

FLOOD INSURANCE STUDY

FEDERAL EMERGENCY MANAGEMENT AGENCY

VOLUME 1 OF 5



LOS ANGELES COUNTY, CALIFORNIA AND INCORPORATED AREAS

COMMUNITY NAME	NUMBER	COMMUNITY NAME	NUMBER
CITY OF AGOURA HILLS	065072	CITY OF COMMERCE	060110
CITY OF ALHAMBRA*	060095	CITY OF COMPTON	060111
CITY OF ARCADIA*	065014	CITY OF COVINA*	065024
CITY OF ARTESIA*	060097	CITY OF CUDAHY	060657
CITY OF AVALON	060098	CITY OF CULVER CITY	060114
CITY OF AZUSA	065015	CITY OF DIAMOND BAR	060741
CITY OF BALDWIN PARK*	060100	CITY OF DOWNEY	060645
CITY OF BELL*	060101	CITY OF DUARTE*	065026
CITY OF BELL GARDENS	060656	CITY OF EL MONTE*	060658
CITY OF BELLFLOWER	060102	CITY OF EL SEGUNDO	060118
CITY OF BEVERLY HILLS*	060655	CITY OF GARDENA	060119
CITY OF BRADBURY*	065017	CITY OF GLENDALE	065030
CITY OF BURBANK	065018	CITY OF GLEN DORA*	065031
CITY OF CALABASAS	060749	CITY OF HAWAIIAN GARDENS*	065032
CITY OF CARSON	060107	CITY OF HAWTHORNE*	060123
CITY OF CERRITOS	060108	CITY OF HERMOSA BEACH	060124
CITY OF CLAREMONT*	060109	CITY OF HIDDEN HILLS	060125

* No Special Flood Hazard Areas Identified

**REVISED PRELIMINARY: NOVEMBER 5,
2015**

FLOOD INSURANCE STUDY NUMBER

06037CV001C

Version Number 2.3.3.2



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COMMUNITY NAME	NUMBER	COMMUNITY NAME	NUMBER
CITY OF HUNTINGTON PARK*	060126	CITY OF PICO RIVERA	060148
CITY OF INDUSTRY*	065035	CITY OF POMONA*	060149
CITY OF INGLEWOOD*	065036	CITY OF RANCHO PALOS VERDES	060464
CITY OF IRWINDALE*	060129	CITY OF REDONDO BEACH	060150
CITY OF LA CANADA FLINTRIDGE*	060669	CITY OF ROLLING HILLS*	060151
CITY OF LA HABRA HEIGHTS*	060701	CITY OF ROLLING HILLS ESTATES*	065054
CITY OF LA MIRADA	060131	CITY OF ROSEMEAD*	060153
CITY OF LA PUENTE*	065039	CITY OF SAN DIMAS	060154
CITY OF LA VERNE	060133	CITY OF SAN FERNANDO	060628
CITY OF LAKEWOOD	060130	CITY OF SAN GABRIEL*	065055
CITY OF LANCASTER	060672	CITY OF SAN MARINO*	065057
CITY OF LAWNSDALE*	060134	CITY OF SANTA CLARITA	060729
CITY OF LOMITA*	060135	CITY OF SANTA FE SPRINGS	060158
CITY OF LONG BEACH	060136	CITY OF SANTA MONICA	060159
CITY OF LOS ANGELES	060137	CITY OF SIERRA MADRE*	065059
LOS ANGELES COUNTY UNINCORPORATED AREAS	065043	CITY OF SIGNAL HILL*	060161
CITY OF LYNWOOD	060635	CITY OF SOUTH EL MONTE*	060162
CITY OF MALIBU	060745	CITY OF SOUTH GATE	060163
CITY OF MANHATTAN BEACH	060138	CITY OF SOUTH PASADENA*	065061
CITY OF MAYWOOD*	060651	CITY OF TEMPLE CITY*	060653
CITY OF MONROVIA*	065046	CITY OF TORRANCE	060165
CITY OF MONTEBELLO	060141	CITY OF VERNON*	060166
CITY OF MONTEREY PARK*	065047	CITY OF WALNUT*	065069
CITY OF NORWALK	060652	CITY OF WEST COVINA	060666
CITY OF PALMDALE	060144	CITY OF WEST HOLLYWOOD*	060720
CITY OF PALOS VERDES ESTATES	060145	CITY OF WESTLAKE VILLAGE	060744
CITY OF PARAMOUNT	065049	CITY OF WHITTIER	060169
CITY OF PASADENA*	065050		

*No Special Flood Hazard Areas Identified

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Flood Profiles	<u>Panel</u>
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Published Separately

Flood Insurance Rate Map (FIRM)

FLOOD INSURANCE STUDY REPORT LOS ANGELES COUNTY, CALIFORNIA

SECTION 1.0 – INTRODUCTION

1.1 The National Flood Insurance Program

The National Flood Insurance Program (NFIP) is a voluntary Federal program that enables property owners in participating communities to purchase insurance protection against losses from flooding. This insurance is designed to provide an insurance alternative to disaster assistance to meet the escalating costs of repairing damage to buildings and their contents caused by floods.

For decades, the national response to flood disasters was generally limited to constructing flood-control works such as dams, levees, sea-walls, and the like, and providing disaster relief to flood victims. This approach did not reduce losses nor did it discourage unwise development. In some instances, it may have actually encouraged additional development. To compound the problem, the public generally could not buy flood coverage from insurance companies, and building techniques to reduce flood damage were often overlooked.

In the face of mounting flood losses and escalating costs of disaster relief to the general taxpayers, the U.S. Congress created the NFIP. The intent was to reduce future flood damage through community floodplain management ordinances, and provide protection for property owners against potential losses through an insurance mechanism that requires a premium to be paid for the protection.

The U.S. Congress established the NFIP on August 1, 1968, with the passage of the National Flood Insurance Act of 1968. The NFIP was broadened and modified with the passage of the Flood Disaster Protection Act of 1973 and other legislative measures. It was further modified by the National Flood Insurance Reform Act of 1994 and the Flood Insurance Reform Act of 2004. The NFIP is administered by the Federal Emergency Management Agency (FEMA), which is a component of the Department of Homeland Security (DHS).

Participation in the NFIP is based on an agreement between local communities and the Federal Government. If a community adopts and enforces floodplain management regulations to reduce future flood risks to new construction and substantially improved structures in Special Flood Hazard Areas (SFHAs), the Federal Government will make flood insurance available within the community as a financial protection against flood losses. The community's floodplain management regulations must meet or exceed criteria established in accordance with Title 44 Code of Federal Regulations (CFR) Part 60.3, *Criteria for land Management and Use*.

SFHAs are delineated on the community's Flood Insurance Rate Maps (FIRMs). Under the NFIP, buildings that were built before the flood hazard was identified on the community's FIRMs are generally referred to as "Pre-FIRM" buildings. When the NFIP was created, the U.S. Congress recognized that insurance for Pre-FIRM buildings would be prohibitively expensive if the premiums were not subsidized by the Federal Government. Congress also recognized that most of these floodprone buildings were built by individuals who did not have sufficient knowledge of the flood hazard to make informed decisions. The NFIP requires that full actuarial rates reflecting the complete flood risk be charged on all buildings constructed or substantially improved on or after

the effective date of the initial FIRM for the community or after December 31, 1974, whichever is later. These buildings are generally referred to as “Post-FIRM” buildings.

1.2 Purpose of this Flood Insurance Study Report

This Flood Insurance Study (FIS) report revises and updates information on the existence and severity of flood hazards for the study area. The studies described in this report developed flood hazard data that will be used to establish actuarial flood insurance rates and to assist communities in efforts to implement sound floodplain management.

In some states or communities, floodplain management criteria or regulations may exist that are more restrictive than the minimum Federal requirements. Contact your State NFIP Coordinator to ensure that any higher State standards are included in the community’s regulations.

1.3 Jurisdictions Included in the Flood Insurance Study Project

This FIS Report covers the entire geographic area of Los Angeles County, California.

The jurisdictions that are included in this project area, along with the Community Identification Number (CID) for each community and the 8-digit Hydrologic Unit Codes (HUC-8) sub-basins affecting each, are shown in Table 1. The Flood Insurance Rate Map (FIRM) panel numbers that affect each community are listed. If the flood hazard data for the community is not included in this FIS Report, the location of that data is identified.

The location of flood hazard data for participating communities in multiple jurisdictions is also indicated in the table.

Jurisdictions that have no identified SFHAs as of the effective date of this study are indicated in the table. Changed conditions in these communities (such as urbanization or annexation) or the availability of new scientific or technical data about flood hazards could make it necessary to determine SFHAs in these jurisdictions in the future.

Table 1: Listing of NFIP Jurisdictions

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
City of Agoura Hills	065072	18070104	06037C1241F 06037C1242F 06037C1243F 06037C1244F 06037C1261F 06037C1263F	
City of Alhambra ¹	060095	18070105	06037C1635F ² 06037C1641F ² 06037C1645F 06037C1675F ²	
City of Arcadia ¹	065014	18070105 18070106	06037C1400F 06037C1675F ² 06037C1700F	

Table 1: Listing of NFIP Jurisdictions, Continued

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
City of Artesia ¹	060097	18070106	06037C1839F 06037C1980F	
City of Avalon	060098	18070107	06037C2202F 06037C2203F ² 06037C2204F 06037C2210F ²	
City of Azusa	065015	18070106	06037C1415F 06037C1420F 06037C1700F	
City of Baldwin Park ¹	060100	18070106	06037C1670F 06037C1675F ² 06037C1700F	
City of Bell ¹	060101	18070105	06037C1805F 06037C1810F	
City of Bell Gardens	060656	18070105	06037C1810F	
City of Bellflower	060102	18070106	06037C1820F 06037C1840F 06037C1960F 06037C1980F	
City of Beverly Hills ¹	060655	18070104	06037C1585F 06037C1595F 06037C1605F 06037C1615F	
City of Bradbury ¹	065017	18070105 18070106	06037C1415F	
City of Burbank	065018	18070105	06037C1328F 06037C1329F 06037C1330F 06037C1335F 06037C1337F 06037C1339F 06037C1340F ² 06037C1345F	
City of Calabasas	060749	18070104 18070105	06037C1262F 06037C1263F 06037C1264G 06037C1267F 06037C1268F 06037C1269F 06037C1288F 06037C1527G 06037C1531F 06037C1532F	

Table 1: Listing of NFIP Jurisdictions, Continued

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
City of Carson	060107	18070105 18070106	06037C1795F 06037C1815F 06037C1935F 06037C1945F 06037C1955F 06037C1965F	
City of Cerritos	060108	18070106	06037C1839F 06037C1840F 06037C1843F 06037C1844F 06037C1980F 06037C2000F	
City of Claremont ¹	060109	18070106 18070203	06037C1475F 06037C1725F 06037C1750F	
City of Commerce	060110	18070105	06037C1639F ² 06037C1643F ² 06037C1645F 06037C1810F 06037C1830F	
City of Compton	060111	18070105 18070106	06037C1795F 06037C1815F 06037C1820F 06037C1955F	
City of Covina ¹	065024	18070106	06037C1700F 06037C1725F	
City of Cudahy	060657	18070105	06037C1805F 06037C1810F	
City of Culver City	060114	18070104	06037C1595F 06037C1615F 06037C1752F 06037C1760F	
City of Diamond Bar	060741	18070106 18070203	06037C1725F 06037C1880F 06037C1900F ²	
City of Downey	060645	18070105 18070106	06037C1810F 06037C1820F 06037C1829F 06037C1830F 06037C1837F 06037C1840F	

Table 1: Listing of NFIP Jurisdictions, Continued

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
City of Duarte ¹	065026	18070105 18070106	06037C1405F ² 06037C1410F ² 06037C1415F 06037C1420F 06037C1700F	
City of El Monte ¹	060658	18070105 18070106	06037C1670F 06037C1675F ² 06037C1700F	
City of El Segundo	060118	18070104 18070106	06037C1770F 06037C1790F	
City of Gardena	060119	18070106	06037C1790F 06037C1795F 06037C1930F 06037C1935F	
City of Glendale	065030	18070105	06037C1095F 06037C1125F ² 06037C1335F 06037C1345F 06037C1375F 06037C1610F 06037C1626F	
City of Glendora ¹	065031	18070106	06037C1420F 06037C1440F 06037C1445F 06037C1700F 06037C1725F	
City of Hawaiian Gardens ¹	065032	18070106	06037C1980F 06037C2000F	
City of Hawthorne ¹	060123	18070106	06037C1770F 06037C1790F	
City of Hermosa Beach	060124	18070104 18070106	06037C1770F 06037C1907F 06037C1910F	
City of Hidden Hills	060125	18070104 18070105	06037C1266F 06037C1267F 06037C1268F	
City of Huntington Park ¹	060126	18070105	06037C1805F	

Table 1: Listing of NFIP Jurisdictions, Continued

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
City of Industry ¹	065035	18070106	06037C1668F 06037C1670F 06037C1675F ² 06037C1695F 06037C1700F 06037C1725F 06037C1875F 06037C1880F	
City of Inglewood ¹	065036	18070104 18070105 18070106	06037C1760F 06037C1780F 06037C1790F	
City of Irwindale ¹	060129	18070105 18070106	06037C1415F 06037C1420F 06037C1675F ² 06037C1700F	
City of La Canada Flintridge ¹	060669	18070105	06037C1375F	
City of La Habra Heights ¹	060701	18070106	06037C1851F 06037C1853F 06037C1875F	
City of La Mirada	060131	18070106	06037C1841F 06037C1842F 06037C1843F 06037C1844F 06037C1861F 06037C1875F 06037C2000F	
City of La Puente ¹	065039	18070106	06037C1695F 06037C1700F	
City of La Verne	060133	18070106	06037C1445F 06037C1475F 06037C1725F	
City of Lakewood	060130	18070105 18070106	06037C1960F 06037C1980F 06037C2000F	

Table 1: Listing of NFIP Jurisdictions, Continued

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
City of Lancaster	060672	18090206	06037C0150F 06037C0175F 06037C0400F 06037C0405F 06037C0410F 06037C0415F 06037C0420F 06037C0442F 06037C0450F 06037C0462F 06037C0465F 06037C0475F	
City of Lawndale ¹	060134	18070106	06037C1790F 06037C1930F	
City of Lomita ¹	060135	18070106	06037C1940F 06037C1945F	
City of Long Beach	060136	18070105 18070106	06037C1815F 06037C1820F 06037C1955F 06037C1960F 06037C1962F 06037C1964F 06037C1965F 06037C1970F 06037C1980F 06037C1988F 06037C1990F 06037C2055F 06037C2060F 06037C2076F	

Table 1: Listing of NFIP Jurisdictions, Continued

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
City of Los Angeles	060137	18070103 18070104 18070105 18070106	06037C1025F ² 06037C1033F ² 06037C1034F 06037C1040F 06037C1045F 06037C1067F 06037C1069F 06037C1075G 06037C1086F 06037C1087F ² 06037C1088F 06037C1089F 06037C1095F 06037C1125F ² 06037C1266F 06037C1267F 06037C1269F 06037C1275F 06037C1280F 06037C1285F 06037C1288F 06037C1290F 06037C1295F 06037C1305F 06037C1310F 06037C1315F 06037C1320F 06037C1328F 06037C1329F 06037C1330F 06037C1335F 06037C1337F 06037C1339F 06037C1340F ² 06037C1345F 06037C1375F 06037C1552F 06037C1553F 06037C1554F 06037C1556F ² 06037C1557F 06037C1558F ² 06037C1559F 06037C1562F 06037C1566F 06037C1567F	

Table 1: Listing of NFIP Jurisdictions, Continued

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
City of Los Angeles, cont.	060137	18070103 18070104 18070105 18070106	06037C1569F 06037C1580F 06037C1585F 06037C1590F 06037C1595F 06037C1605F 06037C1610F 06037C1615F 06037C1620F 06037C1626F 06037C1627F ² 06037C1628F 06037C1629F 06037C1635F ² 06037C1636F 06037C1637F 06037C1638F 06037C1639F ² 06037C1641F ² 06037C1751F 06037C1752F 06037C1754F 06037C1760F 06037C1765F 06037C1770F 06037C1780F 06037C1785F 06037C1790F 06037C1795F 06037C1805F 06037C1815F 06037C1935F 06037C1945F 06037C1955F 06037C1965F 06037C2027F 06037C2029F 06037C2031F 06037C2032F 06037C2033F 06037C2034F 06037C2055F	

Table 1: Listing of NFIP Jurisdictions, Continued

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
Los Angeles County, Unincorporated Areas	065043	18030003 18070102 18070103 18070104 18070105 18070106 18070107 18070203 18090206 18090208	06037C0025F ² 06037C0036F 06037C0040F 06037C0050F 06037C0075F 06037C0100F 06037C0125F 06037C0150F 06037C0175F 06037C0200F 06037C0225F 06037C0250F ² 06037C0275F 06037C0300F 06037C0325F 06037C0350F 06037C0365F 06037C0370F 06037C0375F 06037C0400F 06037C0410F 06037C0415F 06037C0420F 06037C0442F 06037C0444F 06037C0450F 06037C0462F 06037C0464F 06037C0465F 06037C0466F 06037C0468F 06037C0470F 06037C0475F 06037C0500F 06037C0525F 06037C0550F ² 06037C0575F 06037C0600F 06037C0610F 06037C0625F 06037C0630F 06037C0635F 06037C0640F 06037C0645F 06037C0651F 06037C0652F ²	

Table 1: Listing of NFIP Jurisdictions, Continued

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
Los Angeles County, Unincorporated Areas, cont.	065043	18030003 18070102 18070103 18070104 18070105 18070106 18070107 18070203 18090206 18090208	06037C0656F 06037C0657F 06037C0658F 06037C0659F 06037C0665F 06037C0670F 06037C0694F 06037C0700F 06037C0701F 06037C0702F 06037C0703F 06037C0704F 06037C0706F 06037C0710F 06037C0711F 06037C0713F 06037C0715F 06037C0720F 06037C0750F 06037C0775F 06037C0800F 06037C0805F 06037C0810F 06037C0815F 06037C0830F 06037C0835F 06037C0840F 06037C0845F 06037C0875F 06037C0900F 06037C0925F 06037C0950F 06037C0975F 06037C1000F 06037C1025F ² 06037C1030F 06037C1031F 06037C1032F 06037C1033F ² 06037C1034F 06037C1040F 06037C1045F	

Table 1: Listing of NFIP Jurisdictions, Continued

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
Los Angeles County, Unincorporated Areas, cont.	065043	18030003 18070102 18070103 18070104 18070105 18070106 18070107 18070203 18090206 18090208	06037C1067F 06037C1075F 06037C1086F 06037C1087F ² 06037C1088F 06037C1095F 06037C1100F ² 06037C1109F 06037C1125F ² 06037C1150F ² 06037C1175F ² 06037C1200F ² 06037C1225F ² 06037C1239F 06037C1240F ² 06037C1243F 06037C1244F 06037C1261F 06037C1262F 06037C1263F 06037C1264G 06037C1266F 06037C1267F 06037C1268F 06037C1269F 06037C1275F 06037C1288F 06037C1290F 06037C1339F 06037C1340F ² 06037C1375F 06037C1400F 06037C1405F ² 06037C1410F ² 06037C1415F 06037C1420F 06037C1430F 06037C1435F ² 06037C1440F 06037C1445F 06037C1475F 06037C1480F ² 06037C1485F 06037C1490F	

Table 1: Listing of NFIP Jurisdictions, Continued

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
Los Angeles County, Unincorporated Areas, cont.	065043	18030003 18070102 18070103 18070104 18070105 18070106 18070107 18070203 18090206 18090208	06037C1491F 06037C1492F 06037C1502F 06037C1505F ² 06037C1506F 06037C1507F 06037C1508F ² 06037C1509F ² 06037C1511F 06037C1512F 06037C1516F 06037C1517F 06037C1526G 06037C1527G 06037C1528F 06037C1529F 06037C1531F 06037C1532F 06037C1533F 06037C1534F ² 06037C1536F 06037C1537F 06037C1541F 06037C1542F 06037C1551F 06037C1552F 06037C1553F 06037C1554F 06037C1561F 06037C1562F 06037C1580F 06037C1585F 06037C1590F 06037C1595F 06037C1615F 06037C1637F 06037C1639F ² 06037C1641F ² 06037C1643F ² 06037C1645F 06037C1664F 06037C1665F 06037C1668F 06037C1670F 06037C1675F ²	

Table 1: Listing of NFIP Jurisdictions, Continued

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
Los Angeles County, Unincorporated Areas, cont.	065043	18030003 18070102 18070103 18070104 18070105 18070106 18070107 18070203 18090206 18090208	06037C1695F	
			06037C1700F	
			06037C1725F	
			06037C1750F	
			06037C1752F	
			06037C1754F	
			06037C1760F	
			06037C1770F	
			06037C1780F	
			06037C1785F	
			06037C1790F	
			06037C1795F	
			06037C1805F	
			06037C1815F	
			06037C1820F	
			06037C1829F	
			06037C1830F	
			06037C1835F	
			06037C1839F	
			06037C1840F	
			06037C1841F	
			06037C1842F	
			06037C1851F	
			06037C1861F	
			06037C1875F	
			06037C1880F	
			06037C1900F ²	
			06037C1935F	
			06037C1940F	
			06037C1945F	
			06037C1955F	
			06037C1980F	
			06037C2000F	
06037C2031F				
06037C2125F ²				
06037C2150F ²				
06037C2175F ²				
06037C2200F ²				
06037C2201F ²				
06037C2202F				
06037C2203F ²				
06037C2204F				
06037C2210F ²				
06037C2215F ²				
06037C2220F ²				
06037C2250F ²				
06037C2275F ²				
06037C2300F ²				
06037C2325F ²				
06037C2350F ²				

Table 1: Listing of NFIP Jurisdictions, Continued

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
City of Lynwood	060635	18070105	06037C1805F 06037C1815F 06037C1820F	
City of Malibu	060745	18070104	06037C1485F 06037C1491F 06037C1492F 06037C1511F 06037C1512F 06037C1513F 06037C1514F 06037C1516F 06037C1517F 06037C1518F 06037C1519F 06037C1536F 06037C1537F 06037C1538F 06037C1539F 06037C1541F 06037C1542F 06037C1543F 06037C1561F 06037C1562F	
City of Manhattan Beach	060138	18070104 18070106	06037C1770F 06037C1907F	
City of Maywood ¹	060651	18070105	06037C1805F 06037C1810F	
City of Monrovia ¹	065046	18070105 18070106	06037C1400F 06037C1405F ² 06037C1415F 06037C1675F ² 06037C1700F	
City of Montebello	060141	18070105	06037C1645F 06037C1663F 06037C1664F 06037C1665F 06037C1810F 06037C1830F	
City of Monterey Park ¹	065047	18070105	06037C1635F ² 06037C1641F ² 06037C1645F 06037C1663F 06037C1665F 06037C1675F ²	

Table 1: Listing of NFIP Jurisdictions, Continued

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
City of Norwalk	060652	18070106	06037C1837F 06037C1839F 06037C1840F 06037C1841F 06037C1843F	
City of Palmdale	060144	18070102 18090206	06037C0400F 06037C0415F 06037C0420F 06037C0442F 06037C0444F 06037C0450F 06037C0462F 06037C0464F 06037C0465F 06037C0466F 06037C0468F 06037C0635F 06037C0645G 06037C0651F 06037C0652F ² 06037C0653F 06037C0654F 06037C0656F 06037C0657F 06037C0658F 06037C0659F 06037C0665F 06037C0670F 06037C0694F 06037C0700F 06037C0701F 06037C0702F 06037C0703F 06037C0704F 06037C0706F 06037C0710F 06037C0711F 06037C0713F	
City of Palos Verdes Estates	060145	18070104 18070106	06037C1916G 06037C1917G 06037C1918G 06037C1919G 06037C1940F	
City of Paramount	065049	18070105 18070106	06037C1815F 06037C1820F	

Table 1: Listing of NFIP Jurisdictions, Continued

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
City of Pasadena ¹	065050	18070105	06037C1125F ² 06037C1375F 06037C1400F 06037C1635F ²	
City of Pico Rivera	060148	18070105 18070106	06037C1663F 06037C1664F 06037C1668F 06037C1829F 06037C1830F	
City of Pomona ¹	060149	18070106 18070203	06037C1725F 06037C1750F	
City of Rancho Palos Verdes	060464	18070104 18070106	06037C1917G 06037C1918G 06037C1919G 06037C1940F 06037C1945F 06037C2025F 06037C2026F 06037C2027F 06037C2031F	
City of Redondo Beach	060150	18070104 18070106	06037C1770F 06037C1790F 06037C1907F 06037C1909F 06037C1928F 06037C1930F	
City of Rolling Hills ¹	060151	18070104 18070106	06037C1940F 06037C2026F 06037C2027F	
City of Rolling Hills Estates ¹	065054	18070104 18070106	06037C1919F 06037C1940F	
City of Rosemead ¹	060153	18070105	06037C1665F 06037C1675F ²	
City of San Dimas	060154	18070106	06037C1440F 06037C1445F 06037C1725F	
City of San Fernando	060628	18070105	06037C1075G	
City of San Gabriel ¹	065055	18070105	06037C1675F ²	

Table 1: Listing of NFIP Jurisdictions, Continued

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
City of San Marino ¹	065057	18070105	06037C1375F 06037C1400F 06037C1635F ² 06037C1675F ²	
City of Santa Clarita	060729	18070102 18070105	06037C0805G 06037C0810G 06037C0815G 06037C0816G 06037C0817G 06037C0818G 06037C0819G 06037C0830G 06037C0835G 06037C0840G 06037C0845G 06037C1030F 06037C1031G 06037C1032G 06037C1034F 06037C1051G 06037C1075G	
City of Santa Fe Springs	060158	18070106	06037C1829F 06037C1830F 06037C1835F 06037C1837F 06037C1839F 06037C1840F 06037C1841F 06037C1843F 06037C1844F	
City of Santa Monica	060159	18070104	06037C1567F 06037C1569F 06037C1590F 06037C1751F	
City of Sierra Madre ¹	065059	18070105	06037C1400F	
City of Signal Hill ¹	060161	18070105 18070106	06037C1960F 06037C1970F	
City of South El Monte ¹	060162	18070105 18070106	06037C1665F 06037C1670F 06037C1675F ²	

Table 1: Listing of NFIP Jurisdictions, Continued

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
City of South Gate	060163	18070105 18070106	06037C1805F 06037C1810F 06037C1815F 06037C1820F	
City of South Pasadena ¹	065061	18070105	06037C1375F 06037C1635F ²	
City of Temple City ¹	060653	18070105	06037C1675F ²	
City of Torrance	060165	18070104 18070106	06037C1790F 06037C1907F 06037C1909F 06037C1917G 06037C1928F 06037C1930F 06037C1935F 06037C1940F 06037C1945F	
City of Vernon ¹	060166	18070105	06037C1638F 06037C1639F ² 06037C1643F ² 06037C1805F 06037C1810F	
City of Walnut ¹	065069	18070106	06037C1695F 06037C1725F	
City of West Covina	060666	18070106	06037C1695F 06037C1700F 06037C1725F	
City of West Hollywood ¹	060720	18070104	06037C1585F 06037C1605F	
City of Westlake Village	060744	18070104	06037C1239F 06037C1240F ² 06037C1241F 06037C1243F 06037C1502F 06037C1505F ²	

Table 1: Listing of NFIP Jurisdictions, Continued

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
City of Whittier	060169	18070105 18070106	06037C1664F 06037C1668F 06037C1670F 06037C1830F 06037C1835F 06037C1842F 06037C1851F 06037C1853F 06037C1861F 06037C1875F	

¹ No Special Flood Hazard Areas Identified

² Panel Not Printed

1.4 Considerations for using this Flood Insurance Study Report

The NFIP encourages State and local governments to implement sound floodplain management programs. To assist in this endeavor, each FIS Report provides floodplain data, which may include a combination of the following: 10-, 4-, 2-, 1-, and 0.2-percent annual chance flood elevations (the 1% annual chance flood elevation is also referred to as the Base Flood Elevation (BFE)); delineations of the 1% annual chance and 0.2% annual chance floodplains; and 1% annual chance floodway. This information is presented on the FIRM and/or in many components of the FIS Report, including Flood Profiles, Floodway Data tables, Summary of Non-Coastal Stillwater Elevations tables, and Coastal Transect Parameters tables (not all components may be provided for a specific FIS).

This section presents important considerations for using the information contained in this FIS Report and the FIRM, including changes in format and content. Figures 1, 2, and 3 present information that applies to using the FIRM with the FIS Report.

- Part or all of this FIS Report may be revised and republished at any time. In addition, part of this FIS Report may be revised by a Letter of Map Revision (LOMR), which does not involve republication or redistribution of the FIS Report. Refer to Section 6.5 of this FIS Report for information about the process to revise the FIS Report and/or FIRM.

It is, therefore, the responsibility of the user to consult with community officials by contacting the community repository to obtain the most current FIS Report components. Communities participating in the NFIP have established repositories of flood hazard data for floodplain management and flood insurance purposes. Community map repository addresses are provided in Table 31, “Map Repositories,” within this FIS Report.

- New FIS Reports are frequently developed for multiple communities, such as entire counties. A countywide FIS Report incorporates previous FIS Reports for individual communities and the unincorporated area of the county (if not jurisdictional) into a single document and supersedes those documents for the purposes of the NFIP.

The initial Countywide FIS Report for Los Angeles County became effective on

September 26, 2008. Refer to Table 28 for information about subsequent revisions to the FIRMs.

- FEMA does not impose floodplain management requirements or special insurance ratings based on Limit of Moderate Wave Action (LiMWA) delineations at this time. The LiMWA represents the approximate landward limit of the 1.5-foot breaking wave. If the LiMWA is shown on the FIRM, it is being provided by FEMA as information only. For communities that do adopt Zone VE building standards in the area defined by the LiMWA, additional Community Rating System (CRS) credits are available. Refer to Section 2.5.4 for additional information about the LiMWA.

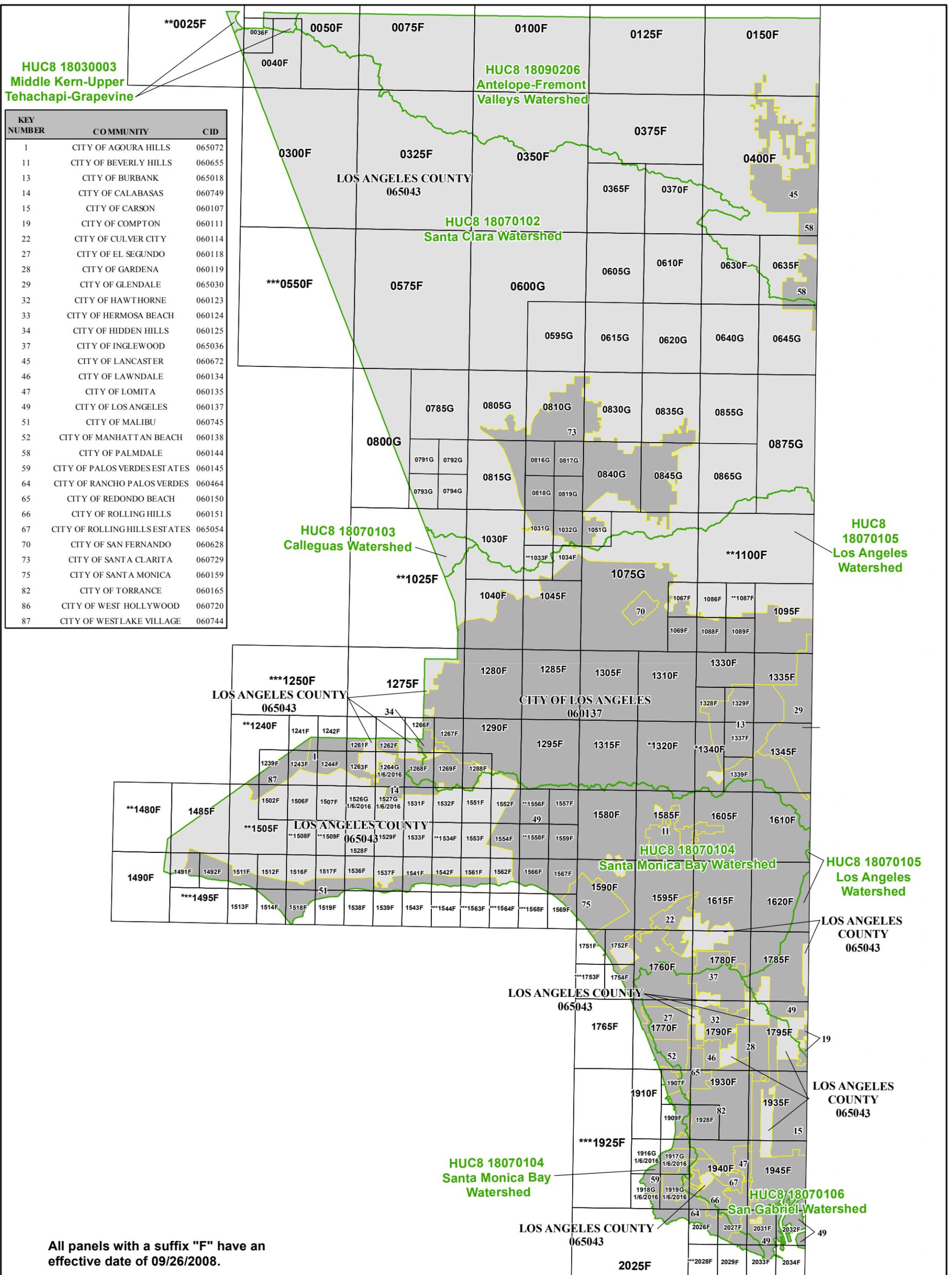
The CRS is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements. Visit the FEMA Web site at <http://www.fema.gov> or contact your appropriate FEMA Regional Office for more information about this program.

- Previous FIS Reports and FIRMs may have included levees that were accredited as reducing the risk associated with the 1% annual chance flood based on the information available and the mapping standards of the NFIP at that time. For FEMA to continue to accredit the identified levees, the levees must meet the criteria of the Code of Federal Regulations, Title 44, Section 65.10 (44 CFR 65.10), titled “Mapping of Areas Protected by Levee Systems.”

Since the status of levees is subject to change at any time, the user should contact the appropriate agency for the latest information regarding levees presented in Table 9 of this FIS Report. For levees owned or operated by the U.S. Army Corps of Engineers (USACE), information may be obtained from the USACE national levee database (nld.usace.army.mil). For all other levees, the user is encouraged to contact the appropriate local community.

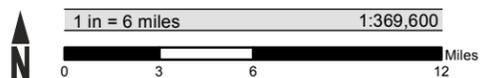
Please also note that FEMA has identified one of more levees in this jurisdiction that have not been demonstrated by the community or levee owner to meet the requirements of 44CFR Part 65.10, of the NFIP regulations as it relates to the levee’s capacity to provide 1-percent-annual-chance flood protection. As such, there are temporary actions being taken until such time as FEMA is able to initiate a new flood risk project to apply new levee analysis and mapping procedure to leveed areas. These temporary actions involve using the flood hazard data shown the previous effective FIRM exactly as shown on that prior FIRM and identifying the area with bounding lines and special map notes. These levees are on FIRM panel 06037C0840G on the Santa Clara River and are identified as potential areas of flood hazard data changes based on further review. Please refer to Section 4.4 of this FIS report for more information.

- FEMA has developed a *Guide to Flood Maps* (FEMA 258) and online tutorials to assist users in accessing the information contained on the FIRM. These include how to read panels and step-by-step instructions to obtain specific information. To obtain this guide and other assistance in using the FIRM, visit the FEMA Web site at <http://www.fema.gov>.



KEY NUMBER	COMMUNITY	CID
1	CITY OF AGOURA HILLS	065072
11	CITY OF BEVERLY HILLS	060655
13	CITY OF BURBANK	065018
14	CITY OF CALABASAS	060749
15	CITY OF CARSON	060107
19	CITY OF COMPTON	060111
22	CITY OF CULVER CITY	060114
27	CITY OF EL SEGUNDO	060118
28	CITY OF GARDENA	060119
29	CITY OF GLENDALE	065030
32	CITY OF HAWTHORNE	060123
33	CITY OF HERMOSA BEACH	060124
34	CITY OF HIDDEN HILLS	060125
37	CITY OF INGLEWOOD	065036
45	CITY OF LANCASTER	060672
46	CITY OF LAWDALE	060134
47	CITY OF LOMITA	060135
49	CITY OF LOS ANGELES	060137
51	CITY OF MALIBU	060745
52	CITY OF MANHATTAN BEACH	060138
58	CITY OF PALMDALE	060144
59	CITY OF PALOS VERDES EST ATES	060145
64	CITY OF RANCHO PALOS VERDES	060464
65	CITY OF REDONDO BEACH	060150
66	CITY OF ROLLING HILLS	060151
67	CITY OF ROLLING HILLS EST ATES	065054
70	CITY OF SAN FERNANDO	060628
73	CITY OF SANTA CLARITA	060729
75	CITY OF SANTA MONICA	060159
82	CITY OF TORRANCE	060165
86	CITY OF WEST HOLLYWOOD	060720
87	CITY OF WESTLAKE VILLAGE	060744

All panels with a suffix "F" have an effective date of 09/26/2008.



Map Projection:
Universal Transverse Mercator Zone 11 North;
North American Datum 1983

THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT [HTTP://MSC.FEMA.GOV](http://MSC.FEMA.GOV)

- SEE FLOOD INSURANCE STUDY FOR ADDITIONAL INFORMATION
- * PANEL NOT PRINTED - NO SPECIAL FLOOD HAZARD AREAS
 - ** PANEL NOT PRINTED - AREA ALL IN ZONE D
 - *** PANEL NOT PRINTED - AREA OUTSIDE COUNTY BOUNDARY
 - **** PANEL NOT PRINTED - NO SPECIAL FLOOD HAZARD AREAS; EXCEPT EDWARDS AIR



NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP INDEX

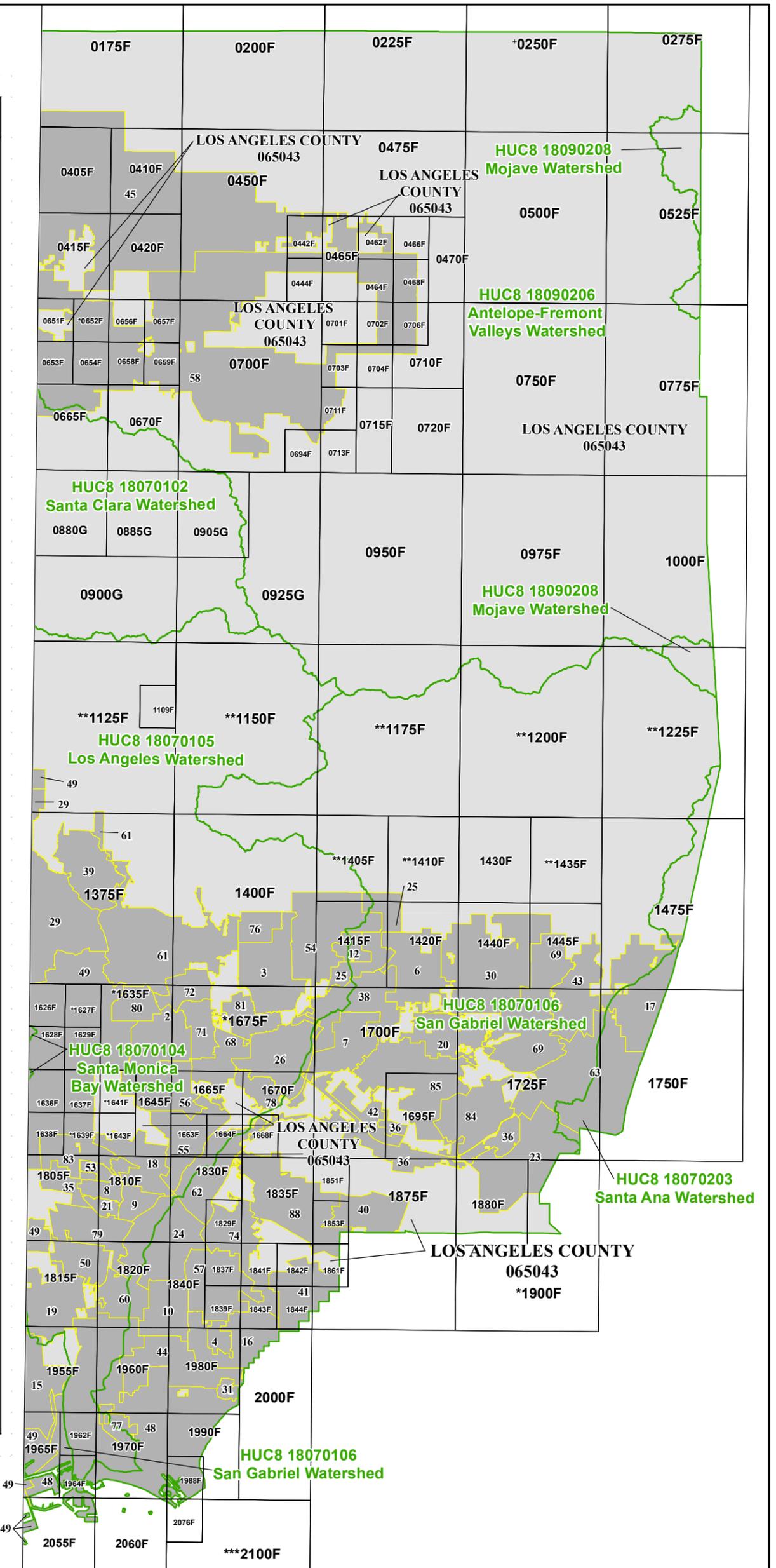
LOS ANGELES COUNTY, CALIFORNIA and Incorporated Areas
PANELS PRINTED:

0036, 0040, 0050, 0075, 0100, 0125, 0150, 0300, 0325, 0350, 0365, 0370, 0375, 0400, 0575, 0595, 0600, 0605, 0610, 0615, 0620, 0630, 0635, 0640, 0645, 0785, 0791, 0792, 0793, 0794, 0800, 0805, 0810, 0815, 0816, 0817, 0818, 0819, 0830, 0835, 0840, 0845, 0855, 0865, 0875, 1030, 1031, 1032, 1034, 1040, 1045, 1051, 1067, 1069, 1075, 1086, 1088, 1089, 1095, 1239, 1241, 1242, 1243, 1244, 1261, 1262, 1263, 1264, 1266, 1267, 1268, 1269, 1285, 1288, 1290, 1295, 1305, 1310, 1315, 1328, 1329, 1330, 1335, 1337, 1339, 1345, 1485, 1490, 1491, 1492, 1502, 1506, 1507, 1511, 1512, 1513, 1514, 1516, 1517, 1518, 1519, 1526, 1527, 1528, 1529, 1531, 1532, 1533, 1536, 1537, 1538, 1539, 1541, 1542, 1543, 1551, 1552, 1553, 1554, 1557, 1559, 1561, 1562, 1566, 1567, 1569, 1580, 1585, 1590, 1595, 1605, 1610, 1615, 1620, 1751, 1752, 1754, 1760, 1765, 1770, 1780, 1785, 1790, 1795, 1909, 1910, 1916, 1917, 1918, 1919, 1928, 1930, 1935, 1940, 1945, 2025, 2026, 2027, 2029, 2031, 2032, 2033, 2034

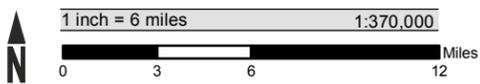


MAP NUMBER
06037CIND1D
MAP REVISED

KEY NUMBER	COMMUNITY	CID
2	CITY OF ALHAMBRA	060095
3	CITY OF ARCADIA	065014
4	CITY OF ARTESIA	060097
6	CITY OF AZUSA	065015
7	CITY OF BALDWIN PARK	060100
8	CITY OF BELL	060101
9	CITY OF BELL GARDENS	060656
10	CITY OF BELLFLOWER	060102
12	CITY OF BRADBURY	065017
15	CITY OF CARSON	060107
16	CITY OF CERRITOS	060108
17	CITY OF CLAREMONT	060109
18	CITY OF COMMERCE	060110
19	CITY OF COMPTON	060111
20	CITY OF COVINA	065024
21	CITY OF CUDAHY	060657
23	CITY OF DIAMOND BAR	060741
24	CITY OF DOWNEY	060645
25	CITY OF DUARTE	065026
26	CITY OF EL MONTE	060658
29	CITY OF GLENDALE	065030
30	CITY OF GLENORA	065031
31	CITY OF HAWAIIAN GARDENS	065032
35	CITY OF HUNTINGTON PARK	060126
36	CITY OF INDUSTRY	065035
38	CITY OF IRWINDALE	060129
39	CITY OF LA CANADA FLINTRIDGE	060669
40	CITY OF LA HABRA HEIGHTS	060701
41	CITY OF LA MIRADA	060131
42	CITY OF LA PUENTE	065039
43	CITY OF LA VERNE	060133
44	CITY OF LAKEWOOD	060130
45	CITY OF LANCASTER	060672
48	CITY OF LONG BEACH	060136
49	CITY OF LOS ANGELES	060137
50	CITY OF LYNWOOD	060635
53	CITY OF MAYWOOD	060651
54	CITY OF MONROVIA	065046
55	CITY OF MONTEBELLO	060141
56	CITY OF MONTEREY PARK	065047
57	CITY OF NORWALK	060652
58	CITY OF PALMDALE	060144
60	CITY OF PARAMOUNT	065049
61	CITY OF PASADENA	065050
62	CITY OF PICO RIVERA	060148
63	CITY OF POMONA	060149
68	CITY OF ROSEMEAD	060153
69	CITY OF SAN DIMAS	060154
71	CITY OF SAN GABRIEL	065055
72	CITY OF SAN MARINO	065057
74	CITY OF SANTA FE SPRINGS	060158
76	CITY OF SIERRA MADRE	065059
77	CITY OF SIGNAL HILL	060161
78	CITY OF SOUTH EL MONTE	060162
79	CITY OF SOUTH GATE	060163
80	CITY OF SOUTH PASADENA	065061
81	CITY OF TEMPLE CITY	060653
83	CITY OF VERNON	060166
84	CITY OF WALNUT	065069
85	CITY OF WEST COVINA	060666
88	CITY OF WHITTIER	060169



All panels with a suffix "F" have an effective date of 09/26/2008.

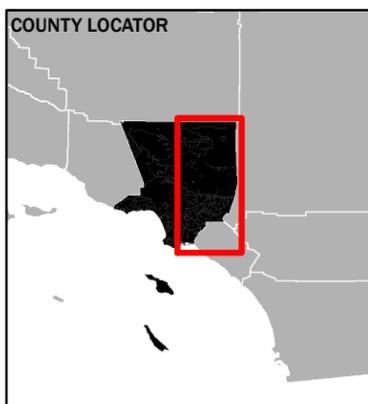


Map Projection:
Universal Transverse Mercator Zone 11 North;
North American Datum 1983

THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT [HTTP://MSC.FEMA.GOV](http://MSC.FEMA.GOV)

SEE FLOOD INSURANCE STUDY FOR ADDITIONAL INFORMATION

- * PANEL NOT PRINTED - NO SPECIAL FLOOD HAZARD AREAS
- ** PANEL NOT PRINTED - AREA ALL IN ZONE D
- *** PANEL NOT PRINTED - AREA OUTSIDE COUNTY BOUNDARY
- **** PANEL NOT PRINTED - NO SPECIAL FLOOD HAZARD AREAS; EXCEPT EDWARDS AIR



NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP INDEX

LOS ANGELES COUNTY, CALIFORNIA and Incorporated Areas

PANELS PRINTED:

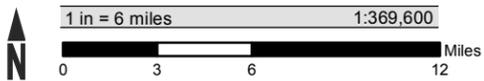
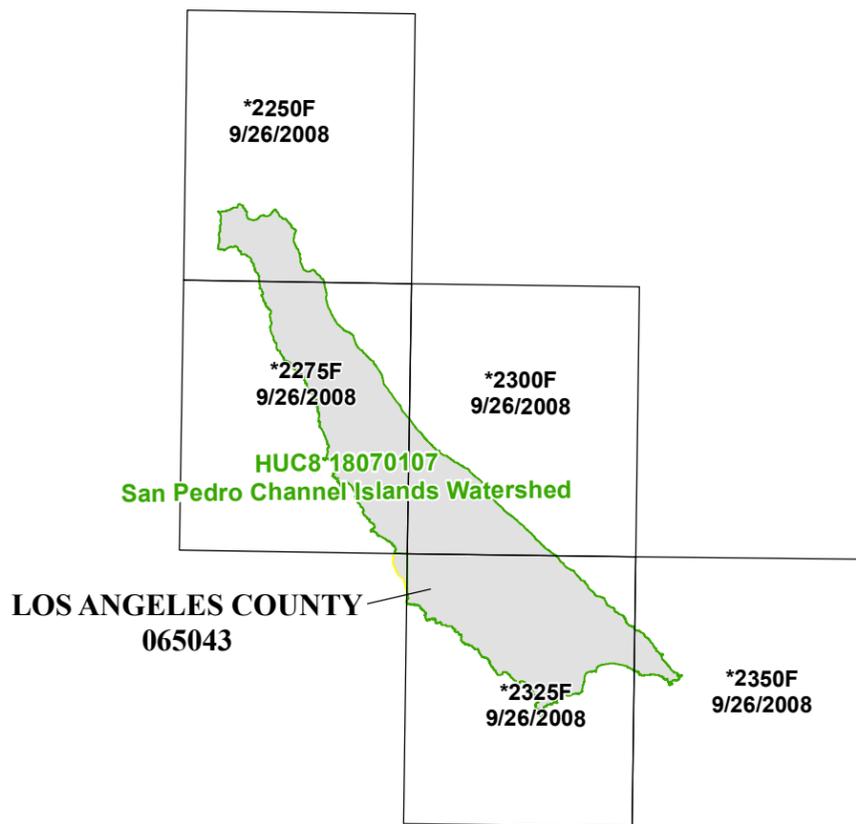
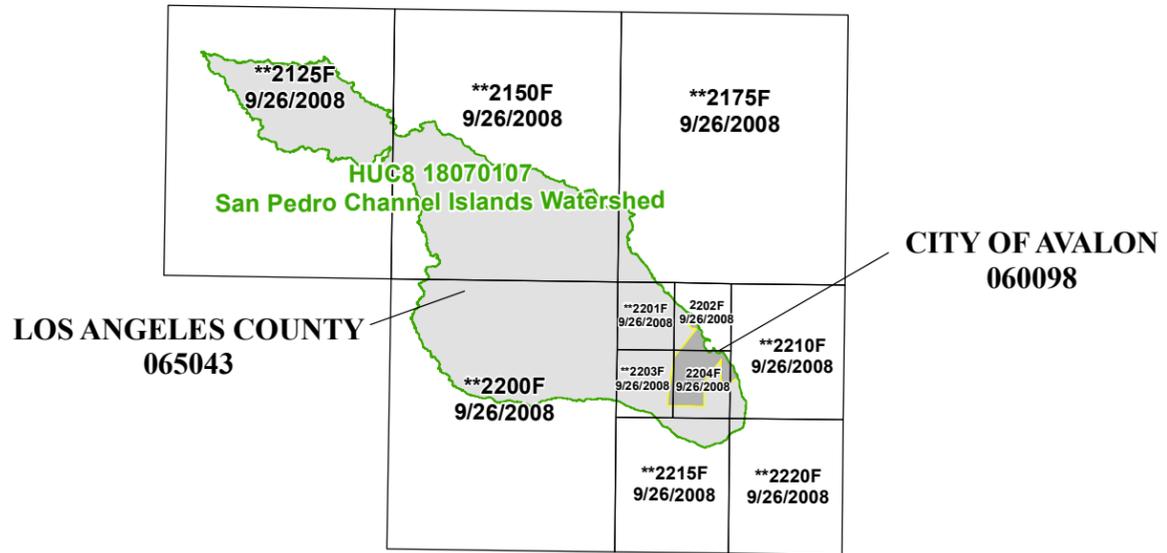
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FEMA

MAP NUMBER
06037CIND2D

MAP REVISED



Map Projection:
 Universal Transverse Mercator Zone 11 North;
 North American Datum 1983

THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT [HTTP://MSC.FEMA.GOV](http://MSC.FEMA.GOV)

SEE FLOOD INSURANCE STUDY FOR ADDITIONAL INFORMATION

- * PANEL NOT PRINTED - NO SPECIAL FLOOD HAZARD AREAS
- ** PANEL NOT PRINTED - AREA ALL IN ZONE D
- *** PANEL NOT PRINTED - AREA OUTSIDE COUNTY BOUNDARY
- + PANEL NOT PRINTED - NO SPECIAL FLOOD HAZARD AREAS; EXCEPT EDWARDS AIR



NATIONAL FLOOD INSURANCE PROGRAM
 FLOOD INSURANCE RATE MAP INDEX

LOS ANGELES COUNTY, CALIFORNIA and Incorporated Areas

PANELS PRINTED:
 2202, 2204



MAP NUMBER
 06037CIND3D
 MAP REVISED

Each FIRM panel may contain specific notes to the user that provide additional information regarding the flood hazard data shown on that map. However, the FIRM panel does not contain enough space to show all the notes that may be relevant in helping to better understand the information on the panel. Figure 2 contains the full list of these notes.

Figure 2: FIRM Notes to Users

NOTES TO USERS

For information and questions about this map, available products associated with this FIRM including historic versions of this FIRM, how to order products, or the National Flood Insurance Program in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Map Service Center website at <http://msc.fema.gov>. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website. Users may determine the current map date for each FIRM panel by visiting the FEMA Map Service Center website or by calling the FEMA Map Information eXchange.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Map Service Center at the number listed above.

For community and countywide map dates, refer to Table 28 in this FIS Report.

To determine if flood insurance is available in the community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

PRELIMINARY FIS REPORT: FEMA maintains information about map features, such as street locations and names, in or near designated flood hazard areas. Requests to revise information in or near designated flood hazard areas may be provided to FEMA during the community review period, at the final Consultation Coordination Officer's meeting, or during the statutory 90-day appeal period. Approved requests for changes will be shown on the final printed FIRM.

The map is for use in administering the NFIP. It may not identify all areas subject to flooding, particularly from local drainage sources of small size. Consult the community map repository to find updated or additional flood hazard information.

BASE FLOOD ELEVATIONS: For more detailed information in areas where Base Flood Elevations (BFEs) and/or floodways have been determined, consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables within this FIS Report. Use the flood elevation data within the FIS Report in conjunction with the FIRM for construction and/or floodplain management.

FLOODWAY INFORMATION: Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the FIS Report for this jurisdiction.

FLOOD CONTROL STRUCTURE INFORMATION: Certain areas not in Special Flood Hazard Areas may be protected by flood control structures. Refer to Section 4.3 "Non-Levee Flood Protection Measures" of this FIS Report for information on flood control structures for this jurisdiction.

Figure 2: FIRM Notes to Users, Continued

PROJECTION INFORMATION: The projection used in the preparation of the map was Universal Transverse Mercator (UTM) Zone 11N. The horizontal datum was NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of the FIRM.

ELEVATION DATUM: Flood elevations on the FIRM are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov/> or contact the National Geodetic Survey at the following address:

*NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242*

Local vertical monuments may have been used to create the map. To obtain current monument information, please contact the appropriate local community listed in Table 31 of this FIS Report.

BASE MAP INFORMATION: Base map information shown on the FIRM was provided by U.S. Geological Survey (USGS), National Geodetic Survey (NGS), Federal Emergency Management Agency (FEMA), Los Angeles County, Bureau of Land Management (BLM), U.S. Dept. of Commerce, U.S. Census Bureau, Geography Division, USDA Farm Service Agency, and Michael Baker Jr. Corporation. For information about base maps, refer to Section 6.2 "Base Map" in this FIS Report.

The map reflects more detailed and up-to-date stream channel configurations than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables may reflect stream channel distances that differ from what is shown on the map.

Corporate limits shown on the map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after the map was published, map users should contact appropriate community officials to verify current corporate limit locations.

NOTES FOR FIRM INDEX

REVISIONS TO INDEX: As new studies are performed and FIRM panels are updated within Los Angeles County, California, corresponding revisions to the FIRM Index will be incorporated within the FIS Report to reflect the effective dates of those panels. Please refer to Table 28 of this FIS Report to determine the most recent FIRM revision date for each community. The most recent FIRM panel effective date will correspond to the most recent index date.

Figure 2: FIRM Notes to Users, Continued

SPECIAL NOTES FOR SPECIFIC FIRM PANELS

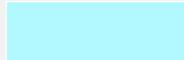
This Notes to Users section was created specifically for Los Angeles County, California, effective TBD.

FLOOD RISK REPORT: A Flood Risk Report (FRR) may be available for many of the flooding sources and communities referenced in this FIS Report. The FRR is provided to increase public awareness of flood risk by helping communities identify the areas within their jurisdictions that have the greatest risks. Although non-regulatory, the information provided within the FRR can assist communities in assessing and evaluating mitigation opportunities to reduce these risks. It can also be used by communities developing or updating flood risk mitigation plans. These plans allow communities to identify and evaluate opportunities to reduce potential loss of life and property. However, the FRR is not intended to be the final authoritative source of all flood risk data for a project area; rather, it should be used with other data sources to paint a comprehensive picture of flood risk.

ACCREDITED LEVEE: Check with your local community to obtain more information, such as the estimated level of protection provided (which may exceed the 1-percent-annual-chance level) and Emergency Action Plan, on the levee system(s) shown as providing protection for areas on this panel. To mitigate flood risk in residual risk areas, property owners and residents are encouraged to consider flood insurance and floodproofing or other protective measures. For more information on flood insurance, interested parties should visit www.fema.gov/national-flood-insurance-program.

Figure 3: Map Legend for FIRM

SPECIAL FLOOD HAZARD AREAS: *The 1% annual chance flood, also known as the base flood or 100-year flood, has a 1% chance of happening or being exceeded each year. Special Flood Hazard Areas are subject to flooding by the 1% annual chance flood. The Base Flood Elevation is the water surface elevation of the 1% annual chance flood. The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights. See note for specific types. If the floodway is too narrow to be shown, a note is shown.*



Special Flood Hazard Areas subject to inundation by the 1% annual chance flood (Zones A, AE, AH, AO, AR, A99, V and VE)

- Zone A The flood insurance rate zone that corresponds to the 1% annual chance floodplains. No base (1% annual chance) flood elevations (BFEs) or depths are shown within this zone.
- Zone AE The flood insurance rate zone that corresponds to the 1% annual chance floodplains. Base flood elevations derived from the hydraulic analyses are shown within this zone, either at cross section locations or as static whole-foot elevations that apply throughout the zone.
- Zone AH The flood insurance rate zone that corresponds to the areas of 1% annual chance shallow flooding (usually areas of ponding) where average depths are between 1 and 3 feet. Whole-foot BFEs derived from the hydraulic analyses are shown at selected intervals within this zone.
- Zone AO The flood insurance rate zone that corresponds to the areas of 1% annual chance shallow flooding (usually sheet flow on sloping terrain) where average depths are between 1 and 3 feet. Average whole-foot depths derived from the hydraulic analyses are shown within this zone.
- Zone AR The flood insurance rate zone that corresponds to areas that were formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- Zone A99 The flood insurance rate zone that corresponds to areas of the 1% annual chance floodplain that will be protected by a Federal flood protection system where construction has reached specified statutory milestones. No base flood elevations or flood depths are shown within this zone.
- Zone V The flood insurance rate zone that corresponds to the 1% annual chance coastal floodplains that have additional hazards associated with storm waves. Base flood elevations are not shown within this zone.
- Zone VE Zone VE is the flood insurance rate zone that corresponds to the 1% annual chance coastal floodplains that have additional hazards associated with storm waves. Base flood elevations derived from the coastal analyses are shown within this zone as static whole-foot elevations that apply throughout the zone.



Regulatory Floodway determined in Zone AE.

Figure 3: Map Legend for FIRM, Continued

  <p>FLOOD INSURANCE IS NOT AVAILABLE FOR STRUCTURES NEWLY BUILT OR SUBSTANTIALLY IMPROVED ON OR AFTER APRIL 8, 1987, IN THE DESIGNATED COLORADO RIVER FLOODWAY</p>	<p>Non-encroachment zone (see Section 2.4 of this FIS Report for more information)</p> <p>The Colorado River Floodway was established by Congress in the Colorado River Floodway Protection Act of 1986, Public Law 99-450 (100 Statute 1129). The Act imposes certain restrictions within the Floodway.</p>
<p>OTHER AREAS OF FLOOD HAZARD</p>	
  	<p>Shaded Zone X: Areas of 0.2% annual chance flood hazards and areas of 1% annual chance flood hazards with average depths of less than 1 foot or with drainage areas less than 1 square mile.</p> <p>Future Conditions 1% Annual Chance Flood Hazard – Zone X: The flood insurance rate zone that corresponds to the 1% annual chance floodplains that are determined based on future-conditions hydrology. No base flood elevations or flood depths are shown within this zone.</p> <p>Area with Reduced Flood Risk due to Levee: Areas where an accredited levee, dike, or other flood control structure has reduced the flood risk from the 1% annual chance flood. See Notes to Users for important information.</p>
<p>OTHER AREAS</p>	
 <div style="border: 1px solid black; padding: 2px; display: inline-block;">NO SCREEN</div>	<p>Zone D (Areas of Undetermined Flood Hazard): The flood insurance rate zone that corresponds to unstudied areas where flood hazards are undetermined, but possible.</p> <p>Unshaded Zone X: Areas of minimal flood hazard.</p>
<p>FLOOD HAZARD AND OTHER BOUNDARY LINES</p>	
 <p>(ortho) (vector)</p>   	<p>Flood Zone Boundary (white line on ortho-photography-based mapping; gray line on vector-based mapping)</p> <p>Limit of Study</p> <p>Jurisdiction Boundary</p> <p>Limit of Moderate Wave Action (LiMWA): Indicates the inland limit of the area affected by waves greater than 1.5 feet</p>
<p>GENERAL STRUCTURES</p>	
<p>----- <i>Aqueduct</i> <i>Channel</i> <i>Culvert</i> <i>Storm Sewer</i></p>	<p>Channel, Culvert, Aqueduct, or Storm Sewer</p>

Figure 3: Map Legend for FIRM, Continued

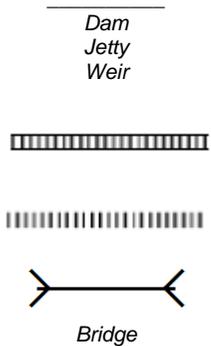
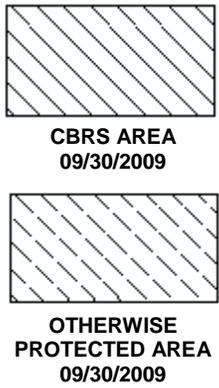
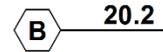
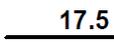
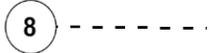
 <p>Dam Jetty Weir</p> <p>Levee, Dike, or Floodwall accredited or provisionally accredited to reduce the flood risk from the 1% annual chance flood.</p> <p>Levee, Dike or Floodwall not accredited to reduce the flood risk from the 1% annual chance flood.</p> <p>Bridge</p>	<p>Dam, Jetty, Weir</p> <p>Levee, Dike, or Floodwall accredited or provisionally accredited to reduce the flood risk from the 1% annual chance flood.</p> <p>Levee, Dike or Floodwall not accredited to reduce the flood risk from the 1% annual chance flood.</p> <p>Bridge</p>
<p>COASTAL BARRIER RESOURCES SYSTEM (CBRS) AND OTHERWISE PROTECTED AREAS (OPA): <i>CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas. See Notes to Users for important information.</i></p>	
 <p>CBRS AREA 09/30/2009</p> <p>OTHERWISE PROTECTED AREA 09/30/2009</p>	<p>Coastal Barrier Resources System Area: Labels are shown to clarify where this area shares a boundary with an incorporated area or overlaps with the floodway.</p> <p>Otherwise Protected Area</p>
<p>REFERENCE MARKERS</p>	
 <p>22.0</p>	<p>River mile Markers</p>
<p>CROSS SECTION & TRANSECT INFORMATION</p>	
 <p>20.2</p>	<p>Lettered Cross Section with Regulatory Water Surface Elevation (BFE)</p>
 <p>21.1</p>	<p>Numbered Cross Section with Regulatory Water Surface Elevation (BFE)</p>
 <p>17.5</p>	<p>Unlettered Cross Section with Regulatory Water Surface Elevation (BFE)</p>
 <p>8</p>	<p>Coastal Transect</p>
	<p>Profile Baseline: Indicates the modeled flow path of a stream and is shown on FIRM panels for all valid studies with profiles or otherwise established base flood elevation.</p> <p>Coastal Transect Baseline: Used in the coastal flood hazard model to represent the 0.0-foot elevation contour and the starting point for the transect and the measuring point for the coastal mapping.</p>

Figure 3: Map Legend for FIRM, Continued

	Base Flood Elevation Line (shown for flooding sources for which no cross sections or profile are available)
ZONE AE (EL 16)	Static Base Flood Elevation value (shown under zone label)
ZONE AO (DEPTH 2)	Zone designation with Depth
ZONE AO (DEPTH 2) (VEL 15 FPS)	Zone designation with Depth and Velocity
BASE MAP FEATURES	
	River, Stream or Other Hydrographic Feature
	Interstate Highway
	U.S. Highway
	State Highway
	County Highway
<u>MAPLE LANE</u>	Street, Road, Avenue Name, or Private Drive if shown on Flood Profile
	Railroad
	Horizontal Reference Grid Line
	Horizontal Reference Grid Ticks
	Secondary Grid Crosshairs
Land Grant	Name of Land Grant
7	Section Number
R. 43 W. T. 22 N.	Range, Township Number
⁴² 76 ^{000m} E	Horizontal Reference Grid Coordinates (UTM)
365000 FT	Horizontal Reference Grid Coordinates (State Plane)
80° 16' 52.5"	Corner Coordinates (Latitude, Longitude)

SECTION 2.0 – FLOODPLAIN MANAGEMENT APPLICATIONS

2.1 Floodplain Boundaries

To provide a national standard without regional discrimination, the 1% annual chance (100-year) flood has been adopted by FEMA as the base flood for floodplain management purposes. The 0.2% annual chance (500-year) flood is employed to indicate additional areas of flood hazard in the community.

Within this jurisdiction, there are one or more levees that have not been demonstrated by the communities or levee owners to meet the requirements of 44CFR Part 65.10 of the NFIP regulations as it relates to the levee's capacity to provide 1-percent-annual-chance flood protection. As such, the floodplain boundaries in this area are subject to change. Please refer to Section 4.4 of this FIS report for more information on how this may affect the floodplain boundaries shown on the FIRM.

Each flooding source included in the project scope has been studied and mapped using professional engineering and mapping methodologies that were agreed upon by FEMA and Los Angeles County as appropriate to the risk level. Flood risk is evaluated based on factors such as known flood hazards and projected impact on the built environment. Engineering analyses were performed for each studied flooding source to calculate its 1% annual chance flood elevations; elevations corresponding to other floods (e.g. 10-, 4-, 2-, 0.2-percent annual chance, etc.) may have also been computed for certain flooding sources. Engineering models and methods are described in detail in Section 5.0 of this FIS Report. The modeled elevations at cross sections were used to delineate the floodplain boundaries on the FIRM; between cross sections, the boundaries were interpolated using elevation data from various sources. More information on specific mapping methods is provided in Section 6.0 of this FIS Report.

Depending on the accuracy of available topographic data (Table 23), study methodologies employed (Section 5.0), and flood risk, certain flooding sources may be mapped to show both the 1% and 0.2% annual chance floodplain boundaries, regulatory water surface elevations (BFEs), and/or a regulatory floodway. Similarly, other flooding sources may be mapped to show only the 1% annual chance floodplain boundary on the FIRM, without published water surface elevations. In cases where the 1% and 0.2% annual chance floodplain boundaries are close together, only the 1% annual chance floodplain boundary is shown on the FIRM. Figure 3, "Map Legend for FIRM", describes the flood zones that are used on the FIRMs to account for the varying levels of flood risk that exist along flooding sources within the project area.

Small areas within the floodplain boundaries may lie above the flood elevations but cannot be shown due to limitations of the map scale and/or lack of detailed topographic data. The procedures to remove these areas from the SFHA are described in Section 6.5 of this FIS Report.

Table 2 and

Table 3 indicate the flood zone designations for each flooding source and each community within Los Angeles County, California, respectively.

Small areas within the floodplain boundaries may lie above the flood elevations but cannot be shown due to limitations of the map scale and/or lack of detailed topographic data. The procedures to remove these areas from the SFHA are described in Section 6.5 of this FIS Report.

Table 2, “Flooding Sources Included in this FIS Report,” lists each flooding source, including its study limits, affected communities, mapped zone on the FIRM, and the completion date of its engineering analysis from which the flood elevations on the FIRM and in the FIS Report were derived. Descriptions and dates for the latest hydrologic and hydraulic analyses of the flooding sources are shown in Table 13. Floodplain boundaries for these flooding sources are shown on the FIRM (published separately) using the symbology described in Figure 3. On the map, the 1% annual chance floodplain corresponds to the SFHAs. The 0.2% annual chance floodplain shows areas that, although out of the regulatory floodplain, are still subject to flood hazards.

Small areas within the floodplain boundaries may lie above the flood elevations but cannot be shown due to limitations of the map scale and/or lack of detailed topographic data. The procedures to remove these areas from the SFHA are described in Section 6.5 of this FIS Report.

Table 2: Flooding Sources Included in this FIS Report

[See Volume 2]

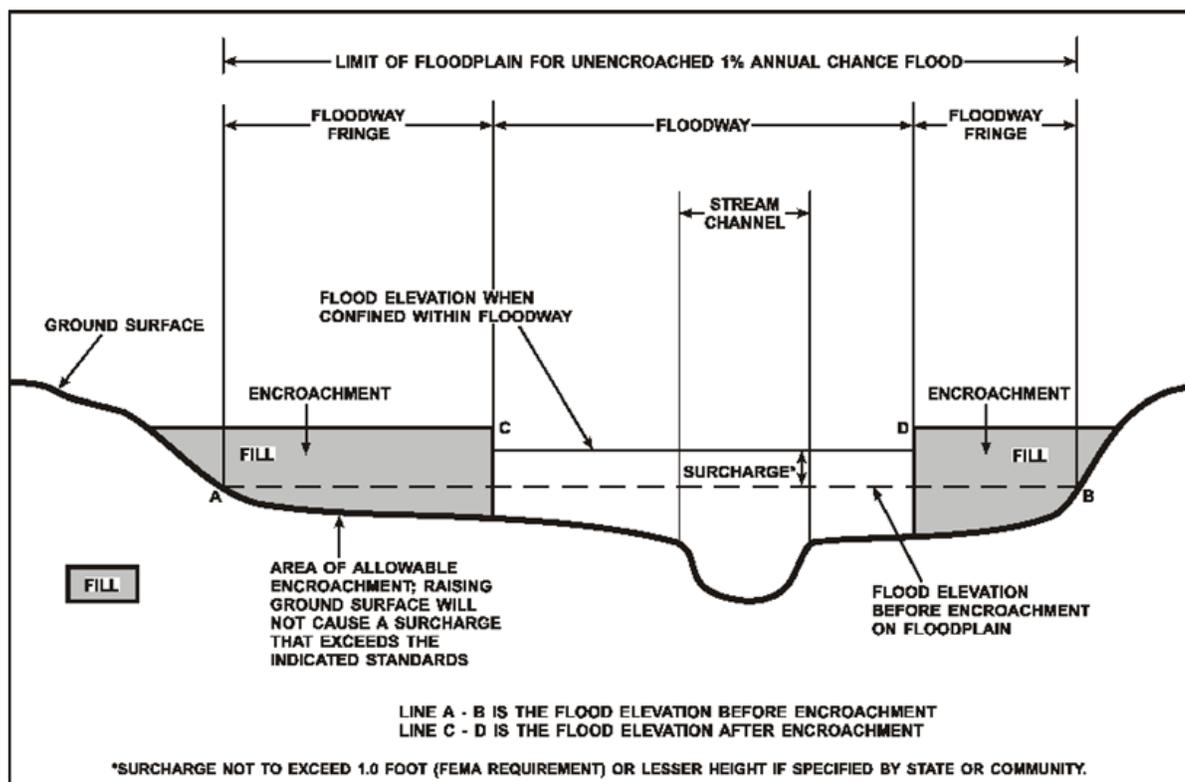
2.2 Floodways

Encroachment on floodplains, such as structures and fill, reduces flood-carrying capacity, increases flood heights and velocities, and increases flood hazards in areas beyond the encroachment itself. One aspect of floodplain management involves balancing the economic gain from floodplain development against the resulting increase in flood hazard.

For purposes of the NFIP, a floodway is used as a tool to assist local communities in balancing floodplain development against increasing flood hazard. With this approach, the area of the 1% annual chance floodplain on a river is divided into a floodway and a floodway fringe based on hydraulic modeling. The floodway is the channel of a stream, plus any adjacent floodplain areas, that must be kept free of encroachment in order to carry the 1% annual chance flood. The floodway fringe is the area between the floodway and the 1% annual chance floodplain boundaries where encroachment is permitted. The floodway must be wide enough so that the floodway fringe could be completely obstructed without increasing the water surface elevation of the 1% annual chance flood more than 1 foot at any point. Typical relationships between the floodway and the floodway fringe and their significance to floodplain development are shown in Figure 4.

To participate in the NFIP, Federal regulations require communities to limit increases caused by encroachment to 1.0 foot, provided that hazardous velocities are not produced. Regulations for State require communities in Los Angeles County to limit increases caused by encroachment to 0.5 foot and several communities have adopted additional restrictions. The floodways in this project are presented to local agencies as minimum standards that can be adopted directly or that can be used as a basis for additional floodway projects.

Figure 4: Floodway Schematic



Floodway widths presented in this FIS Report and on the FIRM were computed at cross sections. Between cross sections, the floodway boundaries were interpolated. For certain stream segments, floodways were adjusted so that the amount of floodwaters conveyed on each side of the floodplain would be reduced equally. The results of the floodway computations have been tabulated for selected cross sections and are shown in Table 24, "Floodway Data."

All floodways that were developed for this Flood Risk Project are shown on the FIRM using the symbology described in Figure 3. In cases where the floodway and 1% annual chance floodplain boundaries are either close together or collinear, only the floodway boundary has been shown on the FIRM. For information about the delineation of floodways on the FIRM, refer to Section 6.3.

2.3 Base Flood Elevations

The hydraulic characteristics of flooding sources were analyzed to provide estimates of the elevations of floods of the selected recurrence intervals. The Base Flood Elevation (BFE) is the elevation of the 1% annual chance flood. These BFEs are most commonly rounded to the whole foot, as shown on the FIRM, but in certain circumstances or locations they may be rounded to 0.1 foot. Cross section lines shown on the FIRM may also be labeled with the BFE rounded to 0.1 foot. Whole-foot BFEs derived from engineering analyses that apply to coastal areas, areas of ponding, or other static areas with little elevation change may also be shown at selected intervals on the FIRM.

Cross sections with BFEs shown on the FIRM correspond to the cross sections shown in the Floodway Data table and Flood Profiles in this FIS Report. BFEs are primarily intended for flood

insurance rating purposes. For construction and/or floodplain management purposes, users are cautioned to use the flood elevation data presented in this FIS Report in conjunction with the data shown on the FIRM.

2.4 Non-Encroachment Zones

Some States and communities use non-encroachment zones to manage floodplain development. For flooding sources with medium flood risk, field surveys are often not collected and surveyed bridge and culvert geometry is not developed. Standard hydrologic and hydraulic analyses are still performed to determine BFEs in these areas. However, floodways are not typically determined, since specific channel profiles are not developed. To assist communities with managing floodplain development in these areas, a “non-encroachment zone” may be provided. While not a FEMA designated floodway, the non-encroachment zone represents that area around the stream that should be reserved to convey the 1% annual chance flood event. As with a floodway, all surcharges must fall within the acceptable range in the non-encroachment zone.

General setbacks can be used in areas of lower risk (e.g., unnumbered Zone A), but these are not considered sufficient where unnumbered Zone A is replaced by Zone AE. The NFIP requires communities to ensure that any development in a non-encroachment area causes no increase in BFEs. Communities must generally prohibit development within the area defined by the non-encroachment width to meet the NFIP requirement. Regulations for State require communities in Los Angeles County to limit increases caused by encroachment to 0.5 foot and several communities have adopted additional restrictions for non-encroachment areas.

Non-encroachment determinations may be delineated where it is not possible to delineate floodways because specific channel profiles with bridge and culvert geometry were not developed. Any non-encroachment determinations for this Flood Risk Project have been tabulated for selected cross sections and are shown in Table 25, “Flood Hazard and Non-Encroachment Data for Selected Streams.” Areas for which non-encroachment zones are provided show BFEs and the 1% annual chance floodplain boundaries mapped as zone AE on the FIRM but no floodways.

2.5 Coastal Flood Hazard Areas

For most areas along rivers, streams, and small lakes, BFEs and floodplain boundaries are based on the amount of water expected to enter the area during a 1% annual chance flood and the geometry of the floodplain. Floods in these areas are typically caused by storm events. However, for areas on or near ocean coasts, large rivers, or large bodies of water, BFE and floodplain boundaries may need to be based on additional components, including storm surges and waves. Communities on or near ocean coasts face flood hazards caused by offshore seismic events as well as storm events.

Coastal flooding sources that are included in this Flood Risk Project are shown in Small areas within the floodplain boundaries may lie above the flood elevations but cannot be shown due to limitations of the map scale and/or lack of detailed topographic data. The procedures to remove these areas from the SFHA are described in Section 6.5 of this FIS Report.

Table 2.

2.5.1 Water Elevations and the Effects of Waves

Specific terminology is used in coastal analyses to indicate which components have been included in evaluating flood hazards.

The stillwater elevation (SWEL or still water level) is the surface of the water resulting from astronomical tides, storm surge, and freshwater inputs, but excluding wave setup contribution or the effects of waves.

- *Astronomical tides* are periodic rises and falls in large bodies of water caused by the rotation of the earth and by the gravitational forces exerted by the earth, moon and sun.
- *Storm surge* is the additional water depth that occurs during large storm events. These events can bring air pressure changes and strong winds that force water up against the shore.
- *Freshwater inputs* include rainfall that falls directly on the body of water, runoff from surfaces and overland flow, and inputs from rivers.

The 1% annual chance stillwater elevation is the stillwater elevation that has been calculated for a storm surge from a 1% annual chance storm. The 1% annual chance storm surge can be determined from analyses of tidal gage records, statistical study of regional historical storms, or other modeling approaches. Stillwater elevations for storms of other frequencies can be developed using similar approaches.

The total stillwater elevation (also referred to as the mean water level) is the stillwater elevation plus wave setup contribution but excluding the effects of waves.

- *Wave setup* is the increase in stillwater elevation at the shoreline caused by the reduction of waves in shallow water. It occurs as breaking wave momentum is transferred to the water column.

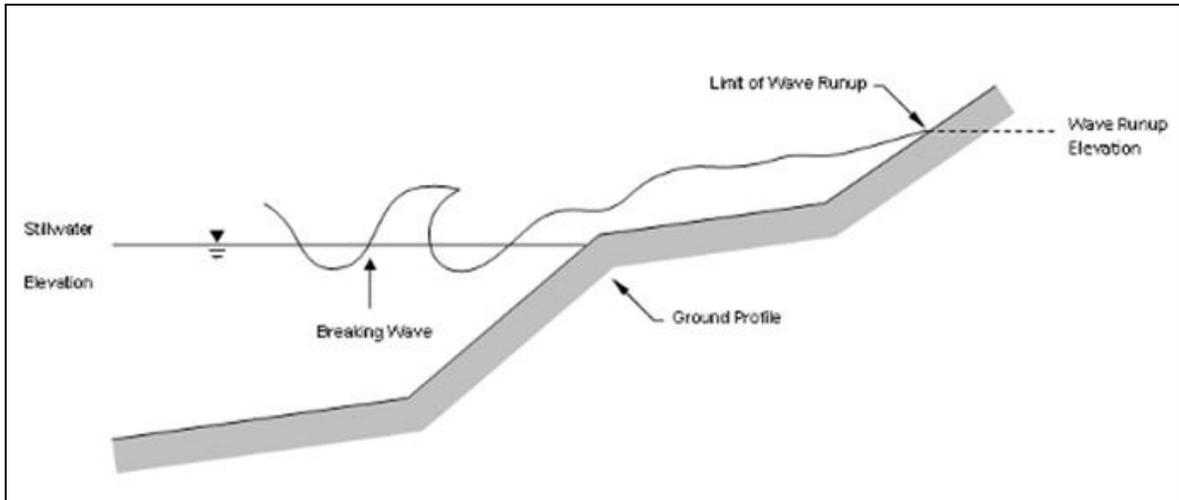
Like the stillwater elevation, the total stillwater elevation is based on a storm of a particular frequency, such as the 1% annual chance storm. Wave setup is typically estimated using standard engineering practices or calculated using models, since tidal gages are often sited in areas sheltered from wave action and do not capture this information.

Coastal analyses may examine the effects of overland waves by analyzing storm-induced erosion, overland wave propagation, wave runup, and/or wave overtopping.

- *Storm-induced erosion* is the modification of existing topography by erosion caused by a specific storm event, as opposed to general erosion that occurs at a more constant rate
- *Overland wave propagation* describes the combined effects of variation in ground elevation, vegetation, and physical features on wave characteristics as waves move onshore.
- *Wave runup* is the uprush of water from wave action on a shore barrier. It is a function of the roughness and geometry of the shoreline at the point where the stillwater elevation intersects the land.

- *Wave overtopping* refers to wave runup that occurs when waves pass over the crest of a barrier.

Figure 5: Wave Runup Transect Schematic



2.5.2 Floodplain Boundaries and BFEs for Coastal Areas

For coastal communities along the Atlantic and Pacific Oceans, the Gulf of Mexico, the Great Lakes, and the Caribbean Sea, flood hazards must take into account how storm surges, waves, and extreme tides interact with factors such as topography and vegetation. Storm surge and waves must also be considered in assessing flood risk for certain communities on rivers or large inland bodies of water.

Beyond areas that are affected by waves and tides, coastal communities can also have riverine floodplains with designated floodways, as described in previous sections.

Floodplain Boundaries

In many coastal areas, storm surge is the principle component of flooding. The extent of the 1% annual chance floodplain in these areas is derived from the total stillwater elevation (stillwater elevation including storm surge plus wave setup) for the 1% annual chance storm. The methods that were used for calculation of total stillwater elevations for coastal areas are described in Section 5.3 of this FIS Report. Location of total stillwater elevations for coastal areas are shown in Figure 8, “1% Annual Chance Total Stillwater Levels for Coastal Areas.”

In some areas, the 1% annual chance floodplain is determined based on the limit of wave runup or wave overtopping for the 1% annual chance storm surge. The methods that were used for calculation of wave hazards are described in Section 5.3 of this FIS Report.

Table 26 presents the types of coastal analyses that were used in mapping the 1% annual chance floodplain in coastal areas.

Coastal BFEs

Coastal BFEs are calculated as the total stillwater elevation (stillwater elevation including storm

surge plus wave setup) for the 1% annual chance storm plus the additional flood hazard from overland wave effects (storm-induced erosion, overland wave propagation, wave runup and wave overtopping).

Where they apply, coastal BFEs are calculated along transects extending from offshore to the limit of coastal flooding onshore. Results of these analyses are accurate until local topography, vegetation, or development type and density within the community undergoes major changes.

Parameters that were included in calculating coastal BFEs for each transect included in this FIS Report are presented in Table 17, “Coastal Transect Parameters.” The locations of transects are shown in Figure 9, “Transect Location Map.” More detailed information about the methods used in coastal analyses and the results of intermediate steps in the coastal analyses are presented in Section 5.3 of this FIS Report. Additional information on specific mapping methods is provided in Section 6.4 of this FIS Report.

2.5.3 Coastal High Hazard Areas

Certain areas along the open coast and other areas may have higher risk of experiencing structural damage caused by wave action and/or high-velocity water during the 1% annual chance flood. These areas will be identified on the FIRM as Coastal High Hazard Areas.

- *Coastal High Hazard Area (CHHA)* is a SFHA extending from offshore to the inland limit of the primary frontal dune (PFD) or any other area subject to damages caused by wave action and/or high-velocity water during the 1% annual chance flood.
- *Primary Frontal Dune (PFD)* is a continuous or nearly continuous mound or ridge of sand with relatively steep slopes immediately landward and adjacent to the beach. The PFD is subject to erosion and overtopping from high tides and waves during major coastal storms.

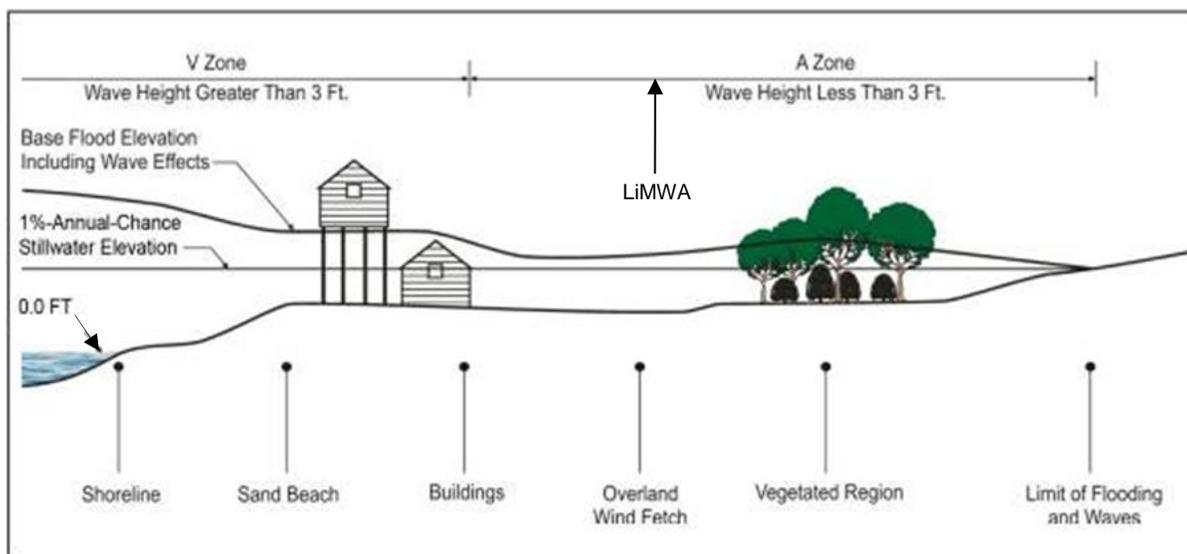
CHHAs are designated as “V” zones (for “velocity wave zones”) and are subject to more stringent regulatory requirements and a different flood insurance rate structure. The areas of greatest risk are shown as VE on the FIRM. Zone VE is further subdivided into elevation zones and shown with BFEs on the FIRM.

The landward limit of the PFD occurs at a point where there is a distinct change from a relatively steep slope to a relatively mild slope; this point represents the landward extension of Zone VE. Areas of lower risk in the CHHA are designated with Zone V on the FIRM. More detailed information about the identification and designation of Zone VE is presented in Section 6.4 of this FIS Report.

Areas that are not within the CHHA but are SFHAs may still be impacted by coastal flooding and damaging waves; these areas are shown as “A” zones on the FIRM.

Figure 6, “Coastal Transect Schematic,” illustrates the relationship between the base flood elevation, the 1% annual chance stillwater elevation, and the ground profile as well as the location of the Zone VE and Zone AE areas in an area without a PFD subject to overland wave propagation. This figure also illustrates energy dissipation and regeneration of a wave as it moves inland.

Figure 6: Coastal Transect Schematic



Methods used in coastal analyses in this Flood Risk Project are presented in Section 5.3 and mapping methods are provided in Section 6.4 of this FIS Report.

Coastal floodplains are shown on the FIRM using the symbology described in Figure 3, “Map Legend for FIRM.” In many cases, the BFE on the FIRM is higher than the stillwater elevations shown in Table 17 due to the presence of wave effects. The higher elevation should be used for construction and/or floodplain management purposes.

2.5.4 Limit of Moderate Wave Action

Laboratory tests and field investigations have shown that wave heights as little as 1.5 feet can cause damage to and failure of typical Zone AE building construction. Wood-frame, light gage steel, or masonry walls on shallow footings or slabs are subject to damage when exposed to waves less than 3 feet in height. Other flood hazards associated with coastal waves (floating debris, high velocity flow, erosion, and scour) can also damage Zone AE construction.

Therefore, a LiMWA boundary may be shown on the FIRM as an informational layer to assist coastal communities in safe rebuilding practices. The LiMWA represents the approximate landward limit of the 1.5-foot breaking wave. The location of the LiMWA relative to Zone VE and Zone AE is shown in Figure 6.

The effects of wave hazards in Zone AE between Zone VE (or the shoreline where Zone VE is not identified) and the limit of the LiMWA boundary are similar to, but less severe than, those in Zone VE where 3-foot or greater breaking waves are projected to occur during the 1% annual chance flooding event. Communities are therefore encouraged to adopt and enforce more stringent floodplain management requirements than the minimum NFIP requirements in the LiMWA. The NFIP Community Rating System provides credits for these actions.

Where wave runup elevations dominate over wave heights, there is no evidence to date of significant damage to residential structures by runup depths less than 3 feet. Examples of these

areas include areas with steeply sloped beaches, bluffs, or flood protection structures that lie parallel to the shore. In these areas, the FIRM shows the LiMWA immediately landward of the VE/AE boundary. Similarly, in areas where the zone VE designation is based on the presence of a primary frontal dune or wave overtopping, the LiMWA is delineated immediately landward of the Zone VE/AE boundary.

SECTION 3.0 – INSURANCE APPLICATIONS

3.1 National Flood Insurance Program Insurance Zones

For flood insurance applications, the FIRM designates flood insurance rate zones as described in Figure 3, “Map Legend for FIRM.” Flood insurance zone designations are assigned to flooding sources based on the results of the hydraulic or coastal analyses. Insurance agents use the zones shown on the FIRM and depths and base flood elevations in this FIS Report in conjunction with information on structures and their contents to assign premium rates for flood insurance policies.

The 1% annual chance floodplain boundary corresponds to the boundary of the areas of special flood hazards (e.g. Zones A, AE, V, VE, etc.), and the 0.2% annual chance floodplain boundary corresponds to the boundary of areas of additional flood hazards.

Table 3 lists the flood insurance zones in the unincorporated and incorporated areas of Los Angeles County.

Table 3: Flood Zone Designations by Community

Community	Flood Zone(s)
City of Agoura Hills	A, AE, D, X
City of Avalon	A, AE, D, VE, X
City of Azusa	A, D, X
City of Bell Gardens	A, X
City of Bellflower	AE, X
City of Burbank	A, AE, AO, D, X
City of Calabasas	A, AE, D, X
City of Carson	A, X
City of Cerritos	A, AE, X
City of Commerce	A, X
City of Compton	A, X
City of Cudahy	A, X
City of Culver City	A, AE, AO, X
City of Diamond Bar	A, AO, D, X
City of Downey	A, AE, X
City of El Segundo	A, X

Table 3: Flood Zone Designations by Community, Continued

Community	Flood Zone(s)
City of Gardena	A, X
City of Hermosa Beach	A, X
City of Hidden Hills	A, D, X
City of La Mirada	AE, X
City of La Verne	AE, D, X
City of Lakewood	A, X
City of Lancaster	A, AE, AH, AO, X
City of Long Beach	A, AE, AH, VE, X
City of Los Angeles	A, AE, AH, AO, D, VE, X
Los Angeles County, Unincorporated Areas	A, AE, AH, AO, D, V, VE, X
City of Lynwood	AH, X
City of Malibu	A, AE, AO, D, VE, X
City of Manhattan Beach	A, X
City of Montebello	A, AE, D, X
City of Norwalk	AE, X
City of Palmdale	A, AE, AO, D, X
City of Palos Verdes Estates	A, D, V, X
City of Paramount	A, AH, X
City of Pico Rivera	A, AE, D, X
City of Rancho Palos Verdes	A, D, X
City of Redondo Beach	A, AE, V, VE, X
City of San Dimas	AE, D, X
City of Santa Clarita	A, AE, AH, AO, D, X
City of Santa Fe Springs	AE, AH, X
City of Santa Monica	A, D, X
City of South Gate	A, X
City of Torrance	A, AE, AH, V, X
City of West Covina	A, D, X
City of Westlake Village	A, AE, X
City of Whittier	A, AE, AO, D, X

3.2 Coastal Barrier Resources System

The Coastal Barrier Resources Act (CBRA) of 1982 was established by Congress to create areas along the Atlantic and Gulf coasts and the Great Lakes, where restrictions for Federal financial assistance including flood insurance are prohibited. In 1990, Congress passed the Coastal Barrier Improvement Act (CBIA), which increased the extent of areas established by the CBRA and added “Otherwise Protected Areas” (OPA) to the system. These areas are collectively referred to as the John. H Chafee Coastal Barrier Resources System (CBRS). The CBRS boundaries that have been identified in the project area are in Table 4, “Coastal Barrier Resource System Information.”

Table 4: Coastal Barrier Resources System Information

[Not Applicable to this Flood Risk Project]

SECTION 4.0 – AREA STUDIED

4.1 Basin Description

Table 5 contains a description of the characteristics of the HUC-8 sub-basins within which each community falls. The table includes the main flooding sources within each basin, a brief description of the basin, and its drainage area.

Table 5: Basin Characteristics

HUC-8 Sub-Basin Name	HUC-8 Sub-Basin Number	Primary Flooding Source	Description of Affected Area	Drainage Area (square miles)
Middle Kern-Upper Tehachapi-Grapevine	18030003	Cuddy Creek	Primarily undeveloped areas in the northwest corner of unincorporated Los Angeles County	2,620
Santa Clara	18070102	Santa Clara River	Encompasses majority of Los Angeles County and Ventura County, as well as Cities of Fillmore, San Buenaventura, Santa Clarita, and Santa Paula	1,610
Calleguas	18070103	Arroyo Simi	Undeveloped area at the upper reaches of Arroyo Simi in unincorporated Los Angeles County	438
Santa Monica Bay	18070104	Malibu Creek / Ballona Creek	Mostly highly urbanized areas. Major communities include the Cities of Agoura Hills, Calabasas, Culver City, Inglewood, Los Angeles, Malibu, Santa Monica, and West Hollywood	575

Table 5: Basin Characteristics, Continued

HUC-8 Sub-Basin Name	HUC-8 Sub-Basin Number	Primary Flooding Source	Description of Affected Area	Drainage Area (square miles)
Los Angeles	18070105	Los Angeles River	Majority of the upper portion is covered by forest and open space. Cities of Long Beach and Los Angeles are highly developed with residential and urban use	819
San Gabriel	18070106	San Gabriel River	Majority of areas are not developed. It runs through Angeles National Forest and Cities of Covina, Long Beach, Los Angeles, Pomona, and Whittier	713
San Pedro Channel Islands	18070107	Pacific Ocean	Minor islands off the coast	154
Santa Ana	18070203	San Antonio Creek	Basin includes portions of Los Angeles County and the Cities of Claremont, Diamond Bar, and Pomona. The southern portion is highly developed while the northern portion is primarily covered by forest	1,690
Antelope-Fremont Valleys	18090206	Big Rock Creek / Little Rock Creek	Extended into Los Angeles County and Cities of Lancaster, and Palmdale. Development in the east is generally commercial and industrial	12,000
Mojave	18090208	Sawmill Canyon Creek	Mostly forested area at the upper reaches of the watershed	4,620

4.2 Principal Flood Problems

Table 6 contains a description of the principal flood problems that have been noted for Los Angeles County by flooding source.

Table 6: Principal Flood Problems

Flooding Source	Description of Flood Problems
All sources	Los Angeles County has a long history of destructive flooding. In the Los Angeles basin area, an extensive flood control system eliminated much of the flood hazard experienced in years past. In the less densely populated areas of Malibu, Santa Clarita Valley, and Antelope Valley, relatively few flood controls have been constructed. These areas remain subject to flood hazard.
Los Angeles River	The Cities of Bellflower, Carson, Compton, Downey, Gardena, Lakewood, Long Beach, Los Angeles, Lynwood, Montebello, Paramount, Pico Rivera, Santa Fe Springs, South Gate, and Whittier have a history of flooding roughly parallel to that of the larger Los Angeles River watershed. Prior to the construction of the extensive storm drain and flood control channel system protecting numerous communities within the county, these cities suffered the continual damage wrought by overflow of the Los Angeles River and/or its tributaries. Following completion of this system, the major cause of flood

Table 6: Principal Flood Problems, Continued

Flooding Source	Description of Flood Problems
	<p>damage within these cities has been flooding by overflow of local drainage systems and smaller tributaries to the Los Angeles River system. Of particular concern are mudflows that frequently occur in the foothill areas during intense rainfall, usually following wildfires in the upstream watershed.</p>
Pacific Ocean	<p>The Southern California coastline is exposed to waves generated by winter and summer storms originating in the Pacific Ocean. It is not uncommon for these storms to cause 15-foot breakers. The occurrence of such a storm event in combination with high astronomical tides and strong winds can cause a significant wave runup and allow storm waves to attack higher than normal elevations along the coastline. When this occurs, shoreline erosion and coastal flooding frequently results in damage to inadequately protected structures and facilities located along low-lying portions of the shoreline.</p> <p>Oil pumping in past years has caused subsidence along the ocean front areas of Long Beach. Settlements of up to 30 feet have occurred in some areas of the Long Beach Harbor subjecting many locations along the coast to damage from direct wave action. Much of Naples Island and Belmont Shores in southeastern Long Beach, lie at elevations less than the maximum recorded tide.</p>
Ballona Creek	<p>Sources of flooding include the Ballona Creek channel and associated tributaries, as well as drainage channels originating in the Baldwin Hills and surrounding cities. The Los Angeles County Flood Control District's flood overflow maps also indicate a history of flooded streets and low-lying areas along the streams of Culver City.</p>

Table 6: Principal Flood Problems, Continued

Flooding Source	Description of Flood Problems
La Mirada Creek	<p>La Mirada Creek is an unimproved watercourse that flows southwest through the La Mirada. Overflow maps indicate a history of flooded streets and natural watercourses in the city. Between Santa Gertrudes Avenue and Stamy Road, the channel runs into La Mirada Creek Park. The park has been designed as a greenbelt flood plain management area and the 1-Percent Annual Chance discharge is contained within city-owned park property. Downstream of Stamy Road, the flood flows follow the natural watercourse alignment of La Mirada Creek. Between Stamy Road and Imperial Highway, the existing development is rural-residential and the flood plain is occupied by horse corrals and small barns. The water ponds upstream of Imperial Highway inundate approximately 3 acres of undeveloped property. Between Imperial Highway and La Mirada Boulevard, the flows continue through a miniature golf course and a residential development. The residential structures are located on high ground substantially above the flood plain. Downstream of La Mirada Boulevard, the watercourse traverses an open field that is part of Biola College. An existing flood control channel, downstream of the field, collects floodwaters, which are ultimately conveyed to North Fork Coyote Creek.</p> <p>Watersheds of less than one square mile within the city have historically caused flooding in developed low-lying areas. These areas are located in the vicinity of the intersection of Valeda Drive and De Alcala Drive, between Goldendale Drive and Telegraph Road, the eastern end of Capella Street, the intersection of San Feliciano Drive and Figueras Road, the intersection of Crosswood Road and Pemberton Drive, the intersection of Borda Drive and San Ardo Drive, and north of the Atchison, Topeka, and Santa Fe Railway near Castellon Road.</p>
Antelope Valley	<p>The City of Lancaster is on the alluvial floodplain of the Antelope Valley. Consequently, the type of flooding experienced in the city is typical of that experienced by communities developed on alluvial fans. Flood flows discharge from the mountainous canyons onto the desert floor, where, due to the lack of well-incised streambeds, it spreads out in uncontrolled patterns.</p> <p>Flood discharges have overflowed in normally dry streambeds, resulting in heavy damage as floodwaters pass through developed areas. Flooding from Little Rock Creek was experienced in the eastern portion of the city.</p>

Table 6: Principal Flood Problems, Continued

Flooding Source	Description of Flood Problems
Alluvial Fans	<p>The type of flooding in the City of Palmdale is typical of that experienced by communities developed on alluvial fans. Flood flows discharge from the mountainous canyons onto the desert floor, where, due to the lack of well incised streambeds, water spreads out in uncontrolled patterns. Intense, short-duration summer thunderstorms are not uncommon and have created flooding in downstream areas.</p> <p>The principal flood problems for both the Little Rock and Big Rock Washes can be attributed to three factors: the very flat topography, the absence of well-defined natural channels, and the lack of a developed flood control system. In the steeper upstream reaches of both washes, water is confined mostly to the main channel. Flooding problems occur when the flows reach the valley floor where the channels flatten out. This allows the flows to spread over great distances, inundating the surrounding areas.</p> <p>In some instances, flooding from different sources converges in specific drainage areas of the city. In the east-central part of the city, flooding studied by approximate methods originates in the north, east of Amargosa Creek, and converges with flooding studied by detailed methods that originate in the foothills to the south.</p> <p>Flood discharges have overflowed normally dry streambeds, resulting in heavy damage as floodwaters travel through developed areas. During the period of comparatively recent record, floods of major proportions have occurred. The office of the County Engineer has identified the areas in which moderate to severe flooding was observed during heavy storms in 1938, 1965, and 1969 on flood overflow maps. During these floods, widespread damage to orchards, irrigation systems, buildings, and roads occurred.</p>
Redondo Beach Watersheds	<p>The watersheds of Redondo Beach are relatively small with storm flows either draining directly into the ocean or accumulating in numerous small sumps. The Los Angeles County Flood Control District flood overflow maps indicate a history of flooded streets and sumps in the community which resulted from the major storms of 1938, 1965, 1969, 1978, 1980, 1983, and 1994.</p> <p>Flooding caused by the 1-percent annual chance flood is limited to street rights of way, areas of shallow flooding less than one foot deep, and ponding areas. Shallow flooding occurs along Avenue I between South Elena and Esplanade Avenues; along Julia Avenue between Camino Real and South Juanita Avenue; between Del Amo, Diamond, Garnsey, and Vincent Streets; between Vincent Street, South Irena Avenue, Spencer Street, and El Rondo; between Anita Street, North Prospect Avenue, Agate Street, and Harkness Lane; along Carnegie Lane between Blossom and Green Lanes; between Aviation Way and Artesia and Aviation Boulevards; between Gibson Avenue, Deland Boulevard, Dow Avenue, and Manhattan Beach Boulevard; at the intersection of the Atchinson, Topeka, and Santa Fe Railway and Inglewood Avenue; and along Compton Boulevard between Freeman and Aviation Boulevards.</p>

Table 6: Principal Flood Problems, Continued

Flooding Source	Description of Flood Problems
Foothills of Santa Clarita	Los Angeles County Flood Control District flood-overflow maps indicate a history of flooding in this area from major storms. These events demonstrate that the city of Santa Clarita is susceptible to flood damage. Of particular concern are mudflows that frequently occur in the foothill areas during intense rainfall, usually following brush fires in the upstream watershed. This hazard has not been addressed in this study.

Table 7 contains information about historic flood elevations in the communities within Los Angeles County.

Table 7: Historic Flooding Elevations

Flooding Source	Location	Historic Peak (Feet NAVD88)	Event Date	Approximate Recurrence Interval (years)	Source of Data
Big Rock Creek	Near Valyermo, CA	4053.3	1/25/1969		USGS gage
Big Tujunga Creek	Near Sunland, CA	1574.6	1/23/1943		USGS gage
Malibu Creek	At Crater Camp near Calabasas, CA	433.0	1/25/1969		USGS gage
Santa Clara River	450 feet downstream of I-5	797.5	11/15/1952		USGS gage
Santa Clara River	At Los Angeles County/Ventura County Line	1046.2	1/9/2005		USGS gage
Topanga Canyon	Near Topanga Beach, CA	268.2	1/25/1969		USGS gage

4.3 Non-Levee Flood Protection Measures

Table 8 contains information about non-levee flood protection measures within Los Angeles County such as dams, jetties, and or dikes. Levees are addressed in Section 4.4 of this FIS Report.

Table 8: Non-Levee Flood Protection Measures

Flooding Source	Structure Name	Type of Measure	Location	Description of Measure
Los Angeles River	Sepulveda Flood Control Basin	Earthen Dam	Los Angeles, California	Flood control facility that was constructed in response to the historic 1938 floods. It is designed to withhold winter flood waters along the Los Angeles River
San Gabriel River	Whittier Narrows Flood Control Basin	Earthen Dam	Montebello, California	Flood control facility that controls runoff originating in the northeastern portion of Los Angeles County. The Rio Hondo originates at Whittier Narrows Dam
Tujunga Wash	Hansen Flood Control Reservoir	Earthen Dam	Los Angeles, California	Flood control facility built in 1939 in response to significant flooding along the Tujunga Wash.

4.4 Levees

For purposes of the NFIP, FEMA only recognizes levee systems that meet, and continue to meet, minimum design, operation, and maintenance standards that are consistent with comprehensive floodplain management criteria. The Code of Federal Regulations, Title 44, Section 65.10 (44 CFR 65.10) describes the information needed for FEMA to determine if a levee system reduces the risk from the 1% annual chance flood. This information must be supplied to FEMA by the community or other party when a flood risk study or restudy is conducted, when FIRMs are revised, or upon FEMA request. FEMA reviews the information for the purpose of establishing the appropriate FIRM flood zone.

Levee systems that are determined to reduce the risk from the 1% annual chance flood are accredited by FEMA. FEMA can also grant provisional accreditation to a levee system that was previously accredited on an effective FIRM and for which FEMA is awaiting data and/or documentation to demonstrate compliance with Section 65.10. These levee systems are referred to as Provisionally Accredited Levees, or PALs. Provisional accreditation provides communities and levee owners with a specified timeframe to obtain the necessary data to confirm the levee's certification status. Accredited levee systems and PALs are shown on the FIRM using the symbology shown in Figure 3 and in Table 9. If the required information for a PAL is not submitted within the required timeframe, or if information indicates that a levee system no longer meets Section 65.10, FEMA will de-accredit the levee system and issue an effective FIRM showing the levee-impacted area as a SFHA.

FEMA coordinates its programs with USACE, who may inspect, maintain, and repair levee systems. The USACE has authority under Public Law 84-99 to supplement local efforts to repair flood control projects that are damaged by floods. Like FEMA, the USACE provides a program to allow public sponsors or operators to address levee system maintenance deficiencies. Failure to do so within the required timeframe results in the levee system being placed in an inactive status

in the USACE Rehabilitation and Inspection Program. Levee systems in an inactive status are ineligible for rehabilitation assistance under Public Law 84-99.

FEMA coordinated with the USACE, the local communities, and other organizations to compile a list of levees that exist within Los Angeles County. Table 9, "Levees," lists all accredited levees, PALs, and de-accredited levees shown on the FIRM for this FIS Report. Other categories of levees may also be included in the table. The Levee ID shown in this table may not match numbers based on other identification systems that were listed in previous FIS Reports.

Please note that the information presented in Table 9 is subject to change at any time. For that reason, the latest information regarding any USACE structure presented in the table should be obtained by contacting USACE and accessing the USACE national levee database. For levees owned and/or operated by someone other than the USACE, contact the local community shown in Table 31.

Please note that FEMA has identified levees in this jurisdiction that have not been demonstrated by the community or levee owner to meet the requirements of 44CFR Part 65.10 of the NFIP regulations as it relates to the levee's capacity to provide 1-percent-annual-chance flood protection. As such, the existing flood hazard analysis in the affected areas has been carried forward from the previously-printed effective FIRM panel(s) and the area has been clearly identified on the FIRM panel with notes and bounding lines. This has been done to inform users that a temporary mapping action has been put in place until such time as FEMA is able to initiate a new flood risk project to apply new flood hazard mapping procedures for leveed areas. These levees occur on FIRM panel 06037C0840G, on the Santa Clara River, and are identified on the FIRM panel as potential areas of flood hazard data changes based on further review.

Table 9: Levees

Community	Flooding Source	Levee Location	Levee Owner	USACE Levee	Levee ID	Covered Under PL84-99 Program?	FIRM Panel(s)
City of Bell	Los Angeles River	Left Bank	USACE, LA District	Yes	1901057931	Yes	06037C1810F
City of Bell	Los Angeles River	Right Bank	USACE, LA District	Yes	1901057921	Yes	06037C1810F
City of Bell Gardens	Rio Hondo Channel	Right Bank	County of Los Angeles	Yes	1901057060	Yes	06037C1664F
City of Carson	Compton Creek	Left Bank	County of Los Angeles	Yes	1901057139	Yes	06037C1815F
City of Carson	Compton Creek	Right Bank	County of Los Angeles	Yes	1901057158	Yes	06037C1815F
City of Carson	Dominguez Channel	Left Bank	County of Los Angeles	Yes	1901057016	No	06037C1935F
City of Carson	Dominguez Channel	Right Bank	County of Los Angeles	Yes	1901057114	No	06037C1935F
City of Carson	Dominguez Channel	Left Bank	County of Los Angeles	Yes	1901057202	No	06037C1935F
City of Carson	Dominguez Channel	Right Bank	County of Los Angeles	Yes	1901057132	No	06037C1935F
City of Long Beach	Los Angeles River	Right Bank	County of Los Angeles	Yes	1901057176	Yes	06037C1962F
City of Montebello	Rio Hondo Channel	Right Bank	County of Los Angeles	Yes	1901057052	Yes	06037C1664F
City of Santa Clarita	Bouquet Canyon Creek	Left Bank	County of Los Angeles	Yes	1901057140	No	06037C0820F
City of Santa Clarita	Bouquet Canyon Creek	Right Bank	County of Los Angeles	Yes	1901057131	No	06037C0820F

Table 9: Levees, Continued

Community	Flooding Source	Levee Location	Levee Owner	USACE Levee	Levee ID	Covered Under PL84-99 Program?	FIRM Panel(s)
City of Santa Clarita	Santa Clara River	Left Bank	County of Los Angeles	Yes	1901057092	No	06037C0820F
City of Santa Clarita	Santa Clara River	Right Bank	County of Los Angeles	Yes	1901057115	No	06037C0840F
City of Santa Clarita	Santa Clara River	Left Bank	County of Los Angeles	Yes	1901057148	No	06037C0820F
City of Santa Clarita	Santa Clara River	Right Bank	County of Los Angeles	Yes	1901057135	No	06037C0840F
City of Santa Clarita	Santa Clara River	Right Bank	County of Los Angeles	Yes	1901057199	No	06037C0820F
City of Santa Clarita	Santa Clara River	Right Bank	County of Los Angeles	Yes	1901057906	No	06037C0840F
City of South Gate	Los Angeles River	Left Bank	County of Los Angeles	Yes	1901057053	Yes	06037C1815F
City of South Gate	Los Angeles River	Right Bank	County of Los Angeles	Yes	1901057054	Yes	06037C1815F
City of South Gate	Los Angeles River	Left Bank	USACE, LA District	Yes	1901057064	Yes	06037C1810F
City of Long Beach	Coyote Creek	Right Bank	USACE, LA District	Yes	1901057050	Yes	06037C1990F
City of Santa Clarita	Santa Clara River	Right Bank	USACE, LA District	No	1901057908	Unknown	06037C0840G
City of Long Beach	San Gabriel River	Right Bank	USACE, LA District	Yes	1901057051	Yes	06037C1990F
City of Santa Clarita	Bouquet Canyon Creek	Right Bank	USACE, LA District	No	1901057909	Unknown	06037C0817G
City of Santa Clarita	Santa Clara River	Left Bank	USACE, LA District	No	1901057183	No	06037C0840G

Table 9: Levees, Continued

Community	Flooding Source	Levee Location	Levee Owner	USACE Levee	Levee ID	Covered Under PL84-99 Program?	FIRM Panel(s)
City of Santa Clarita	Santa Clara River	Left Bank	USACE, LA District	No	1901057911	Unknown	06037C0840G
City of Santa Clarita	South Fork Santa Clara River	Left Bank	USACE, LA District	No	1901058269	No	06037C0818G

SECTION 5.0 – ENGINEERING METHODS

For the flooding sources in the community, standard hydrologic and hydraulic study methods were used to determine the flood hazard data required for this study. Flood events of a magnitude that are expected to be equaled or exceeded at least once on the average during any 10-, 25-, 50-, 100-, or 500-year period (recurrence interval) have been selected as having special significance for floodplain management and for flood insurance rates. These events, commonly termed the 10-, 25-, 50-, 100-, and 500-year floods, have a 10-, 4-, 2-, 1-, and 0.2% annual chance, respectively, of being equaled or exceeded during any year.

Although the recurrence interval represents the long-term, average period between floods of a specific magnitude, rare floods could occur at short intervals or even within the same year. The risk of experiencing a rare flood increases when periods greater than 1 year are considered. For example, the risk of having a flood that equals or exceeds the 100-year flood (1-percent chance of annual exceedance) during the term of a 30-year mortgage is approximately 26 percent (about 3 in 10); for any 90-year period, the risk increases to approximately 60 percent (6 in 10). The analyses reported herein reflect flooding potentials based on conditions existing in the community at the time of completion of this study. Maps and flood elevations will be amended periodically to reflect future changes.

The engineering analyses described here incorporate the results of previously issued Letters of Map Change (LOMCs) listed in Table 27, “Incorporated Letters of Map Change”, which include Letters of Map Revision (LOMRs). For more information about LOMRs, refer to Section 6.5, “FIRM Revisions.”

5.1 Hydrologic Analyses

Hydrologic analyses were carried out to establish the peak elevation-frequency relationships for floods of the selected recurrence intervals for each flooding source studied. Hydrologic analyses are typically performed at the watershed level. Depending on factors such as

Table 10: Summary of Discharges, Continued

watershed size and shape, land use and urbanization, and natural or man-made storage, various models or methodologies may be applied. A summary of the hydrologic methods applied to develop the discharges used in the hydraulic analyses for each stream is provided in Table 13. Greater detail (including assumptions, analysis, and results) is available in the archived project documentation.

A summary of the discharges is provided in Table 10. Frequency Discharge-Drainage Area Curves used to develop the hydrologic models may also be shown in

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Acton Canyon	At confluence with Santa Clara River	20.9	900	*	2,750	4,080	*	9,050
Acton Canyon	Upstream of confluence with Escondido Canyon Creek	7.5	370	*	1,130	1,670	*	3,700
Agua Dulce Canyon Creek	At confluence with Santa Clara River	29.5	670	*	2,030	3,010	*	6,680
Agua Dulce Canyon Creek	At Sierra Highway	15.6	390	*	1,190	1,770	*	3,930
Agua Dulce Canyon Creek	At Agua Dulce Canyon Road	*	650	*	1,970	2,920	*	6,480
Aliso Canyon Creek	Approximately 0.9 miles upstream of Aliso Canyon Road	*	930	*	2,840	4,210	*	9,340
Aliso Canyon Creek	At Aliso Canyon Road	*	940	*	2,880	4,270	*	9,470
Aliso Canyon Creek	At confluence with Santa Clara River	*	1,030	*	3,160	4,680	*	10,380
Amargosa Creek	East of Antelope Valley Freeway North of Avenue H	206	3,000	*	9,000	13,000	*	30,000
Amargosa Creek	West of Antelope Valley Freeway North of Avenue H	147	2,000	*	5,600	8,400	*	18,000

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Amargosa Creek	Approximately Midway between 20th Street West and 10th Street West	32.7	1,800	*	3,300	5,000	*	10,100
Amargosa Creek	At 10th Street West	32.0	*	*	*	2,364	*	*
Amargosa Creek	At 25th Street West Bridge	30.0	*	*	*	2,341	*	*
Amargosa Creek	At Elizabeth Lake Ford Crossing	28.6	*	*	*	2,288	*	*
Amargosa Creek	At Vineyard Ranch	26.5	*	*	*	2,063	*	*
Amargosa Creek	At Outlet of Ritter Ranch Detention Pond	23.8	*	*	*	1,856	*	*
Amargosa Creek	At 90th Street West	6.9	580	*	2,000	3,100	*	4,500
Amargosa Creek Tributary	Intersection of Avenue I and Spearman Avenue	7.2	310	*	900	1,220	*	2,400
Amargosa Creek Tributary	Intersection of Avenue L and 3rd Street East	2.4	150	*	420	560	*	1,000
Amargosa Creek Tributary	Avenue M and Valleyline Drive	1.8	120	*	340	460	*	850
Anaverde Creek	Acton Canyon Road, Escondido Canyon Road, and Crown Valley Road	20.3	*	*	*	3,421	*	6,052
Anaverde Creek	West of Sierra Highway at Avenue P-8	19.0	700	*	2,100	3,100	*	6,600
Anaverde Creek	At Antelope Freeway	16.4	*	*	*	3,730	*	*
Anaverde Creek	East of Antelope Valley Freeway	16.0	700	*	2,100	3,000	*	6,400
Anaverde Creek	1.85 Miles Downstream of	15.7	*	*	*	3,630	*	*

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
	California Aqueduct							
Anaverde Creek	1.47 miles Downstream of California Aqueduct	12.8	*	*	*	3,200	*	*
Anaverde Creek	0.75 miles Downstream of California Aqueduct	11.8	*	*	*	3,050	*	*
Anaverde Creek	At California Aqueduct	8.3	*	*	*	2,440	*	*
Anaverde Creek	3,000 feet East of 165th Street East and 4,000 feet South of Pearblossom Highway	7.3	500	*	1,700	2,300	*	4,700
Anaverde Creek	West of 136th Street East at Avenue W-8	2.4	440	*	1,500	1,900	*	3,900
Anaverde Creek	165th Street East Approximately 4,000 feet South of Pearblossom Highway	1.0	370	*	1,300	1,600	*	3,100
Anaverde Creek Tributary	Division Street between Avenue P and Avenue P-8	1.4	300	*	1,100	1,600	*	3,000
Avalon Canyon	At Cross Section A	3.7	859	*	1,895	2,419	*	3,785
Avalon Canyon	At Cross Section G	1.8	440	*	971	1,239	*	1,938
Ballona Creek Channel	At intersection of Adams Boulevard and Genesee Avenue	16.7	2,100	*	4,700	6,000	*	9,400
Bel Air Estates Shallow Flooding	Beverly Glen Boulevard North of Sunset Boulevard	1.2	700	*	1,000	1,200	*	1,600
Bel Air Estates Shallow Flooding	Stone Canyon Road South of Bellagio Road	1.0	630	*	940	1,100	*	1,400

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Bel Air Estates Shallow Flooding	Stone Canyon Road South of Somma Way	0.7	480	*	710	800	*	1,100
Big Rock Wash	At mouth, Southwest	23.0	*	*	*	15,000	*	*
Big Tujunga Canyon	Upstream of Wheatland Avenue	43.3	9,300	*	26,800	38,900	*	66,000
Big Tujunga Canyon	Approximately 1,200 feet Upstream of Foothill Boulevard and Tujuna Valley Street	34.6	8,100	*	24,700	36,500	*	62,600
Bouquet Canyon Creek	At confluence with Santa Clara River	72.2	3,470	*	10,600	15,700	*	34,820
Bouquet Canyon Creek	Approximately 700 feet downstream of Bouquet Canyon Road	60.6	2,750	*	8,400	12,440	*	27,590
Bouquet Canyon Creek	Upstream of confluence with Haskell Canyon	50.9	2,060	*	6,300	9,340	*	20,720
Bouquet Canyon Creek	Approximately 1,000 feet downstream of Benz Road	46.3	1,880	*	5,740	8,510	*	18,880
Bouquet Canyon Creek	Approximately 500 feet upstream of Bouquet Canyon Road	45.2	1,820	*	5,570	8,250	*	18,300
Bouquet Canyon Creek	Upstream of confluence of Vasquez Canyon	35.4	1,700	*	5,180	7,680	*	17,030
Bouquet Canyon Creek	Upstream of confluence of Texas Canyon Creek	24.4	920	*	4,180	9,270	*	9,270
Bouquet Canyon Creek	Approximately 1.7 miles upstream of confluence of Texas Canyon Creek	*	860	*	3,870	8,580	*	8,580

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Brentwood Shallow Flooding	Northeast of Sunset Boulevard and Barrington Avenue	0.2	230	*	340	390	*	520
Brentwood Shallow Flooding	North of San Vicente Boulevard, West of Westgate Avenue	0.2	60	*	140	180	*	280
Castaic Creek	At Santa Clara River Confluence (Pump Capacity)	203	17,950	*	33,490	41,260	*	58,270
Castaic Creek	At confluence with Santa Clara River	*	3,220	6,330	9,830	14,560	*	32,290
Castaic Creek	At Golden State Freeway	*	3,200	6,300	9,770	14,480	*	32,120
Castaic Creek	Approximately 0.9 miles upstream of Golden State Freeway	*	3,120	6,150	9,540	14,130	*	31,340
Castaic Creek	At Castaic Road	*	2,610	5,150	7,990	11,830	*	26,240
Castaic Creek	Approximately 2,100 feet Upstream of Confluence with Charlie Canyon	16.8	*	*	*	11,805	*	22,326
Century City Shallow Flooding	Northwest of Santa Monica Boulevard and Avenue of the Stars	0.5	400	*	590	700	*	900
Chatsworth Shallow Flooding	Vicinity of Variel Avenue and Chatsworth Street	13.4	2,100	*	4,700	6,000	*	9,300
Chatsworth Shallow Flooding	Vicinity of Santa Susana Pass Road and Santa Susana Avenue	1.5	450	*	990	1,300	*	2,000
Chatsworth Shallow Flooding	Vicinity of Chatsworth Street and Corbin	0.9	220	*	480	610	*	960

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
	Avenue							
Chatsworth Shallow Flooding	Vicinity of Canoga Avenue and Devonshire Street	0.8	230	*	510	650	*	1,000
Chatsworth Shallow Flooding	Vicinity of Valley Circle Boulevard and Lassen Street	0.8	220	*	480	600	*	950
Chatsworth Shallow Flooding	Vicinity of Farrolone Avenue and Lassen Street	0.4	100	*	220	280	*	440
Chatsworth Shallow Flooding	Vicinity of Topanga Canyon Boulevard and Lassen Street	0.3	50	*	120	150	*	230
Chatsworth Shallow Flooding	Vicinity of Topanga Canyon Boulevard and Santa Susana Place	0.1	20	*	50	60	*	100
Chatsworth Shallow Flooding	Vicinity of Santa Susanna Pass Road and Santa Susanna Avenue	1.5	450	*	990	1,300	*	2,000
Cheseboro Creek	1,100 feet Upstream of Driver Avenue	7.6	2,169	*	4,779	6,088	*	9,551
Cold Creek	Cross Section A	8.1	2,280	*	5,019	6,406	*	10,023
Cold Creek	Cross Section C	7.8	2,280	*	5,041	6,432	*	10,066
Cold Creek	Cross Section G	5.7	1,734	*	3,826	4,881	*	7,640
Dark Canyon	Cross Section A	1.2	753	*	1,600	2,118	*	3,314
Dowd Canyon	At Calle Corona Extended	3.9	*	*	*	2,982	*	5,963
Dry Canyon	Approximately 2,000 feet Upstream of San Francisquito Road	5.5	*	*	*	5,235	*	10,470

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Dry Canyon	Cross Section C	1.1	527	*	1,104	1,484	*	2,323
Dry Canyon	Cross Section M	0.8	490	*	1,083	1,382	*	2,162
Dry Canyon	Cross Section T	0.4	242	*	534	681	*	1,065
Elsmere Canyon Creek	Approximately 358 feet east to Sierra Hwy	2.2	1,096	1,383	1,604	1,822		2,320
Elsmere Canyon Creek	Approximately 78 feet North to Wager Road	2.1	1,096	1,383	1,596	1,809		2,297
Elsmere Canyon Creek	Approximately 300 feet east to Elsmere Canyon Road	2.0	1,048	1,317	1,517	1,717		2,176
Elsmere CanyonCreek	Approximately 557 feet east to Elm Shore Canyon Mtwy	1.7	905	1,132	1,301	1,470		1,857
Elizabeth Canyon	Approximately 2,300 feet Downstream of Elizabeth Lake Pine Canyon Road	7.7	*	*	*	3,455	*	7,176
Escondido Canyon	At confluence with Acton Canyon Creek	13.0	530	*	1,610	2,390	*	5,300
Garapito Canyon	Cross Section A	2.9	996	*	2,171	2,807	*	4,392
Garapito Canyon	Cross Section E	2.0	675	*	1,470	1,910	*	2,974
Gorman Creek	Approximately 250 feet North of Interstate Highway 5 Overcrossing Gorman Road	3.8	*	*	*	1,713	*	3,221
Granada Hills	Superior Street, West of Paso Robles Avenue	0.5	90	*	200	260	*	400
Granada Hills	Vicinity of Balboa Boulevard and Citronia Street	0.5	90	*	200	260	*	400

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Hacienda Creek	Cross Section A	1.5	626	*	1,381	1,762	*	2,758
Hancock Park Shallow Flooding	Vicinity of Highland Avenue and St. Elmo Drive	20.2	3,600	*	7,700	9,300	*	13,700
Hancock Park Shallow Flooding	Vicinity of San Vicente and Pico Boulevards	18.9	3,500	*	7,400	9,000	*	13,100
Hancock Park Shallow Flooding	Vicinity of West Boulevard and Dockweiler Street	18.8	3,600	*	7,600	9,300	*	13,600
Hancock Park Shallow Flooding	Vicinity of Bronson Avenue and Country Club Drive	18.1	3,700	*	7,900	9,600	*	14,000
Hancock Park Shallow Flooding	Sixth Street, Vicinity of Alexandria Avenue	8.1	2,100	*	4,600	5,900	*	9,200
Hancock Park Shallow Flooding	Chesapeake Avenue, Vicinity of Exposition Boulevard	8.0	1,100	*	2,400	3,000	*	3,700
Hancock Park Shallow Flooding	Vicinity of Western Avenue and 11th Street	3.5	670	*	1,300	1,600	*	2,500
Hancock Park Shallow Flooding	Victoria Avenue, Vicinity of Jefferson Boulevard	1.2	320	*	1,100	1,400	*	2,600
Hancock Park Shallow Flooding	Arlington Avenue, Vicinity of 37th Place	0.7	440	*	990	1,400	*	2,500
Hancock Park Shallow Flooding	Olympic Boulevard at Hudson Avenue	0.6	130	*	290	370	*	570
Hancock Park Shallow Flooding	Harcourt Avenue, Vicinity of Westhaven Street	0.5	160	*	350	450	*	700
Hancock Park Shallow Flooding	Lucerne Boulevard at Francis Avenue	0.3	70	*	160	200	*	320

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Harbor Area Shallow Flooding	North of Carson Street Between Vermont and Berendo Avenues	0.4	74	*	164	209	*	327
Harbor District Shallow Flooding	Harbor Lake, Southeast of Vermont Avenue and Pacific Coast Highway	19.0	3,200	*	7,000	8,900	*	14,000
Harbor District Shallow Flooding	Denker Avenue, Vicinity of 204th Street	0.3	60	*	130	170	*	260
Haskell Canyon	At confluence with Bouquet Canyon Creek	9.8	730	*	2,240	3,320	*	7,360
Hasley Canyon Creek	Approximately 1,150 feet Downstream of Halsey Canyon Road	7.3	*	*	*	5,544	*	10,163
Hasley Canyon Creek	Approximately 550 feet Downstream of Romero Canyon Road	5.9	*	*	*	4,523	*	8,292
Hasley Canyon Creek	Approximately 600 feet downstream of Romero Canyon Road	*	220	*	680	1,006	*	2,230
Hasley Canyon Creek	Approximately 0.2 miles downstream of Hasley Canyon Road	*	330	*	1,010	1,503	*	3,330
Hasley Canyon Creek	At confluence with Castaic Creek	*	360	*	1,110	1,640	*	3,640
Hollywood Shallow Flooding	Third Street at Kenmore Avenue	3.4	800	*	1,800	2,300	*	3,500
Hollywood Shallow Flooding	South of Hollywood Freeway, Vicinity of Kenmore Avenue	3.2	830	*	1,800	2,300	*	3,700

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Hollywood Shallow Flooding	Santa Monica Boulevard, Vicinity of Mariposa Avenue	2.8	940	*	2,100	2,700	*	4,200
Hollywood Shallow Flooding	Madison Avenue at Monroe Street	0.5	160	*	350	440	*	690
Hyde Park Shallow Flooding	South of Southwest Drive, Vicinity of Van Ness Avenue	4.2	730	*	1,600	2,100	*	3,200
Hyde Park Shallow Flooding	Wilton Place, Vicinity of Gage Avenue	3.3	770	*	1,600	1,900	*	3,000
Hyde Park Shallow Flooding	Halldale Avenue, Vicinity of 65th Street	1.2	300	*	660	850	*	1,300
Industry Area Shallow Flooding	Vicinity of Brea Canyon Road and Lycoming Street	3.9	952	*	2,102	2,682	*	4,197
Iron Canyon	At confluence with Sand Canyon Creek	2.7	210	*	640	950	*	2,110
Iron Canyon	At North Iron Canyon Road	*	160	*	500	740	*	1,640
Kagel Canyon	Cross Section A	2.0	490	*	1,081	1,380	*	2,159
Kagel Canyon	Approximately 650 feet Upstream of Osborne Avenue	2.0	490	*	1,100	1,400	*	12,200
Kentucky Springs Canyon Creek	At confluence with Soledad Canyon	*	220	*	670	990	*	2,200
La Mirada Area	Mystic Street, Vicinity of Parkinson Avenue	0.3	81	*	179	228	*	357
La Mirada Creek	Approximately 1100 feet Downstream of La Mirada Boulevard	5.0	610	*	1,350	1,720	*	2,690
La Mirada Creek	At Ocaso Avenue	4.6	610	*	1,340	1,700	*	2,670

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Ladera Heights Area Shallow Flooding	Vicinity of La Cienega Boulevard and Slauson Avenue	0.5	138	*	305	389	*	609
Las Flores Canyon	Cross Section F	4.1	1,758	*	3,882	4,954	*	7,752
Las Virgenes Creek	Approximately 1,500 feet downstream of the confluence of Stokes Canyon	24.3	9,230	11,913	13,678	15,521	*	18,704
Las Virgenes Creek	Downstream of the confluence of Stokes Canyon	24.3	9,228	11,909	13,673	15,515	*	18,811
Las Virgenes Creek	Upstream of the confluence of Stokes Canyon	19.7	9,193	12,066	13,766	15,646	*	19,340
Las Virgenes Creek	At Mulholland Highway	19.1	6,873	9,014	10,346	11,929	*	14,853
Las Virgenes Creek	Upstream of the confluence of Liberty Canyon	16.6	6,871	9,025	10,348	11,935	*	15,210
Las Virgenes Creek	Approximately 1,500 feet upstream of the confluence of Liberty Canyon	16.5	5,862	7,440	8,799	10,069	*	12,755
Las Virgenes Creek	Approximately 4,000 feet upstream of the confluence of Liberty Canyon	16.2	5,783	7,350	8,676	9,913	*	12,554
Las Virgenes Creek	Approximately 1,800 feet downstream of Lost Hills Road	15.0	5,414	6,923	8,112	9,246	*	11,714
Las Virgenes Creek	At Lost Hills Road	15.0	5,420	6,932	8,133	9,281	*	11,764
Las Virgenes Creek	At Meadow Creek Lane	14.9	5,414	6,923	8,124	9,269	*	11,751

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Las Virgenes Creek	Approximately 1600 feet upstream of Meadow Creek Lane	13.3	4,860	6,190	7,211	8,197	*	10,356
Las Virgenes Creek	Just downstream of Agola Road	12.7	4,783	6,091	7,040	8,005	*	10,076
Las Virgenes Creek	Just downstream of US Highway 101	10.4	3,830	4,875	5,644	6,419	*	8,137
Las Virgenes Creek	Just downstream of Las Virgenes Road	10.2	3,787	4,818	5,577	6,340	*	8,044
Liberty Canyon	Cross Section E	1.4	938	*	2,072	2,645	*	4,140
Lindero Canyon	Cross Section C	6.7	1,725	*	3,809	4,860	*	7,604
Lindero Canyon	Approximately 700 feet Downstream of Thousand Oaks Boulevard	4.1	1,369	*	3,024	3,858	*	6,037
Lindero Canyon	Cross Section H	3.8	1,343	*	2,965	3,783	*	5,920
Lindero Canyon	At Reyes Adobe Road	3.4	1,290	*	2,847	3,632	*	5,685
Lindero Canyon	Cross Section N	3.1	1,258	*	2,776	3,542	*	5,545
Lion Canyon	At confluence with Santa Clara River	*	50	*	140	210	*	470
Little Rock Wash	At Little Rock Reservoir	48.0	*	*	*	20,000	*	*
Little Tujunga Wash	Approximately 1,600 feet Upstream of Foothill Boulevard	20.3	2,700	*	6,000	7,700	*	12,200
Little Tujunga Wash	Approximately 3,000 feet Upstream of the City of Los Angeles Corporate Limits	17.9	2,273	*	5,019	6,405	*	10,022
Lobo Canyon	Cross Section B	3.8	1,572	*	3,473	4,429	*	6,932
Lobo Canyon	Cross Section C	2.5	1,625	*	3,588	4,579	*	7,166

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Lockheed Drain Channel	Approximately 100 feet Downstream of Burbank Boulevard	3.7	*	*	*	2,910	*	*
Lockheed Drain Channel	Approximately 300 feet Downstream of Victory Place	2.5	*	*	*	2,410	*	*
Lockheed Drain Channel	Approximately 100 feet Downstream of Naomi Street	1.9	*	*	*	2,026	*	*
Lockheed Drain Channel	At Ontario Street	1.8	*	*	*	2,054	*	*
Lockheed Drain Channel	Approximately 300 feet Upstream of Lima Street	1.4	*	*	*	1,635	*	*
Lockheed Drain Channel	Approximately 150 feet Downstream of Hollywood Way	0.9	*	*	*	965	*	*
Lockheed Drain Channel	Approximately 450 feet Upstream of Clybourn Avenue	0.4	278	*	*	448	*	*
Long Canyon	Approximately 1.4 miles upstream of confluence with Santa Clara River	*	60	*	180	260	*	580
Long Canyon	At confluence with Santa Clara River	*	40	*	110	170	*	380
Lopez Canyon Channel	Cross Section A	1.8	682	*	1,506	1,922	*	3,007
Los Angeles River	At Compton Creek	808	92,900	*	133,000	142,000	*	143,000
Los Angeles River	At Imperial Highway	752	89,400	*	126,000	140,000	*	156,000
Malibu Creek	Cross Section A	110	14,183	*	31,648	40,544	*	63,934
Malibu Lake	Malibu Lake	64.6	11,859	*	26,556	34,043	*	53,712
Medea Creek	Cross Section B	24.6	5,794	*	12,788	16,319	*	25,537

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Medea Creek	Cross Section H	23.0	6,174	*	13,628	17,389	*	25,537
Medea Creek	Cross Section K	22.2	6,363	*	14,074	17,925	*	28,049
Medea Creek	Cross Section P	6.3	2,558	*	5,647	7,204	*	11,272
Medea Creek	Downstream of Ventura Highway	6.3	2,560	*	2,645	7,200	*	11,270
Medea Creek	Approximately 950 feet Upstream of Canwood Street	1	*	*	*	6,720	*	*
Medea Creek	Approximately 1,100 feet Upstream of Kanan Road	1	*	*	*	5,960	*	*
Medea Creek	At Thousand Oaks Boulevard	1	*	*	*	5,946	*	*
Medea Creek	Approximately 1,700 feet Downstream of Laro Drive	4.1	*	*	*	5,320	*	*
Medea Creek	Approximately 575 feet Downstream of Fountainwood Street	3.9	*	*	*	5,240	*	*
Medea Creek	Just Upstream of Fountainwood Street	3.4	*	*	*	4,700	*	*
Mill Creek	Cross Section B	14.8	2,274	*	5,019	6,405	*	10,024
Mint Canyon Creek	At confluence with Santa Clara River	29.4	1,786	*	4,489	5,856	*	8,367
Mint Canyon Creek	Approximately 2700 feet downstream of Fitch Avenue	1	1,787	*	4,471	5,814	*	8,253
Mint Canyon Creek	Approximately 600 feet upstream of Vasquez Canyon Road	1	1,769	*	4,134	5,283	*	7,359

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Mint Canyon Creek	Approximately 1300 feet downstream of Sierra Highway crossing 4	1	1,717	*	3,958	4,994	*	6,897
Mint Canyon Creek	Upstream of Sierra Highway crossing 5	1	1,222	*	2,767	3,433	*	4,656
Mint Canyon Creek	Upstream of confluence of Spade Spring Canyon Creek	1	685	*	1,494	1,834	*	2,461
Newhall Creek	Confluence with South Fork Santa Clara River	17.2	3,610	*	6,890	8,240	*	10,990
Newhall Creek	Upstream of confluence of Placerita Creek	7.3	2,430	*	4,020	4,640	*	6,020
Newhall Creek	Upstream of confluence with Railroad Canyon Creek Left Overbank	6.2	2,007	*	3,290	3,792	*	4,894
Newhall Creek	Upstream of confluence with Railroad Canyon Creek	5.2	1,920	*	3,150	3,630	*	4,680
Newhall Creek	Intersection of Sierra Hwy and Newhall Ave	3.1	1,096	1,383	1,604	1,822	*	2,320
Newhall Creek	Intersection of Molokai Road with Newhall Creek	5.2	1,398	1,789	2,086	2,380	*	3,051
Oak Springs Canyon	Approximately 100 feet Upstream of Union Pacific Railroad (former Southern Pacific Railroad)	5.7	*	*	*	2,703	*	4,054
Oak Springs Canyon	At confluence with Santa Clara River	*	250	*	770	1,140	*	2,530

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Oak Springs Canyon	At intersection of Sixth Street and Quincy Avenue	1.0	271	*	598	763	*	1,194
Old Topanga Canyon	Cross Section E	1.7	567	*	1,253	1,597	*	2,499
Old Topanga Canyon	Cross Section H	0.8	251	*	554	706	*	1,104
Overland Flow	Marquardt Avenue, 1400 feet North of Rosecrans Avenue	2.1	411	*	907	1,158	*	1,812
Overland Flow	North of Florence Avenue and East of Pioneer Boulevard	1.3	270	*	596	760	*	1,190
Overland Flow	North of Lakeland Road, 1000 feet East of Bloomfield Avenue	0.4	68	*	151	192	*	301
Palo Comado Creek	Cross Section E	4.1	1,159	*	2,562	3,268	*	5,113
Palo Comado Creek	At Fairview Place	3.5	1,074	*	2,374	3,028	*	4,738
Palo Comado Creek	Cross Section K	3.2	1,032	*	2,279	2,908	*	4,551
Park La Brea Shallow Flooding	Vicinity of Orange Drive and Pickford Street	24.7	4,400	*	9,500	11,800	*	17,700
Park La Brea Shallow Flooding	Venice Boulevard, Vicinity of Fairfax Avenue	18.4	3,400	*	7,500	9,500	*	14,900
Park La Brea Shallow Flooding	Vicinity of Whitworth Drive and La Cienega Boulevard	17.1	3,400	*	7,600	9,700	*	15,200
Park La Brea Shallow Flooding	Fairfax Avenue, Vicinity of La Cienga Boulevard	16.7	2,100	*	4,700	6,000	*	9,600
Park La Brea Shallow Flooding	Houser Boulevard, Vicinity of La Cienega Boulevard	14.8	1,900	*	4,300	5,500	*	8,800

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Park La Brea Shallow Flooding	Redondo Boulevard, Vicinity of Roseland Street	14.5	2,000	*	4,400	5,700	*	9,100
Park La Brea Shallow Flooding	Wilshire Boulevard, Vicinity of Crescent Heights Avenue	6.6	1,500	*	3,300	4,200	*	6,600
Park La Brea Shallow Flooding	Redondo Boulevard, Vicinity of Santa Monica Freeway	1.2	300	*	670	860	*	1,300
Pico Canyon	At Stevenson Ranch Parkway	*	230	*	700	1,040	*	2,310
Pico Canyon	At Golden State Freeway	*	390	*	1,190	1,770	*	3,930
Pico Canyon (South Fork Santa Clara River Trib)	At Tournament Road	*	420	*	1,290	1,910	*	4,240
Pine Canyon	Approximately 1,200 feet Upstream of Lake Hughes Road	6.4	*	*	*	2,969	*	6,166
Placerita Creek	At confluence with Newhall Creek	*	2,061	*	3,494	4,106	*	5,508
Placerita Creek	Approximately 0.2 miles upstream of Los Angeles Aqueduct	*	1,870	*	3,156	3,694	*	4,961
Placerita Creek	Approximately 0.8 miles upstream of Antelope Valley Freeway	*	1,601	*	2,706	3,179	*	4,279
Placerita Creek	At Placerita Canyon Road	*	1,464	*	2,457	2,880	*	3,868
Plum Canyon	Approximately 2,350 feet Upstream of Bouquet Canyon Road	3.4	*	*	*	1,942	*	3,453

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Plum Canyon	At confluence with Bouquet Canyon	*	240	*	730	1,080	*	2,400
Ponding	At Intersection of Mines Avenue and Taylor Avenue	0.5	120	*	250	330	*	510
Portal Ridge Wash	Intersection of Avenue H and Antelope Valley Freeway	147	1,600	*	5,000	7,200	*	16,000
Porter Ranch	Mayerling Street, Northwest of Shoshone Avenue	0.2	40	*	100	120	*	190
Porter Ranch	Vicinity of Sesnon Boulevard	0.1	30	*	60	70	*	120
Potrero Canyon	At confluence with Santa Clara River	*	430	*	1,300	1,930	*	4,280
Potrero Canyon	Approximately 1.25 miles upstream of confluence with Santa Clara River	*	360	*	1,090	1,620	*	3,590
Potrero Canyon	Approximately 0.8 miles downstream of Pico Canyon Road	*	80	*	260	380	*	840
Quigley Canyon Creek	At confluence with Placerita Creek	*	340	*	919	1,162	*	1,789
Quigley Canyon Creek	At Meadview Avenue	*	340	*	781	994	*	1,542
Quigley Canyon Creek	Approximately 350 feet upstream of Meadview Avenue	*	340	*	723	920	*	1,429
Quigley Canyon Creek	120 feet downstream of Quigley Canyon Road	*	340	*	675	847	*	1,253
Quigley Canyon Creek	120 feet upstream of Quigley Canyon Road	*	340	*	643	786	*	1,122

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Quigley Canyon Creek	180 feet downstream of Fino Mountainway	*	298	*	570	695	*	993
Quigley Canyon Creek	At Fino Mountainway	*	191	*	378	467	*	675
Quigley Canyon Creek	Approximately 0.4 miles downstream of Los Angeles Aqueduct	*	165	*	329	405	*	587
Railroad Canyon	At confluence with Newhall Creek	1.4	540	*	870	1,010	*	1,330
Ramirez Canyon	Cross Section B	3.3	1,066	*	2,352	3,000	*	4,696
Ramirez Canyon	Cross Section I	2.8	1,150	*	2,540	3,240	*	5,070
Rio Hondo	At Stewart and Gray Road	132	35,600	*	41,000	39,300	*	40,200
Rio Hondo	At Beverly Boulevard	113	33,800	*	37,500	38,000	*	38,400
Rio Hondo	At Outflow from Whittier Narrows Dam	110	33,500	*	36,500	36,500	*	36,500
Rustic Canyon	Approximately 1,030 feet Downstream (South) of Sunset Boulevard	5.7	700	*	1,500	2,000	*	3,100
San Fernando Pacoima Wash	Approximately 150 feet Downstream of Shablow Avenue	31.1	1,900	*	5,600	8,100	*	12,100
San Francisquito Canyon Creek	At confluence with Santa Clara River	49.1	3,170	*	9,690	14,360	*	31,850
San Gabriel River	Whittier Narrows Flood Control Basin At Siphon Road	524	*	*	*	90,000	*	*
San Martinez Chiquito Canyon	Approximately 1,000 feet Upstream of Chiquito Canyon Road (Lower Crossing)	4.7	*	*	*	4,659	*	8,607

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
San Martinez Chiquito Canyon	Approximately 400 feet Upstream of Chiquito Canyon Road (Upper Crossing)	3.1	*	*	*	3,112	*	5,705
San Martinez Chiquito Canyon	Approximately 250 feet Downstream of Verdale Street	1.1	*	*	*	1,205	*	2,208
San Martinez Chiquito Canyon	At confluence with Santa Clara River	*	200	*	610	901	*	2,000
San Martinez Chiquito Canyon	Approximately 0.2 miles upstream of Chiquito Canyon Road	*	190	*	570	838	*	1,860
San Martinez Chiquito Canyon	At Chiquito Canyon Road	*	150	*	460	681	*	1,510
San Martinez Chiquito Canyon	At Kenningston Road	*	110	*	330	491	*	1,090
San Martinez Grande Canyon Creek	At confluence with Santa Clara River	*	200	*	600	895	*	1,990
Sand Canyon Creek	At confluence with Santa Clara River	12.7	1,210	*	3,700	5,480	*	12,150
Sand Canyon Creek	At Alamo Canyon Road	*	1,100	*	3,350	4,965	*	11,010
Sand Canyon Creek	Approximately 700 feet downstream of Valley Ranch Road	1	1,244	*	2,795	3,477	*	4,796
Sand Canyon Creek	Upstream of confluence of Iron Canyon	7.5	650	*	1,980	2,930	*	6,500
Sand Canyon Creek	Approximately 2700 feet downstream of Placerita Canyon Road	1	917	*	1,912	2,345	*	3,178
Sand Canyon Creek	At Placerita Canyon Road	1	848	*	1,756	2,156	*	2,919

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Sand Canyon Creek	700 feet above 25975 Sand Canyon Road	1	644	*	1,295	1,591	*	2,152
Santa Clara River	At Los Angeles County/Ventura County Line	639	15,700	*	45,900	66,600	*	140,000
Santa Clara River	Upstream of confluence of Castaic Creek	420	13,270	*	35,910	50,380	*	78,320
Santa Clara River	Approximately 8000 feet upstream of confluence of Castaic Creek	418	13,250	*	35,860	50,270	*	78,040
Santa Clara River	Approximately 650 feet downstream of The Old Road	412	13,120	*	35,690	49,990	*	77,430
Santa Clara River	Upstream of confluence of San Francisquito Canyon Creek	357	9,790	*	28,790	41,560	*	65,810
Santa Clara River	Upstream of confluence of South Fork Santa Clara River	312	7,460	*	23,120	33,890	*	53,570
Santa Clara River	Upstream of confluence of Bouquet Canyon Creek	239	5,400	*	17,620	26,210	*	41,080
Santa Clara River	Approximately 4600 feet downstream of Soledad Canyon Road	233	5,290	*	17,390	25,910	*	40,550
Santa Clara River	Upstream of confluence of Mint Canyon Creek	195	4,140	*	14,320	21,690	*	33,990
Santa Clara River	At Sand Canyon Road	179	3,840	*	12,810	19,500	*	30,490

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Santa Clara River	Approximately 4800 feet downstream of Lang Station Road	171	3,770	*	12,370	18,730	*	29,130
Santa Clara River	Approximately 1600 feet upstream of Bootlegger Canyon Road	85.0	2,260	*	6,450	9,600	*	14,690
Santa Clara River	Approximately 500 feet upstream of confluence of Arraste Canyon Creek	76.3	1,550	*	4,780	7,440	*	11,760
Santa Clara River	Upstream of Confluence of Acton Canyon Creek	49.9	1,370	*	3,480	5,210	*	8,080
Santa Fe Springs Area Shallow Flooding	Vicinity of Rivera Road and Vicki Drive	0.4	80	*	176	225	*	352
Santa Maria Canyon	Cross Section C	3.1	1,070	*	2,333	3,016	*	4,719
Savage Creek	At Intersection of York Avenue and Mar Vista Street	0.9	260	*	570	730	*	1,150
Sepulveda Shallow Flooding	Haskell Avenue North of Union Pacific Railroad (former Southern Pacific Railroad)	1.0	230	*	500	640	*	1,000
Sepulveda Shallow Flooding	Roscoe Boulevard at Haskell Avenue	0.8	160	*	360	460	*	720
Shallow Flooding	At intersection of Ripley Avenue and Rindge Lane	1	61	*	135	172	*	270
Shallow Flooding	At Gould Avenue between Ford and Goodman Avenues	1	66	*	146	186	*	291

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Shallow Flooding	At intersection of Vincent Street and South Irena Avenue	1	68	*	149	190	*	298
Shallow Flooding	At intersection of Camino Real and South Juanita Avenue	10.0	50	*	111	141	*	221
Shallow Flooding	At intersection of Avenue H and Massena Avenue	5 ²	154	*	340	434	*	679
Sherman Oaks Shallow Flooding	Magnolia Boulevard at Haskell Avenue	1.2	360	*	800	1,000	*	1,600
Silver Lake Shallow Flooding	Myra Avenue, Vicinity of Del Mar Avenue	1.8	490	*	1,110	1,400	*	2,200
Silver Lake Shallow Flooding	Silver Lake Boulevard East of Virgil Avenue	1.3	420	*	900	1,100	*	1,800
Silver Lake Shallow Flooding	Between Hyperion Avenue and Griffith Park Boulevard, North of Fountain Avenue	0.9	290	*	650	830	*	1,300
Silver Lake Shallow Flooding	Griffith Park Boulevard at Tracy Street	0.6	220	*	490	620	*	970
Soledad Canyon	At Angeles Forest Highway	*	250	*	780	1,150	*	2,550
Soledad Canyon	Upstream of confluence of Kentucky Springs Canyon Creek	*	490	*	1,500	2,220	*	4,920
Soledad Canyon	At confluence with Aliso Canyon	*	710	*	2,170	3,210	*	7,120
South Fork Santa Clara River	Confluence with Santa Clara River	45.3	2,400	*	7,320	10,840	*	24,040
South Fork Santa Clara River	Upstream of confluence with	23.4	1,860	*	5,680	8,420	*	18,680

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
	Newhall Creek							
South Fork Santa Clara River	Upstream of confluence with South Fork Santa Clara River Tributary	14.1	1,190	*	3,650	5,400	*	11,980
South Fork Santa Clara River Tributary	Confluence with South Fork Santa Clara River	1	1,240	*	2,090	2,470	*	3,290
Spade Spring Canyon Creek	At confluence with Mint Canyon Creek	1	471	*	1,099	1,364	*	1,839
Spade Spring Canyon Creek	At boundary of Angeles National Forest	1	428	*	911	1,118	*	1,491
Stokes Canyon	Cross Section C	2.9	1,089	*	2,403	3,067	*	4,799
Stokes Canyon	Cross Section B	2.4	934	*	2,062	2,631	*	4,117
Surface Runoff	At Intersection of Garfield Avenue and Beverly Boulevard	2.9	820	*	1,810	2,310	*	3,610
Surface Runoff	Laurel Canyon Boulevard at Hollywood Boulevard	1.9	600	*	800	1,160	*	2,100
Surface Runoff	Happy Lane	1.7	640	*	1,400	1,800	*	2,800
Surface Runoff	Vicinity of Rosewood Avenue and Huntley Drive West Los Angeles and Central Districts	1.1	670	*	1,479	1,888	*	3,329
Sylmar	East Side of Golden State Freeway South of Sierra Highway	0.2	50	*	120	150	*	240
Texas Canyon Creek	At confluence with Bouquet Canyon Creek	*	780	1,530	2,380	3,520	*	7,810

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Tick Canyon	At confluence with Santa Clara River	*	380	*	1,150	1,710	*	3,790
Tick Canyon	Approximately 1000 feet upstream of Grandifloras Road	*	320	*	970	1,430	*	3,170
Topanga Canyon	Cross Section H	19.6	4,095	*	9,040	11,537	*	18,054
Topanga Canyon	Cross Section M	15.0	5,404	*	11,930	15,223	*	23,882
Topanga Canyon	Cross Section Q	14.5	5,208	*	11,499	14,672	*	22,960
Topanga Canyon	Cross Section T	7.3	2,560	*	5,656	7,215	*	11,289
Topanga Canyon	Cross Section V	7.0	2,364	*	5,222	6,601	*	10,422
Topanga Canyon	Cross Section X	5.5	1,862	*	4,113	5,247	*	8,210
Topanga Canyon	Cross Section AG	0.3	259	*	572	729	*	1,141
Towsley Canyon Creek	At confluence with South Fork Santa Clara River	*	630	1,230	1,910	2,830	*	6,280
Trancas Creek	Upstream of Pacific Coast Highway (Cross Section A)	8.6	2,499	*	5,518	7,040	*	11,106
Triunfo Creek	Cross Section B	28.7	4,781	*	11,396	14,898	*	24,298
Triunfo Creek	Cross Section E	28.3	4,846	*	11,544	15,090	*	24,606
Turnbull Canyon	At intersection of Painter Avenue and Camilla Street	1.0	250	*	540	690	*	1,080
Turnbull Canyon	Vicinity of Broadway and Alta Drive	1.0	250	*	540	690	*	1,080
Unknown	At the Intersection of Chestnut and Lake Streets	1.3	*	*	*	670	*	*

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Unknown	At the Intersection of Alameda Avenue and Main Street	1.2	*	*	*	750	*	*
Unknown	3,500 feet Northeast of the Intersection of Via Montana and Country Club Drive	0.7	*	*	*	600	*	*
Unnamed Canyon	Serra Retreat Area (Cross Section C)	0.4	281	*	619	791	*	1,237
Unnamed Stream Main Reach	At Pacific Ocean	1.2	353	*	724	917	*	1,400
Unnamed Stream Main Reach	Downstream of Confluence with Tributary 2	1.1	338	*	692	876	*	1,282
Unnamed Stream Main Reach	Upstream of Confluence with Tributary 2	0.7	229	*	462	580	*	865
Unnamed Stream Main Reach	Upstream of Confluence with Tributary 1	0.4	146	*	290	361	*	523
Unnamed Stream Tributary 1	At Confluence with Main Reach	0.2	97	*	191	236	*	381
Unnamed Stream Tributary 2	At Confluence with Main Reach	0.4	164	*	331	413	*	600
Unnamed Stream Tributary 2	At Via Zurita	0.4	144	*	290	361	*	525
Van Nuys	Victory Boulevard, Vicinity of Hayvenhurst Avenue	0.7	90	*	200	250	*	390
Vasquez Canyon	Approximately 1,373 feet Upstream of Vasquez Canyon Road	4.2	*	*	*	2,851	*	5,009
Vasquez Canyon	At confluence with Bouquet Canyon	*	310	*	960	1,420	*	3,150

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
	Creek							
Vasquez Canyon	At Lost Creek Road	*	250	*	760	1,120	*	2,480
Violin Canyon	Approximately 2,000 feet Downstream of Interstate Highway 5	10.5	*	*	*	9,421	*	17,818
Weldon Canyon	Approximately 1,570 feet Downstream of Sierra Highway and San Fernando Road	1.5	410	*	900	1,150	*	1,800
West Hollywood Shallow Flooding	Third Street, Vicinity of Fairfax Avenue	6.1	1,500	*	3,200	4,100	*	6,800
West Hollywood Shallow Flooding	Fifth Street, Vicinity of Orlando Avenue	5.7	1,600	*	3,600	4,500	*	7,100
West Hollywood Shallow Flooding	Third Street, Vicinity of La Cienga Boulevard	5.1	1,600	*	3,500	4,500	*	7,200
West Hollywood Shallow Flooding	Beverly Boulevard, Vicinity of Spaulding Avenue	4.0	730	*	1,600	2,100	*	2,900
West Hollywood Shallow Flooding	Genesse Avenue North of Hollywood Boulevard	1.0	370	*	820	1,000	*	1,600
West Hollywood Area Shallow Flooding	Vicinity of Pan Pacific Auditorium	4.0	730	*	1,600	3,600	*	4,500
West Hollywood Area Shallow Flooding	Vicinity of Rosemead Avenue and Huntley Drive	1.1	670	*	1,479	1,888	*	3,329
West Los Angeles Shallow Flooding	Between Westwood Boulevard and Overland Avenue, Vicinity of Exposition Boulevard	4.0	190	*	1,200	1,500	*	2,700

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
West Los Angeles Shallow Flooding	Manning Avenue, Vicinity of Tennessee Avenue	3.4	530	*	1,300	1,700	*	2,600
West Los Angeles Shallow Flooding	Balsam Avenue, Vicinity of Olympic Boulevard	1.2	290	*	550	660	*	940
West Los Angeles Shallow Flooding	Roundtree Road, Vicinity of Manning Avenue	0.7	500	*	740	840	*	1,100
Westchester Shallow Flooding	Arizona Avenue North of Arizona Circle	1.7	340	*	740	950	*	1,500
Westchester Shallow Flooding	Sepulveda Boulevard South of San Diego Freeway	1.4	310	*	690	880	*	1,400
Westlake Shallow Flooding	Vicinity of Wilshire Boulevard West of Hoover Street	1.4	360	*	790	1,000	*	1,600
Whitney Canyon Creek	At Sierr Highway	2.1	653	835	972	1,109	*	1,419
Whitney Canyon Creek	Intersect of Newhall Ave and Antelope Valley Fwy	2.0	646	827	962	1,098	*	1,404
Whitney Canyon Creek	Whitney Canyon Raod	2.0	645	823	957	1,091	*	1,396
Whitney Canyon Creek	0.38 miles east from Antelope Valley Fwy	1.9	630	802	931	1,060	*	1,357
Whitney Canyon Creek	0.53 miles east from Antelope Valley Fwy	1.8	629	800	928	1,055	*	1,346
Whittier Area Shallow Flooding	Vicinity of Turnbull Canyon Road	1.0	246	*	543	692	*	1,084
Whittier Narrows Flood Control Basin	Whittier Narrows Flood Control Basin	524	*	*	*	90,000	*	*

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Wildwood Canyon	Approximately 600 feet Upstream of Intersection of Valley Street and Maple Street	0.2	*	*	*	172	*	279
Winsor Hills Area	Vicinity of La Brea and Slauson Avenues	0.3	67	*	147	188	*	294
Woodland Hills	Vicinity of Mulholland Drive and Ventura Freeway	2.3	490	*	1,100	1,400	*	2,200
Woodland Hills	Vicinity of Saltillo Street and Canoga Avenue	0.3	100	*	250	300	*	500
Zuma Canyon	Cross Section A	8.9	2,024	*	4,469	5,705	*	8,925
Zuma Canyon	Cross Section W	8.4	2,079	*	4,590	5,858	*	9,167

¹ Data not available

² Pump capacity

* Not calculated for this Flood Risk Project

Figure 7 for selected flooding sources. A summary of stillwater elevations developed for non-coastal flooding sources is provided in Table 11. (Coastal stillwater elevations are discussed in Section 5.3 and shown in Table 17.) Stream gage information is provided in Table 12.

Table 10: Summary of Discharges

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Acton Canyon	At confluence with Santa Clara River	20.9	900	*	2,750	4,080	*	9,050
Acton Canyon	Upstream of confluence with Escondido Canyon Creek	7.5	370	*	1,130	1,670	*	3,700
Agua Dulce Canyon Creek	At confluence with Santa Clara River	29.5	670	*	2,030	3,010	*	6,680
Agua Dulce Canyon Creek	At Sierra Highway	15.6	390	*	1,190	1,770	*	3,930
Agua Dulce Canyon Creek	At Agua Dulce Canyon Road	*	650	*	1,970	2,920	*	6,480
Aliso Canyon Creek	Approximately 0.9 miles upstream of Aliso Canyon Road	*	930	*	2,840	4,210	*	9,340
Aliso Canyon Creek	At Aliso Canyon Road	*	940	*	2,880	4,270	*	9,470
Aliso Canyon Creek	At confluence with Santa Clara River	*	1,030	*	3,160	4,680	*	10,380
Amargosa Creek	East of Antelope Valley Freeway North of Avenue H	206	3,000	*	9,000	13,000	*	30,000
Amargosa Creek	West of Antelope Valley Freeway North of Avenue H	147	2,000	*	5,600	8,400	*	18,000
Amargosa Creek	Approximately Midway between 20th Street West and 10th Street West	32.7	1,800	*	3,300	5,000	*	10,100
Amargosa Creek	At 10th Street West	32.0	*	*	*	2,364	*	*

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Amargosa Creek	At 25th Street West Bridge	30.0	*	*	*	2,341	*	*
Amargosa Creek	At Elizabeth Lake Ford Crossing	28.6	*	*	*	2,288	*	*
Amargosa Creek	At Vineyard Ranch	26.5	*	*	*	2,063	*	*
Amargosa Creek	At Outlet of Ritter Ranch Detention Pond	23.8	*	*	*	1,856	*	*
Amargosa Creek	At 90th Street West	6.9	580	*	2,000	3,100	*	4,500
Amargosa Creek Tributary	Intersection of Avenue I and Spearman Avenue	7.2	310	*	900	1,220	*	2,400
Amargosa Creek Tributary	Intersection of Avenue L and 3rd Street East	2.4	150	*	420	560	*	1,000
Amargosa Creek Tributary	Avenue M and Valleyline Drive	1.8	120	*	340	460	*	850
Anaverde Creek	Acton Canyon Road, Escondido Canyon Road, and Crown Valley Road	20.3	*	*	*	3,421	*	6,052
Anaverde Creek	West of Sierra Highway at Avenue P-8	19.0	700	*	2,100	3,100	*	6,600
Anaverde Creek	At Antelope Freeway	16.4	*	*	*	3,730	*	*
Anaverde Creek	East of Antelope Valley Freeway	16.0	700	*	2,100	3,000	*	6,400
Anaverde Creek	1.85 Miles Downstream of California Aqueduct	15.7	*	*	*	3,630	*	*
Anaverde Creek	1.47 miles Downstream of California Aqueduct	12.8	*	*	*	3,200	*	*
Anaverde Creek	0.75 miles Downstream of	11.8	*	*	*	3,050	*	*

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
	California Aqueduct							
Anaverde Creek	At California Aqueduct	8.3	*	*	*	2,440	*	*
Anaverde Creek	3,000 feet East of 165th Street East and 4,000 feet South of Pearblossom Highway	7.3	500	*	1,700	2,300	*	4,700
Anaverde Creek	West of 136th Street East at Avenue W-8	2.4	440	*	1,500	1,900	*	3,900
Anaverde Creek	165th Street East Approximately 4,000 feet South of Pearblossom Highway	1.0	370	*	1,300	1,600	*	3,100
Anaverde Creek Tributary	Division Street between Avenue P and Avenue P-8	1.4	300	*	1,100	1,600	*	3,000
Avalon Canyon	At Cross Section A	3.7	859	*	1,895	2,419	*	3,785
Avalon Canyon	At Cross Section G	1.8	440	*	971	1,239	*	1,938
Ballona Creek Channel	At intersection of Adams Boulevard and Genesee Avenue	16.7	2,100	*	4,700	6,000	*	9,400
Bel Air Estates Shallow Flooding	Beverly Glen Boulevard North of Sunset Boulevard	1.2	700	*	1,000	1,200	*	1,600
Bel Air Estates Shallow Flooding	Stone Canyon Road South of Bellagio Road	1.0	630	*	940	1,100	*	1,400
Bel Air Estates Shallow Flooding	Stone Canyon Road South of Somma Way	0.7	480	*	710	800	*	1,100
Big Rock Wash	At mouth, Southwest	23.0	*	*	*	15,000	*	*
Big Tujunga Canyon	Upstream of Wheatland Avenue	43.3	9,300	*	26,800	38,900	*	66,000

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Big Tujunga Canyon	Approximately 1,200 feet Upstream of Foothill Boulevard and Tujuna Valley Street	34.6	8,100	*	24,700	36,500	*	62,600
Bouquet Canyon Creek	At confluence with Santa Clara River	72.2	3,470	*	10,600	15,700	*	34,820
Bouquet Canyon Creek	Approximately 700 feet downstream of Bouquet Canyon Road	60.6	2,750	*	8,400	12,440	*	27,590
Bouquet Canyon Creek	Upstream of confluence with Haskell Canyon	50.9	2,060	*	6,300	9,340	*	20,720
Bouquet Canyon Creek	Approximately 1,000 feet downstream of Benz Road	46.3	1,880	*	5,740	8,510	*	18,880
Bouquet Canyon Creek	Approximately 500 feet upstream of Bouquet Canyon Road	45.2	1,820	*	5,570	8,250	*	18,300
Bouquet Canyon Creek	Upstream of confluence of Vasquez Canyon	35.4	1,700	*	5,180	7,680	*	17,030
Bouquet Canyon Creek	Upstream of confluence of Texas Canyon Creek	24.4	920	*	4,180	9,270	*	9,270
Bouquet Canyon Creek	Approximately 1.7 miles upstream of confluence of Texas Canyon Creek	*	860	*	3,870	8,580	*	8,580
Brentwood Shallow Flooding	Northeast of Sunset Boulevard and Barrington Avenue	0.2	230	*	340	390	*	520
Brentwood Shallow Flooding	North of San Vicente Boulevard, West of Westgate Avenue	0.2	60	*	140	180	*	280

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Castaic Creek	At Santa Clara River Confluence (Pump Capacity)	203	17,950	*	33,490	41,260	*	58,270
Castaic Creek	At confluence with Santa Clara River	*	3,220	6,330	9,830	14,560	*	32,290
Castaic Creek	At Golden State Freeway	*	3,200	6,300	9,770	14,480	*	32,120
Castaic Creek	Approximately 0.9 miles upstream of Golden State Freeway	*	3,120	6,150	9,540	14,130	*	31,340
Castaic Creek	At Castaic Road	*	2,610	5,150	7,990	11,830	*	26,240
Castaic Creek	Approximately 2,100 feet Upstream of Confluence with Charlie Canyon	16.8	*	*	*	11,805	*	22,326
Century City Shallow Flooding	Northwest of Santa Monica Boulevard and Avenue of the Stars	0.5	400	*	590	700	*	900
Chatsworth Shallow Flooding	Vicinity of Variel Avenue and Chatsworth Street	13.4	2,100	*	4,700	6,000	*	9,300
Chatsworth Shallow Flooding	Vicinity of Santa Susana Pass Road and Santa Susana Avenue	1.5	450	*	990	1,300	*	2,000
Chatsworth Shallow Flooding	Vicinity of Chatsworth Street and Corbin Avenue	0.9	220	*	480	610	*	960
Chatsworth Shallow Flooding	Vicinity of Canoga Avenue and Devonshire Street	0.8	230	*	510	650	*	1,000
Chatsworth Shallow Flooding	Vicinity of Valley Circle Boulevard and Lassen Street	0.8	220	*	480	600	*	950

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Chatsworth Shallow Flooding	Vicinity of Farrolone Avenue and Lassen Street	0.4	100	*	220	280	*	440
Chatsworth Shallow Flooding	Vicinity of Topanga Canyon Boulevard and Lassen Street	0.3	50	*	120	150	*	230
Chatsworth Shallow Flooding	Vicinity of Topanga Canyon Boulevard and Santa Susana Place	0.1	20	*	50	60	*	100
Chatsworth Shallow Flooding	Vicinity of Santa Susanna Pass Road and Santa Susanna Avenue	1.5	450	*	990	1,300	*	2,000
Cheseboro Creek	1,100 feet Upstream of Driver Avenue	7.6	2,169	*	4,779	6,088	*	9,551
Cold Creek	Cross Section A	8.1	2,280	*	5,019	6,406	*	10,023
Cold Creek	Cross Section C	7.8	2,280	*	5,041	6,432	*	10,066
Cold Creek	Cross Section G	5.7	1,734	*	3,826	4,881	*	7,640
Dark Canyon	Cross Section A	1.2	753	*	1,600	2,118	*	3,314
Dowd Canyon	At Calle Corona Extended	3.9	*	*	*	2,982	*	5,963
Dry Canyon	Approximately 2,000 feet Upstream of San Francisquito Road	5.5	*	*	*	5,235	*	10,470
Dry Canyon	Cross Section C	1.1	527	*	1,104	1,484	*	2,323
Dry Canyon	Cross Section M	0.8	490	*	1,083	1,382	*	2,162
Dry Canyon	Cross Section T	0.4	242	*	534	681	*	1,065
Elsmere Canyon Creek	Approximately 358 feet east to Sierra Hwy	2.2	1,096	1,383	1,604	1,822		2,320
Elsmere Canyon Creek	Approximately 78 feet North to Wager Road	2.1	1,096	1,383	1,596	1,809		2,297

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Elsmere Canyon Creek	Approximately 300 feet east to Elsmere Canyon Road	2.0	1,048	1,317	1,517	1,717		2,176
Elsmere CanyonCreek	Approximately 557 feet east to Elm Shore Canyon Mtwy	1.7	905	1,132	1,301	1,470		1,857
Elizabeth Canyon	Approximately 2,300 feet Downstream of Elizabeth Lake Pine Canyon Road	7.7	*	*	*	3,455	*	7,176
Escondido Canyon	At confluence with Acton Canyon Creek	13.0	530	*	1,610	2,390	*	5,300
Garapito Canyon	Cross Section A	2.9	996	*	2,171	2,807	*	4,392
Garapito Canyon	Cross Section E	2.0	675	*	1,470	1,910	*	2,974
Gorman Creek	Approximately 250 feet North of Interstate Highway 5 Overcrossing Gorman Road	3.8	*	*	*	1,713	*	3,221
Granada Hills	Superior Street, West of Paso Robles Avenue	0.5	90	*	200	260	*	400
Granada Hills	Vicinity of Balboa Boulevard and Citronia Street	0.5	90	*	200	260	*	400
Hacienda Creek	Cross Section A	1.5	626	*	1,381	1,762	*	2,758
Hancock Park Shallow Flooding	Vicinity of Highland Avenue and St. Elmo Drive	20.2	3,600	*	7,700	9,300	*	13,700
Hancock Park Shallow Flooding	Vicinity of San Vicente and Pico Boulevards	18.9	3,500	*	7,400	9,000	*	13,100
Hancock Park Shallow Flooding	Vicinity of West Boulevard and	18.8	3,600	*	7,600	9,300	*	13,600

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
	Dockweiler Street							
Hancock Park Shallow Flooding	Vicinity of Bronson Avenue and Country Club Drive	18.1	3,700	*	7,900	9,600	*	14,000
Hancock Park Shallow Flooding	Sixth Street, Vicinity of Alexandria Avenue	8.1	2,100	*	4,600	5,900	*	9,200
Hancock Park Shallow Flooding	Chesapeake Avenue, Vicinity of Exposition Boulevard	8.0	1,100	*	2,400	3,000	*	3,700
Hancock Park Shallow Flooding	Vicinity of Western Avenue and 11th Street	3.5	670	*	1,300	1,600	*	2,500
Hancock Park Shallow Flooding	Victoria Avenue, Vicinity of Jefferson Boulevard	1.2	320	*	1,100	1,400	*	2,600
Hancock Park Shallow Flooding	Arlington Avenue, Vicinity of 37th Place	0.7	440	*	990	1,400	*	2,500
Hancock Park Shallow Flooding	Olympic Boulevard at Hudson Avenue	0.6	130	*	290	370	*	570
Hancock Park Shallow Flooding	Harcourt Avenue, Vicinity of Westhaven Street	0.5	160	*	350	450	*	700
Hancock Park Shallow Flooding	Lucerne Boulevard at Francis Avenue	0.3	70	*	160	200	*	320
Harbor Area Shallow Flooding	North of Carson Street Between Vermont and Berendo Avenues	0.4	74	*	164	209	*	327
Harbor District Shallow Flooding	Harbor Lake, Southeast of Vermont Avenue and Pacific Coast Highway	19.0	3,200	*	7,000	8,900	*	14,000

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Harbor District Shallow Flooding	Denker Avenue, Vicinity of 204th Street	0.3	60	*	130	170	*	260
Haskell Canyon	At confluence with Bouquet Canyon Creek	9.8	730	*	2,240	3,320	*	7,360
Hasley Canyon Creek	Approximately 1,150 feet Downstream of Halsey Canyon Road	7.3	*	*	*	5,544	*	10,163
Hasley Canyon Creek	Approximately 550 feet Downstream of Romero Canyon Road	5.9	*	*	*	4,523	*	8,292
Hasley Canyon Creek	Approximately 600 feet downstream of Romero Canyon Road	*	220	*	680	1,006	*	2,230
Hasley Canyon Creek	Approximately 0.2 miles downstream of Hasley Canyon Road	*	330	*	1,010	1,503	*	3,330
Hasley Canyon Creek	At confluence with Castaic Creek	*	360	*	1,110	1,640	*	3,640
Hollywood Shallow Flooding	Third Street at Kenmore Avenue	3.4	800	*	1,800	2,300	*	3,500
Hollywood Shallow Flooding	South of Hollywood Freeway, Vicinity of Kenmore Avenue	3.2	830	*	1,800	2,300	*	3,700
Hollywood Shallow Flooding	Santa Monica Boulevard, Vicinity of Mariposa Avenue	2.8	940	*	2,100	2,700	*	4,200
Hollywood Shallow Flooding	Madison Avenue at Monroe Street	0.5	160	*	350	440	*	690
Hyde Park Shallow Flooding	South of Southwest Drive, Vicinity of Van Ness Avenue	4.2	730	*	1,600	2,100	*	3,200

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Hyde Park Shallow Flooding	Wilton Place, Vicinity of Gage Avenue	3.3	770	*	1,600	1,900	*	3,000
Hyde Park Shallow Flooding	Halldale Avenue, Vicinity of 65th Street	1.2	300	*	660	850	*	1,300
Industry Area Shallow Flooding	Vicinity of Brea Canyon Road and Lycoming Street	3.9	952	*	2,102	2,682	*	4,197
Iron Canyon	At confluence with Sand Canyon Creek	2.7	210	*	640	950	*	2,110
Iron Canyon	At North Iron Canyon Road	*	160	*	500	740	*	1,640
Kagel Canyon	Cross Section A	2.0	490	*	1,081	1,380	*	2,159
Kagel Canyon	Approximately 650 feet Upstream of Osborne Avenue	2.0	490	*	1,100	1,400	*	12,200
Kentucky Springs Canyon Creek	At confluence with Soledad Canyon	*	220	*	670	990	*	2,200
La Mirada Area	Mystic Street, Vicinity of Parkinson Avenue	0.3	81	*	179	228	*	357
La Mirada Creek	Approximately 1100 feet Downstream of La Mirada Boulevard	5.0	610	*	1,350	1,720	*	2,690
La Mirada Creek	At Ocaso Avenue	4.6	610	*	1,340	1,700	*	2,670
Ladera Heights Area Shallow Flooding	Vicinity of La Cienega Boulevard and Slauson Avenue	0.5	138	*	305	389	*	609
Las Flores Canyon	Cross Section F	4.1	1,758	*	3,882	4,954	*	7,752
Las Virgenes Creek	Approximately 1,500 feet downstream of the confluence of Stokes Canyon	24.3	9,230	11,913	13,678	15,521	*	18,704

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Las Virgenes Creek	Downstream of the confluence of Stokes Canyon	24.3	9,228	11,909	13,673	15,515	*	18,811
Las Virgenes Creek	Upstream of the confluence of Stokes Canyon	19.7	9,193	12,066	13,766	15,646	*	19,340
Las Virgenes Creek	At Mulholland Highway	19.1	6,873	9,014	10,346	11,929	*	14,853
Las Virgenes Creek	Upstream of the confluence of Liberty Canyon	16.6	6,871	9,025	10,348	11,935	*	15,210
Las Virgenes Creek	Approximately 1,500 feet upstream of the confluence of Liberty Canyon	16.5	5,862	7,440	8,799	10,069	*	12,755
Las Virgenes Creek	Approximately 4,000 feet upstream of the confluence of Liberty Canyon	16.2	5,783	7,350	8,676	9,913	*	12,554
Las Virgenes Creek	Approximately 1,800 feet downstream of Lost Hills Road	15.0	5,414	6,923	8,112	9,246	*	11,714
Las Virgenes Creek	At Lost Hills Road	15.0	5,420	6,932	8,133	9,281	*	11,764
Las Virgenes Creek	At Meadow Creek Lane	14.9	5,414	6,923	8,124	9,269	*	11,751
Las Virgenes Creek	Approximately 1600 feet upstream of Meadow Creek Lane	13.3	4,860	6,190	7,211	8,197	*	10,356
Las Virgenes Creek	Just downstream of Agola Road	12.7	4,783	6,091	7,040	8,005	*	10,076
Las Virgenes Creek	Just downstream of US Highway 101	10.4	3,830	4,875	5,644	6,419	*	8,137

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Las Virgenes Creek	Just downstream of Las Virgenes Road	10.2	3,787	4,818	5,577	6,340	*	8,044
Liberty Canyon	Cross Section E	1.4	938	*	2,072	2,645	*	4,140
Lindero Canyon	Cross Section C	6.7	1,725	*	3,809	4,860	*	7,604
Lindero Canyon	Approximately 700 feet Downstream of Thousand Oaks Boulevard	4.1	1,369	*	3,024	3,858	*	6,037
Lindero Canyon	Cross Section H	3.8	1,343	*	2,965	3,783	*	5,920
Lindero Canyon	At Reyes Adobe Road	3.4	1,290	*	2,847	3,632	*	5,685
Lindero Canyon	Cross Section N	3.1	1,258	*	2,776	3,542	*	5,545
Lion Canyon	At confluence with Santa Clara River	*	50	*	140	210	*	470
Little Rock Wash	At Little Rock Reservoir	48.0	*	*	*	20,000	*	*
Little Tujunga Wash	Approximately 1,600 feet Upstream of Foothill Boulevard	20.3	2,700	*	6,000	7,700	*	12,200
Little Tujunga Wash	Approximately 3,000 feet Upstream of the City of Los Angeles Corporate Limits	17.9	2,273	*	5,019	6,405	*	10,022
Lobo Canyon	Cross Section B	3.8	1,572	*	3,473	4,429	*	6,932
Lobo Canyon	Cross Section C	2.5	1,625	*	3,588	4,579	*	7,166
Lockheed Drain Channel	Approximately 100 feet Downstream of Burbank Boulevard	3.7	*	*	*	2,910	*	*
Lockheed Drain Channel	Approximately 300 feet Downstream of Victory Place	2.5	*	*	*	2,410	*	*

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Lockheed Drain Channel	Approximately 100 feet Downstream of Naomi Street	1.9	*	*	*	2,026	*	*
Lockheed Drain Channel	At Ontario Street	1.8	*	*	*	2,054	*	*
Lockheed Drain Channel	Approximately 300 feet Upstream of Lima Street	1.4	*	*	*	1,635	*	*
Lockheed Drain Channel	Approximately 150 feet Downstream of Hollywood Way	0.9	*	*	*	965	*	*
Lockheed Drain Channel	Approximately 450 feet Upstream of Clybourn Avenue	0.4	278	*	*	448	*	*
Long Canyon	Approximately 1.4 miles upstream of confluence with Santa Clara River	*	60	*	180	260	*	580
Long Canyon	At confluence with Santa Clara River	*	40	*	110	170	*	380
Lopez Canyon Channel	Cross Section A	1.8	682	*	1,506	1,922	*	3,007
Los Angeles River	At Compton Creek	808	92,900	*	133,000	142,000	*	143,000
Los Angeles River	At Imperial Highway	752	89,400	*	126,000	140,000	*	156,000
Malibu Creek	Cross Section A	110	14,183	*	31,648	40,544	*	63,934
Malibu Lake	Malibu Lake	64.6	11,859	*	26,556	34,043	*	53,712
Medea Creek	Cross Section B	24.6	5,794	*	12,788	16,319	*	25,537
Medea Creek	Cross Section H	23.0	6,174	*	13,628	17,389	*	25,537
Medea Creek	Cross Section K	22.2	6,363	*	14,074	17,925	*	28,049
Medea Creek	Cross Section P	6.3	2,558	*	5,647	7,204	*	11,272
Medea Creek	Downstream of Ventura Highway	6.3	2,560	*	2,645	7,200	*	11,270

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Medea Creek	Approximately 950 feet Upstream of Canwood Street	1	*	*	*	6,720	*	*
Medea Creek	Approximately 1,100 feet Upstream of Kanan Road	1	*	*	*	5,960	*	*
Medea Creek	At Thousand Oaks Boulevard	1	*	*	*	5,946	*	*
Medea Creek	Approximately 1,700 feet Downstream of Laro Drive	4.1	*	*	*	5,320	*	*
Medea Creek	Approximately 575 feet Downstream of Fountainwood Street	3.9	*	*	*	5,240	*	*
Medea Creek	Just Upstream of Fountainwood Street	3.4	*	*	*	4,700	*	*
Mill Creek	Cross Section B	14.8	2,274	*	5,019	6,405	*	10,024
Mint Canyon Creek	At confluence with Santa Clara River	29.4	1,786	*	4,489	5,856	*	8,367
Mint Canyon Creek	Approximately 2700 feet downstream of Fitch Avenue	1	1,787	*	4,471	5,814	*	8,253
Mint Canyon Creek	Approximately 600 feet upstream of Vasquez Canyon Road	1	1,769	*	4,134	5,283	*	7,359
Mint Canyon Creek	Approximately 1300 feet downstream of Sierra Highway crossing 4	1	1,717	*	3,958	4,994	*	6,897
Mint Canyon Creek	Upstream of Sierra Highway crossing 5	1	1,222	*	2,767	3,433	*	4,656

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Mint Canyon Creek	Upstream of confluence of Spade Spring Canyon Creek	1	685	*	1,494	1,834	*	2,461
Newhall Creek	Confluence with South Fork Santa Clara River	17.2	3,610	*	6,890	8,240	*	10,990
Newhall Creek	Upstream of confluence of Placerita Creek	7.3	2,430	*	4,020	4,640	*	6,020
Newhall Creek	Upstream of confluence with Railroad Canyon Creek Left Overbank	6.2	2,007	*	3,290	3,792	*	4,894
Newhall Creek	Upstream of confluence with Railroad Canyon Creek	5.2	1,920	*	3,150	3,630	*	4,680
Newhall Creek	Intersection of Sierra Hwy and Newhall Ave	3.1	1,096	1,383	1,604	1,822	*	2,320
Newhall Creek	Intersection of Molokai Road with Newhall Creek	5.2	1,398	1,789	2,086	2,380	*	3,051
Oak Springs Canyon	Approximately 100 feet Upstream of Union Pacific Railroad (former Southern Pacific Railroad)	5.7	*	*	*	2,703	*	4,054
Oak Springs Canyon	At confluence with Santa Clara River	*	250	*	770	1,140	*	2,530
Oak Springs Canyon	At intersection of Sixth Street and Quincy Avenue	1.0	271	*	598	763	*	1,194
Old Topanga Canyon	Cross Section E	1.7	567	*	1,253	1,597	*	2,499
Old Topanga Canyon	Cross Section H	0.8	251	*	554	706	*	1,104

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Overland Flow	Marquardt Avenue, 1400 feet North of Rosecrans Avenue	2.1	411	*	907	1,158	*	1,812
Overland Flow	North of Florence Avenue and East of Pioneer Boulevard	1.3	270	*	596	760	*	1,190
Overland Flow	North of Lakeland Road, 1000 feet East of Bloomfield Avenue	0.4	68	*	151	192	*	301
Palo Comado Creek	Cross Section E	4.1	1,159	*	2,562	3,268	*	5,113
Palo Comado Creek	At Fairview Place	3.5	1,074	*	2,374	3,028	*	4,738
Palo Comado Creek	Cross Section K	3.2	1,032	*	2,279	2,908	*	4,551
Park La Brea Shallow Flooding	Vicinity of Orange Drive and Pickford Street	24.7	4,400	*	9,500	11,800	*	17,700
Park La Brea Shallow Flooding	Venice Boulevard, Vicinity of Fairfax Avenue	18.4	3,400	*	7,500	9,500	*	14,900
Park La Brea Shallow Flooding	Vicinity of Whitworth Drive and La Cienega Boulevard	17.1	3,400	*	7,600	9,700	*	15,200
Park La Brea Shallow Flooding	Fairfax Avenue, Vicinity of La Cienga Boulevard	16.7	2,100	*	4,700	6,000	*	9,600
Park La Brea Shallow Flooding	Houser Boulevard, Vicinity of La Cienega Boulevard	14.8	1,900	*	4,300	5,500	*	8,800
Park La Brea Shallow Flooding	Redondo Boulevard, Vicinity of Roseland Street	14.5	2,000	*	4,400	5,700	*	9,100
Park La Brea Shallow Flooding	Wilshire Boulevard, Vicinity of Crescent Heights Avenue	6.6	1,500	*	3,300	4,200	*	6,600

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Park La Brea Shallow Flooding	Redondo Boulevard, Vicinity of Santa Monica Freeway	1.2	300	*	670	860	*	1,300
Pico Canyon	At Stevenson Ranch Parkway	*	230	*	700	1,040	*	2,310
Pico Canyon	At Golden State Freeway	*	390	*	1,190	1,770	*	3,930
Pico Canyon (South Fork Santa Clara River Trib)	At Tournament Road	*	420	*	1,290	1,910	*	4,240
Pine Canyon	Approximately 1,200 feet Upstream of Lake Hughes Road	6.4	*	*	*	2,969	*	6,166
Placerita Creek	At confluence with Newhall Creek	*	2,061	*	3,494	4,106	*	5,508
Placerita Creek	Approximately 0.2 miles upstream of Los Angeles Aqueduct	*	1,870	*	3,156	3,694	*	4,961
Placerita Creek	Approximately 0.8 miles upstream of Antelope Valley Freeway	*	1,601	*	2,706	3,179	*	4,279
Placerita Creek	At Placerita Canyon Road	*	1,464	*	2,457	2,880	*	3,868
Plum Canyon	Approximately 2,350 feet Upstream of Bouquet Canyon Road	3.4	*	*	*	1,942	*	3,453
Plum Canyon	At confluence with Bouquet Canyon	*	240	*	730	1,080	*	2,400
Ponding	At Intersection of Mines Avenue and Taylor Avenue	0.5	120	*	250	330	*	510

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Portal Ridge Wash	Intersection of Avenue H and Antelope Valley Freeway	147	1,600	*	5,000	7,200	*	16,000
Porter Ranch	Mayerling Street, Northwest of Shoshone Avenue	0.2	40	*	100	120	*	190
Porter Ranch	Vicinity of Sesnon Boulevard	0.1	30	*	60	70	*	120
Potrero Canyon	At confluence with Santa Clara River	*	430	*	1,300	1,930	*	4,280
Potrero Canyon	Approximately 1.25 miles upstream of confluence with Santa Clara River	*	360	*	1,090	1,620	*	3,590
Potrero Canyon	Approximately 0.8 miles downstream of Pico Canyon Road	*	80	*	260	380	*	840
Quigley Canyon Creek	At confluence with Placerita Creek	*	340	*	919	1,162	*	1,789
Quigley Canyon Creek	At Meadview Avenue	*	340	*	781	994	*	1,542
Quigley Canyon Creek	Approximately 350 feet upstream of Meadview Avenue	*	340	*	723	920	*	1,429
Quigley Canyon Creek	120 feet downstream of Quigley Canyon Road	*	340	*	675	847	*	1,253
Quigley Canyon Creek	120 feet upstream of Quigley Canyon Road	*	340	*	643	786	*	1,122
Quigley Canyon Creek	180 feet downstream of Fino Mountainway	*	298	*	570	695	*	993
Quigley Canyon Creek	At Fino Mountainway	*	191	*	378	467	*	675

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Quigley Canyon Creek	Approximately 0.4 miles downstream of Los Angeles Aqueduct	*	165	*	329	405	*	587
Railroad Canyon	At confluence with Newhall Creek	1.4	540	*	870	1,010	*	1,330
Ramirez Canyon	Cross Section B	3.3	1,066	*	2,352	3,000	*	4,696
Ramirez Canyon	Cross Section I	2.8	1,150	*	2,540	3,240	*	5,070
Rio Hondo	At Stewart and Gray Road	132	35,600	*	41,000	39,300	*	40,200
Rio Hondo	At Beverly Boulevard	113	33,800	*	37,50	38,000	*	38,400
Rio Hondo	At Outflow from Whittier Narrows Dam	110	33,500	*	36,500	36,500	*	36,500
Rustic Canyon	Approximately 1,030 feet Downstream (South) of Sunset Boulevard	5.7	700	*	1,500	2,000	*	3,100
San Fernando Pacoima Wash	Approximately 150 feet Downstream of Shablow Avenue	31.1	1,900	*	5,600	8,100	*	12,100
San Francisquito Canyon Creek	At confluence with Santa Clara River	49.1	3,170	*	9,690	14,360	*	31,850
San Gabriel River	Whittier Narrows Flood Control Basin At Siphon Road	524	*	*	*	90,000	*	*
San Martinez Chiquito Canyon	Approximately 1,000 feet Upstream of Chiquito Canyon Road (Lower Crossing)	4.7	*	*	*	4,659	*	8,607
San Martinez Chiquito Canyon	Approximately 400 feet Upstream of Chiquito Canyon Road (Upper Crossing)	3.1	*	*	*	3,112	*	5,705

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
San Martinez Chiquito Canyon	Approximately 250 feet Downstream of Verdale Street	1.1	*	*	*	1,205	*	2,208
San Martinez Chiquito Canyon	At confluence with Santa Clara River	*	200	*	610	901	*	2,000
San Martinez Chiquito Canyon	Approximately 0.2 miles upstream of Chiquito Canyon Road	*	190	*	570	838	*	1,860
San Martinez Chiquito Canyon	At Chiquito Canyon Road	*	150	*	460	681	*	1,510
San Martinez Chiquito Canyon	At Kennington Road	*	110	*	330	491	*	1,090
San Martinez Grande Canyon Creek	At confluence with Santa Clara River	*	200	*	600	895	*	1,990
Sand Canyon Creek	At confluence with Santa Clara River	12.7	1,210	*	3,700	5,480	*	12,150
Sand Canyon Creek	At Alamo Canyon Road	*	1,100	*	3,350	4,965	*	11,010
Sand Canyon Creek	Approximately 700 feet downstream of Valley Ranch Road	1	1,244	*	2,795	3,477	*	4,796
Sand Canyon Creek	Upstream of confluence of Iron Canyon	7.5	650	*	1,980	2,930	*	6,500
Sand Canyon Creek	Approximately 2700 feet downstream of Placerita Canyon Road	1	917	*	1,912	2,345	*	3,178
Sand Canyon Creek	At Placerita Canyon Road	1	848	*	1,756	2,156	*	2,919
Sand Canyon Creek	700 feet above 25975 Sand Canyon Road	1	644	*	1,295	1,591	*	2,152

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Santa Clara River	At Los Angeles County/Ventura County Line	639	15,700	*	45,900	66,600	*	140,000
Santa Clara River	Upstream of confluence of Castaic Creek	420	13,270	*	35,910	50,380	*	78,320
Santa Clara River	Approximately 8000 feet upstream of confluence of Castaic Creek	418	13,250	*	35,860	50,270	*	78,040
Santa Clara River	Approximately 650 feet downstream of The Old Road	412	13,120	*	35,690	49,990	*	77,430
Santa Clara River	Upstream of confluence of San Francisquito Canyon Creek	357	9,790	*	28,790	41,560	*	65,810
Santa Clara River	Upstream of confluence of South Fork Santa Clara River	312	7,460	*	23,120	33,890	*	53,570
Santa Clara River	Upstream of confluence of Bouquet Canyon Creek	239	5,400	*	17,620	26,210	*	41,080
Santa Clara River	Approximately 4600 feet downstream of Soledad Canyon Road	233	5,290	*	17,390	25,910	*	40,550
Santa Clara River	Upstream of confluence of Mint Canyon Creek	195	4,140	*	14,320	21,690	*	33,990
Santa Clara River	At Sand Canyon Road	179	3,840	*	12,810	19,500	*	30,490
Santa Clara River	Approximately 4800 feet downstream of Lang Station Road	171	3,770	*	12,370	18,730	*	29,130

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Santa Clara River	Approximately 1600 feet upstream of Bootlegger Canyon Road	85.0	2,260	*	6,450	9,600	*	14,690
Santa Clara River	Approximately 500 feet upstream of confluence of Arraste Canyon Creek	76.3	1,550	*	4,780	7,440	*	11,760
Santa Clara River	Upstream of Confluence of Acton Canyon Creek	49.9	1,370	*	3,480	5,210	*	8,080
Santa Fe Springs Area Shallow Flooding	Vicinity of Rivera Road and Vicki Drive	0.4	80	*	176	225	*	352
Santa Maria Canyon	Cross Section C	3.1	1,070	*	2,333	3,016	*	4,719
Savage Creek	At Intersection of York Avenue and Mar Vista Street	0.9	260	*	570	730	*	1,150
Sepulveda Shallow Flooding	Haskell Avenue North of Union Pacific Railroad (former Southern Pacific Railroad)	1.0	230	*	500	640	*	1,000
Sepulveda Shallow Flooding	Roscoe Boulevard at Haskell Avenue	0.8	160	*	360	460	*	720
Shallow Flooding	At intersection of Ripley Avenue and Rindge Lane	1	61	*	135	172	*	270
Shallow Flooding	At Gould Avenue between Ford and Goodman Avenues	1	66	*	146	186	*	291
Shallow Flooding	At intersection of Vincent Street and South Irena Avenue	1	68	*	149	190	*	298

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Shallow Flooding	At intersection of Camino Real and South Juanita Avenue	10.0	50	*	111	141	*	221
Shallow Flooding	At intersection of Avenue H and Massena Avenue	5 ²	154	*	340	434	*	679
Sherman Oaks Shallow Flooding	Magnolia Boulevard at Haskell Avenue	1.2	360	*	800	1,000	*	1,600
Silver Lake Shallow Flooding	Myra Avenue, Vicinity of Del Mar Avenue	1.8	490	*	1,110	1,400	*	2,200
Silver Lake Shallow Flooding	Silver Lake Boulevard East of Virgil Avenue	1.3	420	*	900	1,100	*	1,800
Silver Lake Shallow Flooding	Between Hyperion Avenue and Griffith Park Boulevard, North of Fountain Avenue	0.9	290	*	650	830	*	1,300
Silver Lake Shallow Flooding	Griffith Park Boulevard at Tracy Street	0.6	220	*	490	620	*	970
Soledad Canyon	At Angeles Forest Highway	*	250	*	780	1,150	*	2,550
Soledad Canyon	Upstream of confluence of Kentucky Springs Canyon Creek	*	490	*	1,500	2,220	*	4,920
Soledad Canyon	At confluence with Aliso Canyon	*	710	*	2,170	3,210	*	7,120
South Fork Santa Clara River	Confluence with Santa Clara River	45.3	2,400	*	7,320	10,840	*	24,040
South Fork Santa Clara River	Upstream of confluence with Newhall Creek	23.4	1,860	*	5,680	8,420	*	18,680

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
South Fork Santa Clara River	Upstream of confluence with South Fork Santa Clara River Tributary	14.1	1,190	*	3,650	5,400	*	11,980
South Fork Santa Clara River Tributary	Confluence with South Fork Santa Clara River	1	1,240	*	2,090	2,470	*	3,290
Spade Spring Canyon Creek	At confluence with Mint Canyon Creek	1	471	*	1,099	1,364	*	1,839
Spade Spring Canyon Creek	At boundary of Angeles National Forest	1	428	*	911	1,118	*	1,491
Stokes Canyon	Cross Section C	2.9	1,089	*	2,403	3,067	*	4,799
Stokes Canyon	Cross Section B	2.4	934	*	2,062	2,631	*	4,117
Surface Runoff	At Intersection of Garfield Avenue and Beverly Boulevard	2.9	820	*	1,810	2,310	*	3,610
Surface Runoff	Laurel Canyon Boulevard at Hollywood Boulevard	1.9	600	*	800	1,160	*	2,100
Surface Runoff	Happy Lane	1.7	640	*	1,400	1,800	*	2,800
Surface Runoff	Vicinity of Rosewood Avenue and Huntley Drive West Los Angeles and Central Districts	1.1	670	*	1,479	1,888	*	3,329
Sylmar	East Side of Golden State Freeway South of Sierra Highway	0.2	50	*	120	150	*	240
Texas Canyon Creek	At confluence with Bouquet Canyon Creek	*	780	1,530	2,380	3,520	*	7,810
Tick Canyon	At confluence with Santa Clara River	*	380	*	1,150	1,710	*	3,790

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Tick Canyon	Approximately 1000 feet upstream of Grandifloras Road	*	320	*	970	1,430	*	3,170
Topanga Canyon	Cross Section H	19.6	4,095	*	9,040	11,537	*	18,054
Topanga Canyon	Cross Section M	15.0	5,404	*	11,930	15,223	*	23,882
Topanga Canyon	Cross Section Q	14.5	5,208	*	11,499	14,672	*	22,960
Topanga Canyon	Cross Section T	7.3	2,560	*	5,656	7,215	*	11,289
Topanga Canyon	Cross Section V	7.0	2,364	*	5,222	6,601	*	10,422
Topanga Canyon	Cross Section X	5.5	1,862	*	4,113	5,247	*	8,210
Topanga Canyon	Cross Section AG	0.3	259	*	572	729	*	1,141
Towsley Canyon Creek	At confluence with South Fork Santa Clara River	*	630	1,230	1,910	2,830	*	6,280
Trancas Creek	Upstream of Pacific Coast Highway (Cross Section A)	8.6	2,499	*	5,518	7,040	*	11,106
Triunfo Creek	Cross Section B	28.7	4,781	*	11,396	14,898	*	24,298
Triunfo Creek	Cross Section E	28.3	4,846	*	11,544	15,090	*	24,606
Turnbull Canyon	At intersection of Painter Avenue and Camilla Street	1.0	250	*	540	690	*	1,080
Turnbull Canyon	Vicinity of Broadway and Alta Drive	1.0	250	*	540	690	*	1,080
Unknown	At the Intersection of Chestnut and Lake Streets	1.3	*	*	*	670	*	*
Unknown	At the Intersection of Alameda Avenue and Main Street	1.2	*	*	*	750	*	*

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Unknown	3,500 feet Northeast of the Intersection of Via Montana and Country Club Drive	0.7	*	*	*	600	*	*
Unnamed Canyon	Serra Retreat Area (Cross Section C)	0.4	281	*	619	791	*	1,237
Unnamed Stream Main Reach	At Pacific Ocean	1.2	353	*	724	917	*	1,400
Unnamed Stream Main Reach	Downstream of Confluence with Tributary 2	1.1	338	*	692	876	*	1,282
Unnamed Stream Main Reach	Upstream of Confluence with Tributary 2	0.7	229	*	462	580	*	865
Unnamed Stream Main Reach	Upstream of Confluence with Tributary 1	0.4	146	*	290	361	*	523
Unnamed Stream Tributary 1	At Confluence with Main Reach	0.2	97	*	191	236	*	381
Unnamed Stream Tributary 2	At Confluence with Main Reach	0.4	164	*	331	413	*	600
Unnamed Stream Tributary 2	At Via Zurita	0.4	144	*	290	361	*	525
Van Nuys	Victory Boulevard, Vicinity of Hayvenhurst Avenue	0.7	90	*	200	250	*	390
Vasquez Canyon	Approximately 1,373 feet Upstream of Vasquez Canyon Road	4.2	*	*	*	2,851	*	5,009
Vasquez Canyon	At confluence with Bouquet Canyon Creek	*	310	*	960	1,420	*	3,150
Vasquez Canyon	At Lost Creek Road	*	250	*	760	1,120	*	2,480

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Violin Canyon	Approximately 2,000 feet Downstream of Interstate Highway 5	10.5	*	*	*	9,421	*	17,818
Weldon Canyon	Approximately 1,570 feet Downstream of Sierra Highway and San Fernando Road	1.5	410	*	900	1,150	*	1,800
West Hollywood Shallow Flooding	Third Street, Vicinity of Fairfax Avenue	6.1	1,500	*	3,200	4,100	*	6,800
West Hollywood Shallow Flooding	Fifth Street, Vicinity of Orlando Avenue	5.7	1,600	*	3,600	4,500	*	7,100
West Hollywood Shallow Flooding	Third Street, Vicinity of La Cienga Boulevard	5.1	1,600	*	3,500	4,500	*	7,200
West Hollywood Shallow Flooding	Beverly Boulevard, Vicinity of Spaulding Avenue	4.0	730	*	1,600	2,100	*	2,900
West Hollywood Shallow Flooding	Genesse Avenue North of Hollywood Boulevard	1.0	370	*	820	1,000	*	1,600
West Hollywood Area Shallow Flooding	Vicinity of Pan Pacific Auditorium	4.0	730	*	1,600	3,600	*	4,500
West Hollywood Area Shallow Flooding	Vicinity of Rosemead Avenue and Huntley Drive	1.1	670	*	1,479	1,888	*	3,329
West Los Angeles Shallow Flooding	Between Westwood Boulevard and Overland Avenue, Vicinity of Exposition Boulevard	4.0	190	*	1,200	1,500	*	2,700
West Los Angeles Shallow Flooding	Manning Avenue, Vicinity of Tennessee Avenue	3.4	530	*	1,300	1,700	*	2,600

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
West Los Angeles Shallow Flooding	Balsam Avenue, Vicinity of Olympic Boulevard	1.2	290	*	550	660	*	940
West Los Angeles Shallow Flooding	Roundtree Road, Vicinity of Manning Avenue	0.7	500	*	740	840	*	1,100
Westchester Shallow Flooding	Arizona Avenue North of Arizona Circle	1.7	340	*	740	950	*	1,500
Westchester Shallow Flooding	Sepulveda Boulevard South of San Diego Freeway	1.4	310	*	690	880	*	1,400
Westlake Shallow Flooding	Vicinity of Wilshire Boulevard West of Hoover Street	1.4	360	*	790	1,000	*	1,600
Whitney Canyon Creek	At Sierr Highway	2.1	653	835	972	1,109	*	1,419
Whitney Canyon Creek	Intersect of Newhall Ave and Antelope Valley Fwy	2.0	646	827	962	1,098	*	1,404
Whitney Canyon Creek	Whitney Canyon Raod	2.0	645	823	957	1,091	*	1,396
Whitney Canyon Creek	0.38 miles east from Antelope Valley Fwy	1.9	630	802	931	1,060	*	1,357
Whitney Canyon Creek	0.53 miles east from Antelope Valley Fwy	1.8	629	800	928	1,055	*	1,346
Whittier Area Shallow Flooding	Vicinity of Turnbull Canyon Road	1.0	246	*	543	692	*	1,084
Whittier Narrows Flood Control Basin	Whittier Narrows Flood Control Basin	524	*	*	*	90,000	*	*
Wildwood Canyon	Approximately 600 feet Upstream of Intersection of Valley Street and Maple Street	0.2	*	*	*	172	*	279

Table 10: Summary of Discharges, Continued

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)					
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance Existing	1% Annual Chance Future	0.2% Annual Chance
Winsor Hills Area	Vicinity of La Brea and Slauson Avenues	0.3	67	*	147	188	*	294
Woodland Hills	Vicinity of Mulholland Drive and Ventura Freeway	2.3	490	*	1,100	1,400	*	2,200
Woodland Hills	Vicinity of Saltillo Street and Canoga Avenue	0.3	100	*	250	300	*	500
Zuma Canyon	Cross Section A	8.9	2,024	*	4,469	5,705	*	8,925
Zuma Canyon	Cross Section W	8.4	2,079	*	4,590	5,858	*	9,167

¹ Data not available

² Pump capacity

* Not calculated for this Flood Risk Project

Figure 7: Frequency Discharge-Drainage Area Curves

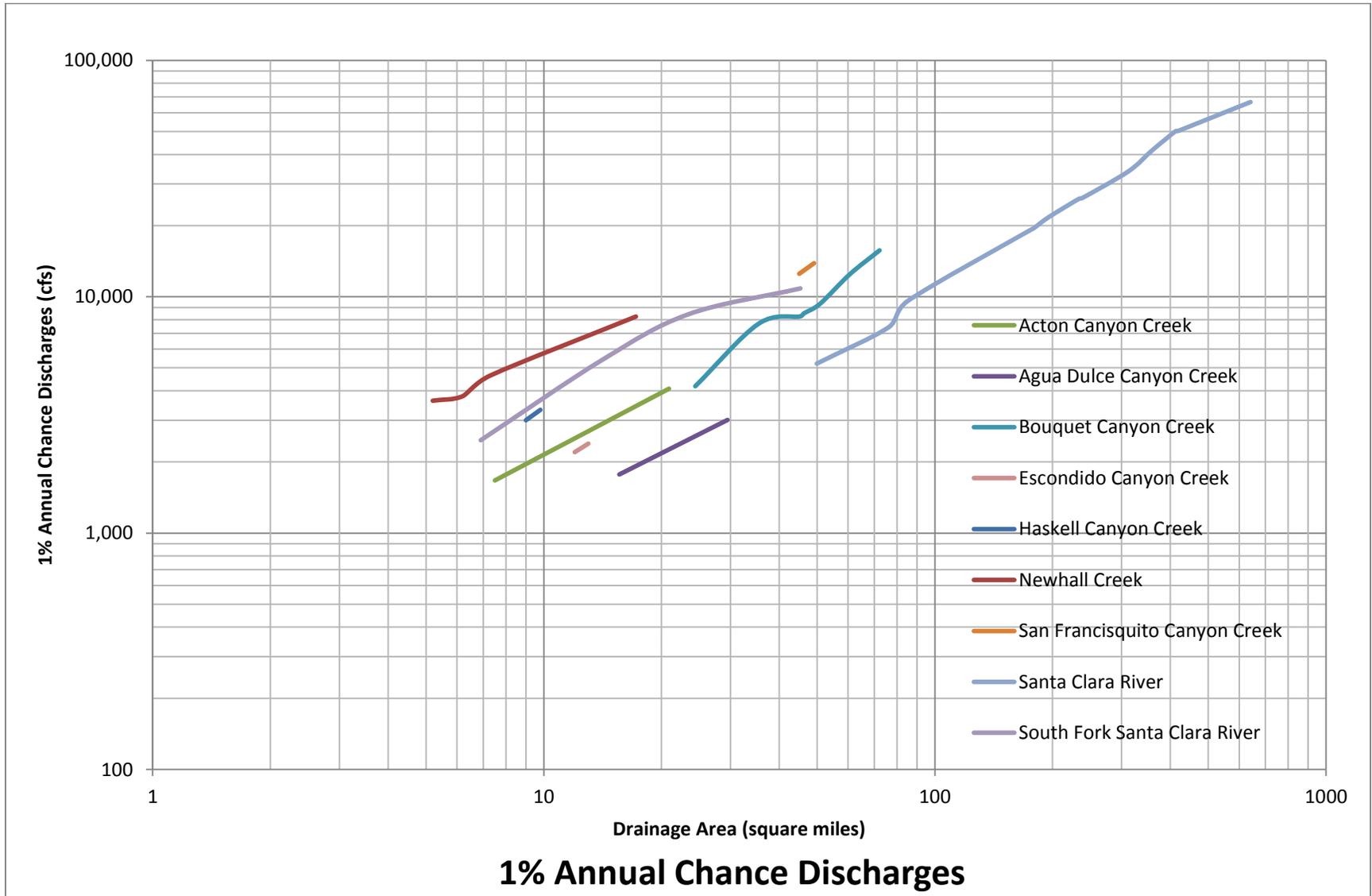


Table 11: Summary of Non-Coastal Stillwater Elevations

Flooding Source	Location	Elevations (feet NAVD88)				
		10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
La Canada Verde Creek	At Marquardt Avenue 1,400 feet North of Rosecrans Avenue	83.8	*	85.8	86.8	88.8
Ponding	600 feet East of Bloomfield Avenue North of Lakeland Road	139.8	*	142.8	143.8	143.8
Ponding	1,000 feet East of Bloomfield Avenue North of Lakeland Road	116.8	*	148.3	148.8	149.8
Rio Hondo Channel	Intersection of Mines Avenue and Taylor Avenue	186.7	*	188.8	188.8	188.8
San Gabriel River	At Whittier Narrows Flood Control Basin	213.8	*	222.8	222.8	231.8
Savage Creek	Intersection of York Avenue and Mar Vista Street	382.8	*	382.8	382.8	382.8
Shallow Flooding	Intersection of Ripley Avenue and Rindge Lane	*	*	62.9	64.9	68.9
Shallow Flooding	At Gould Avenue between Ford and Goodman Avenues	83.4	*	91.4	95.9	105.9
Shallow Flooding	Intersection of Vincent Street and South Irena Avenue	81.9	*	82.9	83.6	84.9

Table 11: Summary of Non-Coastal Stillwater Elevations, Continued

Flooding Source	Location	Elevations (feet NAVD88)				
		10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Shallow Flooding	Intersection of Camino Real and South Juanita Avenue	120.5	*	121.9	122.9	124.3
Shallow Flooding	Intersection of Avenue H and Massena Avenue	61.4	*	64.4	65.4	67.4
Surface Runoff – Deep Ponding Area	Southwest of the Intersection of Carson Street and Madrona Avenue	60.1	*	66.1	68.8	74.8
Surface Runoff – Deep Ponding Area	Intersection of Doris Way and Reese Road	61.6	*	64.8	65.8	67.7
Surface Runoff – Ponding Area	Intersection of Anza Avenue and Spencer Street	82.6	*	83.4	83.8	84.9
Surface Runoff – Ponding Area	Northeast of Sepulveda Boulevard and Madrona Avenue	77.3	*	78.4	78.8	79.5
Surface Runoff – Ponding Area	Intersection of California Street and Alaska Avenue	78.7	*	80.1	80.8	81.6
Turnbull Canyon	Intersection of Painter Avenue and Camilla Street	411.8	*	419.8	420.8	421.8

* Not calculated for this Flood Risk Project

Table 12: Stream Gage Information used to Determine Discharges

Flooding Source	Gage Identifier	Agency that Maintains Gage	Site Name	Drainage Area (Square Miles)	Period of Record	
					From	To
Aliso Creek	F152B-R	Los Angeles County Flood Control District (LACFCD)	At Nordhoff Street	189	*	*
Ballona Creek Channel	F38C-R	LACFCD	Ballona Creek above Sawtelle Boulevard	88.6	02/27/1928	09/18/2014
Big Rock Creek	10263500	USGS	Big Rock Creek near Valyermo, CA	22.9	02/01/1923	09/18/2014
Big Tujunga Creek	11095500	USGS	Big Tujunga Creek near Sunland, CA	106	11/01/1916	09/30/1977
Burbank Western Flood Control Channel	*	LACFCD	At Tujunga Avenue	401	01/01/1950	*
Compton Creek	F37B-R	LACFCD	Compton Creek near Greenleaf Boulevard	22.6	01/22/1928	09/18/2014
Coyote Creek	3208	LACFCD	Centralia Street	110	34 years	—
Dominguez Channel	*	*	*	33	*	*
Little Rock Creek	L1-R	LACFCD	Little Rock Creek above Little Rock Dam	49.2	10/01/1930	09/18/2014
Los Angeles River	F300-R	LACFCD	At Tujunga Avenue	401	05/08/1950	09/18/2014
Los Angeles River	F57-R	LACFCD	Los Angeles River above Arroyo Seco	511	12/05/1929	09/18/2014

Table 12: Stream Gage Information used to Determine Discharges, Continued

Flooding Source	Gage Identifier	Agency that Maintains Gage	Site Name	Drainage Area (Square Miles)	Period of Record	
					From	To
Los Angeles River Flood Control Channel	*	LACFCD	*	*	*	*
Malibu Creek	F130-R	LACFCD	Malibu Creek below Cold Creek	105	01/17/1931	09/18/2014
San Gabriel River	F262-R	LACFCD	San Gabriel River above Florence Avenue	215.8	08/06/1968	09/18/2014
Sawtelle-Westwood Storm Drain Channel	F301-R	LACFCD	At Culver Boulevard	23	01/01/1951	*
Topanga Creek	F548-R	LACFCD	*	*	*	*
Zuma Creek	F53-R	LACFCD	*	*	*	*

* Data not available

5.2 Hydraulic Analyses

Analyses of the hydraulic characteristics of flooding from the sources studied were carried out to provide estimates of the elevations of floods of the selected recurrence intervals. Base flood elevations on the FIRM represent the elevations shown on the Flood Profiles and in the Floodway Data tables in the FIS Report. Rounded whole-foot elevations may be shown on the FIRM in coastal areas, areas of ponding, and other areas with static base flood elevations. These whole-foot elevations may not exactly reflect the elevations derived from the hydraulic analyses. Flood elevations shown on the FIRM are primarily intended for flood insurance rating purposes. For construction and/or floodplain management purposes, users are cautioned to use the flood elevation data presented in this FIS Report in conjunction with the data shown on the FIRM. The hydraulic analyses for this FIS were based on unobstructed flow. The flood elevations shown on the profiles are thus considered valid only if hydraulic structures remain unobstructed, operate properly, and do not fail.

For streams for which hydraulic analyses were based on cross sections, locations of selected cross sections are shown on the Flood Profiles (Exhibit 1). For stream segments for which a floodway was computed (Section 6.3), selected cross sections are also listed on Table 24, "Floodway Data."

A summary of the methods used in hydraulic analyses performed for this project is provided in Table 13. Roughness coefficients are provided in Table 14. Roughness coefficients are values

representing the frictional resistance water experiences when passing overland or through a channel. They are used in the calculations to determine water surface elevations. Greater detail (including assumptions, analysis, and results) is available in the archived project documentation.

Table 13: Summary of Hydrologic and Hydraulic Analyses

[See Volume 2]

Table 14: Roughness Coefficients

Flooding Source	Channel "n"	Overbank "n"
Acton Canyon	0.030-0.039	0.032-0.075
Agua Dulce Canyon Creek	0.042-0.045	0.045-0.100
Agua Dulce Canyon Creek Lateral	0.042	0.045
Aliso Canyon Creek	0.040	0.065
Amargosa Creek	0.040	0.040
Anaverde Creek	0.040	0.040
Avalon Canyon	0.030-0.050	0.030-0.050
Big Rock Wash	0.050	0.050
Bouquet Canyon Creek	0.015-0.048	0.045-0.080
Castaic Creek	0.046-0.050	0.045-0.070
Cheseboro Creek	0.030	0.050
Cold Creek	0.030	0.050
Compton Creek	0.020-0.060	0.020-0.060
Dark Canyon	0.030	0.050
Dominguez Channel	0.025	0.020-0.060
Dry Canyon	0.050-0.060	0.030
Elsmere Canyon Creek	0.015-0.045	0.070
Escondido Canyon	0.039	0.040-0.100
Flow along Empire Avenue	0.014-0.050	0.014-0.050
Flowline No. 1	0.030	0.030
Garapito Creek	0.030	0.050
Hacienda Creek	0.030	0.060
Haskell Canyon	0.020-0.042	0.031-0.050
Hasley Canyon Creek	0.020-0.040	0.050-0.100
Hasley Canyon Creek Split	0.040	0.050
Iron Canyon	0.040-0.050	0.050-0.150

Table 14: Roughness Coefficients, Continued

Flooding Source	Channel "n"	Overbank "n"
Kagel Canyon	0.035-0.065	0.035-0.065
Kentucky Springs Canyon Creek	0.020-0.040	0.060
La Mirada Creek	0.025-0.030	0.025-0.030
Lake Street Overflow	0.014-0.050	0.014-0.050
Las Flores Canyon	0.030	0.050
Las Virgenes Creek	0.012-0.040	0.050-0.130
Liberty Canyon	0.030	0.050
Lindero Canyon above Confluence with Medea Creek	0.03	0.05
Lindero Canyon above Lake Lindero	0.03	0.05
Lion Canyon	0.044	0.050-0.055
Little Rock Wash-Profile A	0.030	0.050
Little Rock Wash-Profile B	0.030	0.050
Little Rock Wash-Profile C	0.030	0.050
Lobo Canyon	0.030	0.050
Lockheed Drain Channel	0.014-0.050	0.014-0.050
Long Canyon	0.035-0.050	0.044-0.050
Lopez Canyon Channel	0.030	0.060
Los Angeles River Left Overbank Path 2	0.016	0.050-0.150
Los Angeles River Right Overbank Path 1	0.016	0.050-0.150
Los Angeles River Right Overbank Path 2	0.016	0.050-0.150
Malibu Creek	0.030	0.050
Medea Creek	0.030	0.050
Medea Creek (Above Ventura Freeway)	0.030	0.050
Mill Creek	0.030	0.060
Mint Canyon Creek	0.015-0.050	0.050-0.130
Mint Canyon Creek Overflow	0.015-0.100	0.080-0.100
Newhall Creek	0.015-0.052	0.045-0.100
Newhall Creek Left Overbank 2	0.032-0.040	0.100-0.120
Newhall Creek Left Overbank 3	0.032	0.100
Newhall Creek Right Overbank 1	0.032	0.100-0.120
North Overflow	0.014-0.050	0.014-0.050

Table 14: Roughness Coefficients, Continued

Flooding Source	Channel “n”	Overbank “n”
Oak Springs Canyon	0.040	0.040-0.070
Oak Springs Canyon Overflow	0.070	0.070
Old Topanga Canyon	0.030	0.050
Overflow Area of Lockheed Drain Channel	0.030-0.040	0.030-0.040
Overflow Area of Lockheed Storm Drain	0.014-0.050	0.014-0.050
Palo Comando Creek	0.030	0.050
Pico Canyon	0.015-0.040	0.040-0.130
Placerita Creek	0.020-0.040	0.040-0.130
Placerita Creek Overflow	0.130	0.050-0.130
Plum Canyon	0.015	0.016-0.030
Potrero Canyon	0.040-0.060	0.040-0.060
Potrero Canyon Overflow	0.060	0.060
Quigley Canyon Creek	0.035-0.060	0.048-0.063
Railroad Canyon	0.035-0.045	0.100
Railroad Canyon Left Overbank	0.028-0.032	0.100
Ramirez Canyon	0.030	0.050
Rio Hondo Left Overbank Path 3	0.050-0.150	0.050-0.150
Rio Hondo Left Overbank Path 5	0.050-0.150	0.050-0.150
Rio Hondo Left Overbank Path 6	0.050-0.150	0.050-0.150
Rustic Canyon	0.035-0.065	0.030-0.065
San Francisquito Canyon Creek	0.038	0.042
San Martinez Chiquito Canyon	0.016-0.040	0.050-0.100
San Martinez Grande Canyon Creek	0.040-0.070	0.040-0.070
Sand Canyon Creek	0.020-0.130	0.050-0.130
Santa Clara River	0.032-0.040	0.010-0.100
Santa Clara River Overflow	0.032	0.036
Santa Maria Canyon	0.050	0.030
Soledad Canyon	0.015-0.040	0.050-0.070
South Fork Santa Clara River	0.020-0.050	0.05-0.100
South Fork Santa Clara River Tributary	0.020-0.050	0.05-0.100
Spade Spring Canyon Creek	0.070	0.075

Table 14: Roughness Coefficients, Continued

Flooding Source	Channel “n”	Overbank “n”
Stokes Canyon	0.030	0.050
Texas Canyon Creek	0.040-0.046	0.050-0.060
Tick Canyon	0.015-0.050	0.050-0.130
Topanga Canyon	0.030	0.050
Towsley Canyon Creek	0.015-0.035	0.045-0.050
Trancas Creek	0.030	0.050
Triunfo Creek	0.030	0.050
Unnamed Canyon (Serra Retreat Area)	0.030	0.050
Unnamed Stream Main Reach	0.015-0.040	0.015-0.120
Unnamed Stream Tributary 1	0.015-0.045	0.015-0.110
Unnamed Stream Tributary 2	0.015-0.045	0.015-0.110
Upper Los Angeles River Left Overbank	0.050-0.150	0.050-0.150
Vasquez Canyon	0.020-0.044	0.044-0.060
Weldon Canyon	0.035-0.065	0.035-0.065
Whitney Canyon Creek	0.045	0.05-0.07
Zuma Canyon	0.030	0.050

5.3 Coastal Analyses

For the areas of Los Angeles County that are impacted by coastal flooding processes, coastal flood hazard analyses were performed to provide estimates of coastal BFEs. Coastal BFEs reflect the increase in water levels during a flood event due to extreme tides and storm surge as well as overland wave effects.

The following subsections provide summaries of how each coastal process was considered for this FIS Report. Greater detail (including assumptions, analysis, and results) is available in the archived project documentation. Table 15 summarizes the methods and/or models used for the coastal analyses. Refer to Section 2.5.1 for descriptions of the terms used in this section.

Table 15: Summary of Coastal Analyses

Flooding Source	Study Limits From	Study Limits To	Hazard Evaluated	Model or Method Used	Date Analysis was Completed
TBD	TBD	TBD	TBD	TBD	TBD

5.3.1 Total Stillwater Elevations

The total stillwater elevations (stillwater including storm surge plus wave setup) for the 1% annual chance flood were determined for areas subject to coastal flooding. The models and

methods that were used to determine storm surge and wave setup are listed in Table 15. The stillwater elevation that was used for each transect in coastal analyses is shown in Table 17, “Coastal Transect Parameters.” Figure 8 shows the total stillwater elevations for the 1% annual chance flood that was determined for this coastal analysis.

Figure 8: 1% Annual Chance Total Stillwater Elevations for Coastal Areas

[Not Applicable to this Flood Risk Project]

Astronomical Tide

Astronomical tidal statistics were generated directly from local tidal constituents by sampling the predicted tide at random times throughout the tidal epoch.

Storm Surge Statistics

Storm surge is modeled based on characteristics of actual storms responsible for significant coastal flooding. The characteristics of these storms are typically determined by statistical study of the regional historical record of storms or by statistical study of tidal gages.

When historic records are used to calculate storm surge, characteristics such as the strength, size, track, etc., of storms are identified by site. Storm data was used in conjunction with numerical hydrodynamic models to determine the corresponding storm surge levels. An extreme value analysis was performed on the storm surge modeling results to determine a stillwater elevation for the 1% annual chance event.

Tidal gages can be used instead of historic records of storms when the available tidal gage record for the area represents both the astronomical tide component and the storm surge component. Table 16 provides the gage name, managing agency, gage type, gage identifier, start date, end date, and statistical methodology applied to each gage used to determine the stillwater elevations. For areas between gages, peak stillwater elevations for selected recurrence intervals were estimated by combining interpolation between gages and observed high water marks during major storms. A regionalized statistical approach was applied to the gage data so that stillwater elevations in areas between gages could be identified.

Table 16: Tide Gage Analysis Specifics

Gage Name	Managing Agency of Tide Gage Record	Gage Type	Start Date	End Date	Statistical Methodology
TBD	TBD	TBD	TBD	TBD	TBD

Wave Setup Analysis

Wave setup was computed during the storm surge modeling through the methods and models listed in Table 15 and included in the frequency analysis for the determination of the total stillwater elevations. The oscillating component of wave setup, *dynamic wave setup*, was calculated for areas subject to wave runoff hazards.

5.3.2 Waves

A coastal wave model (Coastal State University 2007) was used to calculate the nearshore wave fields required for the addition of wave setup effects. Three nested grids were used to obtain sufficient nearshore resolution to represent the radiation stress gradients required as ADCIRC inputs. Radiation stress fields output from the inner grids are used by ADCIRC to estimate the contribution of breaking waves (wave setup effects) to the total stillwater elevation.

5.3.3 Coastal Erosion

A single storm episode can cause extensive erosion in coastal areas. Storm-induced erosion was evaluated to determine the modification to existing topography that is expected to be associated with flooding events. Erosion was evaluated using the methods listed in Table 15. The post-event eroded profile was used for the subsequent transect-based onshore wave hazard analyses.

5.3.4 Wave Hazard Analyses

Overland wave hazards were evaluated to determine the combined effects of ground elevation, vegetation, and physical features on overland wave propagation and wave runoff. These analyses were performed at representative transects along all shorelines for which waves were expected to be present during the floods of the selected recurrence intervals. The results of these analyses were used to determine elevations for the 1% annual chance flood.

Transect locations were chosen with consideration given to the physical land characteristics as well as development type and density so that they would closely represent conditions in their locality. Additional consideration was given to changes in the total stillwater elevation. Transects were spaced close together in areas of complex topography and dense development or where total stillwater elevations varied. In areas having more uniform characteristics, transects were spaced at larger intervals. Transects shown in Figure 9, “Transect Location Map,” are also depicted on the FIRM. Table 17 provides the location, stillwater elevations, and starting wave conditions for each transect evaluated for overland wave hazards. In this table, “starting” indicates the parameter value at the beginning of the transect.

Wave Height Analysis

Wave height analyses were performed to determine wave heights and corresponding wave crest elevations for the areas inundated by coastal flooding and subject to overland wave propagation hazards. Refer to Figure 6 for a schematic of a coastal transect evaluated for overland wave propagation hazards.

Wave heights and wave crest elevations were modeled using the methods and models listed in Table 15, “Summary of Coastal Analyses”.

Wave Runup Analysis

Wave runup analyses were performed to determine the height and extent of runup beyond the limit of stillwater inundation for the 1% annual chance flood. Wave runup elevations were modeled using the methods and models listed in Table 15.

Table 17: Coastal Transect Parameters

Flood Source	Coastal Transect	Starting Wave Conditions for the 1% Annual Chance		Starting Stillwater Elevations (ft NAVD88) Range of Stillwater Elevations (ft NAVD88)				
		Significant Wave Height H_s (ft)	Peak Wave Period T_p (sec)	10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD

* Not calculated for this Flood Risk Project

Figure 9: Transect Location Map
[Not Applicable to this Flood Risk Project]

5.4 Alluvial Fan Analyses

Alluvial fan flooding can pose significant risk to communities due to uncertain flow paths and the potential for mud and debris flows. Alluvial fans and flooding on alluvial fans show great diversity because of variations in climate, fan history, rates and styles of tectonism, source area lithology, vegetation, and land use. Acknowledging this diversity, FEMA developed an approach that considers site-specific conditions in the identification and mapping of flood hazards on alluvial fans. The FEMA alluvial fan methodology was used to determine the flood depths and velocities on the alluvial fans described in Table 18.

A summary of the peak discharge at the fan apex and results for the 1% annual chance determinations for all the streams studied by alluvial fan analyses is shown in Table 19, “Results of Alluvial Fan Analyses.”

Table 18: Summary of Alluvial Fan Analyses

Flooding Source	Location From (apex)	Location To (toe)	Drainage Area above Apex (sq mi)	Model(s) Used	Date Analysis was Completed	Method Description
TBD	TBD	TBD	TBD	TBD	TBD	TBD

Table 19: Results of Alluvial Fan Analyses

Flooding Source	Location From (apex)	Location To (toe)	1% Annual Chance Peak Flow at Fan Apex (cfs)	Flood Zones and Depths (ft)	Minimum Velocity (fps)	Maximum Velocity (fps)
TBD	TBD	TBD	TBD	TBD	TBD	TBD

SECTION 6.0 – MAPPING METHODS

6.1 Vertical and Horizontal Control

All FIS Reports and FIRMs are referenced to a specific vertical datum. The vertical datum provides a starting point against which flood, ground, and structure elevations can be referenced and compared. Until recently, the standard vertical datum used for newly created or revised FIS Reports and FIRMs was the National Geodetic Vertical Datum of 1929 (NGVD29). With the completion of the North American Vertical Datum of 1988 (NAVD88), many FIS Reports and FIRMs are now prepared using NAVD88 as the referenced vertical datum.

Flood elevations shown in this FIS Report and on the FIRMs are referenced to NAVD88. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between NGVD29 and NAVD88 or other datum conversion, visit the National Geodetic Survey website at www.ngs.noaa.gov, or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

Temporary vertical monuments are often established during the preparation of a flood hazard analysis for the purpose of establishing local vertical control. Although these monuments are not shown on the FIRM, they may be found in the archived project documentation associated with the FIS Report and the FIRMs for this community. Interested individuals may contact FEMA to access these data.

To obtain current elevation, description, and/or location information for benchmarks in the area, please contact information services Branch of the NGS at (301) 713-3242, or visit their website at www.ngs.noaa.gov.

The datum conversion locations and values that were calculated for Los Angeles County are provided in Table 20.

Table 20: Countywide Vertical Datum Conversion

[Not Applicable to this Flood Risk Project]

A countywide conversion factor could not be generated for Los Angeles County because the maximum variance from average exceeds 0.25 feet. Calculations for the vertical offsets on a stream by stream basis are depicted in Table 21.

Table 21: Stream-Based Vertical Datum Conversion

Flooding Source	Average Vertical Datum Conversion Factor (feet)
Amargosa Creek	+2.800
Anaverde Creek	+2.800
Avalon Canyon	+2.800
Big Rock Wash	+2.800
Cheseboro Creek	+2.900
Cold Creek	+2.900
Dark Canyon	+2.900
Dry Canyon	+2.900
Escondido Canyon	+2.900
Flow Along Empire Avenue	+2.800
Flowline No. 1	+2.800
Garapito Creek	+2.900
Hacienda Creek	+2.800
Kagel Canyon	+2.800
La Mirada Creek	+2.800
Lake Street Overflow	+2.800
Las Flores Canyon	+2.900
Las Virgenes Creek	+2.900
Liberty Canyon	+2.900
Lindero Canyon (Above Confluence with Medea Creek)	+2.900
Lindero Canyon (Above Lake Lindero)	+2.900
Little Rock Wash - Profile A	+2.800
Little Rock Wash - Profile B	+2.800
Little Rock Wash - Profile C	+2.800
Lobo Canyon	+2.900
Lockheed Drain Channel	+2.800
Lopez Canyon Channel	+2.800
Los Angeles River Left Overbank Path 2	+2.800
Los Angeles River Right Overbank Path 1	+2.800
Los Angeles River Right Overbank Path 2	+2.800
Malibu Creek	+2.900
Medea Creek	+2.900

Table 21: Stream-Based Vertical Datum Conversion, Continued

Flooding Source	Average Vertical Datum Conversion Factor (feet)
Medea Creek (Above Ventura Freeway)	+2.900
Mill Creek	+2.800
North Overflow	+2.800
Old Topanga Canyon	+2.900
Overflow Area of Lockheed Drain Channel	+2.800
Overflow Area of Lockheed Storm Drain	+2.800
Palo Comando Creek	+2.900
Ramirez Canyon	+2.900
Rio Hondo River Left Overbank Path 3	+2.800
Rio Hondo River Left oOverbank Path 5	+2.800
Rio Hondo River Left Overbank Path 6	+2.800
Rustic Canyon	+2.800
Santa Maria Canyon	+2.900
Stokes Canyon	+2.900
Topanga Canyon	+2.900
Trancas Creek	+2.900
Triunfo Creek	+2.900
Unnamed Canyon Creek (Serra Retreat Area)	+2.900
Upper Los Angeles River Left Overbank	+2.800
Weldon Canyon	+2.900
Zuma Canyon	+2.900

6.2 Base Map

The FIRMs and FIS Report for this project have been produced in a digital format. The flood hazard information was converted to a Geographic Information System (GIS) format that meets FEMA’s FIRM database specifications and geographic information standards. This information is provided in a digital format so that it can be incorporated into a local GIS and be accessed more easily by the community. The FIRM Database includes most of the tabular information contained in the FIS Report in such a way that the data can be associated with pertinent spatial features. For example, the information contained in the Floodway Data table and Flood Profiles can be linked to the cross sections that are shown on the FIRMs. Additional information about the FIRM Database and its contents can be found in FEMA’s *Guidelines and Standards for Mapping Partners*, Appendix L.

Base map information shown on the FIRM was derived from the sources described in Table 22.

Table 22: Base Map Sources

Data Type	Data Provider	Data Date	Data Scale	Data Description
Digital Vector Data	U.S. Geological Survey (USGS)	1989	1:24,000	Spatial and attribute information for the index of USGS 7.5-Minute Series Topographic Map boundaries
Digital Orthophoto	U.S. Geological Survey (USGS)	2004	1:12,000	Spatial and attribute information for some streamlines, roads and some general structures
Digital Orthophoto	U.S. Dept. of Agriculture - Farm Service Agency	2014	1:12,000	Digital ortho imagery for Los Angeles County, CA
Digital Vector Data	Bureau of Land Management	2008	1:12,000	Spatial and attribute information for PLSS Section, Township, and Range Gridlines
Digital Vector Data	GreenInfo Network - California Protected Areas Database	2014	1:12,000	Spatial and attribute information for National Forests.
Digital Vector Data	Los Angeles County	2013	1:12,000	Spatial and attribute information for political boundaries for Los Angeles County and Incorporated areas
Digital Vector Data	Bureau of Land Management	2005	1:12,000	Spatial and attribute information for Federal Lands and Military base
Digital Vector Data	U.S. Dept. of Commerce, U.S. Census Bureau, Geography Division	2014	1:12,000	Spatial and attribute information for transportation labels

6.3 Floodplain and Floodway Delineation

The FIRM shows tints, screens, and symbols to indicate floodplains and floodways as well as the locations of selected cross sections used in the hydraulic analyses and floodway computations.

For riverine flooding sources, the mapped floodplain boundaries shown on the FIRM have been delineated using the flood elevations determined at each cross section; between cross sections, the boundaries were interpolated using the topographic elevation data described in Table 23. For each coastal flooding source studied as part of this FIS Report, the mapped floodplain boundaries on the FIRM have been delineated using the flood and wave elevations determined at each transect;

between transects, boundaries were delineated using land use and land cover data, the topographic elevation data described in Table 23, and knowledge of coastal flood processes. In ponding areas, flood elevations were determined at each junction of the model; between junctions, boundaries were interpolated using the topographic elevation data described in Table 23.

In cases where the 1% and 0.2% annual chance floodplain boundaries are close together, only the 1% annual chance floodplain boundary has been shown. Small areas within the floodplain boundaries may lie above the flood elevations but cannot be shown due to limitations of the map scale and/or lack of detailed topographic data.

The floodway widths presented in this FIS Report and on the FIRM were computed for certain stream segments on the basis of equal conveyance reduction from each side of the floodplain. Floodway widths were computed at cross sections. Between cross sections, the floodway boundaries were interpolated.

Small areas within the floodplain boundaries may lie above the flood elevations but cannot be shown due to limitations of the map scale and/or lack of detailed topographic data. The procedures to remove these areas from the SFHA are described in Section 6.5 of this FIS Report.

Table 2 indicates the flooding sources for which floodways have been determined. The results of the floodway computations for those flooding sources have been tabulated for selected cross sections and are shown in Table 24, “Floodway Data.”

Certain flooding sources may have been studied that do not have published BFEs on the FIRMs, or for which there is a need to report the 1% annual chance flood elevations at selected cross sections because a published Flood Profile does not exist in this FIS Report. These streams may have also been studied using methods to determine non-encroachment zones rather than floodways. For these flooding sources, the 1% annual chance floodplain boundaries have been delineated using the flood elevations determined at each cross section; between cross sections, the boundaries were interpolated using the topographic elevation data described in Table 23. All topographic data used for modeling or mapping has been converted as necessary to NAVD 88. The 1% annual chance elevations for selected cross sections along these flooding sources, along with their non-encroachment widths, if calculated, are shown in Table 25, “Flood Hazard and Non-Encroachment Data for Selected Streams.”

Table 23: Summary of Topographic Elevation Data used in Mapping

Community	Flooding Source	Source for Topographic Elevation Data			
		Description	Scale	Contour Interval	Citation
Los Angeles County and Incorporated Areas	All studied streams within this FIS report	LiDAR	1=100	2 ft	Los Angeles Region Imagery Acquisition Consortium (LAR-IAC)

BFEs shown at cross sections on the FIRM represent the 1% annual chance water surface elevations shown on the Flood Profiles and in the Floodway Data tables in the FIS Report.

Rounded whole-foot elevations may be shown on the FIRM in coastal areas, areas of ponding, and other areas with static base flood elevations.

Table 24: Floodway Data

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,735	370	1,078	3.8	2,704.4	2,704.4	2,705.2	0.8
B	2,976	416	928	4.4	2,712.9	2,712.9	2,713.9	1.0
C	3,746	214	274	6.1	2,726.4	2,726.4	2,727.2	0.8
D	4,256	138	231	7.2	2,742.7	2,742.7	2,742.8	0.1
E	4,424	114	225	7.4	2,746.6	2,746.6	2,747.3	0.7
F	5,055	167	250	6.7	2,761.3	2,761.3	2,762.3	1.0
G	6,299	78	193	8.6	2,793.3	2,793.3	2,793.4	0.1
H	7,319	79	199	8.4	2,819.0	2,819.0	2,819.1	0.1
I	8,239	80	203	8.2	2,841.0	2,841.0	2,841.0	0.0
J	8,961	112	224	7.5	2,858.1	2,858.1	2,859.1	1.0
K	9,619	88	196	8.5	2,878.1	2,878.1	2,878.4	0.3

¹ Feet above confluence with Santa Clara River

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY LOS ANGELES COUNTY, CALIFORNIA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: ACTON CANYON

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A-K ¹	*	*	*	*	*	*	*	*
L	17,397	81	295	10.2	2,291.4	2,291.4	2,292.1	0.7
M	18,414	50	250	12.1	2,347.1	2,347.1	2,347.9	0.8
N	19,336	53	247	12.2	2,367.3	2,367.3	2,367.4	0.1
O	20,524	52	272	11.1	2,426.4	2,426.4	2,427.0	0.6
P	21,149	88	294	10.3	2,464.5	2,464.5	2,465.5	1.0
Q	22,200	130	335	9.0	2,485.0	2,485.0	2,485.8	0.8
R	23,354	154	427	7.1	2,506.0	2,506.0	2,507.0	1.0
S	24,575	135	366	8.2	2,525.5	2,525.5	2,526.4	0.9
T	25,631	155	357	8.4	2,541.6	2,541.6	2,542.2	0.6
U	26,548	165	406	7.4	2,556.1	2,556.1	2,557.1	1.0
V	27,778	162	387	7.8	2,575.7	2,575.7	2,576.7	1.0
W	29,633	59	268	11.3	2,611.1	2,611.1	2,611.2	0.1
X	30,819	234	835	4.4	2,634.9	2,634.9	2,635.1	0.2
Y	32,155	130	240	7.4	2,660.2	2,660.2	2,660.7	0.5
Z	33,203	100	234	7.6	2,678.3	2,678.3	2,678.9	0.6
AA	34,151	49	177	10.0	2,694.9	2,694.9	2,695.0	0.1
AB	34,954	60	180	9.9	2,711.8	2,711.8	2,711.8	0.0
AC	35,956	105	217	8.1	2,734.8	2,734.8	2,735.7	0.9
AD	36,779	127	238	7.4	2,752.9	2,752.9	2,753.7	0.8
AE	37,903	132	244	7.3	2,779.9	2,779.9	2,780.8	0.9
AF	39,187	113	241	7.3	2,807.7	2,807.7	2,808.1	0.4
AG	40,612	116	246	7.2	2,842.4	2,842.4	2,842.4	0.0
AH	41,244	65	194	9.1	2,859.3	2,859.3	2,860.0	0.7
AI	41,960	90	212	8.4	2,876.0	2,876.0	2,876.5	0.5

¹ Floodway not computed

² Feet above confluence with Santa Clara River

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY LOS ANGELES COUNTY, CALIFORNIA AND INCORPORATED AREAS	FLOODWAY DATA FLOODING SOURCE: AGUA DULCE CANYON CREEK
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Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,220	104	354	10.5	2,744.4	2,744.4	2,744.4	0.0
B	1,410	105	342	10.9	2,745.2	2,745.2	2,745.2	0.0
C	2,110	310	535	7.0	2,756.3	2,756.3	2,756.4	0.1
D	2,400	285	403	9.3	2,760.6	2,760.6	2,761.0	0.4
E	3,020	579 ²	596	6.3	2,768.9	2,768.9	2,768.9	0.0
F	4,090	257 ²	436	8.6	2,785.3	2,785.3	2,785.9	0.6
G	4,371	480	549	6.8	2,800.2	2,800.2	2,800.7	0.5
H	4,476	480	3261	1.1	2,801.2	2,801.2	2,801.9	0.7
I	5,251	140	391	9.5	2,803.2	2,803.2	2,803.2	0.0
J	8,501	57 ³	292	12.4	2,859.5	2,859.5	2,859.5	0.0
K	8,871	53 ³	329	11.0	2,869.2	2,869.2	2,869.2	0.0
L	9,261	80 ³	372	9.8	2,875.4	2,875.4	2,875.4	0.0
M	9,711	105 ³	488	7.4	2,879.8	2,879.8	2,880.3	0.5
N	10,191	127 ³	342	9.4	2,886.7	2,886.7	2,886.7	0.0
O	12,251	139 ³	549	5.8	2,905.7	2,905.7	2,905.7	0.0
P	12,581	139 ³	432	7.4	2,907.6	2,907.6	2,907.6	0.0
Q	13,291	220	1008	3.2	2,914.0	2,914.0	2,914.1	0.1
R	13,561	220	1401	2.3	2,914.4	2,914.4	2,914.6	0.2
S	13,941	250	997	3.2	2,914.6	2,914.6	2,914.9	0.3
T	14,381	139	333	7.3	2,916.2	2,916.2	2,916.6	0.4
Y	18,091	115	812	3.0	2,928.4	2,928.4	2,928.5	0.1
V	18,341	31	300	8.1	2,928.6	2,928.6	2,928.7	0.1
W	18,611	31	272	9.0	2,931.8	2,931.8	2,931.8	0.0

¹ Feet upstream of Division Street

² Area of stilling basin – no floodway determined between cross sections

³ Lies entirely outside corporate limits of City of Palmdale

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY LOS ANGELES COUNTY, CALIFORNIA AND INCORPORATED AREAS	FLOODWAY DATA FLOODING SOURCE: ANAVERDE CREEK
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Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	871	301	1,324	11.9	1,150.7	1,150.7	1,150.7	0.0
B	1,490	180	1,117	14.1	1,157.1	1,157.1	1,157.2	0.1
C	2,503	109	940	16.7	1,169.7	1,169.7	1,169.7	0.0
D	3,450	110	810	15.4	1,177.5	1,177.5	1,177.5	0.0
E	4,081	97	943	13.2	1,185.5	1,185.5	1,185.6	0.1
F	4,270	119	1,059	11.7	1,196.1	1,196.1	1,196.1	0.0
G	5,793	154	932	13.4	1,202.5	1,202.5	1,202.5	0.0
H	6,789	140	902	13.8	1,209.2	1,209.2	1,209.2	0.0
I	7,737	96	777	16.0	1,225.3	1,225.3	1,225.4	0.1
J	8,541	119	845	14.7	1,233.9	1,233.9	1,233.9	0.0
K	9,474	93	772	16.1	1,244.0	1,244.0	1,244.0	0.0
L	10,221	117	963	12.9	1,250.3	1,250.3	1,250.3	0.0
M	11,427	116	855	14.5	1,260.5	1,260.5	1,260.5	0.0
N	12,252	117	833	14.9	1,267.7	1,267.7	1,267.7	0.0
O	12,804	115	1,062	11.7	1,273.4	1,273.4	1,273.4	0.0
P	13,543	114	678	13.8	1,288.5	1,288.5	1,288.5	0.0
Q	14,474	118	737	12.7	1,296.7	1,296.7	1,296.7	0.0
R	15,369	113	673	13.9	1,305.2	1,305.2	1,305.2	0.0
S	16,641	108	665	14.1	1,318.8	1,318.8	1,318.8	0.0
T	17,823	113	679	13.8	1,334.6	1,334.6	1,334.6	0.0
U	19,072	144	642	13.3	1,350.2	1,350.2	1,350.2	0.0
V	19,993	122	758	11.2	1,362.8	1,362.8	1,362.8	0.0
W	20,653	112	634	13.4	1,375.1	1,375.1	1,375.1	0.0
X	21,879	260	928	8.9	1,395.5	1,395.6	1,396.5	0.9
Y	22,833	240	909	9.1	1,411.1	1,411.1	1,411.2	0.1
Z	23,865	290	1211	6.8	1,423.0	1,423.0	1,424.0	1.0

¹ Feet above confluence with Santa Clara River

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY LOS ANGELES COUNTY, CALIFORNIA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: BOUQUET CANYON CREEK

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
AA	24,681	228	1,060	7.8	1,431.9	1,431.9	1,432.8	0.9
AB	26,167	230	945	8.7	1,450.4	1,450.4	1,450.7	0.3
AC	27,010	400	1,202	6.9	1,460.5	1,460.5	1,460.5	0.0
AD	28,175	194	888	9.3	1,472.6	1,472.6	1,473.2	0.6
AE	29,194	144	944	8.7	1,486.6	1,486.6	1,487.1	0.5
AF	30,399	174	834	9.9	1,503.8	1,503.8	1,504.2	0.4
AG	31,621	418	1,109	6.9	1,518.5	1,518.5	1,518.6	0.1
AH	32,277	400	1,287	6.0	1,525.5	1,525.5	1,526.2	0.7
AI	32,999	288	854	9.0	1,535.6	1,535.6	1,535.6	0.0
AJ	34,455	324	830	9.3	1,551.5	1,551.5	1,551.6	0.1
AK	35,342	376	1,223	6.3	1,565.0	1,565.0	1,565.0	0.0
AL	36,384	274	958	8.0	1,576.9	1,576.9	1,577.5	0.6
AM	37,073	199	806	9.5	1,584.9	1,584.9	1,585.1	0.2
AN	37,655	406	936	8.2	1,594.6	1,594.6	1,595.0	0.4
AO	38,104	380	1,165	6.6	1,601.0	1,601.0	1,601.5	0.5
AP	38,991	170	739	10.4	1,615.3	1,615.3	1,616.0	0.7
AQ	40,044	136	440	9.5	1,628.5	1,628.5	1,629.2	0.7
AR	41,015	92	416	10.1	1,641.5	1,641.5	1,641.6	0.1

¹ Feet above confluence with Santa Clara River

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY LOS ANGELES COUNTY, CALIFORNIA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: BOUQUET CANYON CREEK

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	513	152	340	7.0	2,717.7	2,717.7	2,718.6	0.9
B	846	130	331	7.2	2,722.3	2,722.3	2,722.7	0.4
C	1,539	134	306	7.8	2,731.6	2,731.6	2,731.9	0.3
D	1,877	159	341	7.0	2,737.1	2,737.1	2,737.7	0.6
E	2,909	112	294	8.1	2,752.8	2,752.8	2,753.4	0.6
F	3,472	171	335	7.1	2,761.8	2,761.8	2,762.5	0.7
G	4,373	176	345	6.9	2,776.5	2,776.5	2,777.3	0.8
H	4,686	109	315	7.6	2,783.1	2,783.1	2,784.0	0.9
I	5,637	125	330	7.2	2,802.9	2,802.9	2,803.9	1.0
J	6,249	126	314	7.6	2,816.4	2,816.4	2,816.7	0.3
K	6,387	127	284	8.4	2,820.7	2,820.7	2,821.2	0.5
L	6,790	105	289	8.3	2,827.9	2,827.9	2,828.7	0.8
M	7,305	100	277	8.6	2,838.6	2,838.6	2,839.0	0.4
N	7,450	115	348	6.9	2,841.5	2,841.5	2,842.4	0.9
O	7,526	72	257	9.3	2,846.0	2,846.0	2,846.4	0.4
P	7,746	80	243	9.8	2,848.6	2,848.6	2,849.4	0.8
Q	8,238	72	249	9.6	2,861.3	2,861.3	2,861.8	0.5
R	8,625	154	342	7.0	2,869.6	2,869.6	2,870.3	0.7
S	8,772	151	319	7.5	2,872.9	2,872.9	2,873.6	0.7

¹ Feet above confluence with Acton Canyon

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY LOS ANGELES COUNTY, CALIFORNIA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: ESCONDIDO CANYON

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	297	70	284	11.7	1,277.8	1,277.8	1,277.8	0.0
B	595	43	247	13.5	1,279.7	1,279.7	1,279.7	0.0
C	924	47	260	12.8	1,281.0	1,281.0	1,281.1	0.1
D	1,081	47	302	11.0	1,282.8	1,282.8	1,282.8	0.0
E	1,300	59	272	12.2	1,284.3	1,284.3	1,284.3	0.0
F	1,864	47	249	13.4	1,299.8	1,299.8	1,299.8	0.0
G	2,839	47	251	13.2	1,313.1	1,313.1	1,313.1	0.0
H	3,505	48	253	13.1	1,322.7	1,322.7	1,322.7	0.0
I	4,713	48	252	13.2	1,338.7	1,338.7	1,338.7	0.0
J	5,470	54	399	8.3	1,349.6	1,349.6	1,349.6	0.0
K	5,866	82	305	10.9	1,353.5	1,353.5	1,353.5	0.0
L	6,095	86	309	10.8	1,360.0	1,360.0	1,360.0	0.0
M	6,422	98	323	10.3	1,364.4	1,364.4	1,364.4	0.0
N	7,389	109	335	9.9	1,379.9	1,379.9	1,380.0	0.1
O	7,940	244	450	7.4	1,387.4	1,387.4	1,387.4	0.0

¹ Feet above confluence with Bouquet Canyon Creek

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY LOS ANGELES COUNTY, CALIFORNIA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: HASKELL CANYON

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	257	53	112	6.6	1711.0	1711.0	1712.0	1.0
B	956	46	90	8.3	1720.4	1720.4	1720.4	0.0
C	1778	28	74	10.2	1735.5	1735.5	1735.5	0.0
D	2561	46	119	9.3	1758.3	1758.3	1758.3	0.0
E	3165	59	78	9.5	1776.4	1776.4	1776.4	0.0
F	3872	43	114	10.0	1797.7	1797.7	1797.7	0.0
G	4443	32	77	9.6	1819.1	1819.1	1819.1	0.0
H	4852	41	97	7.7	1832.3	1832.3	1832.8	0.5
I	5225	55	94	7.9	1848.6	1848.6	1848.6	0.0
J	5701	47	80	9.3	1868.1	1868.1	1868.1	0.0
K	6159	34	81	9.2	1890.4	1890.4	1890.4	0.0
L	6739	43	86	8.6	1917.7	1917.7	1917.7	0.0
M	7579	38	86	8.7	1971.9	1971.9	1971.9	0.0
N	8128	13	61	12.3	2007.4	2007.4	2007.5	0.1
O	8702	49	95	7.9	2055.7	2055.7	2055.7	0.0

¹ Feet above confluence with Sand Canyon Creek

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY LOS ANGELES COUNTY, CALIFORNIA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: IRON CANYON

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	650	100	149	7.23	1,150.8	1,150.8	1,150.8	0.0

¹ Feet upstream of Northwest Edge of Osborne Street

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY LOS ANGELES COUNTY, CALIFORNIA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: KAGEL CANYON

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A ²	*	*	*	*	*	*	*	*
B ²	*	*	*	*	*	*	*	*
C ²	*	*	*	*	*	*	*	*
D ²	*	*	*	*	*	*	*	*
E ²	*	*	*	*	*	*	*	*
F ²	*	*	*	*	*	*	*	*
G	4,675	691	1,230	4.8	1,505.3	1,505.3	1,505.7	0.4
H	5,701	489	1,005	5.8	1,520.7	1,520.7	1,521.2	0.5
I	6,829	352	1,006	5.8	1,538.6	1,538.6	1,538.9	0.3
J	7,415	336	921	6.4	1,547.1	1,547.1	1,547.3	0.2
K	8,436	249	825	7.1	1,562.5	1,562.5	1,563.2	0.7
L	9,788	425	944	6.2	1,582.3	1,582.3	1,583.3	1.0
M	10,896	295	859	6.8	1,598.5	1,598.5	1,598.8	0.3
N	12,426	254	521	11.2	1,620.7	1,620.7	1,620.9	0.2
O	13,605	292	859	6.8	1,642.4	1,642.4	1,642.4	0.0
P	15,063	252	782	7.4	1,662.7	1,662.7	1,662.7	0.0
Q	16,579	68	475	12.2	1,685.1	1,685.1	1,685.8	0.7
R	18,221	211	928	6.3	1,709.2	1,709.2	1,709.7	0.5
S	19,139	572	1,265	4.6	1,724.7	1,724.7	1,724.9	0.2
T	19,660	350	786	6.7	1,732.2	1,732.2	1,732.6	0.4
U	20,687	426	1,040	5.1	1,748.4	1,748.4	1,748.9	0.5
V	21,586	309	798	6.6	1,764.6	1,764.6	1,765.0	0.4
W	22,614	88	472	11.2	1,782.4	1,782.4	1,782.5	0.1
X	23,495	230	978	5.4	1,796.0	1,796.0	1,796.8	0.8
Y	24,530	232	842	6.3	1,812.5	1,812.5	1,813.0	0.5
Z	25,461	219	630	8.4	1,825.8	1,825.8	1,826.1	0.3

¹ Feet above Santa Clara River Trail

² Floodway not computed / shown for these cross sections

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY LOS ANGELES COUNTY, CALIFORNIA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: MINT CANYON CREEK

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
AA	26,219	245	923	5.7	1,839.1	1,839.1	1,839.7	0.6
AB	27,123	366	640	8.3	1,852.6	1,852.6	1,852.6	0.0
AC	27,895	186	788	6.7	1,864.8	1,864.8	1,865.4	0.6
AD	28,728	164	673	7.9	1,876.6	1,876.6	1,877.5	0.9
AE	29,364	219	665	7.9	1,890.1	1,890.1	1,890.3	0.2
AF	30,207	200	748	7.1	1,902.7	1,902.7	1,903.5	0.8
AG	31,208	165	975	5.4	1,919.7	1,919.7	1,920.4	0.7
AH	31,881	214	735	7.2	1,929.2	1,929.2	1,929.5	0.3
AI	32,486	228	782	6.8	1,938.9	1,938.9	1,939.3	0.4
AJ	33,030	230	667	7.9	1,949.3	1,949.3	1,950.2	0.9
AK	34,049	171	667	7.9	1,963.5	1,963.5	1,963.7	0.2
AL	34,594	130	597	8.9	1,973.7	1,973.7	1,973.7	0.0
AM	35,535	90	498	10.0	1,989.5	1,989.5	1,990.0	0.5
AN	36,291	178	839	6.0	2,003.6	2,003.6	2,004.0	0.4
AO	36,935	125	680	7.4	2,012.1	2,012.1	2,012.7	0.6
AP	37,602	104	516	9.7	2,021.3	2,021.3	2,021.8	0.5
AQ	38,045	154	740	6.8	2,033.1	2,033.1	2,033.7	0.6
AR	38,754	137	682	7.3	2,043.0	2,043.0	2,043.6	0.6
AS	39,359	172	731	6.8	2,051.1	2,051.1	2,051.1	0.0
AT	39,810	170	751	6.7	2,060.2	2,060.2	2,060.5	0.5
AU	40,641	187	781	6.4	2,072.9	2,072.9	2,073.3	0.4
AV	41,282	272	620	8.1	2,083.1	2,083.1	2,083.4	0.3
AW	41,971	84	405	12.3	2,093.5	2,093.5	2,093.5	0.0
AX	42,537	173	945	5.3	2,105.3	2,105.3	2,106.1	0.8
AY	43,471	130	393	8.7	2,124.9	2,124.9	2,125.3	0.4
AZ	44,161	131	515	6.7	2,136.0	2,136.0	2,137.0	1.0

¹ Feet above Santa Clara River Trail

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY LOS ANGELES COUNTY, CALIFORNIA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: MINT CANYON CREEK

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
BA	44,692	117	485	7.1	2,146.4	2,146.4	2,147.4	1.0
BB	45,225	129	518	6.6	2,156.7	2,156.7	2,157.3	0.6
BC	45,689	130	457	7.5	2,166.2	2,166.2	2,166.7	0.5
BD	46,421	154	321	10.7	2,179.5	2,179.5	2,180.2	0.7
BE	46,904	208	458	7.5	2,191.4	2,191.4	2,191.7	0.3
BF	47,652	107	420	8.2	2,211.2	2,211.2	2,211.5	0.3
BG	48,150	58	281	12.2	2,229.7	2,229.7	2,229.9	0.2
BH	48,989	83	336	10.2	2,277.9	2,277.9	2,278.1	0.2
BI	49,514	149	334	10.3	2,298.2	2,298.2	2,298.2	0.0
BJ	50,209	186	516	6.7	2,318.3	2,318.3	2,318.4	0.1
BK	51,190	229	485	7.1	2,341.9	2,341.9	2,341.9	0.0
BL	52,132	120	497	6.9	2,362.7	2,362.7	2,363.2	0.5
BM	52,904	118	295	6.2	2,381.5	2,381.5	2,381.9	0.4
BN	53,789	112	291	6.3	2,401.3	2,401.3	2,402.1	0.8
BO	54,682	104	269	6.8	2,420.8	2,420.8	2,421.3	0.5
BP	55,746	63	196	9.3	2,441.0	2,441.0	2,441.2	0.2
BQ	56,695	122	320	5.7	2,463.2	2,463.2	2,463.7	0.5
BR	57,506	140	320	5.7	2,481.9	2,481.9	2,482.2	0.3
BS	58,695	286	538	3.4	2,510.4	2,510.4	2,510.7	0.3
BT	59,915	211	396	4.6	2,540.7	2,540.7	2,540.8	0.1
BU	61,144	205	413	4.5	2,573.5	2,573.5	2,573.8	0.3
BV	62,387	257	339	5.4	2,606.7	2,606.7	2,607.7	1.0
BW	63,160	166	382	4.8	2,628.0	2,628.0	2,628.1	0.1

¹ Feet above Santa Clara River Trail

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY LOS ANGELES COUNTY, CALIFORNIA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: MINT CANYON CREEK

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	84	307	1,178	7.0	1,199.0	1,199.0	1,199.0	0.0
B	628	177	774	10.7	1,203.3	1,203.3	1,203.3	0.0
C	1,377	104	722	10.4	1,212.0	1,212.0	1,212.0	0.0
D	1,905	87	614	6.4	1,215.6	1,215.6	1,215.7	0.1
E	2,122	61	398	9.8	1,216.0	1,216.0	1,216.2	0.2
F	2,912	36	259	15.1	1,223.1	1,223.1	1,223.1	0.0
G	3,632	33	250	15.7	1,234.0	1,234.0	1,234.1	0.1
H	4,418	34	251	15.6	1,242.8	1,242.8	1,242.8	0.0
I	4,826	41	268	14.6	1,247.1	1,247.1	1,247.2	0.1
J	5,238	167	725	5.4	1,257.0	1,257.0	1,257.0	0.0
K	5,553	74	326	12.0	1,260.5	1,260.5	1,260.5	0.0
L	6,041	57	410	9.6	1,266.6	1,266.6	1,266.9	0.3
M	6,159	51	376	10.4	1,267.4	1,267.4	1,268.1	0.7
N	6,245	68	507	7.7	1,269.0	1,269.0	1,269.5	0.5
O	7,070	117	527	7.9	1,275.9	1,275.9	1,276.8	0.9
P	7,312	154	760	6.1	1,278.5	1,278.5	1,278.7	0.2
Q	7,674	77	371	12.5	1,280.6	1,280.6	1,280.6	0.0
R	8,243	122	681	6.8	1,286.7	1,286.7	1,286.8	0.1
S	8,929	149	581	7.0	1,292.1	1,292.1	1,292.1	0.0
T	9,942	98	352	10.8	1,301.3	1,301.3	1,301.3	0.0
U	10,582	79	353	10.3	1,309.1	1,309.1	1,309.3	0.2
V	11,018	91	422	8.6	1,314.9	1,314.9	1,314.9	0.0
W	11,406	138	565	6.4	1,318.4	1,318.4	1,318.5	0.1
X	11,603	97	341	10.7	1,320.2	1,320.2	1,320.2	0.0
Y	11,731	92	442	8.2	1,322.5	1,322.5	1,322.6	0.1
Z	12,197	92	543	6.7	1,328.4	1,328.4	1,328.4	0.0

¹ Feet upstream of Wiley Canyon Road

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY LOS ANGELES COUNTY, CALIFORNIA	FLOODWAY DATA
	AND INCORPORATED AREAS	FLOODING SOURCE: NEWHALL CREEK

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
AA	12598	94	357	10.2	1,330.6	1,330.6	1,330.7	0.1
AB	13220	82	362	10.0	1,339.0	1,339.0	1,339.0	0.0
AC	13468	53	273	13.3	1,343.5	1,343.5	1,343.5	0.0
AD	14017	198	532	6.8	1,353.2	1,353.2	1,353.2	0.0
AE	14377	148	337	8.3	1,360.2	1,360.2	1,360.2	0.0
AF	15211	55	293	12.4	1,372.6	1,372.6	1,372.9	0.3
AG ²	*	*	*	*	*	*	*	*
AH ²	*	*	*	*	*	*	*	*

¹ Feet upstream of Wiley Canyon Road

² Floodway not computed / shown for these cross sections

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY LOS ANGELES COUNTY, CALIFORNIA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: NEWHALL CREEK

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	178	38	153	5.3	1,206.7	1,206.7	1,206.8	0.1
B	1,294	66	100	6.9	1,211.9	1,211.9	1,212.0	0.1
C	2,911	93	142	4.9	1,223.3	1,223.3	1,223.7	0.4
D	3,847	71	165	4.2	1,230.4	1,230.4	1,231.3	0.9
E	5,654	92	134	5.2	1,246.1	1,246.1	1,246.2	0.1
F	7,073	103	157	3.1	1,257.7	1,257.7	1,257.7	0.0
G	8,095	76	87	5.6	1,269.2	1,269.2	1,269.2	0.0
H	8,421	71	82	6.0	1,276.8	1,276.8	1,276.8	0.0

¹ Feet above confluence with Newhall Creek

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY LOS ANGELES COUNTY, CALIFORNIA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: NEWHALL CREEK LEFT OVERBANK 2

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	123	56	152	4.5	1,357.2	1,357.2	1,357.4	0.2
B	288	55	113	6.0	1,357.6	1,357.6	1,357.7	0.1
C	443	70	159	4.3	1,358.8	1,358.8	1,359.7	0.9
D	700	59	117	5.9	1,363.6	1,363.6	1,364.6	1.0
E	917	33	6	2.6	1,370.1	1,370.1	1,370.2	0.1
F	1,051	32	12	1.3	1,371.2	1,371.2	1,371.2	0.0

¹ Feet above confluence with Newhall Creek

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY LOS ANGELES COUNTY, CALIFORNIA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: NEWHALL CREEK RIGHT OVERBANK 1

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	352	106	441	9.3	1,214.5	1,214.5	1214.5	0.0
B	611	336	1,779	2.3	1,219.3	1,219.2	1,219.6	0.4
C	1,413	190	533	7.7	1,224.8	1,224.8	1,225.0	0.2
D	2,634	89	480	8.6	1,241.4	1,241.4	1,241.7	0.3
E	3,706	48	317	13.0	1,252.0	1,252.0	1,252.5	0.5
F	4,974	97	369	11.1	1,268.8	1,268.8	1,269.2	0.4
G	5,930	355	731	5.6	1,283.1	1,283.1	1,283.4	0.3
H	6,822	62	311	13.2	1,292.4	1,292.4	1,292.9	0.5
I	7,977	221	552	7.4	1,308.5	1,308.5	1,308.6	0.1
J	9,595	190	575	7.1	1,330.3	1,330.3	1,330.6	0.3
K	11,004	190	606	6.8	1,349.4	1,349.4	1,349.6	0.2
L	12,370	75	344	12.0	1,364.4	1,364.4	1,364.4	0.0
M	14,059	258	736	5.6	1,386.2	1,386.2	1,387.0	0.8
N	16,019	100	526	7.0	1,415.3	1,415.3	1,415.3	0.0
O	17,684	59	326	11.4	1,443.4	1,443.4	1,443.4	0.0
P	19,620	212	534	6.9	1,470.3	1,470.3	1,470.3	0.0
Q	21,494	181	447	7.1	1,498.5	1,498.5	1,498.5	0.0
R	23,727	102	341	8.5	1,541.6	1,541.6	1,541.7	0.1

¹ Feet above confluence with Newhall Creek

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY LOS ANGELES COUNTY, CALIFORNIA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: PLACERITA CREEK

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,640	48	147	5.8	1,290.0	1290.0	1290.0	0.0
B	2,489	249	185	4.2	1,299.8	1,299.8	1,300.2	0.4
C	3,332	41	129	6.1	1,309.1	1,309.1	1,309.2	0.1
D	4,157	24	57	8.2	1,319.3	1,319.3	1,319.3	0.0
E	5,089	29	89	5.3	1,331.1	1,331.1	1,331.2	0.1
F	6,266	30	93	4.4	1,349.0	1,349.0	1,349.1	0.1
G	7,061	42	64	6.4	1,370.5	1,370.5	1,370.5	0.0
H	7,750	22	63	6.4	1,393.9	1,393.9	1,393.9	0.0

¹ Feet above confluence with Placerita Creek

TABLE 24

**FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CALIFORNIA
AND INCORPORATED AREAS**

FLOODWAY DATA

FLOODING SOURCE: QUIGLEY CANYON CREEK

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	192	27	30	5.4	1,305.2	1,304.3 ²	1,304.3 ²	0.0
B	378	18	31	5.3	1,307.7	1,307.7	1,307.8	0.1
C	584	23	37	4.4	1,310.3	1,310.3	1,310.3	0.0
D	934	21	26	6.3	1,316.3	1,316.3	1,316.3	0.0
E	1,082	19	25	6.5	1,321.4	1,321.4	1,321.4	0.0
F	1,280	27	36	4.5	1,325.4	1,325.4	1,325.5	0.1
G	1,491	25	27	6.0	1,329.3	1,329.3	1,329.3	0.0
H	1,858	14	25	6.4	1,338.0	1,338.0	1,338.0	0.0
I	1,920	367	766	1.3	1,342.7	1,342.7	1,343.6	0.9

¹ Feet above confluence with Newhall Creek

² Elevation computed without consideration of backwater effects from Newhall Creek

TABLE 24

FEDERAL EMERGENCY MANAGEMENT AGENCY
 LOS ANGELES COUNTY, CALIFORNIA
 AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: RAILROAD CANYON

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	522	151	150	5.7	1,302.9	1,302.9	1,303.0	0.1
B	780	167	196	4.3	1,305.0	1,305.0	1,305.1	0.1
C	1,187	111	135	6.3	1,311.5	1,311.5	1,311.5	0.0
D	1,429	152	168	5.1	1,318.1	1,318.1	1,318.5	0.4
E	1,696	65	113	7.5	1,322.7	1,322.7	1,323.7	1.0
F	2,008	99	132	6.4	1,329.7	1,329.7	1,329.9	0.2
G	2,246	110	203	4.2	1,331.2	1,331.2	1,331.6	0.4
H	2,568	150	197	4.3	1,340.3	1,340.3	1,340.8	0.5

¹ Feet above confluence with Newhall Creek

TABLE 24

FEDERAL EMERGENCY MANAGEMENT AGENCY
 LOS ANGELES COUNTY, CALIFORNIA
 AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: RAILROAD CANYON LEFT OVERBANK

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	4,164	60	216	9.63	192.8	192.8	192.8	0.0
B	4,780	120	243	8.29	204.8	204.8	204.8	0.0
C	5,400	150	149	7.23	219.8	219.8	219.8	0.0
D	6,130	65	230	7.97	235.6	235.6	235.6	0.0
E	7,350	29	180	9.81	259.2	259.2	259.2	0.0
F	8,220	49	141	12.01	281.6	281.6	281.6	0.0

¹ Feet upstream of Latimer Road

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY LOS ANGELES COUNTY, CALIFORNIA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: RUSTIC CANYON

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,934	340	1,448	9.6	1,098.6	1,098.6	1,098.7	0.1
B	3,117	350	1,789	7.8	1,107.7	1,107.7	1,108.4	0.7
C	4,384	357	1,768	7.8	1,116.9	1,116.9	1,117.6	0.7
D	5,120	289	1,512	9.2	1,122.0	1,122.0	1,122.4	0.4
E	6,394	427	2,167	6.4	1,130.4	1,130.4	1,131.4	1.0
F	8,073	399	1,619	8.6	1,142.6	1,142.6	1,143.3	0.7
G	9,287	516	2,048	6.8	1,152.1	1,152.1	1,153.1	1.0
H	10,311	458	1,926	7.2	1,161.7	1,161.7	1,162.7	1.0
I	11,520	404	1,927	7.2	1,173.5	1,173.5	1,174.2	0.7
J	12,493	453	1,653	8.4	1,181.9	1,181.9	1,182.8	0.9
K	13,454	540	1,610	8.6	1,191.2	1,191.2	1,191.9	0.7
L	14,599	320	1,423	9.7	1,203.6	1,203.6	1,204.1	0.5
M	15,377	418	1,527	9.1	1,210.5	1,210.5	1,210.9	0.4
N	16,188	464	1,448	9.6	1,217.1	1,217.1	1,218.0	0.9
O	17,436	999	2,045	6.8	1,227.4	1,227.4	1,228.3	0.9
P	18,479	1370	1,912	7.3	1,236.8	1,236.8	1,237.7	0.9
Q	19,600	1040	2,341	5.9	1,246.8	1,246.8	1,247.8	1.0
R	20,565	568	1,877	7.4	1,255.1	1,255.1	1,255.1	0.0
S	21,597	394	1,756	7.9	1,263.5	1,263.5	1,263.9	0.4
T	22,786	358	1,529	9.1	1,272.0	1,272.0	1,272.9	0.9
U	23,914	325	1,353	10.2	1,284.1	1,284.1	1,284.2	0.1
V	24,847	296	1,282	10.8	1,290.6	1,290.6	1,290.7	0.1
W	25,760	327	1,427	9.7	1,298.2	1,298.2	1,298.7	0.5
X	26,451	343	1,618	8.6	1,304.4	1,304.4	1,305.2	0.8
Y	27,442	424	1,690	8.2	1,314.8	1,314.8	1,315.7	0.9
Z	28,589	273	1,466	9.5	1,326.2	1,326.2	1,327.0	0.8

¹ Feet above confluence with Santa Clara River

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY LOS ANGELES COUNTY, CALIFORNIA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: SAN FRANCISQUITO CANYON CREEK

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	949	246	549	6.7	1543.7	1543.7	1544.7	1.0
B	1465	196	453	8.1	1551.9	1551.9	1552.6	0.7
C	1773	177	390	9.4	1561.2	1561.2	1560.8	-0.3
D	2294	581	783	4.7	1567.6	1567.6	1567.8	0.2
E	3063	460	740	5.0	1581.3	1581.3	1582.3	1.0
F	3948	368	680	5.4	1596.5	1596.5	1597.1	0.6
G	4656	145	418	8.3	1610.2	1610.2	1610.2	0.0
H	5277	73	282	12.4	1620.0	1620.0	1620.0	0.0
I	5930	82	307	11.3	1629.8	1629.8	1629.8	0.0
J	6933	87	275	12.6	1644.7	1644.7	1644.7	0.0
K	8100	72	278	12.5	1667.8	1667.8	1667.8	0.0
L	9019	56	452	13.1	1689.2	1689.2	1689.2	0.0
M	9698	94	273	12.8	1702.6	1702.6	1702.6	0.0
N	10480	92	337	7.3	1720.7	1720.7	1720.7	0.0
O	11635	56	215	11.5	1743.0	1743.0	1743.0	0.0
P	12694	60	222	11.1	1766.7	1766.7	1766.8	0.1
Q	13586	106	243	9.6	1788.6	1788.6	1788.6	0.0
R	14867	60	196	12.0	1818.6	1818.6	1818.6	0.0
S	15913	68	185	11.6	1838.7	1838.7	1838.7	0.0
T	17026	81	195	11.1	1865.8	1865.8	1865.8	0.0
U	17567	61	207	10.4	1889.6	1889.6	1889.6	0.0
V	18213	61	159	10.0	1904.2	1904.2	1904.2	0.0
W	19154	44	151	10.5	1928.5	1928.5	1929.1	0.6

¹ Feet above confluence with Santa Clara River

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY LOS ANGELES COUNTY, CALIFORNIA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: SAND CANYON CREEK

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	207,726	1223	5,733	11.6	833.0	833.0	833.2	0.2
B	209,501	959	6,793	9.8	844.0	844.0	844.0	0.0
C	210,587	1348	7,091	9.4	848.7	848.7	848.7	0.0
D	212,272	1240	7,166	9.3	857.3	857.3	857.7	0.4
E	213,280	1050	7,642	8.7	864.5	864.5	865.2	0.7
F	214,526	665	5,083	13.1	870.4	870.4	871.0	0.6
G	215,675	671	7,005	9.5	879.5	879.5	879.8	0.3
H	217,269	1097	6,533	10.2	883.9	883.9	884.2	0.3
I	218,493	778	5,349	12.5	889.9	889.9	890.2	0.3
J	220,308	660	4,739	14.1	900.1	900.1	900.1	0.0
K	222,073	813	5,560	12.0	911.3	911.3	911.5	0.2
L	223,286	831	7,473	8.9	916.9	916.9	917.4	0.5
M	224,864	846	6,321	10.5	925.7	925.7	925.7	0.0
N	226,652	497	4,705	14.2	934.6	934.6	934.6	0.0
O	227,982	696	9,195	7.2	946.5	946.5	946.5	0.0
P	230,167	1206	7,808	8.5	949.3	949.3	949.4	0.1
Q	231,459	677	3,948	12.8	957.2	957.2	957.5	0.3
R	233,694	1080	5,054	10.0	969.3	969.3	970.1	0.8
S	235,405	1011	5,477	9.2	980.6	980.6	980.9	0.3
T	237,277	531	3,893	12.9	990.3	990.3	990.5	0.2
U	238,750	695	4,944	10.2	998.0	998.0	998.1	0.1
V	240,838	791	5,361	9.4	1,007.9	1,007.9	1,008.0	0.1
W	243,054	618	4,075	12.3	1,020.7	1,020.7	1,020.9	0.2
X	244,918	512	5,206	9.7	1,033.9	1,033.9	1,034.1	0.2
Y	246,184	305	2,893	17.4	1,044.6	1,044.6	1,044.6	0.0
Z	247,789	384	4,945	10.1	1,056.4	1,056.4	1,056.4	0.0

¹ Feet above mouth at Pacific Ocean

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY LOS ANGELES COUNTY, CALIFORNIA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: SANTA CLARA RIVER

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
AA	249,448	326	3,061	16.3	1,066.0	1,066.0	1,066.4	0.4
AB	250,339	361	6,593	7.6	1,078.1	1,078.1	1,078.1	0.0
AC	256,333	984	6,695	7.5	1,081.3	1,081.3	1,081.3	0.0
AD	255,132	785	5,243	7.9	1,096.4	1,096.4	1,096.6	0.2
AE	256,422	721	4,516	9.2	1,105.3	1,105.3	1,105.3	0.0
AF	257,835	1181	6,208	6.7	1,111.9	1,111.9	1,111.9	0.0
AG	259,228	451	2,586	13.1	1,122.8	1,122.8	1,123.0	0.2
AH	260,732	540	2,808	12.1	1,135.4	1,135.4	1,135.4	0.0
AI	262,728	653	2,569	10.2	1,152.0	1,152.0	1,152.0	0.0
AJ	263,987	678	4,649	5.6	1,165.9	1,165.9	1,165.9	0.0
AK	265,479	645	2,413	10.9	1,175.3	1,175.3	1,175.7	0.4
AL	267,152	627	2,651	9.9	1,190.5	1,190.5	1,190.6	0.1
AM	269,009	922	2,779	9.4	1,205.4	1,205.4	1,205.4	0.0
AN	270,595	809	3,108	8.4	1,220.9	1,220.9	1,220.9	0.0
AO	272,264	787	3,303	7.9	1,233.7	1,233.7	1,234.1	0.4
AP	274,071	1274	3,070	8.5	1,249.0	1,249.0	1,249.1	0.1
AQ	276,329	674	3,322	7.9	1,269.8	1,269.8	1,270.5	0.7
AR	277,377	473	3,050	8.6	1,281.7	1,281.7	1,281.7	0.0
AS	279,107	399	2,332	11.2	1,293.4	1,293.4	1,293.9	0.5
AT	280,495	436	2,341	11.2	1,304.2	1,304.2	1,304.7	0.5
AU	282,032	535	2,718	9.6	1,316.4	1,316.5	1,316.5	0.0
AV	283,613	616	2,357	11.0	1,328.6	1,328.6	1,328.6	0.0
AW	284,515	893	3,031	8.6	1,336.4	1,336.4	1,336.5	0.1
AX	285,935	869	2,893	9.0	1,349.2	1,349.2	1,349.2	0.0
AY	287,582	677	3,451	7.5	1,365.0	1,365.0	1,365.1	0.1
AZ	289,667	522	2,233	11.6	1,382.2	1,382.2	1,383.0	0.8

¹ Feet above mouth at Pacific Ocean

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY LOS ANGELES COUNTY, CALIFORNIA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: SANTA CLARA RIVER

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
BA	291,158	615	2,345	11.1	1,396.0	1,396.0	1,396.0	0.0
BB	292,356	459	2,125	12.2	1,407.0	1,407.0	1,407.1	0.1
BC	294,327	464	2,306	11.2	1,425.3	1,425.3	1,425.4	0.1
BD	296,017	541	2,044	10.6	1,439.8	1,439.8	1,439.9	0.1
BE	298,582	592	2,431	8.9	1,465.2	1,465.2	1,465.2	0.0
BF	300,255	594	2,096	10.4	1,482.1	1,482.1	1,482.2	0.1
BG	302,677	643	2,095	10.4	1,505.4	1,505.4	1,505.4	0.0
BH	303,917	728	2,727	8.0	1,518.2	1,518.2	1,518.2	0.0
BI	305,997	375	1,646	11.9	1,536.9	1,536.9	1,536.9	0.0
BJ	307,229	363	1,722	11.3	1,547.8	1,547.8	1,548.0	0.2
BK	308,499	457	1,886	10.3	1,558.3	1,558.3	1,559.3	1.0
BL	309,701	294	1,568	12.4	1,572.0	1,572.0	1,572.0	0.0
BM	310,789	450	1,907	10.2	1,579.5	1,579.5	1,580.5	1.0
BN	311,968	179	1,286	15.2	1,590.4	1,590.4	1,590.5	0.1
BO	313,366	495	3,691	5.3	1,598.9	1,598.9	1,599.3	0.4
BP	314,917	472	2,826	6.9	1,604.2	1,604.2	1,605.1	0.9
BQ	316,595	345	1,570	11.9	1,612.9	1,612.9	1,613.6	0.7
BR	317,637	98	1,033	18.1	1,624.9	1,624.9	1,625.0	0.1
BS	318,765	251	2,121	8.8	1,631.6	1,631.6	1,632.5	0.9
BT	320,949	305	2,622	7.1	1,667.5	1,667.5	1,668.2	0.8
BU	322,310	399	1,725	10.9	1,674.1	1,674.1	1,675.0	0.9
BV	323,563	157	1,133	15.1	1,692.1	1,692.1	1,692.1	0.0
BW	324,830	356	1,513	11.3	1,705.8	1,705.8	1,706.0	0.2
BX	325,864	166	1,277	14.7	1,722.8	1,722.8	1,723.0	0.2
BY	327,062	90	995	18.8	1,742.3	1,742.3	1,742.4	0.1
BZ	327,955	191	1,738	10.8	1,754.5	1,754.5	1,754.7	0.2

¹ Feet above mouth at Pacific Ocean

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY LOS ANGELES COUNTY, CALIFORNIA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: SANTA CLARA RIVER

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
CA	384,541	194	1,137	8.5	2,513.1	2,513.1	2,513.1	0.0
CB	385,337	181	1,067	9.0	2,524.6	2,524.6	2,525.4	0.8
CC	385,939	140	820	11.7	2,535.8	2,535.8	2,535.8	0.0
CD	386,895	191	938	10.2	2,551.0	2,551.0	2,551.0	0.0
CE	387,619	119	706	13.6	2,561.9	2,561.9	2,561.9	0.0
CF	388,131	162	1,097	6.8	2,572.6	2,572.6	2,573.4	0.8
CG	389,210	172	677	11.0	2,590.3	2,590.3	2,590.3	0.0
CH	389,523	116	592	12.6	2,595.0	2,595.0	2,595.6	0.6
CI	389,943	141	669	11.1	2,610.1	2,610.1	2,611.0	0.9
CJ	390,256	138	624	11.9	2,615.3	2,615.3	2,616.0	0.7
CK	390,918	358	1,061	7.0	2,623.3	2,623.3	2,624.3	1.0
CL	392,093	181	699	10.6	2,641.4	2,641.4	2,642.1	0.7
CM	392,901	159	699	10.7	2,652.7	2,652.7	2,653.0	0.3
CN	393,451	347	1,350	5.5	2,662.0	2,662.0	2,662.5	0.5
CO	393,519	257	809	9.2	2,662.0	2,662.0	2,662.9	0.9
CP	394,929	236	779	9.6	2,680.6	2,680.6	2,681.1	0.5
CQ	395,864	140	633	11.8	2,692.5	2,692.5	2,693.5	1.0
CR	397,082	232	578	9.0	2,709.8	2,709.8	2,710.6	0.8
CS	398,092	331	649	8.0	2,724.2	2,724.2	2,724.7	0.5
CT	399,243	226	584	8.9	2,739.7	2,739.7	2,739.8	0.1
CU	400,786	365	687	7.6	2,757.4	2,757.4	2,757.4	0.0
CV	402,290	190	545	9.6	2,776.0	2,776.0	2,776.1	0.1
CW	403,917	270	606	8.6	2,795.5	2,795.5	2,795.6	0.1
CX	405,540	115	459	11.4	2,813.8	2,813.8	2,813.8	0.0

¹ Feet above mouth at Pacific Ocean

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY LOS ANGELES COUNTY, CALIFORNIA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: SANTA CLARA RIVER

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,989	173	1,164	9.3	1,117.2	1,117.2	1,117.3	0.1
B	3,414	131	1,200	9.0	1,123.4	1,123.4	1,124.3	0.9
C	3,965	340	2,192	5.0	1,136.5	1,136.5	1,136.5	0.0
D	5,419	195	1,072	10.1	1,141.4	1,141.4	1,141.9	0.5
E	6,347	246	1,490	7.3	1,146.1	1,146.1	1,147.0	0.9
F	6,908	261	1,433	7.6	1,157.5	1,157.5	1,158.4	0.9
G	7,501	183	1,417	7.7	1,159.1	1,159.1	1,160.0	0.9
H	8,048	261	1,234	8.8	1,163.6	1,163.6	1,164.3	0.7
I	8,552	301	1,618	6.7	1,167.1	1,167.1	1,167.8	0.7
J	9,322	343	1,615	6.7	1,172.3	1,172.3	1,173.1	0.8
K	10,714	323	1,548	7.0	1,180.0	1,180.0	1,180.8	0.8
L	12,067	270	1,339	8.1	1,188.3	1,188.3	1,189.0	0.7
M	13,086	324	1,376	7.9	1,194.7	1,194.7	1,195.6	0.9
N	14,803	204	762	11.0	1,207.6	1,207.6	1,207.7	0.1
O	15,283	337	2,167	3.9	1,215.8	1,215.8	1,216.8	1.0
P	16,329	153	1,337	6.3	1,218.1	1,218.1	1,218.9	0.8
Q	17,384	143	698	7.7	1,221.7	1,221.7	1,221.8	0.1
R	17,857	146	816	6.6	1,225.6	1,225.6	1,225.7	0.1
S	18,498	142	573	9.4	1,227.9	1,227.9	1,228.1	0.2
T	19,838	145	931	5.8	1,237.1	1,237.1	1,237.2	0.1
U	20,725	32	323	16.7	1,247.4	1,247.4	1,247.4	0.0
V	21,505	32	387	14.0	1,255.2	1,255.2	1,255.2	0.0
W	21,923	31	367	14.7	1,257.9	1,257.9	1,257.9	0.0

¹ Feet above confluence with Santa Clara River

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY LOS ANGELES COUNTY, CALIFORNIA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: SOUTH FORK SANTA CLARA RIVER

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	568	58	317	7.8	1,219.9	1,219.9	1,219.9	0.0
B	992	56	356	6.9	1,222.9	1,222.9	1,223.1	0.2
C	1,630	49	254	9.7	1,225.7	1,225.7	1,225.7	0.0
D	2,039	55	267	9.3	1,229.4	1,229.4	1,229.4	0.0
E	3,144	57	220	11.2	1,238.4	1,238.4	1,238.4	0.0
F	4,041	54	218	11.3	1,246.7	1,246.7	1,246.7	0.0
G	4,372	140	305	8.1	1,255.0	1,255.0	1,255.0	0.0

¹ Feet above confluence with South Fork Santa Clara River

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY LOS ANGELES COUNTY, CALIFORNIA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: SOUTH FORK SANTA CLARA RIVER TRIBUTARY

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	477	98	228	9.0	2,358.5	2,358.5	2,359.5	1.0
B	1,058	222	281	4.9	2,373.2	2,373.2	2,373.7	0.5
C	1,669	148	273	5.0	2,386.6	2,386.6	2,387.5	0.9
D	2,285	117	245	5.6	2,400.9	2,400.9	2,401.5	0.6
E	2,772	112	232	5.9	2,412.4	2,412.4	2,413.2	0.8
F	3,319	88	227	6.0	2,427.5	2,427.5	2,427.7	0.2
G	4,019	169	292	4.7	2,443.2	2,443.2	2,444.1	0.9
H	4,644	136	240	5.7	2,459.6	2,459.6	2,460.1	0.5
I	5,206	134	287	4.8	2,473.7	2,473.7	2,473.9	0.2
J	5,805	129	249	5.5	2,489.2	2,489.2	2,489.2	0.0
K	6,419	97	252	5.4	2,503.7	2,503.7	2,503.9	0.2
L	6,953	66	249	5.5	2,517.6	2,517.6	2,518.5	0.9
M	7,433	53	178	7.7	2,529.1	2,529.1	2,529.5	0.4
N	8,025	63	254	5.4	2,544.7	2,544.7	2,545.6	0.9
O	8,650	56	148	9.2	2,563.0	2,563.0	2,563.8	0.8
P	9,302	58	194	5.8	2,582.8	2,582.8	2,583.2	0.4
Q	9,922	39	115	9.7	2,600.0	2,600.0	2,600.0	0.0
R	10,602	60	132	8.5	2,622.0	2,622.0	2,622.1	0.1
S	11,249	68	160	7.0	2,642.8	2,642.8	2,642.9	0.1
T	11,911	57	167	6.7	2,666.4	2,666.4	2,667.1	0.7
U	12,384	53	159	7.0	2,682.9	2,682.9	2,683.9	1.0
V	13,136	107	153	7.3	2,713.5	2,713.5	2,714.5	1.0
W	13,907	49	132	8.5	2,745.9	2,745.9	2,746.4	0.6
X	14,540	79	171	6.5	2,772.9	2,772.9	2,773.8	0.9

¹ Feet above confluence with Mint Canyon Creek

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY LOS ANGELES COUNTY, CALIFORNIA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: SPADE SPRING CANYON CREEK

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	342	14	19	6.7	149.4	149.4	149.4	0.0
B	434	30	24	5.2	174.5	174.5	174.5	0.0
C	482	41	27	4.6	177.1	177.1	177.1	0.0
D	539	28	24	5.3	182.6	182.6	183.4	0.8
E	586	35	26	4.9	185.2	185.2	185.3	0.1
F	888	32	25	5.0	196.3	196.3	196.3	0.0
G	934	39	27	4.7	199.2	199.2	199.2	0.0
H	960	37	26	4.8	203.2	203.2	203.2	0.0
I	1,040	27	24	5.3	207.8	207.8	208.1	0.3
J	1,256	58	30	4.2	213.4	213.4	213.6	0.2
K	1,582	60	70	1.8	216.2	216.2	216.2	0.0
L	1,722	26	9	3.4	233.7	233.7	233.7	0.0
M	1,823	35	10	3.1	240.4	240.4	240.4	0.0
N	2,054	29	40	0.8	246.7	246.7	247.3	0.6
O	2,373	11	7	4.6	257.9	257.9	257.9	0.0
P	2,485	32	10	3.2	268.7	268.7	268.7	0.0
Q	2,506	19 ²	2	1.8	272.1	272.1	272.1	0.0
R	2,700	9 ²	2	1.3	277.8	277.8	277.8	0.0
S	2,858	34	90	9.2	283.9	283.9	283.9	0.0
T	3,031	75	122	6.8	293.3	293.3	293.3	0.0
U	3,246	24	63	9.2	300.6	300.6	300.6	0.0
V	3,699	21	60	9.6	326.3	326.3	326.3	0.0
W	3,774	33	70	8.3	336.2	336.2	336.2	0.0
X	3,946	22	61	9.5	338.6	338.6	338.6	0.0
Y	4,068	27	65	8.9	350.7	350.7	350.7	0.0
Z	4,261	36	72	8.0	355.6	355.6	355.6	0.0

¹ Feet above Pacific Ocean

² 1% annual chance flood discharge contained in structure

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY LOS ANGELES COUNTY, CALIFORNIA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: UNNAMED STREAM MAIN REACH

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
AA	4,380	55	83	7.0	369.4	369.4	369.5	0.1
AB	4,434	35	72	8.1	372.0	372.0	372.0	0.0
AC	4,490	33	156	3.7	373.1	373.1	373.1	0.0
AD	4,565	8	1	2.3	379.3	379.3	379.3	0.0
AE	5,024	16	4	0.8	410.4	410.4	410.4	0.0
AF	5,087	37	18	4.0	416.7	416.7	416.7	0.0
AG	5,136	24	15	4.6	422.9	422.9	422.9	0.0
AH	5,153	39	18	3.9	428.5	428.5	428.6	0.1
AI	5,177	48	19	3.6	429.3	429.3	429.3	0.0
AJ	5,520	18	2	1.7	472.0	472.0	472.1	0.1
AK	5,533	7	2	1.3	472.4	472.4	472.4	0.0
AL	5,626	9	1	2.2	488.1	488.1	488.1	0.0
AM	5,648	44	18	3.7	497.9	497.9	497.9	0.0
AN	5,730	54	35	4.7	521.6	521.6	521.6	0.0
AO	5,753	33	30	5.5	523.5	523.5	523.5	0.0
AP	5,792	30	29	5.6	523.8	523.8	523.9	0.1
AQ	5,934	30	12	1.8	526.9	526.9	526.9	0.0

¹ Feet above Pacific Ocean

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY LOS ANGELES COUNTY, CALIFORNIA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: UNNAMED STREAM MAIN REACH

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	57	30	23	5.0	380.3	380.3	380.3	0.0
B	239	23	46	2.6	388.1	388.1	388.4	0.3
C	314	27	22	5.3	399.3	399.3	399.3	0.0
D	366	25	22	5.4	410.1	410.1	410.3	0.2
E	546	18	20	6.0	421.7	421.7	421.8	0.1
F	799	33	24	4.9	441.6	441.6	441.6	0.0
G	935	29	23	5.1	457.0	457.0	457.0	0.0
H	1,009	18	6	3.3	458.9	458.9	458.9	0.0
I	1,051	29	25	5.3	463.7	463.7	463.7	0.0
J	1,145	25	24	5.6	493.2	493.2	493.2	0.0
K	1,227	22	23	5.8	508.2	508.2	508.2	0.0
L	1,343	15	21	6.6	514.4	514.4	514.4	0.0
M	1,374	26	24	5.6	525.7	525.7	525.7	0.0
N	1,400	23	57	2.4	526.3	526.3	526.3	0.0

¹ Feet above confluence with Unnamed Stream Main Reach

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY LOS ANGELES COUNTY, CALIFORNIA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: UNNAMED STREAM TRIBUTARY 1

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	207	23	26	6.1	284.8	284.8	284.8	0.0
B	623	31	29	5.5	322.6	322.6	322.7	0.1
C	744	39	31	5.1	334.4	334.4	334.4	0.0
D	803	44	46	3.5	335.6	335.6	335.7	0.1
E	913	24	26	6.0	344.2	344.2	344.2	0.0
F	1,699	27	28	5.8	395.9	395.9	395.9	0.0
G	2,039	33	29	5.4	431.2	431.2	431.2	0.0
H	2,405	26	49	7.8	455.1	455.1	455.2	0.1
I	2,523	24	54	7.1	470.0	470.0	470.1	0.1
J	2,569	29	91	4.2	470.9	470.9	471.5	0.6
K	2,674	35	53	7.1	482.7	482.7	482.7	0.0
L	2,692	30	51	7.4	487.8	487.8	487.8	0.0
M	2,822	52	90	3.6	498.0	498.0	498.4	0.4
N	2,943	35	130	2.8	498.3	498.3	498.5	0.2

¹ Feet above confluence with Unnamed Stream Main Reach

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY LOS ANGELES COUNTY, CALIFORNIA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: UNNAMED STREAM TRIBUTARY 2

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	CROSS SECTION	DISTANCE ¹	WIDTH (FEET)
A	1,290	70	210	5.4	1,377.9	1,377.9	1,377.9	0.0

¹ Feet upstream of Golden State Freeway Bridge

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY LOS ANGELES COUNTY, CALIFORNIA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: WELDON CANYON

Non-encroachment areas may be delineated where it is not possible to delineate floodways because specific channel profiles with bridge and culvert geometry were not developed. Any non-encroachment determinations for this Flood Risk Project have been tabulated for selected cross sections and are shown in Table 25. The non-encroachment width indicates the measured distance left and right (looking downstream) from the mapped center of the stream to the non-encroachment boundary based on a surcharge of 1.0 foot or less.

Table 25: Flood Hazard and Non-Encroachment Data for Selected Streams

[Not Applicable to this Flood Risk Project]

6.4 Coastal Flood Hazard Mapping

Flood insurance zones and BFEs including the wave effects were identified on each transect based on the results from the onshore wave hazard analyses. Between transects, elevations were interpolated using topographic maps, land-use and land-cover data, and knowledge of coastal flood processes to determine the aerial extent of flooding. Sources for topographic data are shown in Table 23.

Zone VE is subdivided into elevation zones and BFEs are provided on the FIRM.

The limit of Zone VE shown on the FIRM is defined as the farthest inland extent of any of these criteria (determined for the 1% annual chance flood condition):

- The *primary frontal dune zone* is defined in 44 CFR Section 59.1 of the NFIP regulations. The primary frontal dune represents a continuous or nearly continuous mound or ridge of sand with relatively steep seaward and landward slopes that occur immediately landward and adjacent to the beach. The primary frontal dune zone is subject to erosion and overtopping from high tides and waves during major coastal storms. The inland limit of the primary frontal dune zone occurs at the point where there is a distinct change from a relatively steep slope to a relatively mild slope.
- The *wave runup zone* occurs where the (eroded) ground profile is 3.0 feet or more below the 2-percent wave runup elevation.
- The *wave overtopping splash zone* is the area landward of the crest of an overtopped barrier, in cases where the potential 2-percent wave runup exceeds the barrier crest elevation by 3.0 feet or more.
- The *breaking wave height zone* occurs where 3-foot or greater wave heights could occur (this is the area where the wave crest profile is 2.1 feet or more above the total stillwater elevation).
- The *high-velocity flow zone* is landward of the overtopping splash zone (or area on a sloping beach or other shore type), where the product of depth of flow times the flow velocity squared (hv^2) is greater than or equal to $200 \text{ ft}^3/\text{sec}^2$. This zone may only be used on the Pacific Coast.

The SFHA boundary indicates the limit of SFHAs shown on the FIRM as either “V” zones or “A” zones.

Table 26 indicates the coastal analyses used for floodplain mapping and the criteria used to determine the inland limit of the open-coast Zone VE and the SFHA boundary at each transect.

Table 26: Summary of Coastal Transect Mapping Considerations

Coastal Transect	Primary Frontal Dune (PFD) Identified	Wave Runup Analysis	Wave Height Analysis	Zone VE Limit	SFHA Boundary
		Zone Designation and BFE (ft NAVD 88)	Zone Designation and BFE (ft NAVD 88)		
TBD	✓	TBD	TBD	TBD	TBD

A LiMWA boundary has also been added in coastal areas subject to wave action for use by local communities in safe rebuilding practices. The LiMWA represents the approximate landward limit of the 1.5-foot breaking wave. To simplify representation, the LiMWA was continued immediately landward of the VE/AE boundary in areas where wave runup elevations dominate. Similarly, in areas where the Zone VE designation is based on the presence of a primary frontal dune or wave overtopping, the LiMWA was delineated immediately landward of the Zone VE/AE boundary.

6.5 FIRM Revisions

This FIS Report and the FIRM are based on the most up-to-date information available to FEMA at the time of its publication; however, flood hazard conditions change over time. Communities or private parties may request flood map revisions at any time. Certain types of requests require submission of supporting data. FEMA may also initiate a revision. Revisions may take several forms, including Letters of Map Amendment (LOMAs), Letters of Map Revision Based on Fill (LOMR-Fs), Letters of Map Revision (LOMRs) (referred to collectively as Letters of Map Change (LOMCs)), Physical Map Revisions (PMRs), and FEMA-contracted restudies. These types of revisions are further described below. Some of these types of revisions do not result in the republishing of the FIS Report. To assure that any user is aware of all revisions, it is advisable to contact the community repository of flood-hazard data (shown in Table 31, “Map Repositories”).

6.5.1 Letters of Map Amendment

A LOMA is an official revision by letter to an effective NFIP map. A LOMA results from an administrative process that involves the review of scientific or technical data submitted by the owner or lessee of property who believes the property has incorrectly been included in a designated SFHA. A LOMA amends the currently effective FEMA map and establishes that a specific property is not located in a SFHA. A LOMA cannot be issued for properties located on the PFD (primary frontal dune).

To obtain an application for a LOMA, visit <http://www.fema.gov> and download the form “MT-1 Application Forms and Instructions for Conditional and Final Letters of Map Amendment and Letters of Map Revision Based on Fill”. Visit the “Flood Map-Related Fees” section to determine the cost, if any, of applying for a LOMA.

FEMA offers a tutorial on how to apply for a LOMA. The LOMA Tutorial Series can be accessed at http://www.fema.gov/plan/prevent/fhm/ot_lmreq.shtm.

For more information about how to apply for a LOMA, call the FEMA Map Information eXchange; toll free, at 1-877-FEMA MAP (1-877-336-2627).

6.5.2 Letters of Map Revision Based on Fill

A LOMR-F is an official revision by letter to an effective NFIP map. A LOMR-F states FEMA’s determination concerning whether a structure or parcel has been elevated on fill above the base flood elevation and is, therefore, excluded from the SFHA.

Information about obtaining an application for a LOMR-F can be obtained in the same manner as that for a LOMA, by visiting <http://www.fema.gov> for the “MT-1 Application Forms and Instructions for Conditional and Final Letters of Map Amendment and Letters of Map Revision Based on Fill” or by calling the FEMA Map Information eXchange, toll free, at 1-877-FEMA MAP (1-877-336-2627). Fees for applying for a LOMR-F, if any, are listed in the “Flood Map-Related Fees” section.

A tutorial for LOMR-F is available at http://www.fema.gov/plan/prevent/fhm/ot_lmreq.shtm.

6.5.3 Letters of Map Revision

A LOMR is an official revision to the currently effective FEMA map. It is used to change flood zones, floodplain and floodway delineations, flood elevations and planimetric features. All requests for LOMRs should be made to FEMA through the chief executive officer of the community, since it is the community that must adopt any changes and revisions to the map. If the request for a LOMR is not submitted through the chief executive officer of the community, evidence must be submitted that the community has been notified of the request.

To obtain an application for a LOMR, visit <http://www.fema.gov> and download the form “MT-2 Application Forms and Instructions for Conditional Letters of Map Revision and Letters of Map Revision”. Visit the “Flood Map-Related Fees” section to determine the cost of applying for a LOMR. For more information about how to apply for a LOMR, call the FEMA Map Information eXchange; toll free, at 1-877-FEMA MAP (1-877-336-2627) to speak to a Map Specialist.

Previously issued mappable LOMCs (including LOMRs) that have been incorporated into the Los Angeles County FIRM are listed in Table 27. Please note that this table only includes LOMCs that have been issued on the FIRM panels updated by this map revision. For all other areas within this county, users should be aware that revisions to the FIS Report made by prior LOMRs may not be reflected herein and users will need to continue to use the previously issued LOMRs to obtain the most current data.

Table 27: Incorporated Letters of Map Change

Case Number	Effective Date	Flooding Source	FIRM Panel(s)
08-09-1614P	09-29-2008	Unnamed Tributary to Santa Clara River	06037C0885G
08-09-1757P	09-29-2008	Sand Canyon Creek Lateral	06037C0845G

Table 27: Incorporated Letters of Map Change, Continued

Case Number	Effective Date	Flooding Source	FIRM Panel(s)
09-09-1285P	4-24-2009	Basin at Villa Canyon Road & Route 5 Villa Canyon Creek	06037C0845G
10-09-0746P	02-26-2010	Violin Canyon Creek	06037C0805G; 06037C0600G
13-09-1601P	12-06-2013	Wildwood Canyon	06037C1031G
13-09-2785P	01-24-2014	Mint Canyon Creek Overflow Reach 2	06037C0840G

6.5.4 Physical Map Revisions

PMRs are an official republication of a community’s NFIP map to effect changes to base flood elevations, floodplain boundary delineations, regulatory floodways and planimetric features. These changes typically occur as a result of structural works or improvements, annexations resulting in additional flood hazard areas or correction to base flood elevations or SFHAs.

The community’s chief executive officer must submit scientific and technical data to FEMA to support the request for a PMR. The data will be analyzed and the map will be revised if warranted. The community is provided with copies of the revised information and is afforded a review period. When the base flood elevations are changed, a 90-day appeal period is provided. A 6-month adoption period for formal approval of the revised map(s) is also provided.

For more information about the PMR process, please visit <http://www.fema.gov> and visit the “Flood Map Revision Processes” section.

6.5.5 Contracted Restudies

The NFIP provides for a periodic review and restudy of flood hazards within a given community. FEMA accomplishes this through a national watershed-based mapping needs assessment strategy, known as the Coordinated Needs Management Strategy (CNMS). The CNMS is used by FEMA to assign priorities and allocate funding for new flood hazard analyses used to update the FIS Report and FIRM. The goal of CNMS is to define the validity of the engineering study data within a mapped inventory. The CNMS is used to track the assessment process, document engineering gaps and their resolution, and aid in prioritization for using flood risk as a key factor for areas identified for flood map updates. Visit www.fema.gov to learn more about the CNMS or contact the FEMA Regional Office listed in Section 8 of this FIS Report.

6.5.6 Community Map History

The current FIRM presents flooding information for the entire geographic area of Los Angeles County. Previously, separate FIRMs, Flood Hazard Boundary Maps (FHBMs) and/or Flood Boundary and Floodway Maps (FBFMs) may have been prepared for the incorporated communities and the unincorporated areas in the county that had identified SFHAs. Current and historical data relating to the maps prepared for the project area are presented in Table 28,

“Community Map History.” A description of each of the column headings and the source of the date is also listed below.

- *Community Name* includes communities falling within the geographic area shown on the FIRM, including those that fall on the boundary line, nonparticipating communities, and communities with maps that have been rescinded. Communities with No Special Flood Hazards are indicated by a footnote. If all maps (FHBM, FBFM, and FIRM) were rescinded for a community, it is not listed in this table unless SFHAs have been identified in this community.
- *Initial Identification Date (First NFIP Map Published)* is the date of the first NFIP map that identified flood hazards in the community. If the FHBM has been converted to a FIRM, the initial FHBM date is shown. If the community has never been mapped, the upcoming effective date or “pending” (for Preliminary FIS Reports) is shown. If the community is listed in Table 28 but not identified on the map, the community is treated as if it were unmapped.
- *Initial FHBM Effective Date* is the effective date of the first Flood Hazard Boundary Map (FHBM). This date may be the same date as the Initial NFIP Map Date.
- *FHBM Revision Date(s)* is the date(s) that the FHBM was revised, if applicable.
- *Initial FIRM Effective Date* is the date of the first effective FIRM for the community. This is the first effective date that is shown on the FIRM panel.
- *FIRM Revision Date(s)* is the date(s) the FIRM was revised, if applicable. This is the revised date that is shown on the FIRM panel, if applicable. As countywide studies are completed or revised, each community listed should have its FIRM dates updated accordingly to reflect the date of the countywide study. Once the FIRMs exist in countywide format, as Physical Map Revisions (PMR) of FIRM panels within the county are completed, the FIRM Revision Dates in the table for each community affected by the PMR are updated with the date of the PMR, even if the PMR did not revise all the panels within that community.

The initial effective date for the Los Angeles County FIRMs in countywide format was 09/26/2008.

Table 28: Community Map History

Community Name	Initial Identification Date (First NFIP Map Published)	Initial FHBM Effective Date	FHBM Revision Date(s)	Initial FIRM Effective Date	FIRM Revision Date(s)
City of Agoura Hills	03/04/1986	—	—	03/04/1986	08/03/1998 12/18/1986
City of Alhambra ¹	06/28/1974	—	—	—	—
City of Arcadia	05/14/1976	—	—	09/26/2008	—
City of Artesia ¹	06/28/1974	—	—	—	—
City of Avalon	10/08/1976	—	—	09/29/1978	11/01/1985

Table 28: Community Map History, Continued

Community Name	Initial Identification Date (First NFIP Map Published)	Initial FHBM Effective Date	FHBM Revision Date(s)	Initial FIRM Effective Date	FIRM Revision Date(s)
City of Azusa	06/14/1974	—	—	09/26/2008	—
City of Baldwin Park ¹	06/28/1974	—	—	05/26/1978	—
City of Bell ¹	06/28/1974	—	—	—	—
City of Bell Gardens	09/26/2008	—	—	09/26/2008	—
City of Bellflower	06/28/1974	—	—	07/06/1998	—
City of Beverly Hills ¹	12/11/1979	—	—	—	—
City of Bradbury	11/21/1975	—	—	09/26/2008	—
City of Burbank	06/26/1971	06/26/1971	09/26/1975	01/23/1981	01/20/1999
City of Calabasas	09/26/2008	—	—	09/26/2008	01/16/2016
City of Carson	01/14/1977	—	—	07/06/1998	—
City of Cerritos	06/28/1974	—	—	09/26/2008	—
City of Claremont	05/24/1974	—	—	11/20/2000	07/02/2004
City of Commerce	06/28/1974	—	—	09/26/2008	—
City of Compton	06/28/1974	—	—	07/06/1998	—
City of Covina	09/18/1971	—	—	09/26/2008	—
City of Cudahy	09/26/2008	—	—	09/26/2008	—
City of Culver City	06/28/1974	—	09/03/1976 10/31/1975	02/01/1980	—
City of Diamond Bar	10/24/1978	—	—	12/02/1980	—
City of Downey	07/06/1998	—	—	07/06/1998	—
City of Duarte	09/26/2008	—	—	09/26/2008	—
City of El Monte ¹	—	—	—	—	—
City of El Segundo	10/31/1975	—	—	09/26/2008	—
City of Gardena	12/05/1975	—	—	07/06/1998	—
City of Glendale	03/10/1972	—	—	09/26/2008	—
City of Glendora	04/20/1972	—	—	09/26/2008	—
City of Hawaiian Gardens	09/25/1970	—	—	—	—
City of Hawthorne ¹	05/09/1978	—	—	—	—
City of Hermosa Beach	06/28/1974	—	—	09/26/2008	—
City of Hidden Hills	04/23/1976	—	—	09/07/1984	01/19/2006 11/21/2001
City of Huntington Park ¹	06/28/1974	—	—	—	—
City of Industry	06/16/1972	—	—	09/26/2008	—
City of Inglewood ¹	10/17/1972	—	—	—	—
City of Irwindale ¹	06/28/1974	—	—	—	—
City of La Canada Flintridge	06/20/1974	—	—	09/26/2008	—
City of La Habra Heights	09/26/2008	—	—	09/26/2008	—

Table 28: Community Map History, Continued

Community Name	Initial Identification Date (First NFIP Map Published)	Initial FHBM Effective Date	FHBM Revision Date(s)	Initial FIRM Effective Date	FIRM Revision Date(s)
City of La Mirada	06/28/1974	—	12/10/1976 10/10/1975	07/02/1980	—
City of La Puente ¹	10/03/1975	—	—	—	—
City of La Verne	06/14/1974	—	—	09/26/2008	—
City of Lakewood	07/06/1998	—	—	07/06/1998	—
City of Lancaster	09/11/1979	—	—	01/06/1982	—
City of Lawndale ¹	06/28/1974	—	—	—	—
City of Lomita ¹	06/28/1974	—	—	—	—
City of Long Beach	07/26/1974	—	07/11/1978	09/15/1983	07/06/1998
City of Los Angeles	12/13/1977	—	04/08/1980	12/02/1980	07/06/1998 02/04/1987
Los Angeles County Unincorporated Areas	10/24/1978	—	—	12/02/1980	01/16/2016 09/26/2008 07/06/1998 03/30/1998 11/12/1985
City of Lynwood	06/28/1974	—	11/21/1975	04/15/1980	07/06/1998
City of Malibu	09/26/2008	—	—	09/26/2008	—
City of Manhattan Beach	08/06/1976	—	—	09/26/2008	—
City of Maywood ¹	—	—	—	—	—
City of Monrovia	04/23/1976	—	—	09/26/2008	—
City of Montebello	06/28/1974	—	12/19/1975	03/18/1980	—
City of Monterey Park ¹	04/20/1972	—	—	—	—
City of Norwalk	09/26/2008	—	—	09/26/2008	—
City of Palmdale	10/18/1974	—	12/24/1976	01/06/1982	03/30/1998 06/18/1987
City of Palos Verdes Estates	05/17/1974	—	—	09/07/1984	01/16/2016 09/26/2008 07/02/2004 11/21/2001
City of Paramount	03/31/1972	—	05/02/1975 07/01/1974	07/06/1998	—
City of Pasadena	05/02/1972	—	—	09/26/2008	—
City of Pico Rivera	06/28/1974	—	—	07/06/1998	—
City of Pomona	06/28/1974	—	—	09/26/2008	—
City of Rancho Palos Verdes	01/28/1977	—	—	09/26/2008	01/16/2016
City of Redondo Beach	06/28/1974	—	05/21/1976	09/15/1983	—
City of Rolling Hills	06/28/1974	—	—	09/26/2008	—
City of Rolling Hills Estates ¹	06/28/1974	—	—	09/26/2008	01/16/2016
City of Rosemead	06/28/1974	—	—	09/26/2008	—

Table 28: Community Map History, Continued

Community Name	Initial Identification Date (First NFIP Map Published)	Initial FHBM Effective Date	FHBM Revision Date(s)	Initial FIRM Effective Date	FIRM Revision Date(s)
City of San Dimas	06/28/1974	—	—	04/01/1977	06/02/1978
City of San Fernando ¹	—	—	—	—	—
City of San Gabriel ¹	—	—	—	—	—
City of San Marino ¹	—	—	—	—	—
City of Santa Clarita	10/24/1978	—	—	12/02/1980	09/29/1989
City of Santa Fe Springs	06/28/1974	—	10/03/1975	04/15/1980	—
City of Santa Monica	07/26/1974	—	—	09/26/2008	—
City of Sierra Madre	05/25/1973	—	—	09/26/2008	—
City of Signal Hill ¹	06/28/1974	—	—	—	—
City of South El Monte ¹	06/21/1974	—	—	—	—
City of South Gate	07/06/1998	—	—	07/06/1998	—
City of South Pasadena ¹	04/18/1974	—	—	—	—
City of Temple City	09/26/2008	—	—	09/26/2008	—
City of Torrance	08/02/1974	—	12/05/1975	12/18/1979	01/16/2016 09/26/2008
City of Vernon ¹	—	—	—	—	—
City of Walnut	07/16/1976	—	—	09/26/2008	—
City of West Covina	12/02/2004	—	—	12/02/2004	—
City of West Hollywood	06/18/1987	—	—	06/18/1987	—
City of Westlake Village	09/26/2008	—	—	09/26/2008	—
City of Whittier	06/28/1974	—	—	01/16/1981	—

¹ No Special Flood Hazard Areas Identified

SECTION 7.0 – CONTRACTED STUDIES AND COMMUNITY COORDINATION

7.1 Contracted Studies

Table 29 provides a summary of the contracted studies, by flooding source, that are included in this FIS Report.

Table 29: Summary of Contracted Studies Included in this FIS Report

[See Volume 2]

7.2 Community Meetings

The dates of the community meetings held for this Flood Risk Project and any previous Flood Risk Projects are shown in Table 30. These meetings may have previously been referred to by a variety of names (Community Coordination Officer (CCO), Scoping, Discovery, etc.), but all meetings represent opportunities for FEMA, community officials, study contractors, and other invited guests to discuss the planning for and results of the project.

Table 30: Community Meetings

Community	FIS Report Dated	Date of Meeting	Meeting Type	Attended By
Los Angeles County and Incorporated Areas	9/26/2008	5/12/2005	Initial CCO	Representatives of FEMA, the County, California Department of Water Resources (DWR), Office of the County Engineer, and the study contractor
		11/16/2005	Final CCO	Representatives of FEMA, the County, California Department of Water Resources (DWR), Office of the County Engineer, and the study contractor
		2/1/1976	Initial CCO	Representatives of FEMA, the County, California Department of Water Resources (DWR), Office of the County Engineer, and the study contractor
		5/7/1980	Final CCO	Representatives of FEMA, the County, California Department of Water Resources (DWR), Office of the County Engineer, and the study contractor
Los Angeles County, Unincorporated Areas	1/6/2016	3/10/2011	Initial CCO	Representatives of City of Calabasas, LAFCD, FEMA Region IX, and BakerAECOM
		8/5/2014	Final CCO	Representatives of City of Calabasas, LAFCD, FEMA Region IX, and BakerAECOM
Los Angeles County, Unincorporated Areas	TBD	12/9/2014	Initial CCO	Representatives of City of Santa Clarita, LAFCD, FEMA Region IX, and BakerAECOM
		TBD	Final CCO	
City of Agoura Hills	9/26/2008	1/26/1984	Initial CCO	Representatives of FEMA, the City, and the study contractor
		12/20/1984	Final CCO	Representatives of FEMA, the City, and the study contractor
City of Avalon	9/26/2008	2/1/1976	Initial CCO	Representatives of FEMA, the City, and the study contractor
		11/9/1977	Final CCO	Representatives of FEMA, the City, California DWR, and LACFCD
City of Bellflower	9/26/2008	1/28/1986	Initial CCO	Representatives of FEMA, the City, California DWR, and LACFCD
		10/30/1991	Final CCO	Representatives of FEMA, the City, County, LACFCD, USACE, and the study contractor
City of Burbank	9/26/2008	11/2/1979	Final CCO	Representatives of the City, community, FIA, California DWR, and the study contractor

Table 30: Community Meetings, Continued

Community	FIS Report Dated	Date of Meeting	Meeting Type	Attended By
		10/15/1997	Final CCO	Representatives of the City, community, FIA, California DWR, and the study contractor
City of Calabasas	1/6/2016	3/10/2011	Initial CCO	Representatives of the City, FEMA, LAFCD, FEMA Region IX, and BakerAECOM
		8/5/2014	Final CCO	Representatives of the City, LAFCD, FEMA Region IX, and BakerAECOM
City of Carson	9/26/2008	1/28/1986	Initial CCO	Representatives of FEMA, the Cities of Downey, Long Beach, Lynwood, Vernon, Bellflower, Paramount, and the County, LACFCD, USACE, and the study contractor
		10/30/1991	Final CCO	Representatives of FEMA, the study contractor and communities affected by the Los Angeles River and Rio Hondo restudy
City of Compton	9/26/2008	1/28/1986	Initial CCO	Representatives of FEMA, the Cities of Downey, Long Beach, Lynwood, Vernon, Bellflower, Paramount, and the County, LACFCD, USACE, and the study contractor
		10/30/1991	Final CCO	Representatives of FEMA, the study contractor and communities affected by the Los Angeles River and Rio Hondo restudy
City of Culver City	9/26/2008	2/1/1976	Initial CCO	Representatives of the City, FIA, California DWR, and LACFCD (the study contractor)
		1/11/1979	Final CCO	Representatives of the City, FIA, and the study contractor
City of Downey	9/26/2008	1/28/1986	Initial CCO	Representatives of FEMA, the Cities of Downey, Long Beach, Lynwood, Vernon, Bellflower, Paramount, and the County, LACFCD, USACE, and the study contractor
		10/30/1991	Final CCO	Representatives of FEMA, the study contractor and communities affected by the Los Angeles River and Rio Hondo restudy
City of Gardena	9/26/2008	1/28/1986	Initial CCO	Representatives of FEMA, the Cities of Downey, Long Beach, Lynwood, Vernon, Bellflower, Paramount, and the County, LACFCD, USACE, and the study contractor

Table 30: Community Meetings, Continued

Community	FIS Report Dated	Date of Meeting	Meeting Type	Attended By
		10/30/1991	Final CCO	Representatives of FEMA, the study contractor and communities affected by the Los Angeles River and Rio Hondo restudy
City of La Mirada	9/26/2008	2/1/1976	Initial CCO	The City Engineer and representatives of the FIA, California DWR, and LLACFCD
		5/21/1979	Final CCO	Representatives of the City, FIA, study contractor, and LACFCD, and the City
City of Lakewood	9/26/2008	1/28/1986	Initial CCO	Representatives of FEMA, the Cities of Downey, Long Beach, Lynwood, Vernon, Bellflower, Paramount, and the County, LACFCD, USACE, and the study contractor
		10/30/1991	Final CCO	Representatives of FEMA, the study contractor and communities affected by the Los Angeles River and Rio Hondo restudy
City of Lancaster	9/26/2008	2/1/1976	Initial CCO	Representatives of the City, FIA, the California DWR, and the study contractor
		1/13/1981	Final CCO	Representatives of the City, FIA, and the study contractor
City of Long Beach	9/26/2008	2/1/1976	Initial CCO	Representatives of the Cities of Downey, Long Beach, Lynwood, Vernon, Bellflower, and Paramount, and of FEMA, the USACE, and LACFCD, and the study contractor
		1/28/1986	Initial CCO	Representatives of the Cities of Downey, Long Beach, Lynwood, Vernon, Bellflower, and Paramount, and of FEMA, the USACE, and LACFCD, and the study contractor
City of Long Beach	9/26/2008	10/27/1982	Final CCO	Representatives of FEMA, the study contractor and communities affected by the Los Angeles River and Rio Hondo restudy
		10/30/1991	Final CCO	Representatives of FEMA, the study contractor and communities affected by the Los Angeles River and Rio Hondo restudy
City of Los Angeles	9/26/2008	2/1/1976	Initial CCO	Representatives of FEMA, the California DWR, and the study contractor

Table 30: Community Meetings, Continued

Community	FIS Report Dated	Date of Meeting	Meeting Type	Attended By
		5/7/1980	Final CCO	Representatives of FEMA, the City and the study contractor
City of Los Angeles	9/26/2008	12/3/1997	Final CCO	Representatives of FEMA, the City and the study contractor
City of Lynwood	9/26/2008	1/28/1986	Initial CCO	Representatives of FEMA, the Cities of Downey, Long Beach, Lynwood, Vernon, Bellflower, Paramount, and the County, LACFCD, USACE, and the study contractor
		10/30/1991	Final CCO	Representatives of FEMA, the study contractor and communities affected by the Los Angeles River and Rio Hondo restudy
City of Montebello	9/26/2008	2/1/1976	Initial CCO	Representatives of the City, FIA, State Department of Water Resources, and the study contractor
		1/28/1986	Initial CCO	Representatives of the Cities of Downey, Long Beach, Lynwood, Vernon, Bellflower, and Paramount, and of FEMA, the LACFCD, USACE, and the study contractor
City of Montebello	9/26/2008	1/24/1979	Final CCO	Representatives of FEMA, the study contractor and communities affected by the Los Angeles River and Rio Hondo restudy
		10/30/1991	Final CCO	Representatives of FEMA, the study contractor and communities affected by the Los Angeles River and Rio Hondo restudy
City of Palmdale	9/26/2008	2/1/1976	Initial CCO	Representatives of the City, FIA, California DWR, and LACFCD
		8/23/1990	Initial CCO	Representatives of FEMA, the City, California DWR, Los Angeles County Department of Public Works, and the study contractor
City of Palmdale	9/26/2008	1/8/1986	Final CCO	Representatives of FEMA and the City
		4/24/1997	Final CCO	Representatives of FEMA and the City
City of Palos Verdes	1/6/2016	7/28/2009	Initial CCO	Representatives of the City and FEMA

Table 30: Community Meetings, Continued

Community	FIS Report Dated	Date of Meeting	Meeting Type	Attended By
Estates		8/5/2014	Final CCO	Representatives of the City, FEMA Region IX, and BakerAECOM
City of Paramount	9/26/2008	1/28/1986	Initial CCO	Representatives of FEMA, the Cities of Downey, Long Beach, Lynwood, Vernon, Bellflower, Paramount, and the County, LACFCD, USACE, and the study contractor
		10/30/1991	Final CCO	Representatives of FEMA, the study contractor and communities affected by the Los Angeles River and Rio Hondo restudy
City of Pico Rivera	9/26/2008	1/28/1986	Initial CCO	Representatives of FEMA, the Cities of Downey, Long Beach, Lynwood, Vernon, Bellflower, Paramount, and the County, LACFCD, USACE, and the study contractor
		10/30/1991	Final CCO	Representatives of FEMA, the study contractor and communities affected by the Los Angeles River and Rio Hondo restudy
City of Redondo Beach	9/26/2008	2/1/1976	Initial CCO	Representatives of FEMA, the City Engineering Office, the California DWR, and LACFCD (the study contractor)
		10/27/1982	Final CCO	Representatives of the City, EMA, and the study contractor
City of Santa Clarita	9/26/2008	10/11/1988	Initial CCO	Representatives of the City, FEMA, and the community
		11/17/1988	Final CCO	Representatives of the City, FEMA, and the community
City of Santa Clarita	TBD	12/9/2014	Initial CCO	Representatives of City of Santa Clarita, LAFCD, FEMA Region IX, and BakerAECOM
		TBD	Final CCO	
City of Santa Fe Springs	9/26/2008	2/1/1976	Initial CCO	Representatives of the FIA, California DWR, and the study contractor
		2/28/1979	Final CCO	Representatives of the City, FIA, and the study contractor
City of South Gate	9/26/2008	1/28/1986	Initial CCO	Representatives of FEMA, the Cities of Downey, Long Beach, Lynwood, Vernon, Bellflower, Paramount, and the County, LACFCD, USACE, and the study contractor

Table 30: Community Meetings, Continued

Community	FIS Report Dated	Date of Meeting	Meeting Type	Attended By
		10/30/1991	Final CCO	Representatives of FEMA, the study contractor and communities affected by the Los Angeles River and Rio Hondo restudy
City of Torrance	9/26/2008	2/1/1976	Initial CCO	Representatives of the City, FIA, California DWR, and the study contractor
		1/11/1979	Final CCO	Representatives of the City, FIA, and the study contractor
City of West Hollywood	9/26/2008	2/1/1976	Initial CCO	Representatives of FEMA, the County, California DWR and the study contractor
City of West Hollywood	9/26/2008	2/1/1986	Initial CCO	Representatives of FEMA, the County, California DWR and the study contractor
		7/3/1986	Final CCO	Representatives of FEMA, the County, Office of the County Engineer, and the study contractor
City of Whittier	9/26/2008	2/1/1976	Initial CCO	Representatives of the City, FIA, California DWR, and the study contractor
		11/1/1979	Final CCO	Representatives of the City, FIA, LACFCD, and the study contractor

SECTION 8.0 – ADDITIONAL INFORMATION

Information concerning the pertinent data used in the preparation of this FIS Report can be obtained by submitting an order with any required payment to the FEMA Engineering Library. For more information on this process, see <http://www.fema.gov>.

The additional data that was used for this project includes the FIS Report and FIRM that were previously prepared for Los Angeles County, California and Incorporated Areas, (FEMA 2008).

Table 31 is a list of the locations where FIRMs for Los Angeles County can be viewed. Please note that the maps at these locations are for reference only and are not for distribution. Also, please note that only the maps for the community listed in the table are available at that particular repository. A user may need to visit another repository to view maps from an adjacent community.

Table 31: Map Repositories

Community	Address	City	State	Zip Code
City of Agoura Hills	30101 Agoura Court	Agoura Hills	CA	91301
City of Alhambra	111 South First Street	Alhambra	CA	91801
City of Arcadia	240 West Huntington Drive	Arcadia	CA	91007
City of Artesia	18747 Clarksdale Avenue	Artesia	CA	90701
City of Avalon	410 Avalon Canyon Road	Avalon	CA	90704
City of Azusa	213 East Foothill Road	Azusa	CA	91702
City of Baldwin Park	14403 East Pacific Avenue	Baldwin Park	CA	91706
City of Bell	7100 South Garfield Avenue	Bell Gardens	CA	90201
City of Bell Gardens	6330 Pine Street	Bell	CA	90201
City of Bellflower	16600 Civic Center Drive	Bellflower	CA	90706
City of Beverly Hills	455 North Rexford Drive	Beverly Hills	CA	90210
City of Bradbury	600 Winston Avenue	Bradbury	CA	91010
City of Burbank	275 East Olive Avenue	Burbank	CA	91510
City of Calabasas	100 Civic Center Way	Calabasas	CA	91302
City of Carson	701 East Carson	Carson	CA	90745
City of Cerritos	18125 Bloomfield Avenue	Cerritos	CA	90703
City of Claremont	207 Harvard Avenue	Claremont	CA	91711
City of Commerce	2535 Commerce Way	Commerce	CA	90040
City of Compton	205 South Willowbrook Avenue	Compton	CA	90220
City of Covina	534 North Barranca Avenue	Covina	CA	91723
City of Cudahy	522 Santana Street	Cudahy	CA	90201
City of Culver City	City Hall 9770 Culver Boulevard	Culver City	CA	90232
City of Diamond Bar	21825 Copley Drive	Diamond Bar	CA	91765

Table 31: Map Repositories, Continued

Community	Address	City	State	Zip Code
City of Downey	11111 Brookshire Avenue	Downey	CA	90241
City of Duarte	1600 Huntington Drive	Duarte	CA	91010
City of El Monte	11333 Valley Boulevard	El Monte	CA	91731
City of El Segundo	350 Main Street	El Segundo	CA	90245
City of Gardena	1700 West 162nd Street	Gardena	CA	90247
City of Glendale	613 East Broadway	Glendale	CA	91206
City of Glendora	116 East Foothill Road	Glendora	CA	91741
City of Hawaiian Gardens	21815 Pioneer Blvd	Hawaiian Gardens	CA	90716
City of Hawthorne	4455 West 216th Street	Hawthorne	CA	90250
City of Hermosa Beach	1315 Valley Drive	Hermosa Beach	CA	90254
City of Hidden Hills	6165 Spring Valley Road	Hidden Hills	CA	91302
City of Huntington Park	6550 Miles Avenue	Huntington Park	CA	90255
City of Industry	15651 East Stafford Street	Industry	CA	91744
City of Inglewood	City Hall One West Manchester Boulevard	Inglewood	CA	90301
City of Irwindale	5050 North Irwindale Avenue	Irwindale	CA	91706
City of La Canada Flintridge	1327 Foothill Boulevard	La Canada Flintridge	CA	91011
City of La Habra Heights	1245 North Hacienda Road	La Habra Heights	CA	90631
City of La Mirada	15515 Phoebe Avenue	La Mirada	CA	90637
City of La Puente	15900 East Main Street	La Puente	CA	91744
City of La Verne	3660 D Street	La Verne	CA	91750
City of Lakewood	5050 Clark Avenue	Lakewood	CA	90712
City of Lancaster	44933 North Fern Avenue	Lancaster	CA	93534
City of Lawndale	14717 Burin Avenue	Lawndale	CA	90260
City of Lomita	24373 Walnut Street	Lomita	CA	90717
City of Long Beach	333 West Ocean Boulevard	Long Beach	CA	90802
City of Los Angeles	Department of Public Works Stormwater Public Counter 1149 South Broadway, 8th Floor	Los Angeles	CA	90015
Los Angeles County, Unincorporated Areas	Public Works Headquarters Watershed Management Division 900 South Fremont Avenue	Alhambra	CA	91803
City of Lynwood	11330 Bullis Road	Lynwood	CA	90262
City of Malibu	23815 Stuart Ranch Road	Malibu	CA	90265
City of Manhattan Beach	1400 Highland Avenue	Manhattan Beach	CA	90266
City of Maywood	4319 East Slauson Avenue	Maywood	CA	90270
City of Monrovia	415 South Ivy Avenue	Monrovia	CA	91016
City of Montebello	1600 West Beverly Boulevard	Montebello	CA	90640

Table 31: Map Repositories, Continued

Community	Address	City	State	Zip Code
City of Monterey Park	320 West Newmark Avenue	Monterey Park	CA	91754
City of Norwalk	12700 Norwalk Boulevard	Norwalk	CA	90651
City of Palmdale	38250 North Sierra Highway	Palmdale	CA	93550
City of Palos Verdes Estates	340 Palos Verdes Drive West	Palos Verdes Estates	CA	90274
City of Paramount	15300 Downery Avenue	Paramount	CA	90723
City of Pasadena	117 East Colorado Boulevard	Pasadena	CA	91105
City of Pico Rivera	6615 Passons Boulevard	Pico Rivera	CA	90660
City of Pomona	505 South Garey Avenue	Pomona	CA	91766
City of Rancho Palos Verdes	30940 Hawthorne Boulevard	Rancho Palos Verdes	CA	90275
City of Redondo Beach	531 Gertruda Avenue	Redondo Beach	CA	90277
City of Rolling Hills	No.2 Portugese Bend Road	Rolling Hills	CA	90274
City of Rolling Hills Estates	4045 Palos Verdes Drive North	Rolling Hills Estates	CA	90274
City of Rosemead	8838 East Valley Boulevard	Rosemead	CA	91770
City of San Dimas	245 East Bonita Avenue	San Dimas	CA	91773
City of San Fernando	117 North Macnell Street	San Fernando	CA	91340
City of San Gabriel	425 South Mission Drive	San Gabriel	CA	91776
City of San Marino	2200 Huntington Drive	San Marino	CA	91108
City of Santa Clarita	23920 Valencia Blvd	Santa Clarita	CA	91355
City of Santa Fe Springs	11710 East Telegraph	Santa Fe Springs	CA	90670
City of Santa Monica	1685 Main Street	Santa Monica	CA	90401
City of Sierra Madre	232 West Sierra Madre Boulevard	Sierra Madre	CA	91024
City of Signal Hill	2175 Cherry Avenue	Signal Hill	CA	90701
City of South El Monte	1415 Santa Anita Avenue	South Elmonte	CA	91733
City of South Gate	4244 Santa Ana Street	South Gate	CA	90280
City of South Pasadena	1414 Mission Street	South Pasadena	CA	91030
City of Temple City	9050 East Las Tunas Drive	Temple City	CA	91780
City of Torrance	20500 Madrona Avenue	Torrance	CA	90503
City of Vernon	4305 South Santa Fe Avenue	Vernon	CA	90058
City of Walnut	21201 La Puente Road	Walnut	CA	91789
City of West Covina	1444 West Garvey Avenue	West Covina	CA	91790
City of West Hollywood	8300 Santa Monica Boulevard	West Hollywood	CA	90069
City of Westlake Village	31200 Oak Crest Drive	Westlake Village	CA	91361
City of Whittier	13230 Penn Street	Whittier	CA	90605

The National Flood Hazard Layer (NFHL) dataset is a compilation of effective FIRM databases and LOMCs. Together they create a GIS data layer for a State or Territory. The NFHL is updated as studies become effective and extracts are made available to the public monthly. NFHL data can

be viewed or ordered from the website shown in Table 32.

Table 32 contains useful contact information regarding the FIS Report, the FIRM, and other relevant flood hazard and GIS data. In addition, information about the state NFIP Coordinator and GIS Coordinator is shown in this table. At the request of FEMA, each Governor has designated an agency of State or territorial government to coordinate that State's or territory's NFIP activities. These agencies often assist communities in developing and adopting necessary floodplain management measures. State GIS Coordinators are knowledgeable about the availability and location of state and local GIS data in their state.

Table 32: Additional Information

FEMA and the NFIP	
FEMA and FEMA Engineering Library website	http://www.fema.gov
NFIP website	http://www.fema.gov/business/nfip
NFHL Dataset	http://msc.fema.gov
FEMA Region IX	Federal Emergency Management Agency, 1111 Broadway, Suite 1200, Oakland, CA 94607-4052 (510) 627-7006
Other Federal Agencies	
USGS website	http://www.usgs.gov
Hydraulic Engineering Center website	http://www.hec.usace.army.mil
State Agencies and Organizations	
State NFIP Coordinator	James Eto California Department of Water Resources 3464 El Camino Avenue Suite 200 Sacramento, CA 95821 916-574-1409 jeto@water.ca.gov
State GIS Coordinator	David Harris Agency Information Officer California Resources Agency 1416 Ninth Street, Room 1311 Sacramento, CA 95814 Phone: 916-445-5088 david.harris@resources.ca.gov

SECTION 9.0 – BIBLIOGRAPHY AND REFERENCES

Table 33 includes sources used in the preparation of and cited in this FIS Report as well as additional studies that have been conducted in the study area.

Table 33: Bibliography and References

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
1977		<i>Topographic Map, Flood Plain Mapping Antelope Valley, Scale 1:6,000, Contour Interval 10 feet</i>			1977	
Abrams Aerial Survey Corporation, 1978	Abrams Aerial Survey Corporation	Aerial Photographs and Topographic Maps, Hermosa Beach, Redondo Beach, and King Harbor, Los Angeles County, California, Scale 1:4,800, Contour Interval 2 feet		City of Lansing, MI	October 1978	City of Lansing library
Agoura Hills	City of Agoura Hills	Agoura Hills Draft General Plans		City of Agoura Hills, CA	undated	City of Agoura Hills library
Agoura Hills, 1993	City of Agoura Hills	"As-Built" Conditions Hydraulic Analysis for Medea Creek in Morrison Ranch		City of Agoura Hills, CA	December 6, 1993	City of Agoura Hills library
Analytical Surveys, Inc., 1988	Analytical Surveys, Inc.	City of Burbank Topographic Mapping, Scale 1"=100', Contour Interval 2 feet		City of Burbank, CA	May 1988	City of Burbank library
Aqua Terra Consultants, 2009	Aqua Terra Consultants	Hydrologic Modeling of the Santa Clara River Watershed with the U.S. EPA Hydrologic Simulation Program – FORTRAN (HSPF)		Aqua Terra Consultants	November 25, 2009	http://www.aquaterra.com/

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
Bellflower, 1991	City of Bellflower Chamber of Commerce			City of Bellflower, CA	July 1991	
Biola College	Biola College Campus	<i>Aerial Topographic Map, Scale 1:1200, Contour Interval 1 foot</i>		Biola College	*	http://www.biola.edu/
Burbank, 1975	City of Burbank	Base Map, Scale 1:12,000		City of Burbank, CA	1975	City of Burbank library
Burbank, 1991	City of Burbank	Grading Drainage Plan, Tract Number 48473		City of Burbank, CA	March 1991	City of Burbank library
California, 1968	State of California, Department of Public Works	Golden State Freeway and Sierra Highway Interchange Storm Drains, Contract No. 07-068324, Scale 1:600 (Horizontal) and 1:120 (Vertical)		State of California, Department of Public Works	April 1968	http://www.dir.ca.gov/Public-Works/PublicWorks.html
California Coastal Commission, 1978	California Coastal Commission	<i>Wave Damage Along the California Coast, Winter 1977-78, California Tomorrow Environmental Intern Program</i>	Howe, Steve	California Coastal Commission	December 11, 1978	http://www.coastal.ca.gov/
California Geology, 1981	California Geology	<i>California Geology</i> , "Tsunamis," pp. 58-61	Pierzinski, Diane	California Geology	March 1981	http://redirect.conservation.ca.gov/CGS/information/calgeology/index.asp
California Geology, 1979	California Geology	<i>California Geology</i> , "Accelerated Beach-Cliff Erosion Related to Unusual Storms in Southern California"	Kuhn, G.G. & Shephard, F.P.	California Geology	March 1979	http://redirect.conservation.ca.gov/CGS/information/calgeology/index.asp

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
Caltrans, 1966	State of California, Division of Highways	Aerial Survey Contract No. 821, 07-LA-1, Downstream Malibu Creek, Scale 1: 1,200, Contour Interval 5 feet		State of California, Division of Highways	1966	http://www.dot.ca.gov/
Caltrans, 1967	State of California, Division of Highways	Aerial Survey Contract No. 827, 07-LA/YEN-64, Scale 1: 1,200, Contour Interval 5 feet		State of California, Division of Highways	1967	http://www.dot.ca.gov/
Caltrans, 1969	State of California, Division of Highways	Aerial Survey Contract No. 695, 07-LA-1, Las Virgenes Creek, Scale 1: 1,200, Contour Interval 5 feet		State of California, Division of Highways	1969	http://www.dot.ca.gov/
Caltrans, 1987	California Department of Transportation	As Built Plans for Bridges Crossing the Los Angeles River: Interstate 1, 10, 101, 91, 105 (under construction), 405, and 710		City of Madera, CA	1987	http://www.dot.ca.gov/
Coastal Engineering, 1980	Coastal Engineering	"Hurricane Eloise Spectra"	Lee, Y.K.	Coastal Engineering	1980	http://www.coastalengineeringcompany.com/
DWR, 1986	California Department of Water Resources	Short Duration, Precipitation Frequency Data		Department of Water Resources	1986	http://www.water.ca.gov/
DWR, 1990	California Department of Water Resources	FEMA Maps for Palmdale Area		Department of Water Resources	April 1990	http://www.water.ca.gov/

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
FEMA	Federal Emergency Management Agency	<i>Flood Insurance Study, City of Los Angeles, California</i>		Washington D.C.	unpublished	FEMA Map Service Center http://msc.fema.gov
FEMA	Federal Emergency Management Agency	<i>Flood Insurance Study, Los Angeles County, California (Unincorporated Areas)</i>		Washington D.C.	unpublished	FEMA Map Service Center http://msc.fema.gov
FEMA, 1976	Federal Emergency Management Agency	<i>Flood Insurance Study, City of Redondo Beach, California</i>		Washington D.C.	1976	FEMA Map Service Center http://msc.fema.gov
FEMA, 1978	Federal Emergency Management Agency	<i>Flood Insurance Study, San Bernardino County, California (Unincorporated Areas)</i>		Washington D.C.	1978	FEMA Map Service Center http://msc.fema.gov
FEMA, 1978	Federal Emergency Management Agency	<i>Flood Insurance Study, City of San Dimas, California</i>		Washington D.C.	1978	FEMA Map Service Center http://msc.fema.gov
FEMA, 1979	Federal Emergency Management Agency	<i>Flood Insurance Study, City of Lynwood, California</i>		Washington D.C.	1979	FEMA Map Service Center http://msc.fema.gov
FEMA, 1980	Federal Emergency Management Agency	<i>Flood Insurance Study, City of Burbank, California</i>		Washington D.C.	1980	FEMA Map Service Center http://msc.fema.gov

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
FEMA, 1980	Federal Emergency Management Agency	<i>Flood Insurance Study, City of Culver City, California</i>		Washington D.C.	1980	FEMA Map Service Center http://msc.fema.gov
FEMA, 1980	Federal Emergency Management Agency	<i>Flood Insurance Study, City of La Mirada, California</i>		Washington D.C.	1980	FEMA Map Service Center http://msc.fema.gov
FEMA, 1980	Federal Emergency Management Agency	<i>Flood Insurance Study, City of Los Angeles, Los Angeles County, California</i>		Washington D.C.	September 1980	FEMA Map Service Center http://msc.fema.gov
FEMA, 1980	Federal Emergency Management Agency	<i>Flood Insurance Study, City of Los Angeles, Los Angeles County, California</i>		Washington D.C.	December 1980	FEMA Map Service Center http://msc.fema.gov
FEMA, 1980	Federal Emergency Management Agency	<i>Flood Insurance Study, City of Lynwood, California</i>		Washington D.C.	1980	FEMA Map Service Center http://msc.fema.gov
FEMA, 1980	Federal Emergency Management Agency	<i>Flood Insurance Study, City of Montebello, California</i>		Washington D.C.	1980	FEMA Map Service Center http://msc.fema.gov
FEMA, 1981	Federal Emergency Management Agency	<i>Flood Insurance Study, City of Whittier, California</i>		Washington D.C.	1981	FEMA Map Service Center http://msc.fema.gov

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
FEMA, 1982	Federal Emergency Management Agency	<i>Flood Insurance Study, City of Lancaster, California</i>		Washington D.C.	1982	FEMA Map Service Center http://msc.fema.gov
FEMA, 1982	Federal Emergency Management Agency	<i>Flood Insurance Study, City of Palmdale, California</i>		Washington D.C.	1982	FEMA Map Service Center http://msc.fema.gov
FEMA 1983	Federal Emergency Management Agency	<i>Flood Insurance Study, City of Long Beach, California</i>		Washington D.C.	1983	FEMA Map Service Center http://msc.fema.gov
FEMA 1984	Federal Emergency Management Agency	<i>Coastal Flood Frequency in Southern California</i>	Donald M. Thomas, Dames & Moore	Washington D.C.	July 1984	FEMA Map Service Center http://msc.fema.gov
FEMA, 1985	Federal Emergency Management Agency	<i>Flood Insurance Study, Los Angeles County, California (Unincorporated Areas)</i>		Washington D.C.	November 15, 1985	FEMA Map Service Center http://msc.fema.gov
FEMA, 1986	Federal Emergency Management Agency	<i>Flood Insurance Study, City of Agoura Hills, Los Angeles County, California</i>		Washington D.C.	March 4, 1986; Revised December 18, 1986	FEMA Map Service Center http://msc.fema.gov
FEMA, 1989	Federal Emergency Management Agency	<i>Flood Insurance Study, Ventura County, California (Unincorporated Areas)</i>		Washington D.C.	January 1989	FEMA Map Service Center http://msc.fema.gov

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
FEMA, 1990	Federal Emergency Management Agency	<i>Flood Insurance Study, Ventura County, California (Unincorporated Areas)</i>		Washington D.C.	September 28, 1990	FEMA Map Service Center http://msc.fema.gov
FEMA, 1994	Federal Emergency Management Agency	<i>National Flood Insurance Program and Related Regulations</i>		Washington D.C.	October 1, 1994	FEMA Map Service Center http://msc.fema.gov
FEMA, 1999	Federal Emergency Management Agency	<i>Flood Insurance Study, City of Burbank, California</i>		Washington D.C.	January 20, 1999	FEMA Map Service Center http://msc.fema.gov
FIA, 1975	U.S. Department of Housing and Urban Development, Federal Insurance Administration	<i>Flood Hazard Boundary Map, City of Burbank, Los Angeles County, California, Scale 1:12,000</i>		Washington, D.C.	September 26, 1975	http://portal.hud.gov/hudportal/HUD?src=/federal_housing_administration
FIA, 1975	U.S. Department of Housing and Urban Development, Federal Insurance Administration	<i>Flood Hazard Boundary Map, City of Santa Fe Springs, California, Scale 1:12,000</i>		Washington, D.C.	June 28, 1974; Revised October 3, 1975	http://portal.hud.gov/hudportal/HUD?src=/federal_housing_administration

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
FIA, 1975	U.S. Department of Housing and Urban Development, Federal Insurance Administration	<i>Flood Hazard Boundary Map, City of Torrance, California, Scale 1:12,000</i>		Washington, D.C.	December 5, 1975	http://portal.hud.gov/hudportal/HUD?src=/federal_housing_administration
FIA, 1975	U.S. Department of Housing and Urban Development, Federal Insurance Administration	<i>Flood Hazard Boundary Map, City of Whittier, California, Scale 1:12,000</i>		Washington, D.C.	December 12, 1975	http://portal.hud.gov/hudportal/HUD?src=/federal_housing_administration
FIA, 1976	U.S. Department of Housing and Urban Development, Federal Insurance Administration	<i>Flood Hazard Boundary Map, City of Avalon, California, Scale 1:12,000</i>		Washington, D.C.	1976	http://portal.hud.gov/hudportal/HUD?src=/federal_housing_administration
FIA, 1976	U.S. Department of Housing and Urban Development, Federal Insurance Administration	<i>Flood Hazard Boundary Map, City of Culver City, California, Scale 1:1,000</i>		Washington, D.C.	September 3, 1976	http://portal.hud.gov/hudportal/HUD?src=/federal_housing_administration

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
FIA, 1976	U.S. Department of Housing and Urban Development, Federal Insurance Administration	<i>Flood Hazard Boundary Map, City of La Mirada, California, Scale 1:12,000</i>		Washington, D.C.	December 10, 1976	http://portal.hud.gov/hudportal/HUD?src=/federal_housing_administration
FIA, 1976	U.S. Department of Housing and Urban Development, Federal Insurance Administration	<i>Flood Hazard Boundary Map, City of Redondo Beach, Los Angeles County, California, Scale 1:12,000</i>		Washington, D.C.	June 1974; Revised May 1976	http://portal.hud.gov/hudportal/HUD?src=/federal_housing_administration
FIA, 1977	U.S. Department of Housing and Urban Development, Federal Insurance Administration	<i>Flood Insurance Study, City of Fullerton, California</i>		Washington, D.C.	July 1977	http://portal.hud.gov/hudportal/HUD?src=/federal_housing_administration
FIA, 1978	U.S. Department of Housing and Urban Development, Federal Insurance Administration	<i>Flood Insurance Study, City of Avalon, California</i>		Washington, D.C.	March 1978	http://portal.hud.gov/hudportal/HUD?src=/federal_housing_administration

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
FIA, 1978	U.S. Department of Housing and Urban Development, Federal Insurance Administration	<i>Flood Hazard Boundary Map, Los Angeles County, California, Scale 1:24,000</i>		Washington, D.C.	October 24, 1978	http://portal.hud.gov/hudportal/HUD?src=/federal_housing_administration
FIA, 1979	U.S. Department of Housing and Urban Development, Federal Insurance Administration	<i>Flood Insurance Study, City of Buena Park, California</i>		Washington, D.C.	February 1979	http://portal.hud.gov/hudportal/HUD?src=/federal_housing_administration
FIA, 1979	U.S. Department of Housing and Urban Development, Federal Insurance Administration	<i>Flood Insurance Study, City of Hawthorne, California</i>		Washington, D.C.	1979	http://portal.hud.gov/hudportal/HUD?src=/federal_housing_administration
FIA, 1979	U.S. Department of Housing and Urban Development, Federal Insurance Administration	<i>Flood Insurance Study, Orange County, California (Unincorporated Areas)</i>		Washington, D.C.	September 1979	http://portal.hud.gov/hudportal/HUD?src=/federal_housing_administration

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
FIA, 1979	U.S. Department of Housing and Urban Development, Federal Insurance Administration	<i>Flood Insurance Study, City of Torrance, California</i>		Washington, D.C.	1979	http://portal.hud.gov/hudportal/HUD?src=/federal_housing_administration
FIA, 1980	U.S. Department of Housing and Urban Development, Federal Insurance Administration	<i>Flood Insurance Study, City of La Habra, California</i>		Washington, D.C.	February 1980	http://portal.hud.gov/hudportal/HUD?src=/federal_housing_administration
FIA, 1980	U.S. Department of Housing and Urban Development, Federal Insurance Administration	<i>Flood Insurance Study, Los Angeles County, California (Unincorporated Areas)</i>		Washington D.C.	December 2, 1980	http://portal.hud.gov/hudportal/HUD?src=/federal_housing_administration
FIA, 1980	U.S. Department of Housing and Urban Development, Federal Insurance Administration	<i>Flood Insurance Study, City of Santa Fe Springs, California</i>		Washington, D.C.	April 1980	http://portal.hud.gov/hudportal/HUD?src=/federal_housing_administration
FWA, 1944	Federal Works Agency	Lockheed Storm Drain, Construction Drawing		City of Los Angeles	November 1944	

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
Gardena, 1991	City of Gardena	Community Development Department Fact Sheet		City of Gardena, CA	1991	City of Gardena library
Hale, Inc., 1979	Hale, Haaland & Associates, Inc.	Hydraulic and Structural Calculations			February 1979	
Kemmerer, 1977	Kemmerer Engineering Co., Inc.	Plans and Profiles, Las Flores Avenue, Stamy Road to Imperial Highway, Scale 1:4800		Kemmerer Engineering Co., Inc.	October 1977	
La Mirada, 1966	City of La Mirada	Base Map, Scale 1:6,000		City of La Mirada, CA	1966	City of La Mirada library
La Mirada, 1977	City of La Mirada	Topographic Map, Scale 1:1,200, Contour Interval 2 feet: La Mirada Creek Flood Plain		City of La Mirada, CA	1977	City of La Mirada library
LA Times, 1960	Los Angeles Times	article on storm		Los Angeles Times	March 24, 1960	http://www.latimes.com/
LA Times, 1964	Los Angeles Times	article on storm		Los Angeles Times	March 29, 1964	http://www.latimes.com/
LACFD, 1933	Los Angeles County Flood Control District	Flood Overflow Maps - Los Angeles County, California, Scale 1:24,000		Los Angeles County Flood Control District	1933	http://dpw.lacounty.gov/lacfd/
LACFD, 1950	Los Angeles County Flood Control District	Flood Overflow Maps, City of Culver City, California, Developed from USGS 1950 Topographic Map		Los Angeles County Flood Control District		http://dpw.lacounty.gov/lacfd/

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
LACFD, 1961	Los Angeles County Flood Control District	Kagel Canyon, Topographic Map, Scale 1:480, Contour Interval 2 feet		Los Angeles County Flood Control District	April 1961; June 1961	http://dpw.lacounty.gov/lacfd/
LACFD, 1963	Los Angeles County Flood Control District	Rustic Canyon, Topographic Map, Scale 1:480, Contour Interval 2 feet		Los Angeles County Flood Control District	October 1963	http://dpw.lacounty.gov/lacfd/
LACFD, 1968	Los Angeles County Flood Control District	Topographic Mapping for Lindero Canyon, Scale 1:480, Contour Interval 2 foot		Los Angeles County Flood Control District	1968	http://dpw.lacounty.gov/lacfd/
LACFD, 1968	Los Angeles County Flood Control District	Topographic Mapping for Medea Creek, Scale 1:480, Contour Interval 2 feet		Los Angeles County Flood Control District	1968	http://dpw.lacounty.gov/lacfd/
LACFD, 1971	Los Angeles County Flood Control District	Hydrology Manual		Los Angeles County Flood Control District	1971	http://dpw.lacounty.gov/lacfd/
LACFD, 1976	Los Angeles County Flood Control District	Survey Field Book, Flood Insurance Studies		Los Angeles County Flood Control District	1976	http://dpw.lacounty.gov/lacfd/
LACFD, 1977	Los Angeles County Flood Control District	<i>Field Book FC-3405</i>		Los Angeles County Flood Control District	November 1977	http://dpw.lacounty.gov/lacfd/
LACFD, 1977	Los Angeles County Flood Control District	<i>Field Book FC-3405, Elevation Reference Marks</i>		Los Angeles County Flood Control District	November 1977	http://dpw.lacounty.gov/lacfd/

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
LACFD, 1977	Los Angeles County Flood Control District	<i>Field Book FC-3405, Engineering Methodology for Flood Insurance Studies</i>		Los Angeles County Flood Control District	November 1977	http://dpw.lacounty.gov/lacfd/
LACFD, 1978	Los Angeles County Flood Control District	Mill Creek Topographic Map, Scale 1:1,200, Contour Interval 2 feet		Los Angeles County Flood Control District	1978	http://dpw.lacounty.gov/lacfd/
LACFD, 1978	Los Angeles County Flood Control District	Project No. 8152, Avenue Hump, Map No. 470-8152-TI, Scale 1:480, Contour Interval 2 feet		Los Angeles County Flood Control District	1978	http://dpw.lacounty.gov/lacfd/
LACFD, 1982	Los Angeles County Flood Control District	Empire and Lockheed System Hydrology Study		Los Angeles County Flood Control District	May 1982	http://dpw.lacounty.gov/lacfd/
LACFD, 1982	Los Angeles County Flood Control District	Hydraulic Analysis of Lockheed Channel		Los Angeles County Flood Control District	August 1982	http://dpw.lacounty.gov/lacfd/
LACFD, 1982	Los Angeles County Flood Control District	Hydrologic Report 1975-77		Los Angeles County Flood Control District	October 1982	http://dpw.lacounty.gov/lacfd/
LACFD, 1983	Los Angeles County Flood Control District	1983 Storm Report		Los Angeles County Flood Control District	June 1983	http://dpw.lacounty.gov/lacfd/
Lakewood, 1990	Greater Lakewood Chamber of Commerce	Community Economic Profile for Lakewood		Los Angeles County, CA	May 1990	http://www.lakewoodchamber.com/
Lockheed Engineering, 1993	Lockheed Engineering and Science Co.	Final Grading and Drainage for Plant B-1		Lockheed Engineering and Science Co.	October 1993	http://www.lockheedmartin.com/

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
Long Beach 1955	City of Long Beach	Beach-Alamitos Avenue to San Gabriel River		City of Long Beach, CA	1955	City of Long Beach library
Long Beach, 1987	City of Long Beach, California, Department of Public Works	National Geodetic Vertical Datum 1929		City of Long Beach, CA Department of Public Works	1929, 1987	City of Long Beach library
Long Beach Harbor, 1977	Long Beach Harbor Department	TP - for Los Angeles and Long Beach Harbors from Primary Tide Station Located at Los Angeles Outer Harbor		City of Long Beach, CA	1977	http://www.polb.com/
Long Beach Independent, 1939	Long Beach Independent (and Long Beach News-Signal)	various articles on storms and waves		Long Beach Independent (and Long Beach News-Signal)	September 26, 1939	http://www.longbeachindependent.com/
Long Beach Press, 1939	Long Beach Press-Telegram	various articles on storms and waves		Long Beach Press-Telegram	September 25, 1939	http://www.presstelegram.com/
Los Angeles	City of Los Angeles	Drainage Maps, Scale 1:4,800, Contour Intervals 5 and 25 feet		City of Los Angeles, CA	updated periodically	City of Los Angeles library
Los Angeles, 1935	City of Los Angeles	Plans and Profile, Weldon Canyon, Scale 1:480 (Horizontal) and 1:48 (Vertical)		City of Los Angeles, CA	October 1935	City of Los Angeles library
Los Angeles, 1967	City of Los Angeles	Topographic Map, Bixby Slough; Between 232nd Street and Anaheim Street, Scale 1:1,200, Contour Interval 2 feet		City of Los Angeles, CA	February 1967	City of Los Angeles library

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Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
Los Angeles, 1977	City of Los Angeles	Drainage Maps, Los Angeles, California, Scale 1:12,000		City of Los Angeles, CA	1977	City of Los Angeles library
Los Angeles County, 1989	Downey Chamber of Commerce	Community Economic Profile for Downey, Los Angeles County, California		Los Angeles County, CA	February 1989	http://www.downeychamber.com/
Los Angeles County, 1955	Los Angeles County, County Engineer	Soil Survey Map of Eastern End of Santa Catalina Island	Santa Catalina Island Company	County of Los Angeles	1955	http://www.lacounty.gov/
Los Angeles County, 1957	Los Angeles County, County Engineer	Topographic Map of Carbon Canyon and Las Flores Canyon, Scale 1:1,200, Contour Interval 5 feet		Los Angeles County, CA	1957	http://www.lacounty.gov/
Los Angeles County, 1957	Los Angeles County, County Engineer	Topographic Map of Escondido Canyon, Scale 1:1,200, Contour Interval 5 feet		Los Angeles County, CA	1957	http://www.lacounty.gov/
Los Angeles County, 1957	Los Angeles County, County Engineer	Topographic Map of Romero Canyon, Scale 1:1,200, Contour Interval 5 feet		Los Angeles County, CA	1957	http://www.lacounty.gov/
Los Angeles County, 1957	Los Angeles County, County Engineer	Topographic Map of Zuma Canyon, Scale 1:1,200, Contour Interval 5 feet		Los Angeles County, CA	1957	http://www.lacounty.gov/
Los Angeles County, 1964	Los Angeles County, County Engineer	Topographic Map of Topanga Canyon Road et al., Scale 1:1,200, Contour Interval 5 feet		Los Angeles County, CA	1964	http://www.lacounty.gov/

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
Los Angeles County, 1965	Los Angeles County, County Engineer	Topographic Map of Stokes Canyon Road, Scale 1:1,200, Contour Interval 5 feet		Los Angeles County, CA	1965	http://www.lacounty.gov/
Los Angeles County, 1965	Los Angeles County, County Engineer	Topographic Map of Stunt Road, Scale 1:1,200, Contour Interval 5 feet		Los Angeles County, CA	1965	http://www.lacounty.gov/
Los Angeles County, 1966	Los Angeles County, County Engineer	Topographic Map of Topanga Canyon Road, Scale 1:1,200, Contour Interval 5 feet		Los Angeles County, CA	1966	http://www.lacounty.gov/
Los Angeles County, 1967	Los Angeles County, County Engineer	Topographic Map of Corral Canyon Road, Scale 1:2,400, Contour Interval 5 feet		Los Angeles County, CA	1967	http://www.lacounty.gov/
Los Angeles County, 1967	Los Angeles County, County Engineer	Topographic Map of Topanga Road South, Scale 1:1,200, Contour Interval 5 feet		Los Angeles County, CA	1967	http://www.lacounty.gov/
Los Angeles County, 1969	Los Angeles County, County Engineer	Flood Overflow Maps, North County, Scale 1:24,000, Contour Interval 5 feet, Alpine Butte, California, 1969	County Engineer	Los Angeles County, CA	1969	http://www.lacounty.gov/
Los Angeles County, 1969	Los Angeles County, County Engineer	Flood Overflow Maps, North County, Scale 1:24,000, Contour Interval 5 feet, Lancaster East, California, 1969	County Engineer	Los Angeles County, CA	1969	http://www.lacounty.gov/

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
Los Angeles County, 1969	Los Angeles County, County Engineer	Flood Overflow Maps, North County, Scale 1:24,000, Contour Interval 5 feet, Lancaster West, California, 1969	County Engineer	Los Angeles County, CA	1969	http://www.lacounty.gov/
Los Angeles County, 1969	Los Angeles County, County Engineer	Topographic Map of Cold Canyon Road, Scale 1:1,200, Contour Interval 5 feet		Los Angeles County, CA	1969	http://www.lacounty.gov/
Los Angeles County, 1971	Los Angeles County, County Engineer	Topographic Map of Lobe Canyon Road, Scale 1:1,200, Contour Interval 5 feet		Los Angeles County, CA	1971	http://www.lacounty.gov/
Los Angeles County, 1972	Los Angeles County, County Engineer	Topographic Map of Antelope Valley Drainage Study, Scale 1:6,000, Contour Interval 10 feet	County Engineer	Los Angeles County, CA	1972	http://www.lacounty.gov/
Los Angeles County, 1972	Los Angeles County, County Engineer	Topographic Map of Antelope Valley Drainage Study, Scale 1:6,000, Contour Interval 4 feet	County Engineer	Los Angeles County, CA	1972	http://www.lacounty.gov/
Los Angeles County, 1972	Los Angeles County, County Engineer	Topographic Map of Antelope Valley Drainage Study, Scale 1:6,000, Contour Interval 5 feet	County Engineer	Los Angeles County, CA	1972	http://www.lacounty.gov/
Los Angeles County, 1973	Los Angeles County, County Engineer	Rainfall Records - City of Avalon, Gage No. 535 (1947-1973)	Santa Catalina Island Company	County of Los Angeles	1973	http://www.lacounty.gov/

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Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
Los Angeles County, 1975	Los Angeles County, County Engineer	Topographic Map of City of Santa Catalina Island, Scale 1:6,000, Contour Interval 10 feet	Santa Catalina Island Company	County of Los Angeles	1975	http://www.lacounty.gov/
Los Angeles County, 1977	Los Angeles County, County Engineer	Topographic Map of Floodplain Mapping - Santa Clarita Valley, Scale 1:6,000, Contour Interval 10 feet	County Engineer	Los Angeles County, CA	1977	http://www.lacounty.gov/
Los Angeles County, 1979	Los Angeles County, County Engineer	Construction Drawings PM 100203, PD No. 1231	County Engineer	Los Angeles County, CA	September 6, 1979	http://www.lacounty.gov/
Los Angeles County, 1979	Los Angeles County, County Engineer	Construction Drawings PM 7982, PD No. 1378	County Engineer	Los Angeles County, CA	August 17, 1979	http://www.lacounty.gov/
Los Angeles County, 1979	Los Angeles County Department of Public Works	Cross Section Field Notes for Medea Creek		Los Angeles County, CA	September 4, 1979	http://dpw.lacounty.gov/
Los Angeles County, 1979	Los Angeles County Department of Public Works	Flood Insurance Study Work Map		Los Angeles County Department of Public Works	September 25, 1979	http://dpw.lacounty.gov/
Los Angeles County, 1987	Los Angeles County Department of Public Works	Antelope Valley Comprehensive Plan of Flood Control and Water Conservation		Los Angeles County Department of Public Works	June 1987	http://dpw.lacounty.gov/

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Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
Los Angeles County, 1975	Los Angeles County, Regional Planning Department	North Los Angeles County General Plan		Los Angeles County, CA	1975	http://planning.lacounty.gov/
Los Angeles County, 1977	Los Angeles County, Regional Planning Department	<i>Quarterly Bulletin No. 135, Population Research</i>		Los Angeles County, CA	January 1977	http://planning.lacounty.gov/
Maxwell Starkman, 1978	Maxwell Starkman ALA and Associates, J.H. Edwards Company	<i>Grading Plan for Parcel 1, Parcel Map Tor. 66-5 1 PMB 4/89-90, Scale 1:480, Contour Interval 1 foot</i>		Maxwell Starkman ALA and Associates, J.H. Edwards Company	October 26, 1978	
McEwen, 1935	McEwen, C. F.	<i>Destructive High Waves Along the Southern California Coast</i>	McEwen, C. F.		April 1935 Photorevised (1967); Venice, California (1964), Photorevised (1972)	
Montebello, 1958	City of Montebello	Aerial Topographic Maps, Scale 1:1,200 Contour Interval 2 feet		City of Montebello, CA	1958	City of Montebello library

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
NGS	U.S. Department of Commerce, Coast and Geodetic Survey; and National Oceanic and Atmospheric Administration	Bathymetric Charts, California Coastline		NGS, NOAA		http://www.noaa.gov/
NGS, 1941	U.S. Department of Commerce, Coast and Geodetic Survey	<i>Manual of Harmonic Analysis and Prediction of Tides</i> , Special Publication No. 98	Shureman, P.	National Geodetic Survey	1941	http://www.commerce.gov/ http://www.ngs.noaa.gov/
NOAA, 1979	U.S. Department of Commerce, National Oceanic and Atmospheric Administration	Monthly Weather Review		NOAA	1976-1979	http://www.noaa.gov/
Palmdale, 1985	City of Palmdale	Service Level Report		City of Palmdale, CA	August 22, 1985	City of Palmdale library
Rick Engineering Company, 1985	Rick Engineering Company	<i>Topographic Map of Little Rock Wash, Scale 1"=400' Contour Interval 4 feet</i>		Rick Engineering Company	February 1985	http://www.rickengineering.com/
Santa Catalina Island Company, 1962	Santa Catalina Island Company	Topographic Map of City of Avalon, California, Scale 1:2,400, Contour Intervals 2 and 5 feet		Santa Catalina Island Company	1962	

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Santa Fe Springs	City of Santa Fe Springs	Miscellaneous Engineering Drawings of Street Plans and Profiles, various scales		City of Santa Fe Springs, CA	various	City of Santa Fe Springs library
Scripps, 1980	Scripps Institution of Oceanography	Artificial Sediment Transport and Structures in Coastal Southern California	Shaw, Martha J.	Scripps Institution of Oceanography	December 1980	https://scripps.ucsd.edu/
Simons, 1992	Simons, Li & Associates, Inc.	Design Report, Rehabilitation Concept Plan for Medea Creek in Morrison Ranch	Simons, Li & Associates, Inc.	Simons, Li & Associates, Inc	October 7, 1992	
Tetra Tech, 1979	Tetra Tech, Inc.	Methodology for Computing Coastal Flooding Statistics in Southern California, Report No. TC-3205	Y.K. Lee et al.	Tetra Tech, Inc.	December 1979	www.tetrattech.com
Tetra Tech, 1982	Tetra Tech, Inc.	Methodology for Computing Coastal Flood Statistics in Southern California, Report No. TC-3205		Tetra Tech, Inc.	1982	www.tetrattech.com
Torrence, 1968	City of Torrance	Base Map, 1968		City of Torrance, CA	1968	City of Torrence library
UCLA, 1972	University of California, Los Angeles	<i>Some Meteorological Aspects of the Seasonal Distribution of Precipitation in the Western United States and Baja California</i> , Water Resource Center Contribution No. 139	Pyke, C.B.	University of California	October 1972	http://www.universityofcalifornia.edu/

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Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
USACE	U.S. Department of the Army, Corps of Engineers	<i>Flood Insurance Study, City of Burbank, California, Preliminary Draft</i>		Washington, D.C.	Unpublished	http://www.usace.army.mil/
USACE, 1971	U.S. Department of the Army, Corps of Engineers	Santa Clara River and Tributaries, California, Interim Review Report for Flood Control			December 1971	http://www.usace.army.mil/
USACE, 1981	U.S. Department of the Army, Corps of Engineers, Hydrologic Engineering Center	HEC-1 Flood Hydrograph Package, Generalized Computer Program, User's Manual		Davis, CA	1981	http://www.usace.army.mil/
USACE, 1976	U.S. Department of the Army, Corps of Engineers, Hydrologic Engineering Center	Computer Program HEC-2 Water Surface Profiles, Generalized Computer Program		Davis, CA	November 1976	http://www.usace.army.mil/
USACE, 1982	U.S. Department of the Army, Corps of Engineers, Hydrologic Engineering Center	HEC-5 Simulation of Flood Control and Conservation Systems, User's Manual		Davis, CA	1982	http://www.usace.army.mil/

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Citation in this FIS	Publisher/ Issuer	<i>Publication Title, "Article," Volume, Number, etc.</i>	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
USACE, 1984	U.S. Department of the Army, Corps of Engineers, Hydrologic Engineering Center	Computer Program HEC-2 Water Surface Profiles, Generalized Computer Program		Davis, CA	May 1984	http://www.usace.army.mil/
USACE, 1985	U.S. Department of the Army, Corps of Engineers, Hydrologic Engineering Center	HEC-2 Water-Surface Profiles, Generalized Computer Program		Davis, CA	1985	http://www.usace.army.mil/
USACE, 1990	U.S. Department of the Army, Corps of Engineers, Hydrologic Engineering Center	HEC-1 Flood Hydrograph Package, Generalized Computer Program		Davis, CA	September 1990	http://www.usace.army.mil/
USACE, 1990	U.S. Department of the Army, Corps of Engineers, Hydrologic Engineering Center	HEC-2 Water-Surface Profiles, Generalized Computer Program		Davis, CA	September 1990	http://www.usace.army.mil/

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Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
USACE, 1976	U.S. Department of the Army, Corps of Engineers, Los Angeles District	Hydrology - Antelope Valley Streams			1976, unpublished	http://www.spl.usace.army.mil/
USACE, 1978	U.S. Department of the Army, Corps of Engineers, Los Angeles District	Overflow Maps for Areas along the Los Angeles River		Los Angeles, California	1978	http://www.spl.usace.army.mil/
USACE, 1987	U.S. Department of the Army, Corps of Engineers, Los Angeles District	As Built Plans for Los Angeles River: Channel and Bridges from Arroyo Seco to Pacific Ocean, 1987, and As Constructed Plans for San Gabriel River Channel from Whittier Narrows Dam to the Pacific Ocean, 1969			1987 and 1969	http://www.spl.usace.army.mil/
USACE, 1987	U.S. Department of the Army, Corps of Engineers, Los Angeles District	Letter of Certification for Middle Reach		Los Angeles, California	September 1987	http://www.spl.usace.army.mil/

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Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
USACE, 1987	U.S. Department of the Army, Corps of Engineers, Los Angeles District	Overflow Maps for Areas Along the Los Angeles River		Los Angeles, California	1987	http://www.spl.usace.army.mil/
USACE, 1990	U.S. Department of the Army, Corps of Engineers, Los Angeles District	Los Angeles County Drainage Area Review Draft Feasibility Report, Appendix A		Los Angeles, California	Hydraulic July 1989; Hydrology, February 1990	http://www.spl.usace.army.mil/
USACE, 1978	U.S. Department of the Army, Corps of Engineers, Los Angeles and San Francisco Districts	Winter Storm Damage Along the California Coast	Domurat, George W.		1977-78	http://www.spl.usace.army.mil/
USACE, 1971	U.S. Department of the Army, Corps of Engineers, South Pacific Division	National Shoreline Study; California Regional Inventory			August 1971	http://www.spd.usace.army.mil/
USACE, 1980	U.S. Department of the Army, Corps of Engineers, Waterways Experiment Station	Type 19 Flood Insurance Study: Tsunami Predictions for Southern California, prepared for the Federal Emergency Management Agency	Houston, J.R.	Washington, D.C.	September 1980	http://www.usace.army.mil/

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Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
USDA, 1921	U.S. Department of Agriculture, Soil Conservation Service	Reconnaissance Soil Survey of the Central Southern Area, California		U.S. Department of Agriculture, Soil Conservation Service	1921	http://www.nrcs.usda.gov/wps/portal/nrcs/site/national/home/
USDA, 1963	U.S. Department of Agriculture, Soil Conservation Service	Guide for Selecting Roughness coefficient 'n' Values for Channels		Lincoln, NE	December, 1963	http://www.nrcs.usda.gov/wps/portal/nrcs/site/national/home/
U.S. Census, 1980	U.S. Department of Commerce, Bureau of the Census	1980 Census of Population, California		Washington D.C.	March 1982	http://www.census.gov/
U.S. Census, 1980	U.S. Department of Commerce, Bureau of the Census	PC(l)-A6, Number of Inhabitants, California		Washington D.C.	1980	http://www.census.gov/
U.S. Census, 1990	U.S. Department of Commerce, Bureau of the Census	Census of Population		Washington D.C.	1991	http://www.census.gov/
USGS, 1932	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series, Topographic Maps, Scale 1:24,000, Contour Interval 5 feet: Orange, California, 1932</i>		Washington, D.C.	1923	http://topomaps.usgs.gov
USGS, 1950	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Interval 25 feet: Malibu Beach, California, 1950</i>		Washington, D.C.	1950	http://topomaps.usgs.gov

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Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
USGS 1950	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Interval 20 feet: Thousand Oaks, California, 1950</i>		Washington, D.C.	1950	http://topomaps.usgs.gov
USGS, 1964	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Interval 5 feet, Long Beach, California, 1964</i>		Washington, D.C.	1964	http://topomaps.usgs.gov
USGS, 1964	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series, Topographic Maps, Scale 1:24,000, Contour Interval 5 feet: Los Alamitos, California, 1964</i>		Washington, D.C.	1964	http://topomaps.usgs.gov
USGS, 1964	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Interval 5 feet, South Gate, California, 1964</i>		Washington, D.C.	1964	http://topomaps.usgs.gov
USGS, 1966	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Interval 20 feet, Los Angeles, California, 1966</i>		Washington, D.C.	1966	http://topomaps.usgs.gov

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Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
USGS, 1967	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Interval 25 feet, Calabasas, California, 1952, Photorevised, 1967</i>		Washington, D.C.	1967	http://topomaps.usgs.gov
USGS, 1967	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Intervals 25 feet: Malibu Beach, California, 1950, Photorevised, 1967</i>		Washington, D.C.	1967	http://topomaps.usgs.gov
USGS, 1967	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Intervals 25 feet: Point Dume, California, 1950, Photorevised, 1967</i>		Washington, D.C.	1967	http://topomaps.usgs.gov
USGS, 1967	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Interval 20 feet, Thousand Oaks, California, 1950, Photorevised, 1967</i>		Washington, D.C.	1967	http://topomaps.usgs.gov
USGS, 1967	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Intervals 25 feet: Topanga, California, 1952, Photorevised, 1967</i>		Washington, D.C.	1967	http://topomaps.usgs.gov

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Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
USGS, 1967	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Intervals 25 feet: Triunfo Pass, California, 1949, Photorevised, 1967</i>		Washington, D.C.	1967	http://topomaps.usgs.gov
USGS, 1972	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series, Topographic Maps, Scale 1:24,000, Contour Interval 5 feet: Anaheim, California, 1965, Photorevised, 1972</i>		Washington, D.C.	1972	http://topomaps.usgs.gov
USGS, 1972	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Interval 20 feet: Beverly Hills, California, 1966, Photorevised, 1972</i>		Washington, D.C.	1972	http://topomaps.usgs.gov
USGS, 1972	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Interval 40 feet, Burbank, California, 1966, Photorevised, 1972</i>		Washington, D.C.	1972	http://topomaps.usgs.gov
USGS, 1972	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Interval 20 feet: El Monte, California, 1966 Photorevised, 1972</i>		Washington, D.C.	1972	http://topomaps.usgs.gov

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Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
USGS, 1972	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Interval 5 feet: Hollywood, California, 1966, Photorevised, 1972</i>		Washington, D.C.	1972	http://topomaps.usgs.gov
USGS, 1972	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series, Topographic Maps, Scale 1:24,000, Contour Interval 5 feet: Inglewood, California, 1964, Photorevised, 1972</i>		Washington, D.C.	1972	http://topomaps.usgs.gov
USGS, 1972	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Interval 20 feet: La Habra, California, 1964, Photorevised, 1972</i>		Washington, D.C.	1972	http://topomaps.usgs.gov
USGS, 1972	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series, Topographic Maps, Scale 1:24,000, Contour Interval 5 feet: Los Alamitos, California, 1964, Photorevised, 1972</i>		Washington, D.C.	1972	http://topomaps.usgs.gov
USGS, 1972	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series, Topographic Maps, Scale 1:24,000, Contour Interval 5 feet: Newport Beach, California, 1965, Photorevised, 1972</i>		Washington, D.C.	1972	http://topomaps.usgs.gov

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Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
USGS, 1972	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series, Topographic Maps, Scale 1:24,000, Contour Interval 20 feet: Orange, California, 1964, Photorevised, 1972</i>		Washington, D.C.	1974	http://topomaps.usgs.gov
USGS, 1972	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series, Topographic Maps, Scale 1:24,000, Contour Interval 20 feet: Redondo Beach, California, 1963, Photorevised, 1972</i>		Washington, D.C.	1972	http://topomaps.usgs.gov
USGS, 1972	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series, Topographic Maps, Scale 1:24,000, Contour Interval 20 feet: Torrance, California, 1964, Photorevised, 1972</i>		Washington, D.C.	1972	http://topomaps.usgs.gov
USGS, 1972	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series, Topographic Maps, Scale 1:24,000, Contour Interval 10 feet: Venice, California, 1964, Photorevised, 1972</i>		Washington, D.C.	1972	http://topomaps.usgs.gov
USGS, 1972	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Interval 20 feet: Whittier, California, 1965, Photorevised, 1972</i>		Washington, D.C.	1972	http://topomaps.usgs.gov

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
USGS, 1973	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series, Topographic Maps, Scale 1:24,000, Contour Interval 5 feet: Seal Beach, California, 1965, Photorevised, 1973</i>		Washington, D.C.	1973	http://topomaps.usgs.gov
USGS, 1973	U.S. Department of the Interior, Geological Survey	Map of Flood-Prone Areas, Scale 1:24,000, Contour Interval 10 feet, Avalon, California, 1973		Washington, D.C.	1973	http://topomaps.usgs.gov
USGS, 1973	U.S. Department of the Interior, Geological Survey	Map of Flood-Prone Areas, Scale 1:24,000, Contour Interval 10 feet: Santa Catalina Island East, California, 1973		Washington, D.C.	1973	http://topomaps.usgs.gov
USGS, 1977	U.S. Department of the Interior, Geological Survey	<i>Journal of Research</i> , "A Method for Adjusting Values of Manning's Roughness Coefficient for Flooded Urban Areas," Volume 5, Number 5	Hejl Jr., H. R.	City of Lawrence, KS	October 1977	Out of print
USGS, 1977	U.S. Department of the Interior, Geological Survey	<i>Magnitude and Frequency of Floods in California</i> , Water-Resources Investigations 77-21	A. O. Waananen, J. R. Crippen	Washington, D.C.	1977	http://pubs.usgs.gov/wri/wri77-21/

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
USGS, 1981	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Interval 20 feet, Thousand Oaks, California, 1950, Photorevised 1981</i>		Washington, D.C.	1981	http://topomaps.usgs.gov
Whittier, 1968	City of Whittier	Base Map, 1968		City of Whittier, CA	1968	City of Whittier library
Whittier, 1955	City of Whittier	Metropolitan Topographic Survey, Scale 1:24,000, Contour Interval 5 feet		City of Whittier, CA	1955	City of Whittier library

N/A = Not Available

Table 2: Flooding Sources Included in this FIS Report

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Acton Canyon	Los Angeles County	Confluence with Santa Clara River	0.6 miles upstream of Aliso Street	18070102	1.8	—	Y	AE	2014
Agua Amarge Canyon Creek	City of Palos Verdes Estates	—	—	18070104	0.7	—	N	A	—
Agua Dulce Canyon Creek	Los Angeles County	Confluence with Santa Clara River	Approximately 0.5 miles upstream of Schaefer Rd	18070102	3.2	—	N	AE	2015
Agua Dulce Canyon Creek	Los Angeles County	Approximately 0.5 miles upstream of Schaefer Rd	Approximately 3400 feet upstream of Schaefer Rd	18070102	0.13	—	N	A	2015
Agua Dulce Canyon Creek	Los Angeles County	Approximately 3400 feet upstream of Schaefer Rd	Approximately 2000 feet upstream of Sierra Vista Drive	18070102	4.7	—	Y	AE	2015
Agua Dulce Canyon Creek	Los Angeles County	Approximately 1000 feet upstream of Anthony Rd	Approximately 250 feet upstream of Hierba Rd	18070102	0.2	—	N	A	2015
Agua Dulce Canyon Creek Lateral	Los Angeles County	Confluence with Agua Dulce Canyon Creek	Approximately 900 feet upstream of confluence with Agua Dulce Canyon Creek	18070102	0.2	—	N	AE	2015
Alamitos Bay	City of Long Beach	—	—	18070106	1.9	—	N	A	—
Aliso Canyon Creek	Los Angeles County	Confluence with Santa Clara River	Approximately 2.1 miles upstream of W Avenue Y8	18070102	3.1	—	N	AE	2015

Table 2: Flooding Sources Included in this FIS Report, Continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Amargosa Creek	City of Lancaster, Los Angeles County, City of Palmdale	—	—	18090206	13.8	—	N	A, AH, AO	1985
Amargosa Creek	Los Angeles County, City of Palmdale	—	—	18090206	6.4	—	N	AE	1985
Amargosa Creek	Los Angeles County, City of Palmdale	—	—	18090206	7.2	—	N	A, AO	1985
Amargosa Creek Tributary	City of Lancaster	—	—	18090206	0.3	—	N	A	—
Anaverde Creek	City of Palmdale	—	—	18090206	3.5	—	Y	AE	1985
Anaverde Creek	City of Palmdale	—	—	18090206	2.0	—	N	A	1985
Arrastre Canyon Creek	Los Angeles County	—	—	18070102	1.0	—	N	A	—
Arroyo Calabasas	City of Los Angeles	—	—	18070105	0.1	—	N	AE	—
Arroyo San Miguel	City of Whittier	—	—	18070106	0.1	—	N	A	1978
Arroyo Sequit	Los Angeles County	—	—	18070104	2.3	—	N	A	—
Avalon Bay	City of Avalon	—	—	18070107	0.4	—	N	AE	—
Avalon Canyon	City of Avalon	At confluence with Pacific Ocean	0.9 miles upstream of confluence with Pacific Ocean	18070107	0.9	—	N	AE	—
Back Channel	City of Long Beach	—	—	18070106	0.9	—	N	AE	—
Ballona Creek	City of Los Angeles	—	—	18070104	0.6	—	N	AE	—
Ballona Creek	City of Culver City, City of Los Angeles, Los Angeles County	—	—	18070104	1.8	—	N	A, AO	—

Table 2: Flooding Sources Included in this FIS Report, Continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Bar Creek	City of Diamond Bar	—	—	18070106	0.1	—	N	A, AO	—
Bee Canyon	Los Angeles County	—	—	18070102	0.9	—	N	A	—
Bee Canyon (2)	City of Los Angeles	—	—	18070105	0.9	—	N	A	—
Bee Canyon Creek	Los Angeles County	—	—	18070105	0.6	—	N	A	—
Big Rock Creek	Los Angeles County	—	—	18090206	5.7	—	N	A	—
Big Rock Creek South Fork	Los Angeles County	—	—	18090206	1.2	—	N	A	—
Big Rock Wash	City of Lancaster, Los Angeles County	—	—	18090206	27.7	—	N	A	—
Big Rock Wash (Profile Base Line)	City of Palmdale	City of Palmdale Corporate Limits	City of Palmdale Corporate Limits	18090206	4.0	—	N	AE	1985
Big Tujunga Wash	City of Los Angeles	—	—	18070105	6.8	—	N	A, AO	—
Boulder Canyon Creek	Los Angeles County	—	—	18090206	3.8	—	N	A	—
Bouquet Canyon Creek	Los Angeles County, City of Santa Clarita	Confluence with Santa Clara River	0.4 miles upstream of Texas Canyon Road	18070102	7.8	—	Y	AE	2014
Bouquet Canyon Creek	Los Angeles County	0.4 miles upstream of Texas Canyon Road	Approximately 900 feet upstream of Sierra Pellona Mtwy	18070102	3.1	—	Y	AE	2015
Bouquet Reservoir	Los Angeles County	—	—	18070102	2.1	0.9	N	A	—
Broad Canyon Creek	Los Angeles County	—	—	18090206	8.0	—	N	A	—

Table 2: Flooding Sources Included in this FIS Report, Continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Browns Creek	City of Los Angeles	—	—	18070105	1.0	—	N	AO	—
California Aqueduct	Los Angeles County	—	—	18090206	6.2	—	N	A	—
Canada De Los Alamos Creek	Los Angeles County	—	—	18070102	3.9	—	N	A	—
Carlos Canyon Creek	Los Angeles County	—	—	18070102	0.1	—	N	A	—
Carr Canyon Creek	Los Angeles County	—	—	18090206	0.3	—	N	A	—
Castaic Creek	Los Angeles County	Confluence with Santa Clara River	Approximately 0.6 miles above Tapia Canyon Road	18070102	5.6	—	N	AE	2015
Castaic Lagoon	Los Angeles County	—	—	18070102	1.3	0.31	N	A	—
Castaic Lake	Los Angeles County	—	—	18070102	5.7	4.0	N	A	—
Channel No. 2	City of Long Beach	—	—	18070106	0.8	—	N	AE	—
Channel No. 3	City of Long Beach	—	—	18070106	0.7	—	N	AE	—
Charlie Canyon Creek	Los Angeles County	—	—	18070102	2.0	—	N	A	—
Chatsworth Reservoir	City of Los Angeles	—	—	18070105	1.5	0.7	N	A	—
Cherry Canyon Creek	Los Angeles County	—	—	18070102	3.2	—	N	A	—
Cheseboro Creek	City of Agoura Hills, Los Angeles County	—	—	18070104	0.5	—	N	AE	—
Cold Creek	Los Angeles County	—	—	18070104	1.5	—	N	AE	—
Cold Creek	Los Angeles County	—	—	18070104	2.3	—	N	A	—

Table 2: Flooding Sources Included in this FIS Report, Continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Colorado Lagoon	City of Long Beach	—	—	18070106	0.4	0.02	N	AE	—
Compton Creek	City of Compton, City of Long Beach, Los Angeles County, City of Carson	Confluence with Los Angeles River	Approximately 400 feet upstream of Artesia Boulevard	18070105	2.3	—	N	A	—
Consolidated Channel	City of Los Angeles	—	—	18070106	0.6	—	N	AE	—
Coyote Canyon Creek	City of Santa Clarita	—	—	18070102	0.7	—	N	A, AO	—
Coyote Creek	City of Long Beach	—	—	18070106	2.6	—	N	A	—
Cruthers Creek	Los Angeles County	—	—	18090206	0.6	—	N	A	—
Dark Canyon	Los Angeles County	—	—	18070104	0.5	—	N	AE	—
Dark Canyon West Branch	Los Angeles County	—	—	18070104	0.2	—	N	A	—
Dewitt Canyon Creek	Los Angeles County	—	—	18070102	0.1	—	N	A	—
Dominguez Channel	City of Los Angeles	—	—	18070104	0.3	—	N	AE	—
Dominguez Channel	City of Carson, City of Gardena, City of Los Angeles	At the upstream face of Henry Ford Avenue	At the downstream face of Victoria Avenue	18070106	9.0	—	N	A, AE	—
Dorr Canyon Creek	Los Angeles County	—	—	18090206	1.1	—	N	A	—
Dowd Canyon Creek	Los Angeles County	—	—	18070102	1.8	—	N	A, AO	—
Dry Canyon	Los Angeles County, City of Santa Clarita, City of Calabasas	—	—	18070104	3.6	—	N	A, AO, AE	—

Table 2: Flooding Sources Included in this FIS Report, Continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
East Basin	City of Los Angeles	—	—	18070106	0.8	—	N	AE	—
Elizabeth Canyon Creek	Los Angeles County	—	—	18070102	2.7	—	N	A, AO	—
Elizabeth Lake	Los Angeles County	—	—	18070102	1.7	0.3	N	A	—
Elizabeth Lake Canyon Creek	Los Angeles County	—	—	18070102	5.0	—	N	A	—
Eller Slough	Los Angeles County	—	—	18090206	3.7	—	N	A	—
Elsmere Canyon Creek	City of Santa Clarita	Confluence with Newhall Creek	Approximately 1.3 miles upstream of State Route 14	18070102	1.4	—	N	AE	2015
Encino Reservoir	City of Los Angeles	—	—	18070105	0.7	0.2	N	A	—
Entrance Channel (Marina Del Ray)	City of Los Angeles	—	—	18070105	0.5	—	N	AE	—
Escondido Canyon	Los Angeles County	Confluence with Acton Canton Creek	1.7 miles upstream of confluence with Acton Canton Creek	18070102	1.7	—	Y	AE	2014
Escondido Canyon	City of Malibu, Los Angeles County	—	—	18070104	0.6	—	N	A, AE	—
Fenner Canyon Creek	Los Angeles County	—	—	18090206	0.3	—	N	A	—
Fish Harbor	City of Los Angeles	—	—	18070106	0.6	—	N	AE	—
Flood Control Channel to Aliso Creek	City of Los Angeles	—	—	18070105	0.9	—	N	A	—
Flowline No. 1	City of Santa Fe Springs	—	—	18070106	0.6	—	N	AE	1978

Table 2: Flooding Sources Included in this FIS Report, Continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Garapito Creek	Los Angeles County	—	—	18070104	0.7	—	N	AE	—
Gavin Canyon Creek	Los Angeles County, City of Santa Clarita	—	—	18070102	1.0	—	N	A	—
Gorman Creek	Los Angeles County	—	—	18070102	11.5	—	N	A, AH, AO	—
Gorman Canyon Creek	City of Santa Clarita	—	—	18070102	0.9	—	N	A, AO	—
Graham Canyon Creek	Los Angeles County	—	—	18090206	3.0	—	N	A	—
Grandview Canyon Creek	Los Angeles County	—	—	18090206	7.2	—	N	A	—
Harbor Lake	City of Los Angeles	—	—	18070106	0.6	0.1	N	AE	—
Haskell Canyon	Los Angeles County, City of Santa Clarita	Confluence with Bouquet Canyon Creek	0.4 miles upstream of Copper Hill Drive	18070102	1.5	—	Y	AE	2014
Hasley Canyon Creek	Los Angeles County	Confluence with Castic Creek	0.3 miles upstream of Burlwood Drive	18070102	5.0	—	N	AE	2015
Holcomb Canyon Creek	Los Angeles County	—	—	18090206	0.9	—	N	A	—
Holmes Creek	Los Angeles County	—	—	18090206	0.8	—	N	A	—
Hughes Lake	Los Angeles County	—	—	18070102	0.4	0.05	N	A	—
Iron Canyon	Los Angeles County, City of Santa Clarita	Confluence with Sand Canyon Creek	0.8 miles upstream of North Iron Canyon Road	18070102	1.7	—	Y	AE	2010
Jesus Canyon Creek	Los Angeles County	—	—	18090206	3.3	—	N	A	—

Table 2: Flooding Sources Included in this FIS Report, Continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Kagel Canyon	City of Los Angeles, Los Angeles County	—	—	18070105	1.3	—	Y	AE	—
Kentucky Springs Canyon Creek	Los Angeles County	Confluence with Soledad Canyon	Approximatley 600 feet upstream of Ghost Mine Road	18070102	2.6	—	N	AE	2015
Lake Lindero	City of Agoura Hills, City of Westlake Village	—	—	18070104	0.3	0.02	N	A	—
La Mirada Creek	City of La Mirada	—	—	18070106	1.5	—	N	AE	—
Lake Palmdale	Los Angeles County	—	—	18090206	1.1	0.4	N	A	—
Lake Street Overflow	City of Burbank	—	—	18070105	0.2	—	N	AE	—
Las Flores Canyon	Los Angeles County, City of Malibu	—	—	18070104	1.3	—	N	A, AE	—
Las Virgenes Creek	City of Calabasas, Los Angeles County	At confluence with Malibu Creek	Immediately downstream of Las Virgenes Road	18070104	4.8	—	N	AE	2010
Leaming Canyon Creek	Los Angeles County	—	—	18070102	0.2	—	N	A	—
Lemontaine Creek	Los Angeles County	—	—	18090206	2.5	—	N	A	—
Liberty Canyon	City of Agoura Hills, Los Angeles County	—	—	18070104	0.4	—	N	AE	—
Limekiln Creek	City of Los Angeles	—	—	18070105	2.4	—	N	A	—
Lindero Canyon	City of Agoura Hills, City of Westlake Village	—	—	18070104	1,9	—	N	AE	—

Table 2: Flooding Sources Included in this FIS Report, Continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Lion Canyon	Los Angeles County	At confluence with Santa Clara River	0.9 miles upstream of Seasoned Road	18070102	1.2	—	N	AE	2015
Little Rock Creek	Los Angeles County	—	—	18090206	6.2	—	N	A	—
Little Rock Reservoir	Los Angeles County	—	—	18090206	0.6	0.08	N	A	—
Little Rock Wash	City of Lancaster, Los Angeles County	—	—	18090206	9.7	—	N	A	—
Little Rock Wash	Los Angeles County	—	—	18090206	4.3	—	N	A	—
Little Rock Wash - Profile A	City of Palmdale	City of Palmdale Corporate Limits	City of Palmdale Corporate Limits	18090206	1.2	—	N	AE	1985
Little Rock Wash - Profile A	City of Palmdale	City of Palmdale Corporate Limits	City of Palmdale Corporate Limits	18090206	0.6	—	N	AE	1985
Little Rock Wash - Profile A	Los Angeles County	—	—	18090206	2.0	—	N	A	—
Little Rock Wash - Profile A	Los Angeles County, City of Palmdale	—	—	18090206	3.1	—	N	AE	1985
Little Rock Wash - Profile A	Los Angeles County, City of Palmdale	—	—	18090206	3.0	—	N	A	1985
Little Rock Wash - Profile B	City of Palmdale	City of Palmdale Corporate Limits	City of Palmdale Corporate Limits	18090206	1.4	—	N	AE	1985
Little Rock Wash - Profile C	Los Angeles County, City of Palmdale	—	—	18090206	0.9	—	N	AE	1985

Table 2: Flooding Sources Included in this FIS Report, Continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Little Tujunga Wash	Los Angeles County, City of Los Angeles	—	—	18070105	2.1	—	N	A, AO	—
Lobo Canyon	Los Angeles County	—	—	18070104	1.7	—	N	AE	—
Lockheed Drain Channel	City of Burbank, City of Los Angeles	—	—	18070105	2.5	—	N	AE, AO	—
Long Canyon	Los Angeles County	At confluence with Santa Clara River	2.4 miles upstream of confluence with Santa Clara River	18070102	2.4	—	N	AE	2015
Lopez Canyon Channel	Los Angeles County, City of Los Angeles	—	—	18070105	0.6	—	N	A, AE	—
Los Angeles County Flood Control Channel	City of Los Angeles	—	—	18070105	0.9	—	N	A	—
Los Angeles County Flood Control Channel to Aliso Creek	City of Los Angeles	—	—	18070105	2.5	—	N	A	—
Los Angeles County Storm Drain	City of Carson, Los Angeles County	—	—	18070104	3.1	—	N	A	—
Los Angeles Harbor	City of Los Angeles	—	—	18070106	2.8	—	N	AE	—
Los Angeles Reservoir	City of Los Angeles	—	—	18070105	0.7	0.3	N	A	—
Los Angeles River	City of Compton, City of Cudahy, City of Long Beach, Los Angeles County, City of Paramount, City of South Gate, City of Los Angeles	—	—	18070105	13.3	—	N	A	1991

Table 2: Flooding Sources Included in this FIS Report, Continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Los Angeles River Flood Control Channel	City of Burbank	—	—	18070105	0.2	—	N	A	—
Los Angeles River Flood Control Channel	City of Burbank	—	—	18070105	0.3	—	N	A	—
Los Cerritos Channel (1)	City of Long Beach, City of Los Angeles	—	—	18070106	3.2	—	N	AE	—
Los Cerritos Channel (2)	City of Long Beach	—	—	18070106	4.7	—	N	AE	—
Lyon Canyon Creek	Los Angeles County, City of Santa Clarita	—	—	18070102	0.2	—	N	A	—
Main Channel	City of Los Angeles	—	—	18070104	2.3	—	N	AE	—
Malaga Canyon Creek	City of Palos Verdes Estates	—	—	18070104	1.4	—	N	A	—
Malibu Creek	Los Angeles County, City of Malibu	—	—	18070104	9.8	—	N	A, AE	—
Malibu Lake	Los Angeles County	—	—	18070104	0.9	0.06	N	A	—
Marina Del Ray	Los Angeles County, City of Los Angeles	—	—	18070104	1.5	—	N	AE	—
Marine Stadium	City of Long Beach	—	—	18070106	1.8	—	N	AE	—
Medea Creek	City of Agoura Hills, Los Angeles County	—	—	18070104	4.5	—	N	AE	—
Middle Harbor	City of Long Beach	—	—	18070106	1.7	—	N	AE	—
Mill Creek	Los Angeles County	—	—	18070105	1.0	—	N	AE	—
Milton B. Arthur Lakes	City of Long Beach	—	—	18070106	0.5	0.05	N	A	—

Table 2: Flooding Sources Included in this FIS Report, Continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Mint Canyon Creek	City of Santa Clarita	Confluence with Santa Clara River Trail	Immediately downstream of Adon Avenue	18070102	0.8	—	N	AE	2010
Mint Canyon Creek	Los Angeles County, City of Santa Clarita	Immediately downstream of Adon Avenue	0.9 miles upstream of Rocking Horse Road	18070102	11.1	—	Y	AE	2010
Mint Canyon Creek Overflow	City of Santa Clarita	Confluence with Santa Clara River Trail	Immediately downstream of Adon Avenue	18070102	1.0	—	N	AE, AO	2015
Montebello Municipal Golf Course Pond	City of Montebello	—	—	18070105	0.1	0.001	N	A	—
Muscal Creek	Los Angeles County	—	—	18090206	5.3	—	N	A	—
Myrick Canyon Creek	Los Angeles County	—	—	18090206	2.1	—	N	A	—
Newhall Creek	City of Santa Clarita	Confluence with South Fork Santa Clara River	Approximately 0.3 miles upstream of Molokai Road	18070102	3.1	—	Y	AE	2014
Newhall Creek Left Overbank 2	City of Santa Clarita	Confluence with Newhall Creek	Immediately below 5th Street	18070102	1.6	—	Y	AE	2015
Newhall Creek Left Overbank 3	City of Santa Clarita	Confluence with Newhall Creek Left Overbank 2	Immediately below 12th Street	18070102	0.8	—	N	AE	2015
Newhall Creek Right Overbank 1	City of Santa Clarita	Confluence with Newhall Creek	Approximately 175 feet upstream of Molokai Road	18070102	0.2	—	Y	AE	2015
Oak Springs Canyon	City of Santa Clarita	Confluence with Santa Clara River	Approximately 0.3 miles upstream of Oak Spring Canyon Road	18070102	1.3	—	N	AE, AO	2015

Table 2: Flooding Sources Included in this FIS Report, Continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Oak Springs Canyon Overflow	City of Santa Clarita	Confluence with Oak Springs Canyon Creek	Divergence from Oak Springs Canyon Creek	18070102	0.4	—	N	AE	2015
Oakgrove Canyon Creek	Los Angeles County	—	—	18090206	0.7	—	N	A	—
Old Topanga Canyon	Los Angeles County	—	—	18070104	3.3	—	N	A, AE	—
Oro Fino Canyon Creek	City of Santa Clarita	—	—	18070102	0.3	—	N	A	—
Oso Canyon Creek	Los Angeles County	—	—	18090206	3.3	—	N	A	—
Pacific Terrace Harbor	City of Long Beach	—	—	18070106	0.3	—	N	AE	—
Pacoima Channel	City of Los Angeles	—	—	18070105	2.9	—	N	A	—
Pacoima Wash	Los Angeles County, City of Los Angeles	—	—	18070105	2.0	—	N	A, AO	—
Pallett Creek	Los Angeles County	—	—	18090206	15.9	—	N	A	—
Palmdale Ditch	Los Angeles County	—	—	18090206	1.4	—	N	A	—
Palo Comando Creek	City of Agoura Hills, Los Angeles County	—	—	18070104	1.3	—	N	AE	—
Palomas Canyon Creek	Los Angeles County	—	—	18070102	0.1	—	N	A	—
Pico Canyon	Los Angeles County, City of Santa Clarita	Confluence with South Fork Santa Clara River	Approximately 800 feet upstream of Stevenson Ranch Parkway	18070102	2.6	—	N	AE	2015

Table 2: Flooding Sources Included in this FIS Report, Continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Pine Canyon Creek	Los Angeles County, City of Palmdale	—	—	18070102	6.9	—	N	A	1985
Piru Creek	Los Angeles County	—	—	18070102	1.7	—	N	A	—
Placerita Creek	Los Angeles County, City of Santa Clarita	Confluence with Newhall Creek	Approximately 1400 feet upstream of Placerita Canyon Road	18070102	4.5	—	Y	AE	2015
Placerita Creek Overflow	City of Santa Clarita	Confluence with Newhall Creek	Approximately 1.6 miles upstream of confluence with Newhall Creek	18070102	1.7	—	N	AE	2015
Plum Canyon	Los Angeles County	Confluence with Bouquet Canyon Creek	Approximately 0.3 miles upstream of Rodgers Drive	18070102	0.8	—	N	AE	2015
Portal Ridge Wash	City of Lancaster	—	—	18090206	1.7	—	N	AH	—
Potrero Canyon	Los Angeles County	Confluence with Santa Clara River	Approximately 3.7 miles upstream of Potrero Canyon Road	18070102	4.0	—	N	AE	2015
Potrero Valley Creek (Westlake Lake)	City of Westlake Village	—	—	18070104	0.9	—	N	A	—
Puzzle Canyon Creek	Los Angeles County	—	—	18090206	2.4	—	N	A	—
Pyramid Lake	Los Angeles County	—	—	18070102	3.5	2.0	N	A	—
Quail Lake	Los Angeles County	—	—	18090102	1.6	0.4	N	A	—

Table 2: Flooding Sources Included in this FIS Report, Continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Quigley Canyon Creek	City of Santa Clarita	Confluence with Placertia Creek	1.3 miles upstream of Meadview Avenue	18070102	1.5	—	Y	AE	2015
Railroad Canyon	City of Santa Clarita	Confluence with Newhall Creek	0.4 miles upstream of confluence with Newhall Creek	18070102	0.4	—	Y	AE	2014
Railroad Canyon Creek Left Overbank	City of Santa Clarita	Confluence with Newhall Creek	0.5 miles upstream of confluence with Newhall Creek	18070102	0.5	—	Y	AE	2014
Ramirez Canyon	Los Angeles County, City of Malibu	—	—	18070104	1.5	—	N	AE	—
Reservoir near UCLA	City of Los Angeles	—	—	18070104	0.1	0.002	N	A	—
Rice Canyon Creek	Los Angeles County	—	—	18070102	0.5	—	N	A	—
Rio Hondo Channel	City of Bell Gardens, City of Downey, Los Angeles County, City of Montebello, City of Pico Rivera, City of South Gate	—	—	18070105	9.6	—	N	A	1991
Rio Hondo Channel Tributary	City of Montebello	—	—	18070105	0.4	—	N	AE	1991
Roberts Canyon Creek	City of Azusa	—	—	18070106	0.4	—	N	A	—
Rock Creek	Los Angeles County	—	—	18090206	7.0	—	N	A	—
Romero Canyon Creek	Los Angeles County	—	—	18070102	1.4	—	N	A	—

Table 2: Flooding Sources Included in this FIS Report, Continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Rustic Canyon	City of Los Angeles	—	—	18070104	4.8	—	N	A, AE	—
Salt Canyon Creek	Los Angeles County	—	—	18070102	2.4	—	N	A	—
San Dimas Wash	City of San Dimas	—	—	18070106	0.5	—	N	AE	—
San Francisquito Canyon Creek	Los Angeles County, City of Santa Clarita	Confluence with Santa Clara River	Approximately 1200 feet downstream of North Quail Trail	18070102	5.5	—	Y	AE	2014
San Francisquito Canyon Creek	Los Angeles County	Approximately 1200 feet downstream of North Quail Trail	Approximately 400 feet upstream of San Francisquito Canyon Road	18070102	3.0	—	N	AE	2015
San Gabriel River	City of Bellflower, City of Cerritos, City of Lakewood, City of Long Beach	—	—	18070106	9.4	—	N	A	—
San Gabriel River	City of Azusa, Los Angeles County	—	—	18070106	0.4	—	N	A	—
San Martinez Chiquito Canyon	Los Angeles County	Confluence with Santa Clara River	Approximately 2000 feet upstream of San Martinez Road	18070102	4.0	—	N	AE	2015
San Martinez Grande Canyon Creek	Los Angeles County	Confluence with Santa Clara River	1.8 miles above State Route 126	18070102	2.0	—	N	AE	2015
San Pedro Bay	City of Long Beach	—	—	18070106	1.0	—	N	AE	—
Sand Canyon Creek	Los Angeles County, City of Santa Clarita	Confluence with Santa Clara River	0.4 miles upstream of Coyote Canyon Creek	18070102	4.2	—	N	AE, AO	2010

Table 2: Flooding Sources Included in this FIS Report, Continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Santa Clara River	Los Angeles County, City of Santa Clarita	At Los Angeles—Ventura County Boundary	Approximately 1.4 miles upstream of Lang Station Road	18070102	22.8	—	Y	AE	2015
Santa Clara River	Los Angeles County	Approximately 12 miles upstream of Lang Station Road	Confluence of Aliso Canyon Creek	18070102	4.3	—	Y	AE	2015
Santa Clara River	Los Angeles County	Confluence of Aliso Canyon Creek	1.3 miles upstream of confluence of Soledad Canyon Creek	18070102	3.2	—	N	A	—
Santa Clara River Overflow	Los Angeles County	Confluence with Santa Clara River	Approximately 1700 feet upstream of the confluence of Santa Clara River	18070102	0.3	—	N	AE	2015
Santa Maria Canyon	Los Angeles County	—	—	18070104	0.7	—	N	A, AE	—
Santa Susana Pass Wash	City of Los Angeles	—	—	18070105	0.1	—	N	A	—
Santa Ynez Canyon Reservoir	City of Los Angeles	—	—	18070104	0.1	0.01	N	A	—
Savage Creek	City of Whittier	—	—	18070106	0.7	—	N	AE	1978
Sierra Canyon Creek	Los Angeles County	—	—	18070104	1.3	—	N	A	—
Sloan Canyon Creek	Los Angeles County	—	—	18070102	1.3	—	N	A	—

Table 2: Flooding Sources Included in this FIS Report, Continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Soledad Canyon	Los Angeles County	Confluence with Santa Clara River	Approximately 1.0 mile upstream of East Soledad Pass Road	18070102	4.6	—	N	AE	2015
South Fork Santa Clara River	City of Santa Clarita	Confluence with Santa Clara River	approximately 1,600 feet upstream of Lyons Avenue	18070102	4.2	—	Y	AE	2014
South Fork Santa Clara River Tributary	City of Santa Clarita	Confluence with South Fork Santa Clara River	Immediately upstream of Tournament Road	18070102	0.8	—	Y	AE	2014
South Portal Canyon Creek	Los Angeles County	—	—	18070102	0.4	—	N	A	—
Spade Spring Canyon Creek	Los Angeles County	Confluence with Mint Canyon Creek	2.8 miles upstream of confluence with Mint Canyon Creek	18070102	2.8	—	Y	AE	2010
Stokes Canyon	Los Angeles County	—	—	18070104	2.0	—	N	A, AE	—
Sullivan Canyon Creek	City of Los Angeles	—	—	18070104	1.7	—	N	A	—
Sunshine Canyon Creek	City of Los Angeles	—	—	18070105	0.1	—	N	A	—
Tacobi Creek	City of Whittier	—	—	18070106	0.1	—	N	A	1978
Tapia Canyon Creek	Los Angeles County	—	—	18070102	1.3	—	N	A	—
Texas Canyon Creek	Los Angeles County	Confluence with Bouquet Canyon Creek	0.9 miles above confluence with Bouquet Canyon Creek	18070102	0.9	—	N	AE	2015

Table 2: Flooding Sources Included in this FIS Report, Continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Tick Canyon	Los Angeles County	Confluence with Santa Clara River	0.2 miles above Tick Canyon Road	18070102	2.1	—	N	AE	2015
Tonner Canyon Creek	Los Angeles County	—	—	18070106	1.2	—	N	A	—
Topanga Canyon	Los Angeles County, City of Los Angeles	—	—	18070104	8.7	—	N	A, AE	—
Towsley Canyon Creek	Los Angeles County, City of Santa Clarita	Approximately 400 feet upstream of confluence of Gavin Canyon Creek	Approximately 1100 feet upstream of The Old Road	18070102		—	N	AE	2015
Trancas Creek	City of Malibu	—	—	18070104	0.3	—	N	AE	—
Triunfo Creek	Los Angeles County, City of Westlake Village	—	—	18070104	4.8	—	N	A, AE	—
Turnbull Canyon	City of Whittier	—	—	18070106	0.7	—	N	AE, AO	1978
Unnamed Canyon Creek (Serra Retreat Area)	Los Angeles County, City of Malibu	—	—	18070104	0.5	—	N	AE	—
Unnamed Stream Main Reach	City of Palos Verdes Estates	—	—	18070104	1.4	—	Y	AE	2010
Unnamed Stream Tributary 1	City of Palos Verdes Estates	—	—	18070104	0.3	—	Y	AE	2010
Unnamed Stream Tributary 2	City of Palos Verdes Estates	—	—	18070104	0.6	—	Y	AE	2010
Upper Los Angeles River Left Overbank	City of Los Angeles	—	—	18070105	1.6	—	N	AE	—
Vasquez Canyon	Los Angeles County	Confluence with Bouquet Canyon Creek	Approximately 2 miles upstream of confluence with Bouquet Canyon Creek	18070102	2.0	—	N	AE	2015

Table 2: Flooding Sources Included in this FIS Report, Continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Villa Canyon Creek	Los Angeles County	—	—	18070102	0.1	—	N	A	—
Vine Creek	City of West Covina	—	—	18070106	0.9	—	N	A	—
Violin Canyon Creek	Los Angeles County	Confluence with Castaic Creek	At I-5 (Golden State Freeway)	18070102	1.5	—	N	AE, AO	—
Violin Canyon Creek	Los Angeles County	—	—	18070102	1.7	—	N	A	—
Wayside Canyon Creek	Los Angeles County	—	—	18070102	2.2	—	N	A	—
Weldon Canyon	City of Los Angeles	—	—	18070105	0.3	—	Y	AE	—
West Basin	City of Los Angeles	—	—	18070106	1.3	—	N	AE	—
West Channel	City of Los Angeles	—	—	18070106	0.7	—	N	AE	—
Westlake Reservoir	City of Westlake Village	—	—	18070104	0.9	0.2	N	A	—
Whitney Canyon Creek	Los Angeles County, City of Santa Clarita	Confluence with Newhall Creek	1 mile upstream of confluence with Newhall Creek	18070102	1.0	—	N	AE	2015
Wildwood Canyon Creek	City of Santa Clarita	—	—	18070102	0.5	—	N	A, AO	1984
Wiley Canyon Creek	Los Angeles County, City of Santa Clarita	—	—	18070102	0.4	—	N	A	1984
Willow Springs Canyon Creek	Los Angeles County	—	—	18090206	5.1	—	N	A	—
Young Canyon Creek	Los Angeles County	—	—	18070102	0.2	—	N	A	—

Table 2: Flooding Sources Included in this FIS Report, Continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Zuma Canyon	Los Angeles County, City of Malibu	—	—	18070104	2.6	—	N	A, AE	—
UNKNOWN 1 near W. 3rd Street	City of Los Angeles, City of West Hollywood	—	—	18070104	1.0	—	N	AO	1980, 1985
UNKNOWN 2 near W. 3rd Street	City of Los Angeles	—	—	18070104	0.2	—	N	A	—
UNKNOWN 3 near W. 3rd Street	City of Los Angeles	—	—	18070104	0.8	—	N	A	—
UNKNOWN 1 near 4th Street	City of Los Angeles	—	—	18070104	0.2	—	N	A	—
UNKNOWN 1 near Aberdeen Avenue	City of Los Angeles	—	—	18070104	0.9	—	N	A	—
UNKNOWN 1 near Alameda Street	City of Los Angeles	—	—	18070104	0.2	—	N	A	—
UNKNOWN 2 near Alameda Street	City of Los Angeles	—	—	18070104	0.2	—	N	A	—
UNKNOWN 1 near Alaska Avenue	City of Torrance	—	—	18070104	0.2	—	N	AH	1978
UNKNOWN 1 near Amsler Street	City of Torrance	—	—	18070104	0.1	—	N	AH	1978
UNKNOWN 1 to Anaverde Creek	City of Palmdale	—	—	18090206	1.1	—	N	A	1985
UNKNOWN 1 near Anza Avenue	City of Torrance	—	—	18070104	0.1	—	N	AH	1978
UNKNOWN 1 to Arroyo Calabasas	City of Hidden Hills	—	—	18070105	0.7	—	N	A	—
UNKNOWN 2 to Arroyo Calabasas	City of Calabasas	—	—	18070105	0.5	—	N	A	—
UNKNOWN 1 near Baile Avenue	City of Los Angeles	—	—	18070105	0.3	—	N	AE	—

Table 2: Flooding Sources Included in this FIS Report, Continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
UNKNOWN 2 near Baile Avenue	City of Los Angeles	—	—	18070105	0.1	—	N	AE	—
UNKNOWN 1 near S. Beverley Glen Boulevard	City of Los Angeles	—	—	18070104	0.1	—	N	AH	—
UNKNOWN 1 to Big Rock Wash	Los Angeles County	—	—	18090206	3.6	—	N	A, AO	—
UNKNOWN 1-A to Big Rock Wash	Los Angeles County	—	—	18090206	3.3	—	N	A, AO	—
UNKNOWN 2 to Big Rock Wash	Los Angeles County	—	—	18090206	2.6	—	N	A, AO	—
UNKNOWN 1 near Blinn Avenue	City of Los Angeles	—	—	18070104	0.2	—	N	A	—
UNKNOWN 1 to Broad Canyon Creek	Los Angeles County	—	—	18090206	1.3	—	N	A	—
UNKNOWN 2 to Broad Canyon Creek	Los Angeles County	—	—	18090206	2.3	—	N	A	—
UNKNOWN 3 to Broad Canyon Creek	Los Angeles County	—	—	18090206	0.9	—	N	A	—
UNKNOWN 1 to California Aqueduct	Los Angeles County	—	—	18090206	2.2	—	N	A	—
UNKNOWN 2 to California Aqueduct	Los Angeles County	—	—	18090206	0.9	—	N	A	—
UNKNOWN 3 to California Aqueduct	Los Angeles County	—	—	18090206	2.1	—	N	A	—
UNKNOWN 4 to California Aqueduct	Los Angeles County	—	—	18090206	1.1	—	N	A	—
UNKNOWN 5 to California Aqueduct	Los Angeles County	—	—	18090206	0.6	—	N	A	—
UNKNOWN 1 near Camino Real Calle	City of Redondo Beach	—	—	18070104	0.2	—	N	AE	1981
UNKNOWN 1 near Chaparal Street	City of Los Angeles	—	—	18070104	0.2	—	N	AH	—

Table 2: Flooding Sources Included in this FIS Report, Continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
UNKNOWN 1 near Childs Court	City of Los Angeles	—	—	18070104	0.9	—	N	AO	—
UNKNOWN 1 near Club View Drive	City of Los Angeles	—	—	18070104	0.1	—	N	AH	—
UNKNOWN 1 near Denker Avenue	City of Los Angeles	—	—	18070104	0.1	—	N	AH	—
UNKNOWN 1 near Edwards AF Base	Los Angeles County	—	—	18090206	1.8	—	N	A	—
UNKNOWN 2 near Edwards AF Base	Los Angeles County	—	—	18090206	3.0	—	N	A	—
UNKNOWN 2-A near Edwards AF Base	Los Angeles County	—	—	18090206	0.7	—	N	A	—
UNKNOWN 1 near Eubank Avenue	City of Los Angeles	—	—	18070104	0.1	—	N	A	—
UNKNOWN 1 near Glade Avenue	City of Los Angeles	—	—	18070105	0.1	—	N	AE	—
UNKNOWN 2 near Glade Avenue	City of Los Angeles	—	—	18070105	0.1	—	N	AH	—
UNKNOWN 1 to Glenoaks Boulevard	City of Los Angeles	—	—	18070105	0.5	—	N	A	—
UNKNOWN 2 to Glenoaks Boulevard	City of Los Angeles	—	—	18070105	0.3	—	N	A	—
UNKNOWN 3 to Glenoaks Boulevard	City of Los Angeles	—	—	18070105	0.7	—	N	A	—
UNKNOWN 1 near Gould Avenue	City of Redondo Beach	—	—	18070104	0.1	—	N	AE	1981
UNKNOWN 1 near Grenola Street	City of Los Angeles	—	—	18070104	0.6	—	N	A	—
UNKNOWN 1 near N. Hoover Street	City of Los Angeles	—	—	18070104	0.4	—	N	AH	—
UNKNOWN 1 near S. La Cienega Boulevard	City of Los Angeles	—	—	18070104	0.1	—	N	A	—
UNKNOWN 1 near Lake Palmdale	City of Palmdale	—	—	18090206	0.7	—	N	A	1985

Table 2: Flooding Sources Included in this FIS Report, Continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
UNKNOWN 1 near Laurel Canyon Boulevard	City of Los Angeles	—	—	18070104	1.0	—	N	AO	—
UNKNOWN 1 to Little Rock Wash	Los Angeles County	—	—	18090206	1.3	—	N	A, AO	—
UNKNOWN 2 to Little Rock Wash	Los Angeles County	—	—	18090206	2.6	—	N	A	—
UNKNOWN 3 to Little Rock Wash	Los Angeles County	—	—	18090206	1.9	—	N	A	—
UNKNOWN 1 near Long Beach Freeway	City of Lynwood	—	—	18070105	0.3	—	N	AH	—
UNKNOWN 1 near Louise Avenue	City of Lynwood	—	—	18070105	0.7	—	N	AH	—
UNKNOWN 1 near Lucerne Boulevard	City of Los Angeles	—	—	18070104	0.3	—	N	AH	—
UNKNOWN 1 near S. Main Street	City of Burbank	—	—	18070105	0.3	—	N	AO	—
UNKNOWN 1 near Magnolia Avenue	City of Los Angeles	—	—	18070105	0.2	—	N	AH	—
UNKNOWN 1 to Malaga Canyon Creek	City of Palos Verdes Estates	—	—	18070104	0.6	—	N	A	—
UNKNOWN 2 to Malaga Canyon Creek	City of Palos Verdes Estates	—	—	18070104	0.7	—	N	A	—
UNKNOWN 2-A to Malaga Canyon Creek	City of Palos Verdes Estates	—	—	18070104	0.1	—	N	A	—
UNKNOWN 1 near Marathon Street	City of Los Angeles	—	—	18070104	0.1	—	N	AH	—
UNKNOWN 1 near Melrose Avenue	City of Los Angeles	—	—	18070104	0.5	—	N	A	—
UNKNOWN 1 near Mines Avenue	City of Montebello	—	—	18070105	0.1	—	N	AE	—
UNKNOWN 1 to Myrick Canyon Creek	Los Angeles County	—	—	18090206	0.7	—	N	A	—
UNKNOWN 1 near Overland Avenue	City of Los Angeles	—	—	18070104	1.4	—	N	AO	—

Table 2: Flooding Sources Included in this FIS Report, Continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
UNKNOWN 2 near Overland Avenue	City of Los Angeles	—	—	18070104	0.1	—	N	AH	—
UNKNOWN 1 near W. Olympic Boulevard	City of Los Angeles	—	—	18070104	0.1	—	N	AH	—
UNKNOWN 1 to Pallett Creek	Los Angeles County	—	—	18090206	7.6	—	N	A	—
UNKNOWN 1-A to Pallett Creek	Los Angeles County	—	—	18090206	10.2	—	N	A	—
UNKNOWN 1-A-1 to Pallett Creek	Los Angeles County	—	—	18090206	0.4	—	N	A	—
UNKNOWN 1-A-2 to Pallett Creek	Los Angeles County	—	—	18090206	1.4	—	N	A	—
UNKNOWN 1-B to Pallett Creek	Los Angeles County	—	—	18090206	9.6	—	N	A	—
UNKNOWN 1-B-1 to Pallett Creek	Los Angeles County	—	—	18090206	4.4	—	N	A	—
UNKNOWN 1-C to Pallett Creek	Los Angeles County	—	—	18090206	1.4	—	N	A	—
UNKNOWN 1 to Paso Robles Avenue	City of Los Angeles	—	—	18070105	0.4	—	N	AE	—
UNKNOWN 1 near Pershing Drive	City of Los Angeles	—	—	18070104	0.2	—	N	A	—
UNKNOWN 1 to Portal Ridge Wash	Los Angeles County	—	—	18090206	3.0	—	N	A	—
UNKNOWN 1-A to Portal Ridge Wash	Los Angeles County	—	—	18090206	1.1	—	N	A	—
UNKNOWN 1-B to Portal Ridge Wash	Los Angeles County	—	—	18090206	2.2	—	N	A	—
UNKNOWN 1-C to Portal Ridge Wash	Los Angeles County	—	—	18090206	1.0	—	N	A	—
UNKNOWN 1 near Rexbon Road	City of Los Angeles	—	—	18070105	0.2	—	N	AE	—

Table 2: Flooding Sources Included in this FIS Report, Continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
UNKNOWN 1 near Ripley Avenue	City of Redondo Beach	—	—	18070104	0.1	—	N	AE	1981
UNKNOWN 1 near Roscoe Boulevard	City of Los Angeles	—	—	18070105	0.2	—	N	AH	—
UNKNOWN 1 near San Diego Freeway	City of Los Angeles	—	—	18070105	0.2	—	N	AH	—
UNKNOWN 1 to San Fernando Road	City of Los Angeles	—	—	18070105	0.4	—	N	A	—
UNKNOWN 2 to San Fernando Road	City of Los Angeles	—	—	18070105	0.5	—	N	A	—
UNKNOWN 1 to San Gabriel River	City of Long Beach	—	—	18070106	1.2	—	N	A	—
UNKNOWN 1 to Santa Susana Creek	City of Los Angeles	—	—	18070105	0.4	—	N	A, AO	—
UNKNOWN 1-A to Santa Susana Creek	City of Los Angeles	—	—	18070105	0.2	—	N	A	—
UNKNOWN 2 to Santa Susana Creek	City of Los Angeles	—	—	18070105	0.4	—	N	A	—
UNKNOWN 1 near Sesnon Boulevard	City of Los Angeles	—	—	18070105	0.1	—	N	AE	—
UNKNOWN 1 near Sheldon Street	City of Los Angeles	—	—	18070105	0.6	—	N	A	—
UNKNOWN 1 near W. Slausson Avenue	Los Angeles County	—	—	18070104	0.2	—	N	AH	—
UNKNOWN 2 near W. Slausson Avenue	Los Angeles County	—	—	18070104	0.2	—	N	AH	—
UNKNOWN 1 near State Highway 110	City of Los Angeles	—	—	18070105	0.2	—	N	A	—
UNKNOWN 1 near W. Sunset Boulevard	City of Los Angeles	—	—	18070104	0.1	—	N	A	—
UNKNOWN 1 near Sunset Canyon Drive	City of Burbank	—	—	18070105	0.8	—	N	AO	—
UNKNOWN 1 near Susanna Place	City of Los Angeles	—	—	18070105	0.1	—	N	AH	—

Table 2: Flooding Sources Included in this FIS Report, Continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
UNKNOWN 1 near W. Temple Street	City of Los Angeles	—	—	18070104	0.3	—	N	AH	—
UNKNOWN 1 near Toledo Street	City of Torrance	—	—	18070104	0.1	—	N	AE	1978
UNKNOWN 2 near Toledo Street	City of Torrance	—	—	18070104	0.3	—	N	AH	1978
UNKNOWN 1 near UCLA	City of Los Angeles	—	—	18070104	2.4	—	N	AH	—
UNKNOWN 1 near Vail Avenue	City of Montebello	—	—	18070105	0.3	—	N	A	—
UNKNOWN 1 near S. Van Ness Avenue	City of Los Angeles	—	—	18070104	1.2	—	N	A, AH, AO	—
UNKNOWN 1 near Via Valmonte	City of Torrance	—	—	18070104	0.1	—	N	A	1978
UNKNOWN 1 near Victory Boulevard	City of Los Angeles	—	—	18070105	0.6	—	N	AH	—
UNKNOWN 1 near Vincent Street	City of Redondo Beach	—	—	18070104	0.1	—	N	AE	1981
UNKNOWN 2 near Vincent Street	City of Redondo Beach	—	—	18070104	0.1	—	N	AE	1981
UNKNOWN 1 to Vine Creek	City of West Covina	—	—	18070106	0.4	—	N	A	—
UNKNOWN 2 to Vine Creek	City of West Covina	—	—	18070106	0.3	—	N	A	—
UNKNOWN 1 near Walker Avenue	City of Los Angeles	—	—	18070104	0.1	—	N	A	—
UNKNOWN 1 to Weldon Canyon Creek	City of Los Angeles	—	—	18070105	0.1	—	N	AE	—
UNKNOWN 1-A to Weldon Canyon Creek	City of Los Angeles	—	—	18070105	0.1	—	N	AE	—

Table 2: Flooding Sources Included in this FIS Report, Continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
UNKNOWN WEST of Edwards AF Base	Los Angeles County	—	—	18090206	7.5	—	N	A	—
UNKNOWN WEST of Edwards AF Base	Los Angeles County	—	—	18090206	3.9	—	N	A	—
UNKNOWN WEST of Edwards AF Base	Los Angeles County	—	—	18090206	2.4	—	N	A	—
UNKNOWN 1 to UNKNOWN WEST	Los Angeles County	—	—	18090206	2.5	—	N	A	—
UNKNOWN 1-A to UNKNOWN WEST	Los Angeles County	—	—	18090206	1.9	—	N	A	—
UNKNOWN 2 to UNKNOWN WEST	Los Angeles County	—	—	18090206	1.5	—	N	A	—
UNKNOWN 2-A to UNKNOWN WEST	Los Angeles County	—	—	18090206	1.0	—	N	A	—
UNKNOWN 3 to UNKNOWN WEST	Los Angeles County	—	—	18090206	1.6	—	N	A	—
UNKNOWN 3-A to UNKNOWN WEST	Los Angeles County	—	—	18090206	0.7	—	N	A	—
UNKNOWN 4 to UNKNOWN WEST	Los Angeles County	—	—	18090206	0.6	—	N	A	—
UNKNOWN 5 to UNKNOWN WEST	Los Angeles County	—	—	18090206	0.5	—	N	A	—
UNKNOWN 6 to UNKNOWN WEST	Los Angeles County	—	—	18090206	0.5	—	N	A	—
UNKNOWN 1 near Wilshire Boulevard	City of Los Angeles	—	—	18070104	2.6	—	N	AH, AO	—
UNKNOWN 2 near Wilshire Boulevard	City of Los Angeles	—	—	18070104	0.2	—	N	AH	—
UNKNOWN 3 near Wilshire Boulevard	City of Los Angeles	—	—	18070104	0.2	—	N	A	—
UNKNOWN 1 near Woodman Place	City of Los Angeles	—	—	18070105	1.2	—	N	A	—

Table 13: Summary of Hydrologic and Hydraulic Analyses

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
Acton Canyon	Confluence with Santa Clara River	0.6 miles upstream of Alisto Street	HEC-1	HEC-RAS 3.1.3	03/13/2014	AE w/ Floodway	
Agua Amarge Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Agua Dulce Canyon Creek	Confluence with Santa Clara River	Approximately 0.5 miles upstream of Schaefer Rd	US EPA Hydrologic Simulation Program – FORTRAN (HSPF)	HEC-RAS 4.1	7/21/2015	AE	
Agua Dulce Canyon Creek	Approximately 0.5 miles upstream of Schaefer Rd	Approximately 3400 feet upstream of Schaefer Rd	US EPA Hydrologic Simulation Program – FORTRAN (HSPF)	HEC-RAS 4.1	7/21/2015	A	
Agua Dulce Canyon Creek	Approximately 3400 feet upstream of Schaefer Rd	Approximately 1000 feet upstream of Anthony Rd	US EPA Hydrologic Simulation Program – FORTRAN (HSPF)	HEC-RAS 4.1	7/21/2015	AE w/ Floodway	
Agua Dulce Canyon Creek	Approximately 1000 feet upstream of Anthony Rd	Approximately 250 feet upstream of Hierba Rd	US EPA Hydrologic Simulation Program – FORTRAN (HSPF)	HEC-RAS 4.1	7/21/2015	A	

Table 13: Summary of Hydrologic and Hydraulic Analyses, Continued

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
Agua Dulce Canyon Creek Lateral	Confluence with Agua Dulce Canyon Creek	Approximately 900 feet upstream of confluence with Agua Dulce Canyon Creek	US EPA Hydrologic Simulation Program – FORTRAN (HSPF)	HEC-RAS 4.1	7/21/2015	AE	
Alamitos Bay	—	—	Regional Regression Equations	HEC-2	—	A	
Aliso Canyon Creek	Confluence with Santa Clara River	Approximately 2.1 miles upstream of W Avenue Y8	US EPA Hydrologic Simulation Program – FORTRAN (HSPF)	HEC-RAS 4.1	7/21/2015	AE	
Amargosa Creek	—	—	Log-Pearson Type III Frequency Analysis	HEC-2	11/01/1985	A, AH, AO	
Amargosa Creek	—	—	Log-Pearson Type III Frequency Analysis	HEC-2	11/01/1985	AE	
Amargosa Creek	—	—	Log-Pearson Type III Frequency Analysis	HEC-2	11/01/1985	A, AO	
Amargosa Creek Tributary	—	—	Log-Pearson Type III Frequency Analysis	HEC-2	—	A	
Anaverde Creek	—	—	Log-Pearson Type III Frequency Analysis	HEC-2	11/01/1985	AE w/ Floodway	

Table 13: Summary of Hydrologic and Hydraulic Analyses, Continued

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
Anaverde Creek	—	—	Log-Pearson Type III Frequency Analysis	HEC-2	11/01/1985	A	
Arrastre Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Arroyo Calabasas	—	—	Regional Regression Equations	HEC-2	—	AE	
Arroyo San Miguel	—	—	Regional Regression Equations	HEC-2	08/01/1978	A	
Arroyo Sequit	—	—	Regional Regression Equations	HEC-2	—	A	
Avalon Bay	—	—	Regional Regression Equations	HEC-2	—	AE	
Avalon Canyon	At confluence with Pacific Ocean	0.9 miles upstream of confluence with Pacific Ocean	Regional Regression Equations	HEC-2	—	AE	
Back Channel	—	—	Regional Regression Equations	HEC-2	—	AE	
Ballona Creek	—	—	Log-Pearson Type III Frequency Analysis	HEC-2	—	AE	
Ballona Creek	—	—	Log-Pearson Type III Frequency Analysis	HEC-2	—	A, AO	

Table 13: Summary of Hydrologic and Hydraulic Analyses, Continued

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
Bar Creek	—	—	Regional Regression Equations	HEC-2	—	A, AO	
Bee Canyon	—	—	Regional Regression Equations	HEC-2	—	A	
Bee Canyon (2)	—	—	Regional Regression Equations	HEC-2	—	A	
Bee Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Big Rock Creek	—	—	Log-Pearson Type III Frequency Analysis	HEC-2	—	A	
Big Rock Creek South Fork	—	—	Regional Regression Equations	HEC-2	—	A	
Big Rock Wash	—	—	Regional Regression Equations	HEC-2	—	A	
Big Rock Wash (Profile Base Line)	City of Palmdale Corporate Limits	City of Palmdale Corporate Limits	Regional Regression Equations	HEC-2	11/01/1985	AE	
Big Tujunga Wash	—	—	Log-Pearson Type III Frequency Analysis	HEC-2	—	A, AO	
Boulder Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	

Table 13: Summary of Hydrologic and Hydraulic Analyses, Continued

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
Bouquet Canyon Creek	Confluence with Santa Clara River	0.4 miles upstream of Texas Canyon Road	HEC-1	HEC-RAS 4.1	03/13/2014	AE w/ Floodway	
Bouquet Canyon Creek	0.4 miles upstream of Texas Canyon Road	Approximately 900 feet upstream of Sierra Pellona Mtwy	US EPA Hydrologic Simulation Program – FORTRAN (HSPF)	HEC-RAS 4.1	7/21/2015	AE w/ Floodway	
Bouquet Reservoir	—	—	Regional Regression Equations	HEC-2	—	A	
Broad Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Browns Creek	—	—	Regional Regression Equations	HEC-2	—	AO	
California Aqueduct	—	—	Regional Regression Equations	HEC-2	—	A	
Canada De Los Alamos Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Carlos Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Carr Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	

Table 13: Summary of Hydrologic and Hydraulic Analyses, Continued

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
Castaic Creek	Confluence with Santa Clara River	Approximately 0.6 miles above Tapia Canyon Road	US EPA Hydrologic Simulation Program – FORTRAN (HSPF)	HEC-RAS 4.1	7/21/2015	AE	
Castaic Lagoon	—	—	Regional Regression Equations	HEC-2	—	A	
Castaic Lake	—	—	Regional Regression Equations	HEC-2	—	A	
Channel No. 2	—	—	Regional Regression Equations	HEC-2	—	AE	
Channel No. 3	—	—	Regional Regression Equations	HEC-2	—	AE	
Charlie Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Chatsworth Reservoir	—	—	Regional Regression Equations	HEC-2	—	A	
Cherry Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Cheseboro Creek	—	—	Regional Regression Equations	HEC-2	—	AE	
Cold Creek	—	—	Regional Regression Equations	HEC-2	—	AE	
Cold Creek	—	—	Regional Regression Equations	HEC-2	—	A	

Table 13: Summary of Hydrologic and Hydraulic Analyses, Continued

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
Colorado Lagoon	—	—	Regional Regression Equations	HEC-2	—	AE	
Compton Creek	Confluence with Los Angeles River	Approximately 400 feet upstream of Artesia Boulevard	Regional Regression Equations	HEC-2	—	A	
Consolidated Channel	—	—	Regional Regression Equations	HEC-2	—	AE	
Coyote Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A, AO	
Coyote Creek	—	—	Log-Pearson Type III Frequency Analysis	HEC-2	—	A	
Cruthers Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Dark Canyon	—	—	Regional Regression Equations	HEC-2	—	AE	
Dark Canyon West Branch	—	—	Regional Regression Equations	HEC-2	—	A	
Dewitt Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Dominguez Channel	—	—	Log-Pearson Type III Frequency Analysis	HEC-2	—	AE	

Table 13: Summary of Hydrologic and Hydraulic Analyses, Continued

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
Dominguez Channel	At the upstream face of Henry Ford Avenue	At the downstream face of Victoria Avenue	Regional Regression Equations	HEC-2	—	A	
Dorr Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Dowd Canyon	—	—	Regional Regression Equations	HEC-2	—	A, AO	
Dry Canyon	—	—	Regional Regression Equations	HEC-2	—	A, AO	
Dry Canyon (2)	—	—	Regional Regression Equations	HEC-2	—	AE	
East Basin	—	—	Regional Regression Equations	HEC-2	—	AE	
Elizabeth Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A, AO	
Elizabeth Lake	—	—	Regional Regression Equations	HEC-2	—	A	
Elizabeth Lake Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Eller Slough	—	—	Regional Regression Equations	HEC-2	—	A	

Table 13: Summary of Hydrologic and Hydraulic Analyses, Continued

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
Elsmere Canyon Creek	Confluence with Newhall Creek	Approximately 1.3 miles upstream of State Route 14	US EPA Hydrologic Simulation Program – FORTRAN (HSPF)	HEC-RAS 4.1	7/21/2015	AE	
Encino Reservoir	—	—	Regional Regression Equations	HEC-2	—	A	
Entrance Channel (Marina Del Ray)	—	—	Regional Regression Equations	HEC-2	—	AE	
Escondido Canyon	Confluence with Acton Canton Creek	1.7 miles upstream of confluence with Acton Canton Creek	HEC-1	HEC-RAS 4.1	03/13/2014	AE w/ Floodway	
Fenner Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Fish Harbor	—	—	Regional Regression Equations	HEC-2	—	AE	
Flood Control Channel to Aliso Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Flowline No. 1	—	—	Regional Regression Equations	HEC-2	10/01/1978	AE	
Garapito Creek	—	—	Regional Regression Equations	HEC-2	—	AE	

Table 13: Summary of Hydrologic and Hydraulic Analyses, Continued

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
Gavin Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Gorman Creek	—	—	Regional Regression Equations	HEC-2	—	A, AH, AO	
Gorman Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A, AO	
Graham Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Grandview Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Grandview Canyon Creek (2)	—	—	Regional Regression Equations	HEC-2	—	A	
Harbor Lake	—	—	Regional Regression Equations	HEC-2	—	AE	
Haskell Canyon	Confluence with Bouquet Canyon Creek	0.4 miles upstream of Copper Hill Drive	HEC-1	HEC-RAS 4.1	03/13/2014	AE w/ Floodway	
Hasley Canyon Creek	Confluence with Castic Creek	0.3 miles upstream of Burlwood Drive	US EPA Hydrologic Simulation Program – FORTRAN (HSPF)	HEC-RAS 4.1	7/21/2015	AE	
Holcomb Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	

Table 13: Summary of Hydrologic and Hydraulic Analyses, Continued

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
Holmes Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Hughes Lake	—	—	Regional Regression Equations	HEC-2	—	A	
Iron Canyon	Confluence with Sand Canyon Creek	0.8 miles upstream of North Iron Canyon Road	HEC-1	HEC-RAS 4.1	02/01/2010	AE	
Jesus Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Kagel Canyon	—	—	Regional Regression Equations	HEC-2	—	AE w/ Floodway	
Kagel Canyon	—	—	Regional Regression Equations	HEC-2	—	AE	
Kentucky Springs Canyon Creek	Confluence with Soledad Canyon	Approximatley 600 feet upstream of Ghost Mine Road	US EPA Hydrologic Simulation Program – FORTRAN (HSPF)	HEC-RAS 4.1	7/21/2015	AE	
Lake Lindero	—	—	Regional Regression Equations	HEC-2	—	A	
La Mirada Creek	—	—	Regional Regression Equations	HEC-2	—	AE	
Lake Palmdale	—	—	Regional Regression Equations	HEC-2	—	A	

Table 13: Summary of Hydrologic and Hydraulic Analyses, Continued

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
Lake Street Overflow	—	—	Regional Regression Equations	HEC-2	—	AE	
Las Flores Canyon	—	—	Regional Regression Equations	HEC-2	—	AE	
Las Flores Canyon	—	—	Regional Regression Equations	HEC-2	—	A	
Las Virgenes Creek	At confluence with Malibu Creek	Immediately downstream of Las Virgenes Road	HEC-HMS 3.5	HEC-RAS 4.1	08/01/2010	AE	
Leaming Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Lemontaine Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Liberty Canyon	—	—	Regional Regression Equations	HEC-2	—	AE	
Limekiln Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Lindero Canyon	—	—	Regional Regression Equations	HEC-2	—	AE	
Lindero Canyon	—	—	Regional Regression Equations	HEC-2	—	AE	

Table 13: Summary of Hydrologic and Hydraulic Analyses, Continued

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
Lion Canyon	At confluence with Santa Clara River	0.9 miles upstream of Seasoned Road	US EPA Hydrologic Simulation Program – FORTRAN (HSPF)	HEC-RAS 4.1	7/21/2015	AE	
Little Rock Creek	—	—	Log-Pearson Type III Frequency Analysis	HEC-2	—	A	
Little Rock Reservoir	—	—	Regional Regression Equations	HEC-2	—	A	
Little Rock Wash	—	—	Regional Regression Equations	HEC-2	—	A	
Little Rock Wash	—	—	Regional Regression Equations	HEC-2	—	A	
Little Rock Wash - Profile A	City of Palmdale Corporate Limits	City of Palmdale Corporate Limits	Regional Regression Equations	HEC-2	11/01/1985	AE	
Little Rock Wash - Profile A	City of Palmdale Corporate Limits	City of Palmdale Corporate Limits	Regional Regression Equations	HEC-2	11/01/1985	AE	
Little Rock Wash - Profile A	—	—	Regional Regression Equations	HEC-2	—	A	
Little Rock Wash - Profile A	—	—	Regional Regression Equations	HEC-2	11/01/1985	AE	
Little Rock Wash - Profile A	—	—	Regional Regression Equations	HEC-2	11/01/1985	A	

Table 13: Summary of Hydrologic and Hydraulic Analyses, Continued

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
Little Rock Wash - Profile B	City of Palmdale Corporate Limits	City of Palmdale Corporate Limits	Regional Regression Equations	HEC-2	11/01/1985	AE	
Little Rock Wash - Profile C	—	—	Regional Regression Equations	HEC-2	11/01/1985	AE	
Little Tujunga Wash	—	—	Regional Regression Equations	HEC-2	—	A, AO	
Lobo Canyon	—	—	Regional Regression Equations	HEC-2	—	AE	
Lockheed Drain Channel	—	—	Regional Regression Equations	HEC-2	—	AE, AO	
Lockheed Storm Drain	—	—	Regional Regression Equations	HEC-2	—	AE	
Long Canyon	At confluence with Santa Clara River	2.4 miles upstream of Confluence with Santa Clara River	US EPA Hydrologic Simulation Program – FORTRAN (HSPF)	HEC-RAS 4.1	7/21/2015	AE	
Lopez Canyon Channel	—	—	Regional Regression Equations	HEC-2	—	A	
Lopez Canyon Channel	—	—	Regional Regression Equations	HEC-2	—	AE	
Los Angeles County Flood Control Channel	—	—	Regional Regression Equations	HEC-2	—	A	

Table 13: Summary of Hydrologic and Hydraulic Analyses, Continued

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
Los Angeles County Flood Control Channel to Aliso Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Los Angeles County Storm Drain	—	—	Regional Regression Equations	HEC-2	—	A	
Los Angeles Harbor	—	—	Regional Regression Equations	HEC-2	—	AE	
Los Angeles Reservoir	—	—	Regional Regression Equations	HEC-2	—	A	
Los Angeles River	—	—	Regional Regression Equations	HEC-2	05/01/1991	A	
Los Angeles River Flood Control Channel	—	—	Regional Regression Equations	HEC-2	—	A	
Los Angeles River Flood Control Channel	—	—	Regional Regression Equations	HEC-2	—	A	
Los Cerritos Channel	—	—	Regional Regression Equations	HEC-2	—	AE	
Lyon Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Main Channel	—	—	Regional Regression Equations	HEC-2	—	AE	
Malaga Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	

Table 13: Summary of Hydrologic and Hydraulic Analyses, Continued

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
Malibu Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Malibu Creek	—	—	Log-Pearson Type III Frequency Analysis	HEC-2	—	AE	
Malibu Lake	—	—	Regional Regression Equations	HEC-2	—	A	
Marina Del Ray	—	—	Regional Regression Equations	HEC-2	—	AE	
Marine Stadium	—	—	Regional Regression Equations	HEC-2	—	AE	
Medea Creek	—	—	Regional Regression Equations	HEC-2	—	AE	
Middle Harbor	—	—	Regional Regression Equations	HEC-2	—	AE	
Mill Creek	—	—	Regional Regression Equations	HEC-2	—	AE	
Milton B. Arthur Lakes	—	—	Regional Regression Equations	HEC-2	—	A	
Mint Canyon Creek	Confluence with Santa Clara River Trail	Immediately downstream of Adon Avenue	HEC-1	HEC-RAS 4.1	02/01/2010	AE	
Mint Canyon Creek	Immediately downstream of Adon Avenue	0.9 miles upstream of Rocking Horse Road	HEC-1	HEC-RAS 4.1	02/01/2010	AE w/ Floodway	

Table 13: Summary of Hydrologic and Hydraulic Analyses, Continued

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
Mint Canyon Creek Overflow	Confluence with Santa Clara River Trail	Immediately downstream of Adon Avenue	US EPA Hydrologic Simulation Program – FORTRAN (HSPF)	HEC-RAS 4.1	7/21/2015	AE,AO	
Mint Canyon Spring	—	—	Regional Regression Equations	HEC-2	—	A	
Montebello Municipal Golf Course Pond	—	—	Regional Regression Equations	HEC-2	—	A	
Muscal Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Myrick Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Newhall Creek	Confluence with South Fork Santa Clara River	Approximately 0.3 miles upstream of Molokai Road	HEC-1	HEC-RAS 4.1	03/13/2014	AE w/ Floodway	
Newhall Creek Left Overbank 2	Confluence with Newhall Creek	Immediately below 5th Street	HEC-1	HEC-RAS 4.1	03/13/2014	AE w/ Floodway	
Newhall Creek Left Overbank 3	Confluence with Newhall Creek Left Overbank 2	Immediately below 12th Street	HEC-1	HEC-RAS 4.1	03/13/2014	AE	
Newhall Creek Right Overbank 1	Confluence with Newhall Creek	Approximately 175 feet upstream of Molokai Road	HEC-1	HEC-RAS 4.1	03/13/2014	AE w/ Floodway	

Table 13: Summary of Hydrologic and Hydraulic Analyses, Continued

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
Oak Springs Canyon	Confluence with Santa Clara River	Approximately 0.3 miles upstream of Oak Spring Canyon Road	US EPA Hydrologic Simulation Program – FORTRAN (HSPF)	HEC-RAS 4.1	7/21/2015	AE, AO	
Oak Springs Canyon Overflow	Confluence with Oak Springs Canyon Creek	Divergence from Oak Springs Canyon	US EPA Hydrologic Simulation Program – FORTRAN (HSPF)	HEC-RAS 4.1	7/21/2015	AE	
Oakgrove Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Old Topanga Canyon	—	—	Regional Regression Equations	HEC-2	—	A	
Old Topanga Canyon	—	—	Regional Regression Equations	HEC-2	—	AE	
Oro Fino Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Oso Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Pacific Terrace Harbor	—	—	Regional Regression Equations	HEC-2	—	AE	
Pacoima Channel	—	—	Regional Regression Equations	HEC-2	—	A	
Pacoima Wash	—	—	Regional Regression Equations	HEC-2	—	A, AO	

Table 13: Summary of Hydrologic and Hydraulic Analyses, Continued

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
Pallett Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Palmdale Ditch	—	—	Regional Regression Equations	HEC-2	—	A	
Palo Comando Creek	—	—	Regional Regression Equations	HEC-2	—	AE	
Palomas Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Pico Canyon	Confluence with South Fork Santa Clara River	Approximately 800 feet upstream of Stevenson Ranch Parkway	US EPA Hydrologic Simulation Program – FORTRAN (HSPF)	HEC-RAS 4.1	7/21/2015	AE	
Pine Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Piru Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Placerita Creek	Confluence with Newhall Creek	Approximately 1400 feet upstream of Placerita Canyon Road	US EPA Hydrologic Simulation Program – FORTRAN (HSPF)	HEC-RAS 4.1	7/21/2015	AE w/ Floodway	

Table 13: Summary of Hydrologic and Hydraulic Analyses, Continued

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
Placerita Creek Overflow	Confluence with Newhall Creek	Approximately 1.6 miles upstream of confluence with Newhall Creek	US EPA Hydrologic Simulation Program – FORTRAN (HSPF)	HEC-RAS 4.1	7/21/2015	AE	
Plum Canyon	Confluence with Bouquet Canyon Creek	Approximately 0.3 miles upstream of Rodgers Drive	US EPA Hydrologic Simulation Program – FORTRAN (HSPF)	HEC-RAS 4.1	7/21/2015	AE	
Portal Ridge Wash	—	—	Regional Regression Equations	HEC-2	—	AH	
Potrero Canyon	Confluence with Santa Clara River	Approximately 3.7 miles upstream of Potrero Canyon Road	US EPA Hydrologic Simulation Program – FORTRAN (HSPF)	HEC-RAS 4.1	7/21/2015	AE	
Potrero Canyon Overflow	Confluence with Potrero Canyon	0.5 miles upstream of confluence with Potrero Canyon	US EPA Hydrologic Simulation Program – FORTRAN (HSPF)	HEC-RAS 4.1	7/21/2015	AE	
Potrero Valley Creek (Westlake Lake)	—	—	Regional Regression Equations	HEC-2	—	A	
Puzzle Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Pyramid Lake	—	—	Regional Regression Equations	HEC-2	—	A	

Table 13: Summary of Hydrologic and Hydraulic Analyses, Continued

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
Quail Lake	—	—	Regional Regression Equations	HEC-2	—	A	
Quigley Canyon Creek	Confluence with Placertia Creek	1.3 miles upstream of Meadview Avenue	Regional Regression Equations	HEC-RAS 4.1	July 2015	AE w/ Floodway	
Railroad Canyon	Confluence with Newhall Creek	0.4 miles upstream of confluence with Newhall Creek	HEC-1	HEC-RAS 4.1	03/13/2014	AE w/ Floodway	
Railroad Canyon Creek Left Overbank	Confluence with Newhall Creek	0.5 miles upstream of confluence with Newhall Creek	HEC-1	HEC-RAS 4.1	03/13/2014	AE w/ Floodway	
Ramirez Canyon	—	—	Regional Regression Equations	HEC-2	—	AE	
Reservoir near UCLA	—	—	Regional Regression Equations	HEC-2	—	A	
Rice Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Rio Hondo Channel	—	—	Regional Regression Equations	HEC-2	05/01/1991	A	
Rio Hondo Channel Tributary	—	—	Regional Regression Equations	HEC-2	05/01/1991	AE	
Roberts Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	

Table 13: Summary of Hydrologic and Hydraulic Analyses, Continued

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
Rock Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Romero Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Rustic Canyon	—	—	Regional Regression Equations	HEC-2	—	A	
Rustic Canyon	—	—	Regional Regression Equations	HEC-2	—	AE w/ Floodway	
Rustic Canyon	—	—	Regional Regression Equations	HEC-2	—	A	
Salt Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
San Dimas Wash	—	—	Regional Regression Equations	HEC-2	—	AE	
San Francisquito Canyon Creek	Confluence with Santa Clara River	Approximately 1200 feet downstream of North Quail Trail	HEC-1	HEC-RAS 4.1	03/13/2014	AE w/ Floodway	
San Francisquito Canyon Creek	Approximately 1200 feet downstream of North Quail Trail	Approximately 400 feet upstream of San Francisquito Canyon Road	US EPA Hydrologic Simulation Program – FORTRAN (HSPF)	HEC-RAS 4.1	7/21/2015	AE	
San Gabriel River	—	—	Log-Pearson Type III Frequency Analysis	HEC-2	—	A	

Table 13: Summary of Hydrologic and Hydraulic Analyses, Continued

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
San Martinez Chiquito Canyon	Confluence with Santa Clara River	Approximately 2000 feet upstream of San Martinez Road	US EPA Hydrologic Simulation Program – FORTRAN (HSPF)	HEC-RAS 4.1	7/21/2015	AE	
San Martinez Grande Canyon Creek	Confluence with Santa Clara River	1.8 miles above State Route 126	US EPA Hydrologic Simulation Program – FORTRAN (HSPF)	HEC-RAS 4.1	7/21/2015	AE	
San Pedro Bay	—	—	Regional Regression Equations	HEC-2	—	AE	
Sand Canyon Creek	Confluence with Santa Clara River	0.4 miles upstream of Coyote Canyon Creek	HEC-1	HEC-RAS 4.1	02/01/2010	AE	
Santa Clara River	At Los Angeles— Ventura County Boundary	Approximately 1.4 miles upstream of Lang Station Road	HEC-1	HEC-RAS 4.1	03/13/2014	AE w/ Floodway	
Santa Clara River	Approximately 12 miles upstream of Lang Station Road	Confluence of Aliso Canyon Creek	HEC-1	HEC-RAS 4.1	03/13/2014	AE w/ Floodway	
Santa Clara River	Confluence of Aliso Canyon Creek	1.3 miles upstream of confluence of Soledad Canyon Creek	Regional Regression Equations	HEC-2	—	A	

Table 13: Summary of Hydrologic and Hydraulic Analyses, Continued

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
Santa Clara River Overflow	Confluence with Santa Clara River	Approximately 1700 feet upstream of the confluence of Santa Clara River	US EPA Hydrologic Simulation Program – FORTRAN (HSPF)	HEC-RAS 4.1	7/21/2015	AE	
Santa Maria Canyon	—	—	Regional Regression Equations	HEC-2	—	AE	
Santa Maria Canyon	—	—	Regional Regression Equations	HEC-2	—	A	
Santa Susana Pass Wash	—	—	Regional Regression Equations	HEC-2	—	A	
Santa Ynez Canyon Reservoir	—	—	Regional Regression Equations	HEC-2	—	A	
Savage Creek	—	—	Regional Regression Equations	HEC-2	08/01/1978	AE	
Sierra Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Sloan Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Soledad Canyon	Confluence with Santa Clara River	Approximately 1.0 mile upstream of East Soledad Pass Road	US EPA Hydrologic Simulation Program – FORTRAN (HSPF)	HEC-RAS 4.1	7/21/2015	AE	

Table 13: Summary of Hydrologic and Hydraulic Analyses, Continued

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
South Fork Santa Clara River	Confluence with Santa Clara River	approximately 1,600 feet upstream of Lyons Avenue	HEC-1	HEC-RAS 4.1	03/13/2014	AE w/ Floodway	
South Fork Santa Clara River Tributary	Confluence with South Fork Santa Clara River	Approximately 200 feet above Tournament Road	HEC-1	HEC-RAS 4.1	03/13/2014	AE w/ Floodway	
South Portal Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Spade Spring Canyon Creek	Confluence with Mint Canyon Creek	2.8 miles upstream of confluence with Mint Canyon Creek	HEC-1	HEC-RAS 4.1	02/01/2010	AE w/ Floodway	
Stokes Canyon	—	—	Regional Regression Equations	HEC-2	—	A	
Stokes Canyon	—	—	Regional Regression Equations	HEC-2	—	AE	
Sullivan Canyon	—	—	Regional Regression Equations	HEC-2	—	A	
Sunshine Canyon	—	—	Regional Regression Equations	HEC-2	—	A	
Tacobi Creek	—	—	Regional Regression Equations	HEC-2	08/01/1978	A	
Tapia Canyon	—	—	Regional Regression Equations	HEC-2	—	A	

Table 13: Summary of Hydrologic and Hydraulic Analyses, Continued

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
Texas Canyon Creek	Confluence with Bouquet Canyon Creek	0.9 miles above confluence with Bouquet Canyon Creek	US EPA Hydrologic Simulation Program – FORTRAN (HSPF)	HEC-RAS 4.1	7/21/2015	AE	
Tick Canyon	Confluence with Santa Clara River	0.2 miles above Tick Canyon Road	US EPA Hydrologic Simulation Program – FORTRAN (HSPF)	HEC-RAS 4.1	7/21/2015	AE	
Tonner Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Topanga Canyon	—	—	Log-Pearson Type III Frequency Analysis	HEC-2	—	AE	
Topanga Canyon	—	—	Regional Regression Equations	HEC-2	—	A	
Towsley Canyon Creek	Approximately 400 feet upstream of confluence of Gavin Canyon Creek	Approximately 1100 feet upstream of The Old Road	Regional Regression Equations	HEC-RAS 4.1	2015	AE	
Trancas Creek	—	—	Regional Regression Equations	HEC-2	—	AE	
Triunfo Creek	—	—	Regional Regression Equations	HEC-2	—	A	

Table 13: Summary of Hydrologic and Hydraulic Analyses, Continued

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
Triunfo Creek	—	—	Regional Regression Equations	HEC-2	—	AE	
Turnbull Canyon	—	—	Regional Regression Equations	HEC-2	08/01/1978	AE, AO	
Unnamed Canyon (Serra Retreat Area)	—	—	Regional Regression Equations	HEC-2	—	AE	
Unnamed Stream Main Reach	—	—	1993 Regional Regression Equations	HEC-RAS 3.1.3	02/01/2010	AE w/ Floodway	
Unnamed Stream Tributary 1	—	—	1993 Regional Regression Equations	HEC-RAS 3.1.3	02/01/2010	AE w/ Floodway	
Unnamed Stream Tributary 2	—	—	1993 Regional Regression Equations	HEC-RAS 3.1.3	02/01/2010	AE w/ Floodway	
Upper Los Angeles River Left Overbank	—	—	Regional Regression Equations	HEC-2	—	AE	
Vasquez Canyon	Confluence with Bouquet Canyon Creek	Approximately 2 miles upstream of confluence with Bouquet Canyon Creek	US EPA Hydrologic Simulation Program – FORTRAN (HSPF)	HEC-RAS 4.1	7/21/2015	AE	
Villa Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Vine Creek	—	—	Regional Regression Equations	HEC-2	—	A	

Table 13: Summary of Hydrologic and Hydraulic Analyses, Continued

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
Violin Canyon Creek	Confluence with Castaic Creek	At I-5 (Golden State Freeway)	Regional Regression Equations	HEC-2	—	AE, AO	
Violin Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Wayside Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Weldon Canyon	—	—	Regional Regression Equations	HEC-2	—	AE w/ Floodway	
West Basin	—	—	Regional Regression Equations	HEC-2	—	AE	
West Channel	—	—	Regional Regression Equations	HEC-2	—	AE	
Westlake Reservoir	—	—	Regional Regression Equations	HEC-2	—	A	
Whitney Canyon Creek	Confluence with Newhall Creek	1 mile upstream of confluence with Newhall Creek	HEC-HMS 3.5	HEC-RAS 4.1	7/21/2015	AE	
Wildwood Canyon Creek	—	—	Regional Regression Equations	HEC-2	1984	A, AO	
Wiley Canyon Creek	—	—	Regional Regression Equations	HEC-2	1984	A	
Willow Springs Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	

Table 13: Summary of Hydrologic and Hydraulic Analyses, Continued

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
Young Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
Zuma Canyon	—	—	Regional Regression Equations	HEC-2	—	A	
Zuma Canyon	—	—	Log-Pearson Type III Frequency Analysis	HEC-2	—	AE	
UNKNOWN 1 near W. 3rd Street	—	—	Regional Regression Equations	HEC-2	12/01/1980, 11/01/1985	AO	
UNKNOWN 2 near W. 3rd Street	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 3 near W. 3rd Street	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 1 near 4th Street	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 1 near Aberdeen Avenue	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 1 near Alameda Street	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 2 near Alameda Street	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 1 near Alaska Avenue	—	—	Regional Regression Equations	HEC-2	08/01/1978	AH	

Table 13: Summary of Hydrologic and Hydraulic Analyses, Continued

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
UNKNOWN 1 near Amsler Street	—	—	Regional Regression Equations	HEC-2	08/01/1978	AH	
UNKNOWN 1 to Anaverde Creek	—	—	Regional Regression Equations	HEC-2	11/01/1985	A	
UNKNOWN 1 near Anza Avenue	—	—	Regional Regression Equations	HEC-2	08/01/1978	AH	
UNKNOWN 1 to Arroyo Calabasas	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 2 to Arroyo Calabasas	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 1 near Baile Avenue	—	—	Regional Regression Equations	HEC-2	—	AE	
UNKNOWN 2 near Baile Avenue	—	—	Regional Regression Equations	HEC-2	—	AE	
UNKNOWN 1 near S. Beverley Glen Boulevard	—	—	Regional Regression Equations	HEC-2	—	AH	
UNKNOWN 1 to Big Rock Wash	—	—	Regional Regression Equations	HEC-2	—	A, AO	
UNKNOWN 1-A to Big Rock Wash	—	—	Regional Regression Equations	HEC-2	—	A, AO	
UNKNOWN 2 to Big Rock Wash	—	—	Regional Regression Equations	HEC-2	—	A, AO	
UNKNOWN 1 near Blinn Avenue	—	—	Regional Regression Equations	HEC-2	—	A	

Table 13: Summary of Hydrologic and Hydraulic Analyses, Continued

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
UNKNOWN 1 to Broad Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 2 to Broad Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 3 to Broad Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 1 to California Aqueduct	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 2 to California Aqueduct	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 3 to California Aqueduct	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 4 to California Aqueduct	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 5 to California Aqueduct	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 1 near Camino Real Calle	—	—	Regional Regression Equations	HEC-2	06/01/1981	AE	
UNKNOWN 1 near Chaparal Street	—	—	Regional Regression Equations	HEC-2	—	AH	
UNKNOWN 1 near Childs Court	—	—	Regional Regression Equations	HEC-2	—	AO	
UNKNOWN 1 near Club View Drive	—	—	Regional Regression Equations	HEC-2	—	AH	

Table 13: Summary of Hydrologic and Hydraulic Analyses, Continued

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
UNKNOWN 1 near Denker Avenue	—	—	Regional Regression Equations	HEC-2	—	AH	
UNKNOWN 1 near Edwards AF Base	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 2 near Edwards AF Base	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 2-A near Edwards AF Base	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 1 near Eubank Avenue	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 1 near Glade Avenue	—	—	Regional Regression Equations	HEC-2	—	AE	
UNKNOWN 2 near Glade Avenue	—	—	Regional Regression Equations	HEC-2	—	AH	
UNKNOWN 1 to Glenoaks Boulevard	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 2 to Glenoaks Boulevard	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 3 to Glenoaks Boulevard	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 1 near Gould Avenue	—	—	Regional Regression Equations	HEC-2	06/01/1981	AE	
UNKNOWN 1 near Grenola Street	—	—	Regional Regression Equations	HEC-2	—	A	

Table 13: Summary of Hydrologic and Hydraulic Analyses, Continued

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
UNKNOWN 1 near N. Hoover Street	—	—	Regional Regression Equations	HEC-2	—	AH	
UNKNOWN 1 near S. La Cienega Boulevard	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 1 near Lake Palmdale	—	—	Regional Regression Equations	HEC-2	11/01/1985	A	
UNKNOWN 1 near Laurel Canyon Boulevard	—	—	Regional Regression Equations	HEC-2	—	AO	
UNKNOWN 1 to Little Rock Wash	—	—	Regional Regression Equations	HEC-2	—	A, AO	
UNKNOWN 2 to Little Rock Wash	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 3 to Little Rock Wash	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 1 near Long Beach Freeway	—	—	Regional Regression Equations	HEC-2	—	AH	
UNKNOWN 1 near Louise Avenue	—	—	Regional Regression Equations	HEC-2	—	AH	
UNKNOWN 1 near Lucerne Boulevard	—	—	Regional Regression Equations	HEC-2	—	AH	
UNKNOWN 1 near S. Main Street	—	—	Regional Regression Equations	HEC-2	—	AO	
UNKNOWN 1 near Magnolia Avenue	—	—	Regional Regression Equations	HEC-2	—	AH	

Table 13: Summary of Hydrologic and Hydraulic Analyses, Continued

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
UNKNOWN 1 to Malaga Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 2 to Malaga Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 2-A to Malaga Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 1 near Marathon Street	—	—	Regional Regression Equations	HEC-2	—	AH	
UNKNOWN 1 near Melrose Avenue	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 1 near Mines Avenue	—	—	Regional Regression Equations	HEC-2	—	AE	
UNKNOWN 1 to Myrick Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 1 near Overland Avenue	—	—	Regional Regression Equations	HEC-2	—	AO	
UNKNOWN 2 near Overland Avenue	—	—	Regional Regression Equations	HEC-2	—	AH	
UNKNOWN 1 near W. Olympic Boulevard	—	—	Regional Regression Equations	HEC-2	—	AH	
UNKNOWN 1 to Pallett Creek	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 1-A to Pallett Creek	—	—	Regional Regression Equations	HEC-2	—	A	

Table 13: Summary of Hydrologic and Hydraulic Analyses, Continued

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
UNKNOWN 1-A-1 to Pallett Creek	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 1-A-2 to Pallett Creek	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 1-B to Pallett Creek	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 1-B-1 to Pallett Creek	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 1-C to Pallett Creek	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 1 to Paso Robles Avenue	—	—	Regional Regression Equations	HEC-2	—	AE	
UNKNOWN 1 near Pershing Drive	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 1 to Portal Ridge Wash	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 1-A to Portal Ridge Wash	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 1-B to Portal Ridge Wash	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 1-C to Portal Ridge Wash	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 1 near Rexbon Road	—	—	Regional Regression Equations	HEC-2	—	AE	

Table 13: Summary of Hydrologic and Hydraulic Analyses, Continued

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
UNKNOWN 1 near Ripley Avenue	—	—	Regional Regression Equations	HEC-2	06/01/1981	AE	
UNKNOWN 1 near Roscoe Boulevard	—	—	Regional Regression Equations	HEC-2	—	AH	
UNKNOWN 1 near San Diego Freeway	—	—	Regional Regression Equations	HEC-2	—	AH	
UNKNOWN 1 to San Fernando Road	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 2 to San Fernando Road	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 1 to San Gabriel River	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 1 to Santa Susana Creek	—	—	Regional Regression Equations	HEC-2	—	A, AO	
UNKNOWN 1-A to Santa Susana Creek	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 2 to Santa Susana Creek	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 1 near Sesnon Boulevard	—	—	Regional Regression Equations	HEC-2	—	AE	
UNKNOWN 1 near Sheldon Street	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 1 near W. Slausson Avenue	—	—	Regional Regression Equations	HEC-2	—	AH	

Table 13: Summary of Hydrologic and Hydraulic Analyses, Continued

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
UNKNOWN 2 near W. Slausson Avenue	—	—	Regional Regression Equations	HEC-2	—	AH	
UNKNOWN 1 near State Highway 110	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 1 near W. Sunset Boulevard	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 1 near Sunset Canyon Drive	—	—	Regional Regression Equations	HEC-2	—	AO	
UNKNOWN 1 near Susanna Place	—	—	Regional Regression Equations	HEC-2	—	AH	
UNKNOWN 1 near W. Temple Street	—	—	Regional Regression Equations	HEC-2	—	AH	
UNKNOWN 1 near Toledo Street	—	—	Regional Regression Equations	HEC-2	08/01/1978	AE	
UNKNOWN 2 near Toledo Street	—	—	Regional Regression Equations	HEC-2	08/01/1978	AH	
UNKNOWN 1 near UCLA	—	—	Regional Regression Equations	HEC-2	—	AH	
UNKNOWN 1 near Vail Avenue	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 1 near S. Van Ness Avenue	—	—	Regional Regression Equations	HEC-2	—	A, AH, AO	
UNKNOWN 1 near Via Valmonte	—	—	Regional Regression Equations	HEC-2	08/01/1978	A	

Table 13: Summary of Hydrologic and Hydraulic Analyses, Continued

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
UNKNOWN 1 near Victory Boulevard	—	—	Regional Regression Equations	HEC-2	—	AH	
UNKNOWN 1 near Vincent Street	—	—	Regional Regression Equations	HEC-2	06/01/1981	AE	
UNKNOWN 2 near Vincent Street	—	—	Regional Regression Equations	HEC-2	06/01/1981	AE	
UNKNOWN 1 to Vine Creek	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 2 to Vine Creek	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 1 near Walker Avenue	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 1 to Weldon Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	AE	
UNKNOWN 1-A to Weldon Canyon Creek	—	—	Regional Regression Equations	HEC-2	—	AE	
UNKNOWN WEST of Edwards AF Base	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN WEST of Edwards AF Base	—	—	Regional Regression Equations	HEC-2	—	A	

Table 13: Summary of Hydrologic and Hydraulic Analyses, Continued

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
UNKNOWN WEST of Edwards AF Base	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 1 to UNKNOWN WEST	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 1-A to UNKNOWN WEST	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 2 to UNKNOWN WEST	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 2-A to UNKNOWN WEST	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 3 to UNKNOWN WEST	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 3-A to UNKNOWN WEST	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 4 to UNKNOWN WEST	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 5 to UNKNOWN WEST	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 6 to UNKNOWN WEST	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 1 near Wilshire Boulevard	—	—	Regional Regression Equations	HEC-2	—	AH, AO	
UNKNOWN 2 near Wilshire Boulevard	—	—	Regional Regression Equations	HEC-2	—	AH	

Table 13: Summary of Hydrologic and Hydraulic Analyses, Continued

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
UNKNOWN 3 near Wilshire Boulevard	—	—	Regional Regression Equations	HEC-2	—	A	
UNKNOWN 1 near Woodman Place	—	—	Regional Regression Equations	HEC-2	—	A	

Table 29: Summary of Contracted Studies Included in this FIS Report

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Acton Canyon	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Order HSFE09-10-J-0002	July 2015	Los Angeles County
Agua Amarge Canyon	—	LACFCD	H-3940	—	City of Palos Verdes Estates
Agua Dulce Canyon Creek	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Order HSFE09-10-J-0002	July 2015	Los Angeles County
Agua Dulce Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Agua Dulce Canyon Creek Lateral	TBD	HDR Engineering Inc.	EMF-2003-CO-0045, Task Order 21	August 2008	Los Angeles County
Alamitos Bay	—	LACFCD	H-3940	—	City of Long Beach
Aliso Canyon Creek	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Order HSFE09-10-J-0002	July 2015	Los Angeles County
Amargosa Creek	—	Rick Engineering Company	EMW-84-1639	November 1985	City of Lancaster; Los Angeles County; City of Palmdale
Amargosa Creek Tributary	—	LACFCD	H-3940	—	City of Lancaster
Anaverde Creek	—	Rick Engineering Company	EMW-84-1639	November 1985	City of Palmdale
Arrastre Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Arroyo Calabasas	—	LACFCD	H-3940	—	City of Los Angeles
Arroyo San Miguel	—	LACFCD	H-3940	August 1978	City of Whittier
Arroyo Sequit	—	LACFCD	H-3940	—	Los Angeles County
Avalon Bay	—	LACFCD	H-3940	—	City of Avalon
Avalon Canyon	—	LACFCD	H-3940	—	City of Avalon
Back Channel	—	LACFCD	H-3940	—	City of Long Beach

Table 29: Summary of Contracted Studies Included in this FIS Report, Continued

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Ballona Creek	—	LACFCD	H-3940	—	City of Culver City; City of Los Angeles, Los Angeles County
Bar Creek	—	LACFCD	H-3940	—	City of Diamond Bar
Bee Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Big Rock Creek	—	LACFCD	H-3940	—	Los Angeles County
Big Rock Creek South Fork	—	LACFCD	H-3940	—	Los Angeles County
Big Rock Wash	—	LACFCD	H-3940	—	City of Lancaster; Los Angeles County
Big Rock Wash (Profile Base Line)	—	Rick Engineering Company	EMW-84-1639	November 1985	City of Palmdale
Big Tujunga Wash	—	LACFCD	H-3940	—	City of Los Angeles
Boulder Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Bouquet Canyon Creek	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Order HSFE09-09-J-0001	March 2014	Los Angeles County; City of Santa Clarita
Bouquet Reservoir	—	LACFCD	H-3940	—	Los Angeles County
Broad Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Browns Creek	—	LACFCD	H-3940	—	City of Los Angeles
California Aqueduct	—	LACFCD	H-3940	—	Los Angeles County
Canada De Los Alamos Creek	—	LACFCD	H-3940	—	Los Angeles County
Carlos Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Carr Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Castaic Creek	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Order HSFE09-10-J-0002	July 2015	Los Angeles County
Castaic Lagoon	—	LACFCD	H-3940	—	Los Angeles County
Castaic Lake	—	LACFCD	H-3940	—	Los Angeles County
Channel No. 2	—	LACFCD	H-3940	—	City of Long Beach

Table 29: Summary of Contracted Studies Included in this FIS Report, Continued

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Channel No. 3	—	LACFCD	H-3940	—	City of Long Beach
Charlie Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Chatsworth Reservoir	—	LACFCD	H-3940	—	City of Los Angeles
Cherry Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Cheseboro Creek	—	LACFCD	H-3940	—	City of Agoura Hills; Los Angeles County
Cold Creek	—	LACFCD	H-3940	—	Los Angeles County
Cold Creek	—	LACFCD	H-3940	—	Los Angeles County
Colorado Lagoon	—	LACFCD	H-3940	—	City of Long Beach
Compton Creek	—	LACFCD	H-3940	—	City of Compton, City of Long Beach, Los Angeles County
Consolidated Channel	—	LACFCD	H-3940	—	City of Los Angeles
Coyote Canyon Creek	—	LACFCD	H-3940	—	City of Santa Clarita
Coyote Creek	—	LACFCD	H-3940	—	City of Long Beach
Cruthers Creek	—	LACFCD	H-3940	—	Los Angeles County
Dark Canyon	—	LACFCD	H-3940	—	Los Angeles County
Dark Canyon West Branch	—	LACFCD	H-3940	—	Los Angeles County
Dewitt Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Dominguez Channel	—	LACFCD	H-3940	—	City of Los Angeles, City of Carson, City of Gardena
Dorr Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Dowd Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Dry Canyon	—	LACFCD	H-3940	—	Los Angeles County; City of Santa Clarita
Dry Canyon	—	LACFCD	H-3940	—	City of Calabasas; Los Angeles County
East Basin	—	LACFCD	H-3940	—	City of Los Angeles

Table 29: Summary of Contracted Studies Included in this FIS Report, Continued

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Elizabeth Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Elizabeth Lake	—	LACFCD	H-3940	—	Los Angeles County
Elizabeth Lake Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Eller Slough	—	LACFCD	H-3940	—	Los Angeles County
Elsmere Canyon Creek	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Order HSFE09-10-J-0002	July 2015	City of Santa Clarita
Encino Reservoir	—	LACFCD	H-3940	—	City of Los Angeles
Entrance Channel (Marina Del Ray)	—	LACFCD	H-3940	—	City of Los Angeles
Escondido Canyon	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Order HSFE09-09-J-0001	March 2014	Los Angeles County
Fenner Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Fish Harbor	—	LACFCD	H-3940	—	City of Los Angeles
Flood Control Channel to Aliso Creek	—	LACFCD	H-3940	—	City of Los Angeles
Flowline No. 1	—	LACFCD	H-3940	October 1978	City of Santa Fe Springs
Garapito Creek	—	LACFCD	H-3940	—	Los Angeles County
Gavin Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County; City of Santa Clarita
Gorman Creek	—	LACFCD	H-3940	—	Los Angeles County
Gorman Canyon Creek	—	LACFCD	H-3940	—	City of Santa Clarita
Graham Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Grandview Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Grandview Canyon Creek (2)	—	LACFCD	H-3940	—	Los Angeles County
Harbor Lake	—	LACFCD	H-3940	—	City of Los Angeles
Haskell Canyon	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Order HSFE09-09-J-0001	March 2014	City of Santa Clarita

Table 29: Summary of Contracted Studies Included in this FIS Report, Continued

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Hasley Canyon Creek	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Order HSFE09-10-J-0002	July 2015	Los Angeles County
Holcomb Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Holmes Creek	—	LACFCD	H-3940	—	Los Angeles County
Hughes Lake	—	LACFCD	H-3940	—	Los Angeles County
Iron Canyon	TBD	HDR Engineering Inc.	EMF-2003-CO-0045, Task Order 33	February 2010	Los Angeles County; City of Santa Clarita
Jesus Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Kagel Canyon	—	LACFCD	H-3940	—	City of Los Angeles, Los Angeles County
Kentucky Springs Canyon Creek	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Order HSFE09-10-J-0002	July 2015	Los Angeles County
Lake Lindero	—	LACFCD	H-3940	—	City of Agoura Hills; City of Westlake Village
La Mirada Creek	—	LACFCD	H-3940	—	City of La Mirada
Lake Palmdale	—	LACFCD	H-3940	—	Los Angeles County
Lake Street Overflow	—	LACFCD	H-3940	—	City of Burbank
Las Flores Canyon	—	LACFCD	H-3940	—	Los Angeles County; City of Malibu
Las Flores Canyon	—	LACFCD	H-3940	—	Los Angeles County
Las Virgenes Creek	01/01/2016	BakerAECOM	HSFEHQ-09-D-0368, Task Order HSFE09-10-J-0002	August 2010	City of Calabasas; Los Angeles County
Leaming Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Lemontaine Creek	—	LACFCD	H-3940	—	Los Angeles County
Liberty Canyon	—	LACFCD	H-3940	—	City of Agoura Hills; Los Angeles County

Table 29: Summary of Contracted Studies Included in this FIS Report, Continued

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Limekiln Creek	—	LACFCD	H-3940	—	City of Los Angeles
Lindero Canyon	—	LACFCD	H-3940	—	City of Agoura Hills
Lion Canyon	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Order HSFE09-10-J-0002	July 2015	Los Angeles County
Little Rock Creek	—	LACFCD	H-3940	—	Los Angeles County
Little Rock Reservoir	—	LACFCD	H-3940	—	Los Angeles County
Little Rock Wash	—	LACFCD	H-3940	—	City of Lancaster; Los Angeles County
Little Rock Wash	—	LACFCD	H-3940	—	Los Angeles County
Little Rock Wash - Profile A	—	Rick Engineering Company	EMW-84-1639	November 1985	City of Palmdale
Little Rock Wash - Profile A	—	Rick Engineering Company	EMW-84-1639	November 1985	City of Palmdale
Little Rock Wash - Profile A	—	Rick Engineering Company	EMW-84-1639	—	Los Angeles County
Little Rock Wash - Profile A	—	Rick Engineering Company	EMW-84-1639	November 1985	Los Angeles County; City of Palmdale
Little Rock Wash - Profile A	—	Rick Engineering Company	EMW-84-1639	November 1985	Los Angeles County; City of Palmdale
Little Rock Wash - Profile B	—	Rick Engineering Company	EMW-84-1639	November 1985	City of Palmdale
Little Rock Wash - Profile C	—	Rick Engineering Company	EMW-84-1639	November 1985	Los Angeles County; City of Palmdale
Little Tujunga Wash	—	LACFCD	H-3940	—	Los Angeles County; City of Los Angeles
Lobo Canyon	—	LACFCD	H-3940	—	Los Angeles County
Lockheed Drain Channel	—	LACFCD	H-3940	—	City of Burbank; City of Los Angeles
Lockheed Storm Drain	—	LACFCD	H-3940	—	City of Burbank; City of Los Angeles

Table 29: Summary of Contracted Studies Included in this FIS Report, Continued

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Long Canyon	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Order HSFE09-10-J-0002	July 2015	Los Angeles County
Lopez Canyon Channel	—	LACFCD	H-3940	—	Los Angeles County; City of Los Angeles
Los Angeles County Flood Control Channel	—	LACFCD	H-3940	—	City of Los Angeles
Los Angeles County Flood Control Channel to Aliso Creek	—	LACFCD	H-3940	—	City of Los Angeles
Los Angeles County Storm Drain	—	LACFCD	H-3940	—	City of Carson; Los Angeles County
Los Angeles County Storm Drain (2)	—	LACFCD	H-3940	—	City of Carson
Los Angeles Harbor	—	LACFCD	H-3940	—	City of Los Angeles
Los Angeles Reservoir	—	LACFCD	H-3940	—	City of Los Angeles
Los Angeles River	—	Schaaf & Wheeler, Consulting Civil Engineers	EMW-86-C-2248	May 1991	City of Compton; City of Cudahy; City of Long Beach; City of Los Angeles; Los Angeles County; City of Paramount; City of South Gate
Los Angeles River Flood Control Channel	—	LACFCD	H-3940	—	City of Burbank
Los Angeles River Flood Control Channel	—	LACFCD	H-3940	—	City of Burbank
Los Cerritos Channel (1)	—	LACFCD	H-3940	—	City of Long Beach; City of Los Angeles
Lyon Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County; City of Santa Clarita
Main Channel	—	LACFCD	H-3940	—	City of Los Angeles
Malaga Canyon	—	LACFCD	H-3940	—	City of Palos Verdes Estates
Malibu Creek	—	LACFCD	H-3940	—	City of Malibu, Los Angeles County
Malibu Lake	—	LACFCD	H-3940	—	Los Angeles County

Table 29: Summary of Contracted Studies Included in this FIS Report, Continued

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Marina Del Ray	—	LACFCD	H-3940	—	Los Angeles County; City of Los Angeles
Marine Stadium	—	LACFCD	H-3940	—	City of Long Beach
Medea Creek	—	LACFCD	H-3940	—	City of Agoura Hills; Los Angeles County
Middle Harbor	—	LACFCD	H-3940	—	City of Long Beach
Mill Creek	—	LACFCD	H-3940	—	Los Angeles County
Milton B. Arthur Lakes	—	LACFCD	H-3940	—	City of Long Beach
Mint Canyon Creek	TBD	HDR Engineering Inc.	EMF-2003-CO-0045, Task Order 33	February 2010	Los Angeles County; City of Santa Clarita
Mint Canyon Creek Overflow	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Order HSFE09-10-J-0002	July 2015	City of Santa Clarita
Mint Canyon Spring	—	LACFCD	H-3940	—	Los Angeles County
Montebello Municipal Golf Course Pond	—	LACFCD	H-3940	—	City of Montebello
Muscal Creek	—	LACFCD	H-3940	—	Los Angeles County
Myrick Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Newhall Creek	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Orders HSFE09-09-J-0001; HSFE09-14-J-0025	March 2014	City of Santa Clarita
Newhall Creek Left Overbank 2	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Order HSFE09-14-J-0025	July 2015	City of Santa Clarita
Newhall Creek Left Overbank 3	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Order HSFE09-14-J-0025	July 2015	City of Santa Clarita

Table 29: Summary of Contracted Studies Included in this FIS Report, Continued

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Newhall Creek Right Overbank 1	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Order HSFE09-14-J-0025	July 2015	City of Santa Clarita
Oak Springs Canyon Creek	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Order HSFE09-10-J-0002	July 2015	Los Angeles County; City of Santa Clarita
Oak Springs Canyon Creek Overflow	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Order HSFE09-10-J-0002	July 2015	Los Angeles County; City of Santa Clarita
Oakgrove Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Old Topanga Canyon	—	LACFCD	H-3940	—	Los Angeles County
Oro Fino Canyon Creek	—	LACFCD	H-3940	—	City of Santa Clarita
Oso Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Pacific Terrace Harbor	—	LACFCD	H-3940	—	City of Long Beach
Pacoima Channel	—	LACFCD	H-3940	—	City of Los Angeles
Pacoima Channel	—	LACFCD	H-3940	—	City of Los Angeles
Pacoima Wash	—	LACFCD	H-3940	—	Los Angeles County; City of Los Angeles
Pallett Creek	—	LACFCD	H-3940	—	Los Angeles County
Pallett Creek	—	LACFCD	H-3940	—	Los Angeles County
Palmdale Ditch	—	LACFCD	H-3940	—	Los Angeles County
Palo Comando Creek	—	LACFCD	H-3940	—	City of Agoura Hills; Los Angeles County
Palomas Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Pico Canyon	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Order HSFE09-10-J-0002	July 2015	Los Angeles County; City of Santa Clarita
Pine Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County

Table 29: Summary of Contracted Studies Included in this FIS Report, Continued

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Pine Canyon Creek	—	Rick Engineering Company	EMW-84-1639	November 1985	City of Palmdale
Piru Creek	—	LACFCD	H-3940	—	Los Angeles County
Placerita Creek	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Order HSFE09-13-J-0158	July 2015	Los Angeles County; City of Santa Clarita
Placerita Creek Overflow	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Order HSFE09-10-J-0002	July 2015	City of Santa Clarita
Plum Canyon	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Order HSFE09-10-J-0002	July 2015	Los Angeles County
Portal Ridge Wash	—	LACFCD	H-3940	—	City of Lancaster
Potrero Canyon	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Order HSFE09-10-J-0002	July 2015	Los Angeles County
Potrero Valley Creek (Westlake Lake)	—	LACFCD	H-3940	—	City of Westlake Village
Puzzle Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Pyramid Lake	—	LACFCD	H-3940	—	Los Angeles County
Quail Lake	—	LACFCD	H-3940	—	Los Angeles County
Quigley Canyon Creek	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Order HSFE09-13-J-0158	July 2015	City of Santa Clarita
Railroad Canyon	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Order Task Order HSFE09-09-J-0001	March 2014	City of Santa Clarita

Table 29: Summary of Contracted Studies Included in this FIS Report, Continued

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Railroad Canyon Creek Left Overbank	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Order Task Order HSFE09-09-J-0001	March 2014	City of Santa Clarita
Ramirez Canyon	—	LACFCD	H-3940	—	Los Angeles County; City of Malibu
Reservoir near UCLA	—	LACFCD	H-3940	—	City of Los Angeles
Rice Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Rio Hondo Channel	—	Schaaf & Wheeler, Consulting Civil Engineers	EMW-86-C-2248	May 1991	City of Bell Gardens; City of Downey; Los Angeles County; City of Montebello; City of Pico Rivera; City of South Gate
Rio Hondo Channel Tributary	—	Schaaf & Wheeler, Consulting Civil Engineers	EMW-86-C-2248	May 1991	City of Montebello
Roberts Canyon Creek	—	LACFCD	H-3940	—	City of Azusa
Rock Creek	—	LACFCD	H-3940	—	Los Angeles County
Romero Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Rustic Canyon Creek	—	LACFCD	H-3940	—	City of Los Angeles
Salt Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
San Dimas Wash	—	LACFCD	H-3940	—	City of San Dimas
San Francisquito Canyon Creek	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Order HSFE09-09-J-0001	March 2014	Los Angeles County; City of Santa Clarita
San Gabriel River	—	LACFCD	H-3940	—	City of Bellflower; City of Cerritos; City of Lakewood; City of Long Beach
San Gabriel River	—	LACFCD	H-3940	—	City of Azusa; Los Angeles County

Table 29: Summary of Contracted Studies Included in this FIS Report, Continued

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
San Martinez Chiquito Canyon	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Order HSFE09-10-J-0002	July 2015	Los Angeles County
San Martinez Grande Canyon Creek	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Order HSFE09-10-J-0002	July 2015	Los Angeles County
San Pedro Bay	—	LACFCD	H-3940	—	City of Long Beach
Sand Canyon Creek	TBD	HDR Engineering Inc.	EMF-2003-CO-0045, Task Order 33	February 2010	Los Angeles County; City of Santa Clarita
Sand Canyon Creek Tributary 1	—	LACFCD	H-3940	1984	City of Santa Clarita
Sand Canyon Creek Tributary 2	—	LACFCD	H-3940	1984	City of Santa Clarita
Santa Clara River	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Orders HSFE09-09-J-0001; HSFE09-14-J-0025	July 2015	Los Angeles County; City of Santa Clarita
Santa Clara River	—	LACFCD	H-3940	—	Los Angeles County
Santa Maria Canyon	—	LACFCD	H-3940	—	Los Angeles County
Santa Susana Pass Wash	—	LACFCD	H-3940	—	City of Los Angeles
Santa Ynez Canyon Reservoir	—	LACFCD	H-3940	—	City of Los Angeles
Savage Creek	—	LACFCD	H-3940	August 1978	City of Whittier
Sierra Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Sloan Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Soledad Canyon	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Order HSFE09-10-J-0002	July 2015	Los Angeles County
South Fork Santa Clara River	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Order HSFE09-09-J-0001	March 2014	City of Santa Clarita

Table 29: Summary of Contracted Studies Included in this FIS Report, Continued

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
South Fork Santa Clara River Tributary	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Order HSFE09-09-J-0001	March 2014	City of Santa Clarita
South Portal Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Spade Spring Canyon Creek	TBD	HDR Engineering Inc.	EMF-2003-CO-0045, Task Order 33	February 2010	Los Angeles County
Stokes Canyon	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Order HSFE09-10-J-0002	July 2015	Los Angeles County
Sullivan Canyon Creek	—	LACFCD	H-3940	—	City of Los Angeles
Sunshine Canyon Creek	—	LACFCD	H-3940	—	City of Los Angeles
Tacobi Creek	—	LACFCD	H-3940	August 1978	City of Whittier
Tapia Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Texas Canyon Creek	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Order HSFE09-10-J-0002	July 2015	Los Angeles County
Tick Canyon	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Order HSFE09-10-J-0002	July 2015	Los Angeles County
Tonner Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Topanga Canyon	—	LACFCD	H-3940	—	Los Angeles County; City of Los Angeles
Towsley Canyon Creek	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Order HSFE09-10-J-0002	July 2015	Los Angeles County; City of Santa Clarita
Trancas Creek	—	LACFCD	H-3940	—	City of Malibu
Triunfo Creek	—	LACFCD	H-3940	—	Los Angeles County; City of Westlake Village
Triunfo Creek	—	LACFCD	H-3940	—	City of Westlake Village

Table 29: Summary of Contracted Studies Included in this FIS Report, Continued

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Turnbull Canyon	—	LACFCD	H-3940	August 1978	City of Whittier
Unnamed Canyon Creek (Serra Retreat Area)	—	LACFCD	H-3940	—	Los Angeles County; City of Malibu
Unnamed Stream Main Reach	TBD	HDR Engineering Inc.	EMF-2003-CO-0045, Task Order 15	February 2010	City of Palos Verdes Estates
Unnamed Stream Tributary 1	TBD	HDR Engineering Inc.	EMF-2003-CO-0045, Task Order 15	February 2010	City of Palos Verdes Estates
Unnamed Stream Tributary 2	TBD	HDR Engineering Inc.	EMF-2003-CO-0045, Task Order 15	February 2010	City of Palos Verdes Estates
Upper Los Angeles River Left Overbank	—	LACFCD	H-3940	—	City of Los Angeles
Vasquez Canyon	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Order HSFE09-10-J-0002	July 2015	Los Angeles County
Villa Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Vine Creek	—	LACFCD	H-3940	—	City of West Covina
Violin Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Violin Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Wayside Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Weldon Canyon	—	LACFCD	H-3940	—	City of Los Angeles
West Basin	—	LACFCD	H-3940	—	City of Los Angeles
West Channel	—	LACFCD	H-3940	—	City of Los Angeles
Westlake Reservoir	—	LACFCD	H-3940	—	City of Westlake Village
Whitney Canyon Creek	TBD	BakerAECOM	HSFEHQ-09-D-0368, Task Order HSFE09-14-J-0025	July 2015	Los Angeles County; City of Santa Clarita
Wildwood Canyon Creek	—	LACFCD	H-3940	1984	City of Santa Clarita

Table 29: Summary of Contracted Studies Included in this FIS Report, Continued

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Wiley Canyon Creek	—	LACFCD	H-3940	1984	Los Angeles County; City of Santa Clarita
Willow Springs Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Young Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Zuma Canyon Creek	—	LACFCD	H-3940	—	City of Malibu, Los Angeles County
UNKNOWN 1 near W. 3rd Street	—	LACFCD	H-3940	December 1980, November 1985	City of Los Angeles; City of West Hollywood
UNKNOWN 2 near W. 3rd Street	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 3 near W. 3rd Street	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1 near 4th Street	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1 near Aberdeen Avenue	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1 near Alameda Street	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 2 near Alameda Street	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1 near Alaska Avenue	—	LACFCD	H-3940	August 1978	City of Torrance
UNKNOWN 1 near Amsler Street	—	LACFCD	H-3940	August 1978	City of Torrance
UNKNOWN 1 to Anaverde Creek	—	Rick Engineering Company	EMW-84-1639	November 1985	City of Palmdale
UNKNOWN 1 near Anza Avenue	—	LACFCD	H-3940	August 1978	City of Torrance
UNKNOWN 1 to Arroyo Calabasas	—	LACFCD	H-3940	—	City of Hidden Hills
UNKNOWN 2 to Arroyo Calabasas	—	LACFCD	H-3940	—	City of Calabasas
UNKNOWN 1 near Baile Avenue	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 2 near Baile Avenue	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1 near S. Beverley Glen Boulevard	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1 to Big Rock Wash	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN 1-A to Big Rock Wash	—	LACFCD	H-3940	—	Los Angeles County

Table 29: Summary of Contracted Studies Included in this FIS Report, Continued

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
UNKNOWN 2 to Big Rock Wash	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN 1 near Blinn Avenue	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1 to Broad Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN 2 to Broad Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN 3 to Broad Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN 1 to California Aqueduct	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN 2 to California Aqueduct	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN 3 to California Aqueduct	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN 4 to California Aqueduct	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN 5 to California Aqueduct	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN 1 near Camino Real Calle	—	LACFCD	H-3940	June 1981	City of Redondo Beach
UNKNOWN 1 near Chaparal Street	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1 near Childs Court	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1 near Club View Drive	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1 near Denker Avenue	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1 near Edwards AF Base	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN 2 near Edwards AF Base	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN 2-A near Edwards AF Base	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN 1 near Eubank Avenue	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1 near Glade Avenue	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 2 near Glade Avenue	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1 to Glenoaks Boulevard	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 2 to Glenoaks Boulevard	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 3 to Glenoaks Boulevard	—	LACFCD	H-3940	—	City of Los Angeles

Table 29: Summary of Contracted Studies Included in this FIS Report, Continued

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
UNKNOWN 1 near Gould Avenue	—	LACFCD	H-3940	June 1981	City of Redondo Beach
UNKNOWN 1 near Grenola Street	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1 near N. Hoover Street	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1 near S. La Cienega Boulevard	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1 near Lake Palmdale	—	Rick Engineering Company	EMW-84-1639	November 1985	City of Palmdale
UNKNOWN 1 near Laurel Canyon Boulevard	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1 to Little Rock Wash	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN 2 to Little Rock Wash	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN 3 to Little Rock Wash	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN 1 near Long Beach Freeway	—	LACFCD	H-3940	—	City of Lynwood
UNKNOWN 1 near Louise Avenue	—	LACFCD	H-3940	—	City of Lynwood
UNKNOWN 1 near Lucerne Boulevard	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1 near S. Main Street	—	LACFCD	H-3940	—	City of Burbank
UNKNOWN 1 near Magnolia Avenue	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1 to Malaga Canyon Creek	—	LACFCD	H-3940	—	City of Palos Verdes Estates
UNKNOWN 2 to Malaga Canyon Creek	—	LACFCD	H-3940	—	City of Palos Verdes Estates
UNKNOWN 2-A to Malaga Canyon Creek	—	LACFCD	H-3940	—	City of Palos Verdes Estates
UNKNOWN 1 near Marathon Street	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1 near Melrose Avenue	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1 near Mines Avenue	—	LACFCD	H-3940	—	City of Montebello
UNKNOWN 1 to Myrick Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN 1 near Overland Avenue	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 2 near Overland Avenue	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1 near W. Olympic Boulevard	—	LACFCD	H-3940	—	City of Los Angeles

Table 29: Summary of Contracted Studies Included in this FIS Report, Continued

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
UNKNOWN 1 to Pallett Creek	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN 1-A to Pallett Creek	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN 1-A-1 to Pallett Creek	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN 1-A-2 to Pallett Creek	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN 1-B to Pallett Creek	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN 1-B-1 to Pallett Creek	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN 1-C to Pallett Creek	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN 1 to Paso Robles Avenue	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1 near Pershing Drive	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1 to Portal Ridge Wash	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN 1-A to Portal Ridge Wash	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN 1-B to Portal Ridge Wash	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN 1-C to Portal Ridge Wash	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN 1 near Rexbon Road	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1 near Ripley Avenue	—	LACFCD	H-3940	June 1981	City of Redondo Beach
UNKNOWN 1 near Roscoe Boulevard	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1 near San Diego Freeway	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1 to San Fernando Road	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 2 to San Fernando Road	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1 to San Gabriel River	—	LACFCD	H-3940	—	City of Long Beach
UNKNOWN 1 to Santa Susana Creek	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1-A to Santa Susana Creek	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 2 to Santa Susana Creek	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1 near Sesnon Boulevard	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1 near Sheldon Street	—	LACFCD	H-3940	—	City of Los Angeles

Table 29: Summary of Contracted Studies Included in this FIS Report, Continued

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
UNKNOWN 1 near W. Slausson Avenue	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN 2 near W. Slausson Avenue	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN 1 near State Highway 110	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1 near W. Sunset Boulevard	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1 near Sunset Canyon Drive	—	LACFCD	H-3940	—	City of Burbank
UNKNOWN 1 near Susanna Place	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1 near W. Temple Street	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1 near Toledo Street	—	LACFCD	H-3940	August 1978	City of Torrance
UNKNOWN 2 near Toledo Street	—	LACFCD	H-3940	August 1978	City of Torrance
UNKNOWN 1 near UCLA	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1 near Vail Avenue	—	LACFCD	H-3940	—	City of Montebello
UNKNOWN 1 near S. Van Ness Avenue	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1 near Via Valmonte	—	LACFCD	H-3940	August 1978	City of Torrance
UNKNOWN 1 near Victory Boulevard	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1 near Vincent Street	—	LACFCD	H-3940	June 1981	City of Redondo Beach
UNKNOWN 2 near Vincent Street	—	LACFCD	H-3940	June 1981	City of Redondo Beach
UNKNOWN 1 to Vine Creek	—	LACFCD	H-3940	—	City of West Covina
UNKNOWN 2 to Vine Creek	—	LACFCD	H-3940	—	City of West Covina
UNKNOWN 1 near Walker Avenue	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1 to Weldon Canyon Creek	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1-A to Weldon Canyon Creek	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN WEST of Edwards AF Base	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN WEST of Edwards AF Base	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN WEST of Edwards AF Base	—	LACFCD	H-3940	—	Los Angeles County

Table 29: Summary of Contracted Studies Included in this FIS Report, Continued

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
UNKNOWN 1 to UNKNOWN WEST	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN 1-A to UNKNOWN WEST	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN 2 to UNKNOWN WEST	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN 2-A to UNKNOWN WEST	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN 3 to UNKNOWN WEST	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN 3-A to UNKNOWN WEST	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN 4 to UNKNOWN WEST	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN 5 to UNKNOWN WEST	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN 6 to UNKNOWN WEST	—	LACFCD	H-3940	—	Los Angeles County
UNKNOWN 1 near Wilshire Boulevard	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 2 near Wilshire Boulevard	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 3 near Wilshire Boulevard	—	LACFCD	H-3940	—	City of Los Angeles
UNKNOWN 1 near Woodman Place	—	LACFCD	H-3940	—	City of Los Angeles