

POLICY MANUAL

Date Adopted: November 12, 1991

Date Last Amended: May 28, 1996

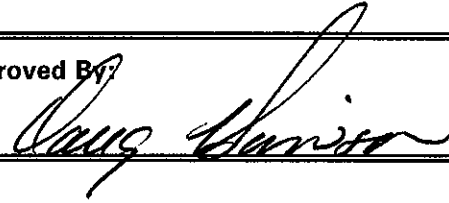
Classification:

**FLOOD PLAIN
MANAGEMENT**

Subject:

Riverine Flood Plain Policy

Approved By:



I. Purpose

The current boundaries of the District reach to both the San Joaquin and Kings Rivers. The County of Fresno and the City of Fresno each have entitlement jurisdiction for areas within the District which are adjacent to the rivers. Each of these agencies refer development proposals to the District for comment, and requirements and standards for implementation of necessary storm drainage and flood control improvements.

The purpose of this policy is to identify and implement standards which will protect the safety of inhabitants of confined riverine river bottom areas should the entitlement agencies chose to approve development within such river bottom areas.

To insure consistency and uniformity of flood plain management standards and protection, the District encourages all local land use entitlement jurisdictions to adopt and enforce uniform confined riverine flood plain management policies and standards based on this District policy.

II. Design Flood Event

The District, as a local sponsor of a federally constructed and designed flood control project known as the Redbank and Fancher Creeks Project, has provided control facilities for the 200 year event on streams of the Fresno County Stream Group. Further, one of the largest of these natural channels, Big Dry Creek Reservoir, was designed to control the Standard Project Flood.

Confined riverine environments pose a more serious flood risk, due to high velocity and large volume flows and the absence of regular channel maintenance, than typical sheet flow floodplains. Therefore, it is the policy of the District to use the more stringent of the aforementioned flood protection standards (use 250 year flood as SPF) as the Design Flood Event for riverine lands within the District subject to confined riverine flows.

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Further, as the total flood flow for the 250 year flood on the San Joaquin River has been determined by the Corps of Engineers* to be 51,000 cubic feet per second, it is the policy of the District to use 51,000 cfs as the Design Flood Event flow of the San Joaquin River when establishing design criteria for river bottom development. This design standard is established in lieu of the federally accepted minimum 1% storm event necessary to meet FEMA floodplain management compliance requirements, for the reasons set forth in this policy.

III. Minimum Design Standards

- a) San Joaquin River: The most recently prepared floodplain map of the San Joaquin River was prepared by the Corps of Engineers for the Federal Emergency Management Agency in 1982. The lack of regular channel maintenance together with the reduced maximum flood flows which have resulted from the multiple dams on the river have caused substantial soil deposition, in-channel riparian growth and the related likelihood of elevated flood water profiles. These factors cause current floodplain mapping to be potentially inadequate for use in establishing site specific flood protection criteria.

It is, therefore, the policy of the District to require the developer to prepare a detailed hydraulics report based on current conditions in order to provide a determination of the water surface elevation of the Design Flood Event as identified in Section II hereof for the affected reach of the San Joaquin River Channel, which elevation shall be used in satisfying requirements of this policy. Such elevation and report shall be prepared and certified by a civil engineer registered in the State of California.

* Flow information was provided by Huxley Madeheim, U.S. Army Corps of Engineers (COE) Hydrology & Hydraulics Section, and later confirmed by Kevin Richardson COE Reservoir Control Section on May 10, 1994.

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- b) Kings River: (Channel flow characteristics and the need for a design event greater than the minimum FEMA standard are not currently known. The principles set forth in Section III [a] shall be applied as appropriate to the Kings River.)
- c) The developer shall elevate all finished floors of the buildings to a minimum elevation 1.0 foot above the water surface level associated with the Design Flood Event.
- d) All populated areas of the project shall be accessible during the Design Flood Event, such that islands will not be created which could cause occupants to be stranded or isolated from emergency services, provided and subject to the following:
 - (1) residential roadways depressed at least 0.5' relative to the adjoining 20 feet of property on each side of the roadway shall not be inundated by the 100 year (1%) event, as certified by a registered civil engineer;
 - (2) all elevated roadways (roadways placed on fill) shall be free of inundation in the Design Flood Event.
 - (3) all main access roadways, collector and arterial streets shall be free of inundation in the Design Flood Event; or, such roadways and streets shall not be inundated by the 100 year (1%) event, as certified by a registered civil engineer, and a recorded notice is given to future potential buyers.

Any inundation allowed under Categories 1 and 3 above shall primarily be ponded back water, with velocity no greater than four feet per second, as certified by a civil engineer registered in the State of California.

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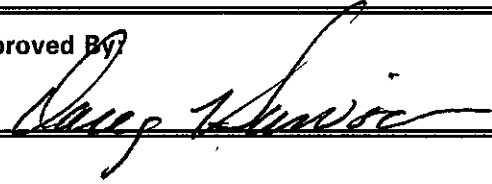
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- e) Drainage control measures shall be provided to collect and divert run-off to prevent erosion and siltation of natural drainage channels in such a manner as to maintain natural drainage characteristics downstream of the project.

IV. Mapping

It is the policy of the District to provide independently or in cooperation with other local, state, and federal agencies, current mapping of the FEMA regulatory and FMFCD design event flood plain. In addition, the greater risks, and the more stringent standards necessary for development within a confined river bottom environment, create the need to identify those risks and standards in the public record. The District shall encourage the land use entitlement agencies to have developments within the confined riverine river bottom area include a mapped representation of (1) the floodplain associated with the 250 year flood and (2) the areas of the development which fall within any Dam Failure Inundation Area.

V. Fees

Storm drainage facilities in the riverine environment generally require extraordinary maintenance expenses, including water quality discharge testing and protection of near surface groundwater. The District's share of property tax revenue will be insufficient to provide such maintenance services. The development shall therefore be required to pay the District such annual service charges, in the amounts determined necessary by the District's Board of Directors, to fund any exceptional and unusual costs of system repair, rehabilitation, maintenance, operation, water quality compliance, and related responsibilities to be performed by the District on behalf of the development.

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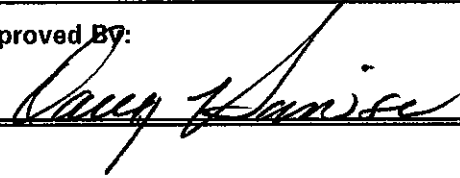
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VI. Non-Displacement of Flood Waters

Encroachments which cause an increase in the water surface elevation of flood flows result in the earlier and more severe inundation of other lands along the water course. To protect such other lands along the water course from the impacts of such displacement, the District therefore determines the following:

- a) The construction of improvements, placement of structures, grading or other physical activity or facility shall not cause (1) an increase in the water surface elevation of the Design Flood Event; or (2) displacement of flood water associated with the Design Flood Event onto properties which would not have otherwise been so impacted provided that the District may approve a de-minimis increase in water surface elevation when such increase is certified by a registered civil engineer as not causing an adverse impact to other properties, and the proposing land owners/renters provides satisfactory indemnification against claims for such potential impacts.
- b) The construction of levees shall not be permitted within the flood plain of the Design Flood Event.