main river channel and distributaries of the delta to the west where the Ventura Beach RV Resort is located.

Pre-Local Coastal Program Land Use History

Prior to its annexation to the City of San Buenaventura in 1968, the 7.3 ha (18 acre) site of the future Ventura Beach RV Resort, had been dry-farmed with various row crops through the early 1950's. The parcel had been fallow since the mid 1950's, and immediately prior to its purchase by the current owner, was covered with a mix of native coastal sage and riparian vegetation as a result of secondary plant succession. (Figure 3) The parcel, however, remained zoned for agriculture, and under the City of San Buenaventura's original Flood Plain Ordinance was not developable with structures. (Keller et al., 1992)

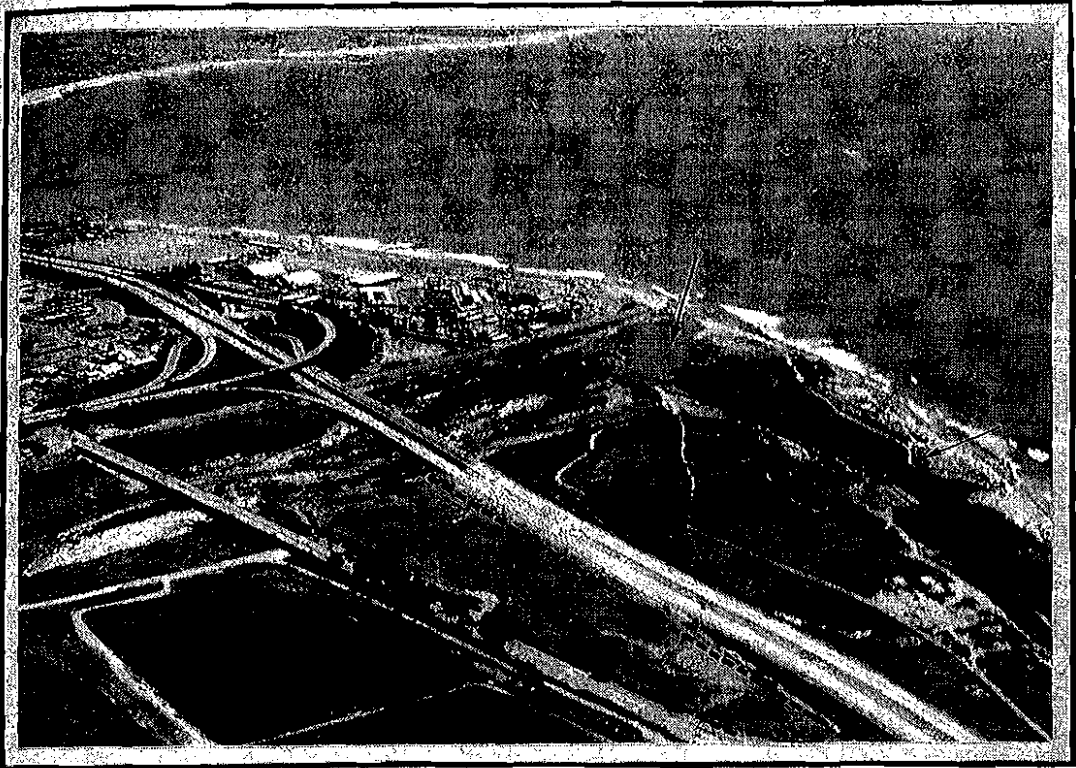


Figure 3. Ventura River Delta, Ventura County, California, 1979. Prior to Commencement of Construction of the Ventura Beach RV Resort. (dashed area). Left Arrow - Main Ventura River Estuary. Right Arrow - Second Mouth of Ventura River.

In 1975, the owner began developing options for the commercial use of the property which 12 years later culminated in the construction of the Ventura Beach RV Resort. Because the parcel lies within California's Coastal Zone (originally created with the passage of Proposition 20 in 1973) and is subject to the land-use policies of the California Coastal Act of 1976, clearing of the site's secondary growth of native chaparral and riparian vegetation to accommodate a non-agricultural commercial use posed potential conflicts with the Act's land-use policies. The Coastal Act contains specific policies providing for protection of environmentally sensitive habitat, including native plant communities (e.g., §30240). Removal of native vegetation for agricultural purposes, however, was excluded from the definition of development (§30106) in the Coastal Act and therefore not subject to the permit requirements of the California Coastal Commission (California Legislature, 1976). In late 1978, the owner stripped

the entire portion of the site outside the main channel of the river of all native vegetation and initiated an ornamental flower growing operation. At the same time the property owner approached the City of San Buenaventura with a proposal to develop a recreational vehicle park on the site (San Buenaventura, 1978a, 1978b).

In August of 1978, the City of San Buenaventura notified the Ventura County Flood Control District (which controls a flood easement across the eastern half of the property) of the owner's intention to develop a recreational vehicle park and requested the District's review and comments (San Buenaventura, 1978a). In response, the District informed the City that the entire site was located within the floodplain and warned that "Flooding of the site could occur rapidly, thereby trapping users on the floodplain with no escape." The District also suggested, however, that recreational uses of floodplain areas are generally compatible with flood-hazard concerns, and recommended that if the applicant pursued the proposal: (a) "No one should be permitted within the Flood Control District's easement.", and (b) "An adequate warning system should be established that would lead to safe evacuation of the site." (Ventura County Public Works Agency, 1978).

In 1980, the owner applied to the City for a land use/zone change from Agriculture to Recreation, while conducting the flower-growing operation. The City granted the land use/zone change, but was unable to process the necessary Coastal Development Permit for the proposed commercial recreational vehicle resort until the land use/zone change and related development policies were certified as part of the City's Local Coastal Program mandated by the California Coastal Act of 1976.

Local Coastal Program Planning

The California Coastal Act specifically stipulates that a Local Coastal Program include a Land Use Plan which is "sufficiently detailed to indicate the kinds, location, and intensity of land uses, the applicable resource protection and development policies, and where necessary, a listing of implementing actions." (§30108.4-5) Unlike traditional General Plans, Local Coastal Programs therefore require a high degree of specificity to ensure that the multiple policy objectives of the Coastal Act are effectively implemented. To assist in the development of such plans local governments are awarded grants by the Federal Office of Coastal Zone Management (OCZM) to develop background papers on coastal issues pertinent to their area of jurisdiction.

The City of San Buenaventura was awarded an OCZM grant and in February 1980, the City issued a Working Paper on the Taylor Ranch/Ventura River Sub-Area which includes the site of the future Ventura Beach RV Resort and an adjacent 42.5 ha (105 acre) parcel (Crown Zellerbach). The Working Paper analyzed the future site of the Ventura Beach RV Resort with respect to the following coastal issues: agriculture, environmentally sensitive habitat, flood hazards, and public access and recreation (San Buenaventura, 1980a).

Regarding agricultural issues, the Working Paper noted that, "With the exception of the Ventura riverbed, prime agricultural soils comprise nearly all of the Ventura River basin within the coastal zone." Further, "Conversion of agricultural land in the Ventura River to urban uses would not appear to be in conformance with the [City's] Open Space or the Phasing Program as presently adopted." (p 25) The Working Paper concluded by suggesting that "To ensure the preservation of prime

agricultural land in the Ventura River basin, consideration should be given to establishing a stable urban boundary along the Ventura River levee . . . [and] through land use designations, zoning, floodplain zoning, and/or acquisition of the land or its development rights." (p 26) The working paper also suggested the possibility of de-annexing the area from the City to qualify for participation in Ventura County's Land Conservation Act Program.

With respect to environmentally sensitive habitats, the Working Paper proposed that "In order to carry out the intent of the [Coastal] Act to protect the sensitive habitat of the Ventura River, it appears that retaining this area in as natural a state as possible is most appropriate." Further, "Maintenance of agricultural land adjacent to the river would serve to protect habitat values as well as promote agricultural preservation and reduce flood hazards." (p 28) The Working Paper also noted that "[R]esidential use in this area would be in conflict with efforts to minimize flood hazards and protect the habitat and marine environment, as well as recreational and agricultural uses." (p 29)

Concerning the flood hazards associated with the area, the Working Paper noted that "the main purpose of a floodplain ordinance is to 'reduce the need for flood protection improvements, reduce public expenditures, provide open space, and protect natural attributes and wildlife of the Ventura (and Santa Clara) River.'" The Working Paper also indicated that "Land Uses that would not involve a risk to life or be significantly damaged as a result of periodic flooding include agricultural uses and passive recreation (e.g. nature study, education and scientific research, fishing, horseback riding)." (pp 29-30)

The Working Paper also tied together the related Coastal Act's multiple policy objectives (including protection of environmentally sensitive habitats and minimizing flood hazards) in the analysis of recreational issues:

The potential for active recreational uses north of Highway 101 is limited by presence of the floodplain. The access road leading from the West Main Street Bridge to the Hubbard Property [site of the Ventura Beach RV Resort] is below flood level, as is the site itself. Flooding could occur rapidly, thereby trapping users in the floodplain without adequate means of escape. Because of the area's vulnerability to flood damage and potential risk to life, suitable recreational land uses should be limited to passive recreation, such as nature study, scientific and educational research, and horseback riding, where it would not adversely impact the riparian habitat. (p 33)

Based upon the above analysis, the Working Paper presented a series of recommendations which were intended to guide the City and Coastal Commission's consideration of land-use designations and development controls for the Taylor Ranch/Ventura River Sub-Area. These included the following General Policy which explicitly linked the multiple policy objectives regarding agriculture, environmentally sensitive habitats, and coastal hazards:

1. The City and the County of Ventura should designate the Ventura River levee as the western urban boundary in order to preserve agricultural land, protect environmentally sensitive habitat areas, and minimize risks to life and property in areas of flood hazard. (p 34)

And for the Ventura River, the Working Paper offered the following guidance:

7. For the incorporated land west of Ventura River and north of Highway 101 (i.e., Hubbard property [site of the future Ventura Beach RV Resort] and Crown Zellerbach property), the City's Future Land Use Plan should reflect an agricultural use designation. (p 34)

8. For the incorporated land west of the Ventura River and north of Highway 101 (i.e., Hubbard property and Crown Zellerbach property), additional implementing measures should be considered by the City in assuring long-term agricultural viability. (p 35)

Initially, the City developed proposals for the Taylor Ranch/Ventura River Sub-Area sites, including the site of the future Ventura Beach RV Resort, which reflected the analysis and recommendations of the Working Paper; an early draft of the City's LCP Land Use Plan contained the following discussion and recommendation (San Buenaventura, 1980b):

Coastal Act policies require that new development minimize risk to life and property in the area of flood hazards. Therefore, appropriate land uses include those which would not involve a risk to life, or be significantly damaged as a result of periodic flooding, such as agricultural uses not involving buildings, and passive recreation (e.g., nature study, education, fishing). This would *not include active recreation*, such as camping, which preferably should be located outside a flood plain area. (p 114) (emphasis added)

As described below, this original analysis and recommendation was not applied to the site of the future Ventura Beach RV Resort by the City in its formal submittal of the LCP Land Use Plan to the California Coastal Commission, and the recommendation to do so by the Regional and State Coastal Commission staffs was ultimately rejected by the Regional and State Coastal Commissions under persistent pressure from the owner of the Ventura Beach RV Resort site.

In December of 1980, the City of San Buenaventura formally submitted its proposed LCP Land Use Plan to the South Central Coast Regional Coastal Commission for approval. The plan included a Recreational land-use designation for the future Ventura Beach RV Resort site, along with development policies dealing with flood hazards and the protection of the environmentally sensitive habitat which had persisted on the eastern portion of the site. The Regional Coastal Commission initially rejected the filing of the City's proposed LCP Use plan because of the lack of sufficient specificity regarding the types, locations, and intensity of permitted uses, and the policies dealing with environmentally sensitive habitats (California Coastal Commission 1981a).

In March 1981, the City resubmitted its Local Coastal Program Land Use Plan with additional specificity, but no substantial changes to the future site of the Ventura Beach RV Resort. The proposed Land Use Plan specifically did not follow the recommendations developed in the City's earlier Working Paper for the Taylor

Ranch/Ventura River Sub-Area. In May 1981, the Regional Coastal Commission held its first hearing on the City's Proposed LCP Land Use Plan. The Regional Commission staff recommended denial of the proposed Recreational land-use designation for the site, and the policies regarding protection of environmentally sensitive habitats, flooding hazards, public services, and agriculture (California Coastal Commission, 1981b). In its proposed findings, the Regional Commission staff noted that:

The site is subject to flooding and is partially within a sensitive habitat area, so any development of the site should be set back a suitable distance from the sensitive habitat areas . . . The Ventura River constitutes a strong, understandable physical boundary which will be infringed by the proposed development [i.e. recreational vehicle park]. .

[E]ven though private lands may be 'suitable for visitor-serving commercial recreational facilities designed to enhance public opportunities for coastal recreation' they shall *not have priority over agriculture*. The recreational designation for the subject site conflicts with this Coastal Act policy. (p 31; see also pp 27, 32, 41) (emphasis added)

Despite the analysis of coastal issues provided by the City's Working Paper, and the Regional Coastal Commission staff's recommendation, the Regional Commission ultimately approved the City's LCP Land Use Plan, with a Recreational land-use designation for the site of the future Ventura Beach RV Resort, and suggested modifications for policies regarding the protection of environmentally sensitive habitats (California Coastal Commission, 1981c). The Commission's revised findings emphasized the high priority afforded recreational facilities in the Coastal Act, and minimized the issues relating to the preservation of coastal agriculture, protection of environmentally sensitive habitats, and the flood hazards associated with the site.

The City's LCP Land Use Plan was then forwarded to the State Coastal Commission for certification. In August 1981, the State Commission found that the Regional Coastal Commission's decision to approve the City's LCP Land Use Plan as submitted and amended raised substantial issues with respect to its consistency with the policies of the Coastal Act (California Coastal Commission 1981d). The State Commission adopted findings supporting the determination of substantial issue with respect to the proposed Recreational land-use designation of the site of the future Ventura Beach RV Resort site, noting that:

There are other sites in Ventura available for recreational vehicle use, most notably the Rincon Parkway, Emma Wood State Beach, and the San Buenaventura State Beach. As such, these could be further developed to recreational uses prior to the conversion of the prime agricultural lands on the Hubbard property making the 'Recreational' designation inconsistent with PRC 30241(c) (p 13)

However, in September 1981, the State Coastal Commission staff reversed its position and recommended a recreational land use designation for the site. As with the Regional Coastal Commission, the State Commission's revised findings emphasized the priority afforded recreational facilities in the Coastal Act, and minimized the issues relating to the preservation of coastal agriculture, protection of environmentally

sensitive habitats, and the flood hazards associated with the site (California Coastal Commission, 1981e). In support of this decision, the Commission findings asserted that:

The Hubbard property until 1980 was not used for agricultural purposes. It was a vacant parcel used for storage and some dumping. In 1978, it was considered for acquisition by State Parks for expansion of Emma Wood State Beach. It was not acquired but has been repeatedly been considered as a possible site of further recreational development or upland support for existing visitor-serving facilities . . . In light of these facts, the small size of the parcel, and its isolation, it can be found that the 'Recreation' designation on the Hubbard property is not inconsistent the PRC Sections 30241 and 30242 and 30222. (p 13) [See also pp 13-16]

This assessment contrasted sharply with the earlier analysis by the City and the Regional Commission staffs which stressed the agricultural viability of the site because of its isolation from other urban uses and its proximity to existing viable agricultural operations on the adjoining parcel to the north (i.e., Crown Zellerbach). In its decision approving the Recreational land-use designation, however, the State Commission did not approve the habitat protection or flood hazard policies for the site, and sought additional input from the California Department of Fish and Game, the U.S. Fish and Wildlife Service and the U.S. Army Corps of Engineers (California Coastal Commission 1981f).

The California Department of Fish and Game responded by expressing its concern about the long-term consequences of allowing recreational development on the active floodplain of the Ventura River (California Department of Fish and Game, 1981). Drawing upon its past experience, the Department pointed out that:

[T]he Department generally opposes development within the floodplain because it . . . often results in the loss of wetland, riparian and adjacent habitats when pressures to protect the property through structural flood control measures are successfully brought to bear following damage to property by floods. (p 2)

The Department went on to indicate that their concerns for the recreational use of the site could be partially addressed by "designating the floodway area [i.e., east of the Ventura County Flood Control District's flood easement] as sensitive habitats" and identifying compatible land uses in the buffer area west of the floodway boundary such as "tent camping, and picnicking or existing agricultural uses", and within the sensitive habitat area, "passive recreational activities, nature study and educational and scientific research" as a means of allowing restoration of the previously disturbed riparian habitat on the site. (p 4). The U.S. Fish and Wildlife Service reiterated its earlier comments from a letter of September 10, 1981 that the environmentally sensitive habitat on the site should extend west to the Ventura County Flood Control District easement, and that the remainder of the property should be limited to existing agricultural and sand mining operations; limited access roadways, and recreational facilities" including "campgrounds and hiking trails." (U.S. Fish and Wildlife Service, 1981a, 1981b).

The U.S. Army Corps of Engineers also recommended restriction on the

recreational use of the floodway portion of the site for both flood protection and protection of environmentally sensitive habitat (U.S. Army Corps of Engineer 1981). The Corps advised that :

Passive recreation would be most compatible with the resource values of the floodway. Another acceptable alternative could be restoration of the floodway to natural habitat and allowing camping and/or day use, but no vehicles in selected parts of the floodway. Use should be restricted to the season when *no flood hazard exists*. (p 1) (emphasis added)

In November 1981 the State Coastal Commission held a further hearing on the uncertified environmentally sensitive habitat and flood hazards policies for the proposed recreational vehicle site. In response to agency input, the State Commission staff recommended that the recreational uses of the site be limited to the area west of the Ventura County Flood Control District's flood control easement, and that the riparian vegetation that was disturbed by the recently inaugurated agricultural activities on the site be allowed to regenerate "as soon as the property is converted to recreational development." (p 4) The State Commission staff also recommended that the uses in the floodway be limited to passive recreation activities, nature study, and educational and scientific research consistent with the site's sensitive habitat values. In the floodway fringe (west of the Ventura County Flood Control District's flood easement), the State Commission staff recommended that uses could include permanent recreational structures, providing that such development did not reduce the flood carrying capacity of the main Ventura River channel; did not require flood protection measures such as berms, dikes, and levees; and did not increase sedimentation to the adjacent wetlands to the south at Emma Wood State Beach (California Coastal Commission, 1981g).

These recommendations were not supported by the State Commission, and in February 1982, the State Commission staff revised its recommendations to relocate the line demarking the environmentally sensitive habitat on the site further east to the existing bank of the main river channel, thus removing most of the potentially restorable riparian habitat area from protection, and allowing recreational development (including recreational vehicles) within the Ventura County Flood Control District's flood hazard easement. On December 17, 1982, the State Coastal Commission certified the City of San Buenaventura's LCP Land Use Plan, including the revised environmentally sensitive habitat and flood hazard policies for the proposed recreational vehicle facility site. As with the previous Coastal Commission decisions the revised findings placed an emphasis on the potential recreational opportunities which could be realized by the development of the site, while the issues relating to preservation of agriculture, environmentally sensitive habitats and flood hazards were minimized (California Coastal Commission, 1982)

Post-Local Coastal Program Planning

Following the California Coastal Commission's certification of the City's Local Coastal Program in early 1984 and the transfer of coastal permitting authority to the City, the property owner applied to the City for a Coastal Development Permit to construct a 100+ space recreational vehicle resort on a 4.9 ha (12 acre) portion of the 7.3 ha (18 acre) site (California Coastal Commission 1984). The City determined that the project had the potential to adversely impact the environment and required the preparation of an Environmental Impact Report (EIR) pursuant to the California

Environmental Quality Act (CEQA). The analysis of environmental impacts, however, was constrained by the earlier recreational land-use and zone designation, which effectively committed the City and the Coastal Commission to some type of commercially viable recreational use of the site (ENVICOM, 1984). Additionally, the flood-hazard analysis in the EIR relied upon a flooding analysis developed by the U.S. Army Corps of Engineers for predicting the areal extent of flooding under a given magnitude of flow (expressed as a frequency of recurrence). This methodology, known as HEC-2, assumes a stable cross-sectional channel area, and has limited applicability to watercourses with highly mobile channels and distributaries such as are present on the delta of the Ventura River (Keller, et al., 1992).

In January 1985, over a recommendation of denial of the project by the San Buenaventura City Planning staff, the City Planning Commission approved the EIR and a Coastal Development Permit for a 100+ space recreational vehicle resort on the site. While the staff referenced the flood hazards of the site, the formal basis for the recommendation for denial did not include the potential flood hazards, largely because the flood issue was perceived as a technical issue beyond the expertise of the City planning staff. Nevertheless, the Planning Commission's approval included several conditions intended to mitigate impacts from potential flooding identified in the EIR to a level of insignificance. These included modification of an existing distributary (characterized as a local drainage channel) across the western portion of the parcel to carry a 100-year flow; prohibition of grading in the designated floodway; and implementation of a flood-warning system. Significantly, the Planning Commission did not restrict the use of the floodway by individuals as originally suggested by the Ventura County Flood Control District and recommended by the U.S. Army Corps of Engineers, or specify the exact nature of the flood warning system (San Buenaventura, 1985a).

The San Buenaventura City Planning Commission decision was appealed by several environmental organizations to the City Council. Again, because the flooding issue had been framed in technical engineering terms and had been resolved to the satisfaction of flood control professionals, the formal basis of the appeal did not rest on the potential flood hazards of the site. Instead, the appeal addressed more traditional land use issues, including the allowable uses in the buffer area adjacent to the main channel of the Ventura River, landscaping along U.S. Highway 101, hazards associated with bicycle and pedestrian traffic, and the density of the development (Audubon Society, 1985). On March 5, 1985, again over the recommendation of the City Planning staff, the San Buenaventura City Council voted to deny the appeal and uphold the Planning Commission's original approval of the proposed recreational vehicle park (with an increase of recreational spaces to 144). However, in further recognition of the flood hazards associated with the site, the City Council added a condition which required the applicant to enter into an agreement with the City in which the applicant acknowledged the flood hazards associated with the project site, agreed to assume all risk, and to hold the City harmless from any liability for damages which could result from flooding (San Buenaventura, 1985b; Hubbard, 1987).

Following the City's final approval, the project was appealed by project opponents to the California Coastal Commission which had retained appeal authority over the eastern-most portion of the project which lay in the designated floodway adjacent to the main channel of the Ventura River. The appeal was based upon inconsistencies with the provisions of the City's certified Local Coastal Program,

including impacts to the adjacent Emma Wood State Beach, inadequate landscaping, inappropriate density, potential impacts to environmentally sensitive habitats of the Ventura River, and alteration of landforms for site preparation and flood control (Environmental Coalition of Ventura County, 1985). The Coastal Commission staff recommended that the Commission find that the appeal raised no substantial issue with respect to the project's consistency with the City's certified Local Coastal Program and the Commission concurred with the staff's recommendation (California Coastal Commission, 1985). While the project was the subject of several more hearings at the local level for minor amendments to the originally approved plan, the planning and public review process had, after almost 12 years, come to an end. The applicant completed the Ventura Beach RV Resort in time for the beginning of the 1988 summer season. The facility was in operation for only four years before being struck by the flood of February 12, 1992.

February 12, 1992 Flood

The Ventura River overflowed its main channel several hundred meters above the Main Street Bridge near the apex of the Ventura River delta. The river reoccupied a natural, historically active distributary channel, flowing over the west end of Main Street, directly across the eastern end of the Ventura Beach RV Resort, over U.S. Highway 101, and into the Pacific Ocean after flowing beneath the Southern Pacific Transportation Corporation railroad bridge built over the "North Fork" or "Second Mouth" of the Ventura River. (Figure 4)



Figure 4. Flood Waters of Ventura River Pouring Through the Ventura Beach RV Resort, February 12, 1992. (Looking southeast from Main Street.) Bottom Arrows Indicate Direction of Flow; Top Arrow Indicates Second Mouth of Ventura River.

The February 1992, flood with a discharge of approximately 1,322 cms (46,700 cfs), has a recurrence interval of approximately 22 years. This was not an unusual event from a hazard/risk perspective. The chance of a 20 year flood occurring in a 10 year period is relatively high at 40%, and in a 15 year period the chances are over 50% (Dunne et al., 1978).

The bulk of the rain fell early in the morning of February 12; the river responded quickly with flow rising from less than 3 cms (100 cfs) to 1,322 cms (46,700 cfs) within about three hours. Although flash-flood warnings were issued the previous day, the very rapid response of the river made it difficult for floodplain evacuation to be effective (Fox Weather, 1992a, 1992b). The flood flows reached their peak during the mid-morning after the quickly moving storm center had passed, providing good visibility and making aerial rescue operations possible. (Figure 5)

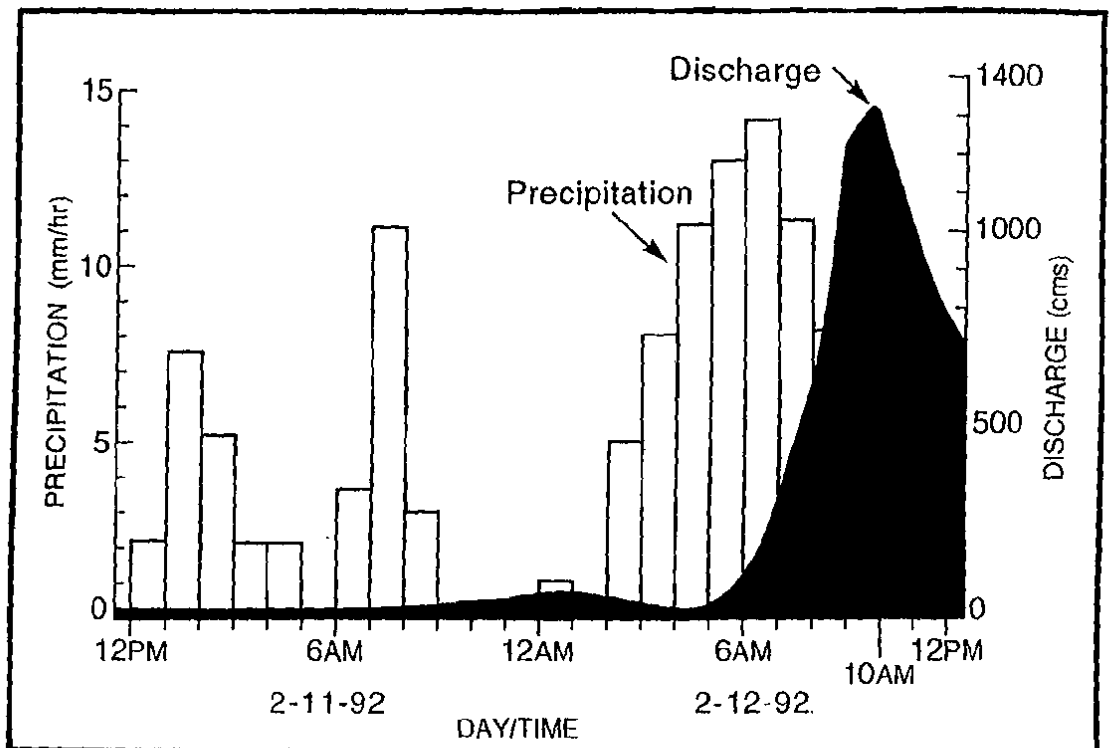


Figure 5. Relationship Between Rainfall and Ventura River Flow, February 11-12, 1992.

The flood on February 12 reached an estimated peak discharge at approximately 10 a.m. (Ventura County Public Works Agency, 1992a). The flood reportedly caused \$1,000,000 in damages to the Ventura Beach RV Resort and approximately \$40,000 in damages to the Emma Wood State Beach - Ventura River Group Camp (Kelley, 1992b; W. Deleu, California Department of Parks and Recreation, personal communication, 1992). The City of San Buenaventura expended an estimated \$28,000 in immediate emergency services, and an additional \$24,000 in post-flood clean-up and repairs. However, the bulk of the local emergency services (largely unreimbursable) were incurred by the Ventura County Sheriff and Fire Departments for police and helicopter rescue services (San Buenaventura, 1992b, 1992f; Kish, 1992).

At the time the Ventura River overflowed its main channel and reoccupied the western distributary, the recreational vehicle park was occupied by about 100 individuals in recreational vehicles. Many individuals had been living in their vehicles for extended periods, in violation of the conditions of the City's permit which limited the stay of the occupants to ensure the facility was used as a visitor-serving facility; as result, several vehicles had flat tires or were otherwise not in a condition to evacuate quickly (San Buenaventura, 1992c, 1992d 1992e, 1992f, 1992g). (Figure 6)



Figure 6. Wreckage from Several Recreational Vehicles Swept from the Ventura Beach RV Resort and Deposited in the Ventura River Estuary, February 12, 1992. Arrow Indicates Direction of Flow.

The Emma Wood State Beach-Ventura River Group Camp had been almost completely vacated because of the preceding several days of rain, and the few remaining campers were evacuated earlier in the morning. The flows inundating the Ventura Beach RV Resort were of sufficient depth and velocity to pick up several of the larger recreational vehicles and carry them about 1 km to the ocean. Approximately 20 individuals were airlifted by helicopter from the tops of vehicles in the recreational vehicle park, and 10 stranded individuals from along the river channel. One homeless individual was drowned (Gruntfest and Taft, 1992; Kelley, 1992a; Reed, 1992; Reynolds, 1992; Ventura County Sheriffs Department, 1992). (Figure 7)

Current Situation

Following the February 12, 1992 flood the Ventura Beach RV Resort was closed for a month while the owner repaired damages to the facility and the City considered what actions, if any, it should take with respect the Coastal Development Permit originally issued for the project. During the investigation which ensued, the

City confirmed that the owner had been allowing visitors to stay for prolonged periods in violation of the length of stay restrictions imposed upon the permit; furthermore, the

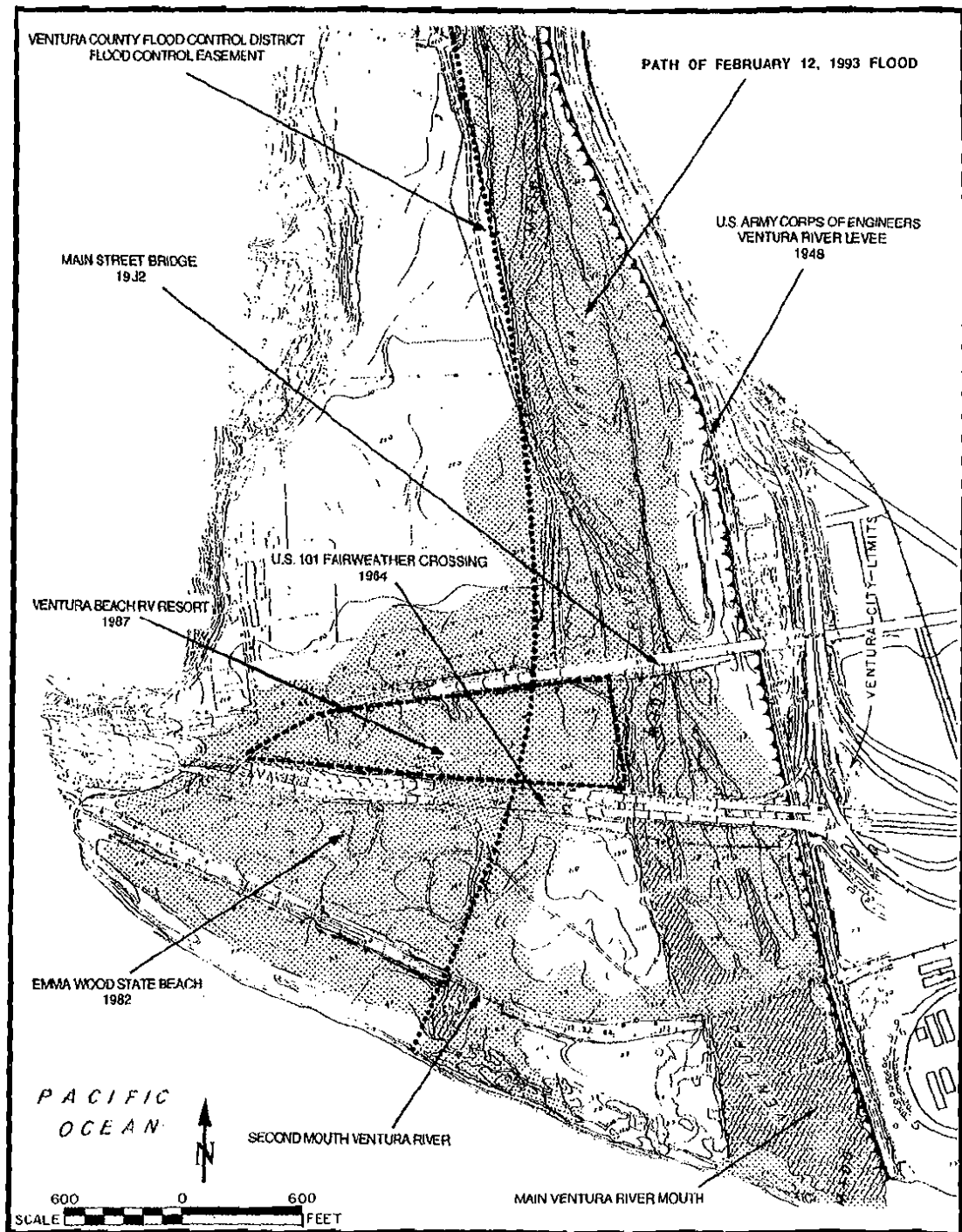


Figure 7. Path of Ventura River Flood of February 12, 1992

Ventura County Flood Control District notified the owner that it would not continue to provide flood warning services in the absence of a better defined flood-warning protocol, as required by the City's Coastal Development Permit. After several public hearings, the City elected to take no action with respect to the underlying permit, pending further investigation, and allowed the Ventura Beach RV Resort to reopen without any modifications to previously approved conditions (San Buenaventura, 1992c, 1992d; Ventura County Public Works Agency, 1992b, 1992c).

After additional investigation and consultation with the owner of the Ventura Beach RV Resort, the City on December 21, 1992 voted to amend the Coastal Development Permit, to extend the original length of stay condition. The original limit of 30 consecutive days with a minimum 14 days between stays was extended to 6 months in the floodway portion of the facility, and up to 9 months in the flood fringe portion of the facility, with a minimum of 24 hours between each 30 day period. The Coastal Development Permit was also modified to require insurance coverage, including naming the City as a beneficiary (San Buenaventura, 1993a, 1993b). These actions were appealed to the California Coastal Commission by two members of the California Coastal Commission, the League of Women Voters of Ventura County, the Environmental Coalition, and several private individuals. These appeals all alleged inconsistency of the quasi-residential use of the facility (created by the increased length of stay amendment) with the Recreational land-use designation for the site contained in the City's certified Local Coastal Program. Related to this fundamental contention are the issues of the hazards posed by flooding to long-term occupants of the facility; the potential impacts to environmentally sensitive habitats associated with the adjacent Ventura River stemming from related flood control activities, including removal of native riparian vegetation up-stream; and the impacts of the quasi-residential use of the site on the scenic and visual qualities of the area (California Coastal Commission 1993a; Environmental Coalition of Ventura County, 1993; Carla Bard, 1993; League of Women Voters of Ventura County, 1993; Ruth and Robert Shimer, 1993).

The Coastal Commission staff recommended that the Commission find that the City's proposed amendments to its originally issued Coastal Development Permit raised substantial issues with respect to their consistency with the City's certified Local Coastal Program. In its recommendation, the Commission staff noted that the City's certified LCP Land Use Plan designated the site as Recreational, and Park in the Implementation Zoning Ordinance. Additionally, the Commission staff emphasized that there were no provisions within the City's Local Coastal Program allowing for residential uses on the Recreational designated site, and the increased length of stay allowed by the City's amendment to the Coastal Development Permit in effect created a residential use. The Commission staff also noted that the City's Local Coastal Program applies a Flood Plain Overlay Zone to the project site, and that there is a Flood Control District easement over the property. Finally, the Commission staff noted that the City's Flood Plain Overlay Zone (which was adopted after the Ventura Beach RV Resort was permitted) specifically prohibits residential uses and parking lots that allow overnight parking; as such the current facility is a legally non-conforming use, and intensification of the site (e.g., longer length of stays) would increase the risk of damages, and possibly injury due to flooding (California Coastal Commission, 1993b).

On March 17, 1993 the California Coastal Commission found that the City's action amending the original Coastal Development Permit raised substantial issue with respect to its conformity with the City's certified Local Coastal Program and set a de

novo hearing on the issues raised in the appeals. The Commission will therefore have an opportunity to reconsider the appropriateness of the permit for the existing use in light of the experience of the flood of February 12, 1992, as well as subsequent floods.

Discussion and Conclusions

The Ventura Beach RV Resort was constructed in 1987; one year into an extended five year drought which coincided with first years of the operation of the facility, thus giving a false sense of security to the owners, decision makers, and patrons, particularly the long-term residential patrons, of the facility. The flooding of the Ventura Beach RV Resort during the winter of a 1992, however, was not an unusual or isolated event. As noted above the chances of a similar magnitude flood occurring within the next ten years is relatively high at about 37 percent. Past experience demonstrates that the Ventura River has reoccupied the distributary channel across the Ventura Beach RV Resort, and that it is likely that it will again in the relatively near future. (Figure 8)

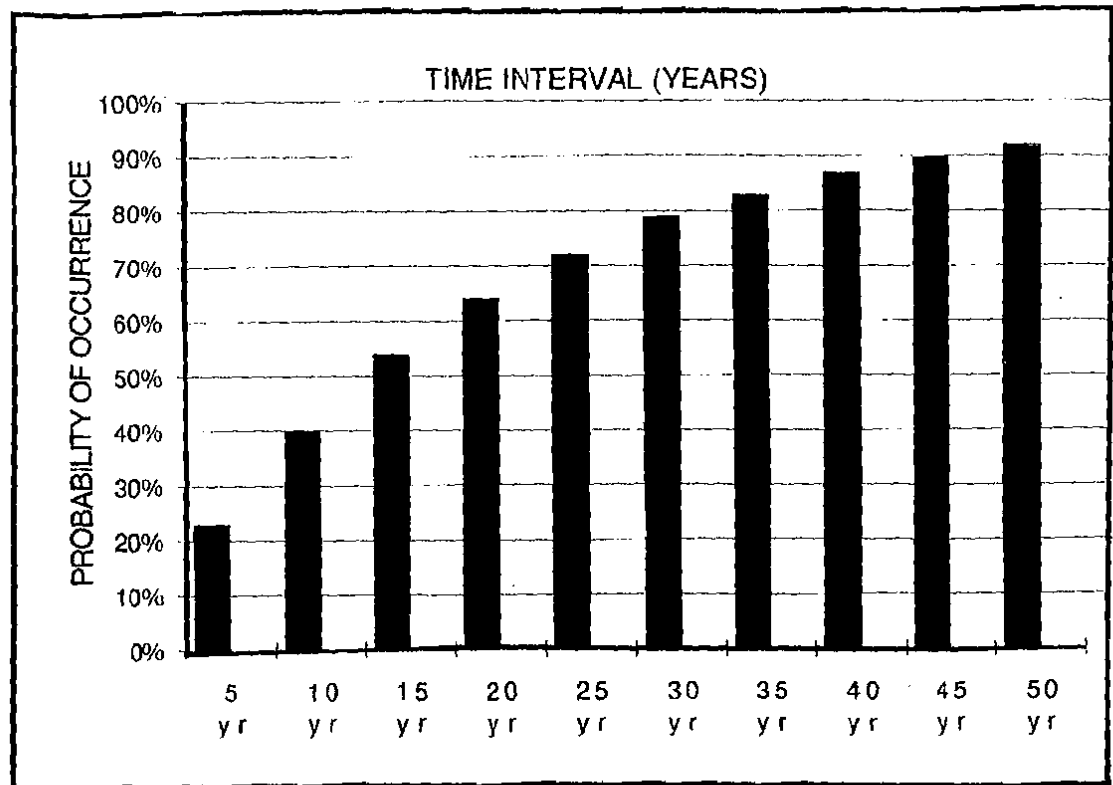


Figure 8. Probability of the Recurrence of a 20-Year Flood Flow in the Ventura River Over a 5 to 50 Year Period.

During the following 1993 winter season, the Ventura River again experienced heavy flows on five separate occasions: January 14 - 405 cms (14,300 cfs); January 18 - 499 cms (17,600 cfs); February 8 - 425 cms (15,000 cfs); February 23 - 269 cms (9,500 cfs); and March 25 - 282 cms (10,000 cfs). During each of these events, the Ventura River overflowed its west bank of the main channel and reoccupied a portion of the

distributary which passes through the Ventura Beach RV Resort. While the flows during 1993 were smaller than the flood flow of February 12, 1992 and were successfully prevented from inundating the facility by the construction of a berm which diverted the flow back into the main channel, the drainage channel which bisects the facility received flows, thus temporarily cutting off the western third of the facility from the main vehicular exit route. Under a new flood warning agreement between the Ventura Beach RV Resort and the Ventura County Flood Control District, the facility was evacuated for short periods during these five flood events (January 14, January 18, February 8, February 23, and March 25, 1993) (Ventura County Public Works Agency 1993a, 1993b). All of these 1993 flows had recurrence intervals of 5 years or less, demonstrating the frequency with which flows may over-top the west bank of the main Ventura River channel and utilize distributaries on the Ventura River delta (Keller et al., 1992).

The staffs of the City of San Buenaventura, Ventura County Flood Control District, and the California Coastal Commission initially objected to the development of a recreational vehicle park on the Ventura River delta because such a use would thwart a number of Coastal Act policy objectives, including the preservation of prime agricultural land, the protection of environmentally sensitive habitat, and the minimization of damage and possible loss of life due to flood hazards. Similar concerns were also raised by the California Department of Fish and Game, the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, and private individuals and environmental groups in numerous public hearings.

Arguments in favor of the Ventura Beach RV Resort centered around its economic and visitor-serving potential (Kelley, 1992b). Project proponents asserted that it would contribute approximately \$100,000 a year to the City of San Buenaventura's economy and enhance coastal access and recreational visitors-serving opportunities - a major policy objective of the California Coastal Act. Actual revenues generated by the facility amounted to \$159,462 over the four year period from 1988 through 1992, an annual average of \$40,000 per year, or less than half of the annual projected revenues (San Buenaventura, 1992a). A portion of these revenues were subsequently offset when the City expended approximately \$28,000 on immediate emergency rescue, and an additional sum (only partially reimbursable) on post-flood clean-up and repair (San Buenaventura, 1992a, 1992b, 1992f).

Regarding the provision of additional coastal access and additional visitor-serving facilities, it is significant that the California Coastal Commission had previously limited the size of the facilities at the adjacent Emma Wood State Beach-Ventura River Group Camp in order to protect the area's environmentally sensitive habitats, including wetlands, coastal dunes, and intertidal cobble fields (California Coastal Commission, 1978a, 1978b). Furthermore, State park records indicate that the day-use parking facilities at the Emma Wood State Beach-Ventura Group Camp have been rarely used to capacity, and that the Ventura Beach RV Resort has not been used as a regular staging area to gain access to the adjacent beach (California Department of Parks and Recreation, 1992).

Nevertheless, project proponents were ultimately successful in persuading City and State decision-makers to allow the site to be used for a high-density recreational vehicle park. An independent flood evaluation funded by the developer supported the contention that flooding was not likely to be a major problem at the site, or could be

mitigated with proper engineering (Hawks & Associates 1981a, 1981b, 1982a, 1982b). All engineering studies to evaluate the site's flood-hazards utilized the standard HEC-2 computer model developed by the U.S. Army Corps of Engineers. This model assumes a constant channel cross-section that remains stable during floods. As was dramatically demonstrated during the February 12, 1992 flood, this assumption is inappropriate for the main stem of the Ventura River or the delta because of the mobility of the channel and distributaries resulting from high sediment transport and deposition during major flood events.

The limitations of the HEC-2 studies were compounded by reliance on the flood hazard categories used by the Federal Emergency Management Agency (FEMA) and applied to the project site (Federal Emergency Management Agency, 1986). The FEMA flood insurance program employs the terms "floodway" and "floodway fringe" to characterize flood patterns and flood potential for determining eligibility for flood insurance. The term "floodway" is a technical term used by FEMA to designate a lateral area into which a discharge from a 100-year flood can theoretically be compressed without increasing the vertical height of the flood flow more than 0.3 m (one ft). This term was not intended to describe those areas which will be inundated only during a 100-year flood. The term "flood fringe" is a technical term used to designate that portion of the natural 100-year floodplain that would be theoretically left dry after compressing the 100-year flood flow into the "floodway". It does not describe that portion of the floodplain which is necessarily less prone to flooding (Federal Emergency Management Agency, 1985). These terms specifically were not intended to describe the pattern of flooding in either braided channels or on deltas with a system of distributary channels such as the Ventura River.

The California Coastal Act of 1976 attempts to balance the many competing and sometimes conflicting interests in the Coastal Zone (§30001.5). The specific policies of the Coastal Act assigns the highest priority to the preservation of those coastal resources without which the other policy objectives could not be met (§30007.5). One of the principal strategies for maximizing the preservation of these resources is the concentration of new development in already developed areas (§30250). The Coastal Act also aims to preserve resources by placing a high priority on the protection and promotion of coastal agricultural as an economically viable means of maintaining open space and reducing the intensification of uses within the Coastal Zone (§30241-2). All development otherwise permitted under the California Coastal Act must in theory be carried out in a manner which does not adversely impact environmentally sensitive habitats, and will minimize risks to life and property in areas of high flood hazard (§§30240, 30253). Both the Regional and State Coastal Commission staffs' original recommendations for the site of the Ventura Beach RV Resort (Agriculture, with an environmentally sensitive habitat overlay over the eastern third of the site) were intended to achieve these multiple policy objectives of the California Coastal Act.

The California Coastal Commission's ultimate decision to designate the site Recreational (with no special restrictions on the nature of the recreational uses) was aimed at achieving only one of the principle policy objective of the California Coastal Act, to the effective exclusion of the others. As anticipated by the California Department of Fish and Game, the flood of February 12, 1992 has prompted the owner to request additional flood protection in the form of removing sensitive native riparian vegetation from the Ventura River channel upstream in the belief that this measure will increase channel capacity and reduce the potential of future flooding (Hawks and

to request additional flood protection in the form of removing sensitive native riparian vegetation from the Ventura River channel upstream in the belief that this measure will increase channel capacity and reduce the potential of future flooding (Hawks and Associates, 1992; Hubbard, 1993). Such measures, while not ensuring greater flood protection, would further thwart the achievement of other important Coastal Act policy objectives in the furtherance of a single objective - maximizing public access and recreational activities within the Coastal Zone (Keller, et al., 1992).

The case of the Ventura Beach RV Resort vividly demonstrates the wisdom of the multiple policy objectives (with highest priority given to protection of coastal resources, including agricultural resources) of the California Coastal Act of 1976, and the dangers of striving to achieve one of the Coastal Act's policy objectives at the expense of others. Balancing the benefits from the continued use of the site for commercial recreational use must include weighing the potential consequences of operating such facilities in an inherently hazardous site. Continued emphasis on the recreational values of the site to the exclusion of its flood hazards, agricultural potential, and the environmentally sensitive habitats of the Ventura River will not only thwart the achievement of the full range of Coastal Act policy objectives on the site, but invites repetition of the tragedy which struck the facility on February 12, 1992.

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