

POLICY MANUAL

Date Adopted: March 10, 1992

Classification:

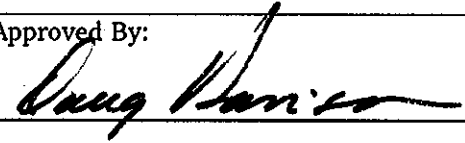
ENGINEERING OPERATION

Date Last Amended:

Subject:

**RURAL DESIGN STANDARDS;
STREAM CROSSING**

Approved By:



- 1) The District shall, to the extent of its powers, prescribe and enforce regulations to prevent any obstruction or encroachment that would impair the flood control effectiveness of the natural stream channels or storm water conveyance and control facilities. The District shall preserve or restore and thereafter cause to be maintained the channels and diversion-of-flow structures required for conveyance of floodwaters within the Fresno County Stream Group area to at least those capacities specified for the flood control system operation plan defined in the Water Control Manual provided by the U.S. Army Corps of Engineers for the Redbank and Fancher Creeks Project and the FMFCD Storm Drainage Master Plan.
- 2) The streams and channels must contain additional discharges from controlled drainage systems as deemed appropriate by the District. All driveways and roadways shall be designed with capacity to convey the above described flows within these channels without raising the water surface above the channel banks, unless the flood easements for the area of inundation are dedicated to the District or other appropriate jurisdictional agency.
- 3) All streams or channels for which flows are not identified by the policy set forth in paragraph 2 above shall be designed and constructed so that drainage will be conveyed under the driveway or roadway for the greater flow rate generated by the 10 year - 24 hour (SCS method) or the 10 year - 96 hour storm. In addition, the crossing shall be designed to pass the greater flow rate generated by the 100 year - 24 hour (SCS method) or the 100 year - 96 hour storm without significantly changing the natural inundation occurring on any upstream property.
- 4) All driveways or roadways with flows directed over the road surface shall have the downstream and the upstream embankment fully armored for erosion protection as required by the District.

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- 5) Driveways and roadways may be designed to attenuate the flows in the channel, if all of the following conditions are satisfied:
- a) The flow generated by the 10 year storm identified in paragraph 3 above are conveyed under the roadway without inundation of any portion of the travelway.
 - b) The area inundated by the attenuation pool is dedicated to the District or appropriate jurisdictional agency as a permanent flood easement (including any upstream owner's property).
 - c) The owner must agree that the conveyance facility will not be altered in capacity in the future and the owner will maintain the conveyance facility.
 - d) The attenuating pool will not adversely affect the operation or maintenance of any other drainage or flood control facility.
 - e) All easements and maintenance agreements are to be dedicated or executed prior to approval of the driveway or roadway.
 - f) The District has given its written consent.
- 6) The minimum size pipeline or culvert permitted under any driveway of roadway shall be 18 inches in diameter.
- 7) Nothing in this policy shall be construed or interpreted to preclude more stringent requirements by other jurisdictional agencies.
- 8) If the owner proposes to store water, the owner must subordinate the water rights for any storage or diversion to the right set out in the Cities-District Joint Water Right Application No. 29245.