FLOOD INSURANCE STUDY

FEDERAL EMERGENCY MANAGEMENT AGENCY

VOLUME 1 OF 6

LOS ANGELES COUNTY, CALIFORNIA

AND INCORPORATED AREAS

COMMUNITY NAME	NUMBER	COMMUNITY NAME	NUMBER
LOS ANGELES COUNTY UNINCORPORATED AREAS	065043	CITY OF CLAREMONT*	060109
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 GLENDORA*	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

*No Special Flood Hazard Areas Identified

REVISED: DECEMBER 21, 2018

FLOOD INSURANCE STUDY NUMBER

06037CV001D

Version Number 2.3.3.2

FEMA

COMMUNITY NAME	NUMBER	COMMUNITY NAME	NUMBER
CITY OF HIDDEN HILLS	060125	CITY OF PICO RIVERA	060148
CITY OF HUNTINGTON PARK*	060126	CITY OF POMONA*	060149
CITY OF INDUSTRY*	065035	CITY OF RACHO PALOS VERDES	060464
CITY OF INGLEWOOD*	065036	CITY OF REDONDO BEACH	060150
CITY OF IRWINDALE*	060129	CITY OF ROLLING HILLS*	060151
CITY OF LA CAÑADA FLINTRIDGE*	060669	CITY OF ROLLING HILLS ESTATES*	065054
CITY OF LA HABRA HEIGHTS*	060701	CITY OF ROSEMEAD*	060153
CITY OF LA MIRADA	060131	CITY OF SAN DIMAS	060154
CITY OF LA PUENTE*	065039	CITY OF SAN FERNANDO*	060628
CITY OF LA VERNE	060133	CITY OF SAN GABRIEL*	065055
CITY OF LAKEWOOD	060130	CITY OF SAN MARINO*	065057
CITY OF LANCASTER	060672	CITY OF SANTA CLARITA	060729
CITY OF LAWNDALE*	060134	CITY OF SANTA FE SPRINGS	060158
CITY OF LOMITA*	060135	CITY OF SANTA MONICA	060159
CITY OF LONG BEACH	060136	CITY OF SIERRA MADRE*	065059
CITY OF LOS ANGELES	060137	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 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 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.

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
Agoura Hills, City of	065072	18070104	06037C1241F 06037C1242F 06037C1243G 06037C1244F 06037C1261F 06037C1263F	
Alhambra, City of[1]	060095	18070105	06037C1635F[2] 06037C1641F[2] 06037C1645F 06037C1675F[2]	
Arcadia, City of[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
Artesia, City of[1]	060097	18070106	06037C1839F 06037C1980F	
Avalon, City of	060098	18070107	06037C2202F 06037C2203F[2] 06037C2204F 06037C2210F[2]	
Azusa, City of	065015	18070106	06037C1415F 06037C1420F 06037C1700F	
Baldwin Park, City of[1]	060100	18070106	06037C1670F 06037C1675F[2] 06037C1700F	
Bell, City of[1]	060101	18070105	06037C1805F 06037C1810F	
Bell Gardens, City of	060656	18070105	06037C1810F	
Bellflower, City of	060102	18070106	06037C1820F 06037C1840F 06037C1960F 06037C1980F	
Beverly Hills, City of[1]	060655	18070104	06037C1585F 06037C1595G 06037C1605F 06037C1611G	
Bradbury, City of[1]	065017	18070105 18070106	06037C1415F	
Burbank, City of	065018	18070105	06037C1328F 06037C1329F 06037C1330F 06037C1335F 06037C1337F 06037C1339F 06037C1340F[2] 06037C1345F	
Calabasas, City of	060749	18070104 18070105	06037C1262F 06037C1263F 06037C1264G 06037C1267F 06037C1268F 06037C1269F 06037C1288G 06037C1527G 06037C1531F 06037C1532G	

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
Carson, City of	060107	18070105 18070106	06037C1795F 06037C1815F 06037C1935F 06037C1945F 06037C1955F 06037C1965F	
Cerritos, City of	060108	18070106	06037C1839F 06037C1840F 06037C1843F 06037C1844F 06037C1980F 06037C2000F	
Claremont, City of[1]	060109	18070106 18070203	06037C1475F 06037C1725F 06037C1750F	
Commerce, City of	060110	18070105	06037C1639F[2] 06037C1643F[2] 06037C1645F 06037C1810F 06037C1830F	
Compton, City of	060111	18070105 18070106	06037C1795F 06037C1815F 06037C1820F 06037C1955F	
Covina, City of[1]	065024	18070106	06037C1700F 06037C1725F	
Cudahy, City of	060657	18070105	06037C1805F 06037C1810F	
Culver City, City of	060114	18070104	06037C1595G 06037C1611G 06037C1613G 06037C1752F 06037C1760F	
Diamond Bar, City of	060741	18070106 18070203	06037C1725F 06037C1880F 06037C1900F[2]	
Downey, City of	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
Duarte, City of[1]	065026	18070105 18070106	06037C1405F[2] 06037C1410F[2] 06037C1415F 06037C1420F 06037C1700F	
El Monte, City of[1]	060658	18070105 18070106	06037C1670F 06037C1675F[2] 06037C1700F	
El Segundo, City of	060118	18070104 18070106	06037C1770F 06037C1790F	
Gardena, City of	060119	18070106	06037C1790F 06037C1795F 06037C1930F 06037C1935F	
Glendale, City of[1]	065030	18070105	06037C1095F 06037C1125F[2] 06037C1335F 06037C1345F 06037C1375F 06037C1610F 06037C1626F	
Glendora, City of[1]	065031	18070106	06037C1420F 06037C1440F 06037C1445F 06037C1700F 06037C1725F	
Hawaiian Gardens, City of[1]	065032	18070106	06037C1980F 06037C2000F	
Hawthorne, City of[1]	060123	18070106	06037C1770F 06037C1790F	
Hermosa Beach, City of	060124	18070104 18070106	06037C1770F 06037C1907F 06037C1910F	
Hidden Hills, City of	060125	18070104 18070105	06037C1266F 06037C1267F 06037C1268F	
Huntington Park, City of[1]	060126	18070105	06037C1805F	
Industry, City of[1]	065035	18070106	06037C1668F 06037C1670F 06037C1675F[2] 06037C1695F 06037C1700F 06037C1725F 06037C1875F 06037C1880F	

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
Inglewood, City of[1]	065036	18070104 18070105 18070106	06037C1760F 06037C1776G 06037C1777G 06037C1780G 06037C1790F	
Irwindale, City of[1]	060129	18070105 18070106	06037C1415F 06037C1420F 06037C1675F[2] 06037C1700F	
La Canada Flintridge, City of[1]	060669	18070105	06037C1375F	
La Habra Heights, City of[1]	060701	18070106	06037C1851F 06037C1853F 06037C1875F	
La Mirada, City of	060131	18070106	06037C1841F 06037C1842F 06037C1843F 06037C1844F 06037C1861F 06037C1875F 06037C2000F	
La Puente, City of[1]	065039	18070106	06037C1695F 06037C1700F	
La Verne, City of	060133	18070106	06037C1445F 06037C1475F 06037C1725F	
Lakewood, City of	060130	18070105 18070106	06037C1960F 06037C1980F 06037C2000F	
Lancaster, City of	060672	18090206	06037C0150F 06037C0175F 06037C0400F 06037C0405F 06037C0410F 06037C0415F 06037C0420F 06037C0442F 06037C0450F 06037C0462F 06037C0465F 06037C0475F	
Lawndale, City of[1]	060134	18070106	06037C1790F 06037C1930F	
Lomita, City of[1]	060135	18070106	06037C1940F 06037C1945F	

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
Long Beach, City of	060136	18070105 18070106	06037C1815F 06037C1820F 06037C1955F 06037C1960F 06037C1962F 06037C1964F 06037C1965F 06037C1970F 06037C1980F 06037C1988F 06037C1990F 06037C2055F 06037C2060F 06037C2076F	
Los Angeles, City of	060137	18070103 18070104 18070105 18070106	06037C1025F[2] 06037C1033F[2] 06037C1034F 06037C1040F 06037C1045F 06037C1067F 06037C1069F 06037C1075F 06037C1086F 06037C1087F[2] 06037C1088F 06037C1089F 06037C1095F 06037C1125F[2] 06037C1266F 06037C1267F 06037C1269F 06037C1275F 06037C1280F 06037C1285F 06037C1288G 06037C1290F 06037C1295F 06037C1305F 06037C1310F 06037C1315F 06037C1320F[2] 06037C1328F 06037C1329F 06037C1330F 06037C1335F 06037C1337F 06037C1339F 06037C1340F[2] 06037C1345F 06037C1375F	

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, City of (continued)	060137	18070103 18070104 18070105 18070106	06037C1552G 06037C1553G 06037C1554F 06037C1556F[2] 06037C1557F 06037C1558F[2] 06037C1559F 06037C1562F 06037C1566F 06037C1567F 06037C1569F 06037C1580F 06037C1585F 06037C1590F 06037C1595G 06037C1605F 06037C1610F 06037C1611G 06037C1612G 06037C1613G 06037C1614G 06037C1616G 06037C1617G 06037C1618G 06037C1619G 06037C1626F 06037C1627F[2] 06037C1628F 06037C1629F 06037C1635F[2] 06037C1636G 06037C1637F 06037C1638G 06037C1639F[2] 06037C1641F[2] 06037C1751F 06037C1752F 06037C1754F 06037C1760F 06037C1765F 06037C1770F 06037C1776G 06037C1777G 06037C1780G 06037C1781G 06037C1785G 06037C1790F 06037C1795F 06037C1805F 06037C1815F 06037C1935F	

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, City of (continued)	060137	18070103 18070104 18070105 18070106	06037C1945F 06037C1955F 06037C1965F 06037C2027F 06037C2029F 06037C2031F 06037C2032F 06037C2033F 06037C2034F 06037C2055F	
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	

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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 (continued)	065043	18030003 18070102 18070103 18070104 18070105 18070106 18070107 18070203 18090206 18090208	06037C0630F 06037C0635F 06037C0640F 06037C0645F 06037C0651F 06037C0652F[2] 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 06037C1067F	

Table 1: Listing of NFIP Jurisdictions, continued

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Los Angeles County, Unincorporated Areas (continued)	065043	18030003 18070102 18070103 18070104 18070105 18070106 18070107 18070203 18090206 18090208	06037C1075F 06037C1086F 06037C1087F[2] 06037C1088F 06037C1095F 06037C1100F[2] 06037C1109F 06037C1125F[2] 06037C1150F[2] 06037C1175F[2] 06037C1200F[2] 06037C1225F[2] 06037C1239G 06037C1240F[2] 06037C1243G 06037C1244F 06037C1261F 06037C1262F 06037C1263F 06037C1264G 06037C1266F 06037C1267F 06037C1268F 06037C1269F 06037C1275F 06037C1288G 06037C1290F 06037C1339F 06037C1340F[2] 06037C1375F 06037C1400F 06037C1405F[2] 06037C1410F[2] 06037C1415F 06037C1420F 06037C1430F 06037C1435F[2] 06037C1440F 06037C1445F 06037C1475F 06037C1480F[2] 06037C1485F 06037C1490F 06037C1491F 06037C1492F 06037C1502G 06037C1505F[2] 06037C1506G 06037C1507G 06037C1508F[2] 06037C1509F[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 (continued)	065043	18030003 18070102 18070103 18070104 18070105 18070106 18070107 18070203 18090206 18090208	06037C1511F 06037C1512F 06037C1516F 06037C1517G 06037C1526G 06037C1527G 06037C1528F 06037C1529G 06037C1531F 06037C1532G 06037C1533G 06037C1534F[2] 06037C1536F 06037C1537F 06037C1541F 06037C1542F 06037C1551G 06037C1552G 06037C1553G 06037C1554F 06037C1561F 06037C1562F 06037C1580F 06037C1585F 06037C1590F 06037C1595G 06037C1613G 06037C1614G 06037C1637F 06037C1639F[2] 06037C1641F[2] 06037C1643F[2] 06037C1645F 06037C1664F 06037C1665F 06037C1668F 06037C1670F 06037C1675F[2] 06037C1695F 06037C1700F 06037C1725F 06037C1750F 06037C1752F 06037C1754F 06037C1760F 06037C1770F 06037C1776G 06037C1777G 06037C1780G 06037C1785G 06037C1790F	

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 (continued)	065043	18030003 18070102 18070103 18070104 18070105 18070106 18070107 18070203 18090206 18090208	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]	
Lynwood, City of	060635	18070105	06037C1805F 06037C1815F 06037C1820F	
Malibu, City of	060745	18070104	06037C1485F 06037C1491F 06037C1492F 06037C1511F 06037C1512F 06037C1513F 06037C1514F	

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
Malibu, City of (continued)	060745	18070104	06037C1516F 06037C1517G 06037C1518F 06037C1519F 06037C1536F 06037C1537F 06037C1538F 06037C1539F 06037C1541F 06037C1542F 06037C1543F 06037C1561F 06037C1562F	
Manhattan Beach, City of	060138	18070104 18070106	06037C1770F 06037C1907F	
Maywood, City of[1]	060651	18070105	06037C1805F 06037C1810F	
Monrovia, City of[1]	065046	18070105 18070106	06037C1400F 06037C1405F[2] 06037C1415F 06037C1675F[2] 06037C1700F	
Montebello, City of	060141	18070105	06037C1645F 06037C1663F 06037C1664F 06037C1665F 06037C1810F 06037C1830F	
Monterey Park, City of[1]	065047	18070105	06037C1635F[2] 06037C1641F[2] 06037C1645F 06037C1663F 06037C1665F 06037C1675F[2]	
Norwalk, City of	060652	18070106	06037C1837F 06037C1839F 06037C1840F 06037C1841F 06037C1843F	
Palmdale, City of	060144	18070102 18090206	06037C0400F 06037C0415F 06037C0420F 06037C0442F 06037C0444F 06037C0450F 06037C0462F	

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
Palmdale, City of (continued)	060144	18070102 18090206	06037C0464F 06037C0465F 06037C0466F 06037C0468F 06037C0635F 06037C0645F 06037C0651F 06037C0652F[2] 06037C0653F 06037C0654F 06037C0656F 06037C0657F 06037C0658F 06037C0659F 06037C0665F 06037C0670F 06037C0694F 06037C0700F 06037C0701F 06037C0702F 06037C0703F 06037C0704F 06037C0706F 06037C0710F 06037C0711F 06037C0713F	
Palos Verdes Estates, City of	060145	18070104 18070106	06037C1916G 06037C1917G 06037C1918G 06037C1919G 06037C1940F	
Paramount, City of	065049	18070105 18070106	06037C1815F 06037C1820F	
Pasadena, City of[1]	065050	18070105	06037C1125F[2] 06037C1375F 06037C1400F 06037C1635F[2]	
Pico Rivera, City of	060148	18070105 18070106	06037C1663F 06037C1664F 06037C1668F 06037C1829F 06037C1830F	
Pomona, City of[1]	060149	18070106 18070203	06037C1725F 06037C1750F	

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
Rancho Palos Verdes, City of	060464	18070104 18070106	06037C1917G 06037C1918G 06037C1919G 06037C1940F 06037C1945F 06037C2025F 06037C2026F 06037C2027F 06037C2031F	
Redondo Beach, City of	060150	18070104 18070106	06037C1770F 06037C1790F 06037C1907F 06037C1909F 06037C1928F 06037C1930F	
Rolling Hills, City of[1]	060151	18070104 18070106	06037C1940F 06037C2026F 06037C2027F	
Rolling Hills Estates, City of[1]	065054	18070104 18070106	06037C1919G 06037C1940F	
Rosemead, City of[1]	060153	18070105	06037C1665F 06037C1675F[2]	
San Dimas, City of	060154	18070106	06037C1440F 06037C1445F 06037C1725F	
San Fernando, City of[1]	060628	18070105	06037C1075F	
San Gabriel, City of[1]	065055	18070105	06037C1675F[2]	
San Marino, City of[1]	065057	18070105	06037C1375F 06037C1400F 06037C1635F[2] 06037C1675F[2]	
Santa Clarita, City of	060729	18070102 18070105	06037C0805F 06037C0810F 06037C0815F 06037C0820F 06037C0830F 06037C0835F 06037C0840F 06037C0845F 06037C1030F 06037C1031F 06037C1032F 06037C1034F 06037C1075F	

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
Santa Fe Springs, City of	060158	18070106	06037C1829F 06037C1830F 06037C1835F 06037C1837F 06037C1839F 06037C1840F 06037C1841F 06037C1843F 06037C1844F	
Santa Monica, City of	060159	18070104	06037C1567F 06037C1569F 06037C1590F 06037C1751F	
Sierra Madre, City of[1]	065059	18070105	06037C1400F	
Signal Hill, City of[1]	060161	18070105 18070106	06037C1960F 06037C1970F	
South El Monte, City of[1]	060162	18070105 18070106	06037C1665F 06037C1670F 06037C1675F[2]	
South Gate, City of	060163	18070105 18070106	06037C1805F 06037C1810F 06037C1815F 06037C1820F	
South Pasadena, City of [1]	065061	18070105	06037C1375F 06037C1635F[2]	
Temple City, City of[1]	060653	18070105	06037C1675F[2]	
Torrance, City of	060165	18070104 18070106	06037C1790F 06037C1907F 06037C1909F 06037C1917G 06037C1928F 06037C1930F 06037C1935F 06037C1940F 06037C1945F	
Vernon, City of[1]	060166	18070105	06037C1638G 06037C1639F[2] 06037C1643F[2] 06037C1805F 06037C1810F	
Walnut, City of[1]	065069	18070106	06037C1695F 06037C1725F	
West Covina, City of	060666	18070106	06037C1695F 06037C1700F 06037C1725F	

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
West Hollywood, City of[1]	060720	18070104	06037C1585F 06037C1605F	
Westlake Village, City of	060744	18070104	06037C1239G 06037C1240F[2] 06037C1241F 06037C1243G 06037C1502G 06037C1505F[2]	
Whittier, City of	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.

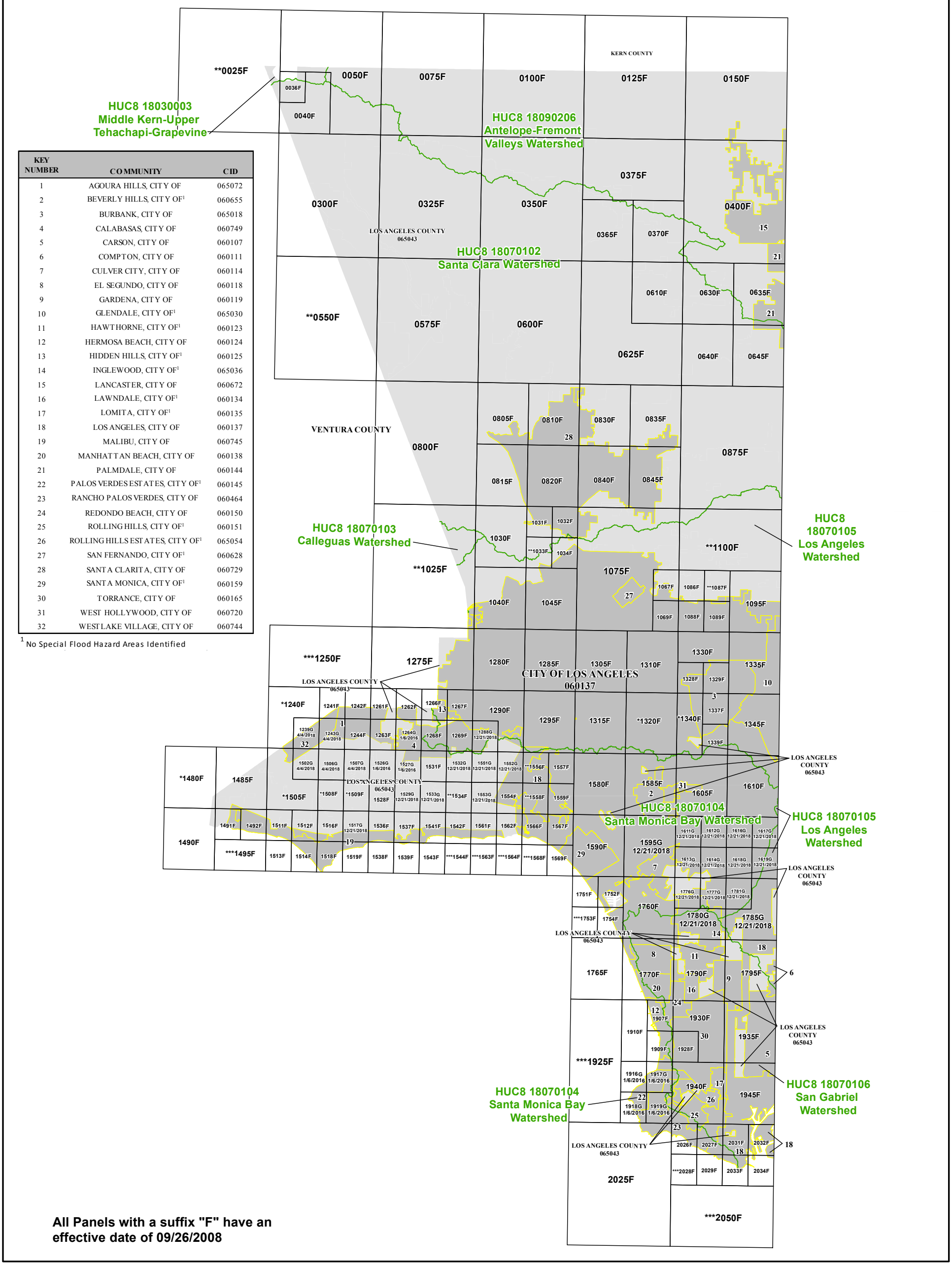
- Previous FIS Reports and FIRMs may have included levees that were accredited as reducing the risk associated with the 1% annual chance flood based on the information available and the mapping standards of the NFIP at that time. For FEMA to continue to accredit the identified levees, the levees must 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.

- 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 www.fema.gov/online-tutorials.

The FIRM Index in Figure 1 shows the overall FIRM panel layout within Los Angeles County, and also displays the panel number and effective date for each FIRM panel in the county. Other information shown on the FIRM Index includes community boundaries, watershed boundaries, and United States Geological Survey (USGS) Hydrologic Unit Code – 8 (HUC-8) codes.

Figure 1: FIRM Panel Index



KEY NUMBER	COMMUNITY	CID
1	AGOURA HILLS, CITY OF	065072
2	BEVERLY HILLS, CITY OF[1]	060655
3	BURBANK, CITY OF	065018
4	CALABASAS, CITY OF	060749
5	CARSON, CITY OF	060107
6	COMPTON, CITY OF	060111
7	CULVER CITY, CITY OF	060114
8	EL SEGUNDO, CITY OF	060118
9	GARDENA, CITY OF	060119
10	GLENDALE, CITY OF[1]	065030
11	HAWTHORNE, CITY OF[1]	060123
12	HERMOSA BEACH, CITY OF	060124
13	HIDDEN HILLS, CITY OF[1]	060125
14	INGLEWOOD, CITY OF[1]	065036
15	LANCASTER, CITY OF	060672
16	LAWNDALE, CITY OF[1]	060134
17	LOMITA, CITY OF[1]	060135
18	LOS ANGELES, CITY OF	060137
19	MALIBU, CITY OF	060745
20	MANHATTAN BEACH, CITY OF	060138
21	PALMDALE, CITY OF	060144
22	PALOS VERDES ESTATES, CITY OF[1]	060145
23	RANCHO PALOS VERDES, CITY OF	060464
24	REDONDO BEACH, CITY OF	060150
25	ROLLING HILLS, CITY OF[1]	060151
26	ROLLING HILLS ESTATES, CITY OF[1]	065054
27	SAN FERNANDO, CITY OF[1]	060628
28	SANTA CLARITA, CITY OF	060729
29	SANTA MONICA, CITY OF[1]	060159
30	TORRANCE, CITY OF	060165
31	WEST HOLLYWOOD, CITY OF	060720
32	WESTLAKE VILLAGE, CITY OF	060744

[1] No Special Flood Hazard Areas Identified

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

N

1 inch = 7 miles 1:420,000

0 1.75 3.5 7 10.5 14 miles

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

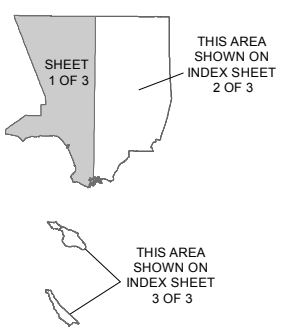
THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT

HTTP://MSC.FEMA.GOV

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

LOS ANGELES COUNTY, CA
INDEX LOCATOR DIAGRAM



NATIONAL FLOOD INSURANCE PROGRAM

FLOOD INSURANCE RATE MAP INDEX (Sheet 1 of 3)

LOS ANGELES COUNTY, CALIFORNIA and Incorporated Areas

PANELS PRINTED:

0036, 0040, 0050, 0075, 0100, 0125, 0150, 0300, 0325, 0350, 0365, 0370, 0375, 0400, 0575, 0600, 0610, 0625, 0630, 0635, 0640, 0645, 0800, 0805, 0810, 0815, 0820, 0830, 0835, 0840, 0845, 0875, 1030, 1031, 1032, 1034, 1040, 1045, 1067, 1069, 1075, 1086, 1088, 1089, 1095, 1239, 1241, 1242, 1243, 1244, 1261, 1262, 1263, 1264, 1266, 1267, 1268, 1269, 1275, 1280, 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, 1907, 1909, 1910, 1916, 1917, 1918, 1919, 1928, 1930, 1935, 1940, 1945, 2025, 2026, 2027, 2029, 2031, 2032, 2033, 2034

FEMA

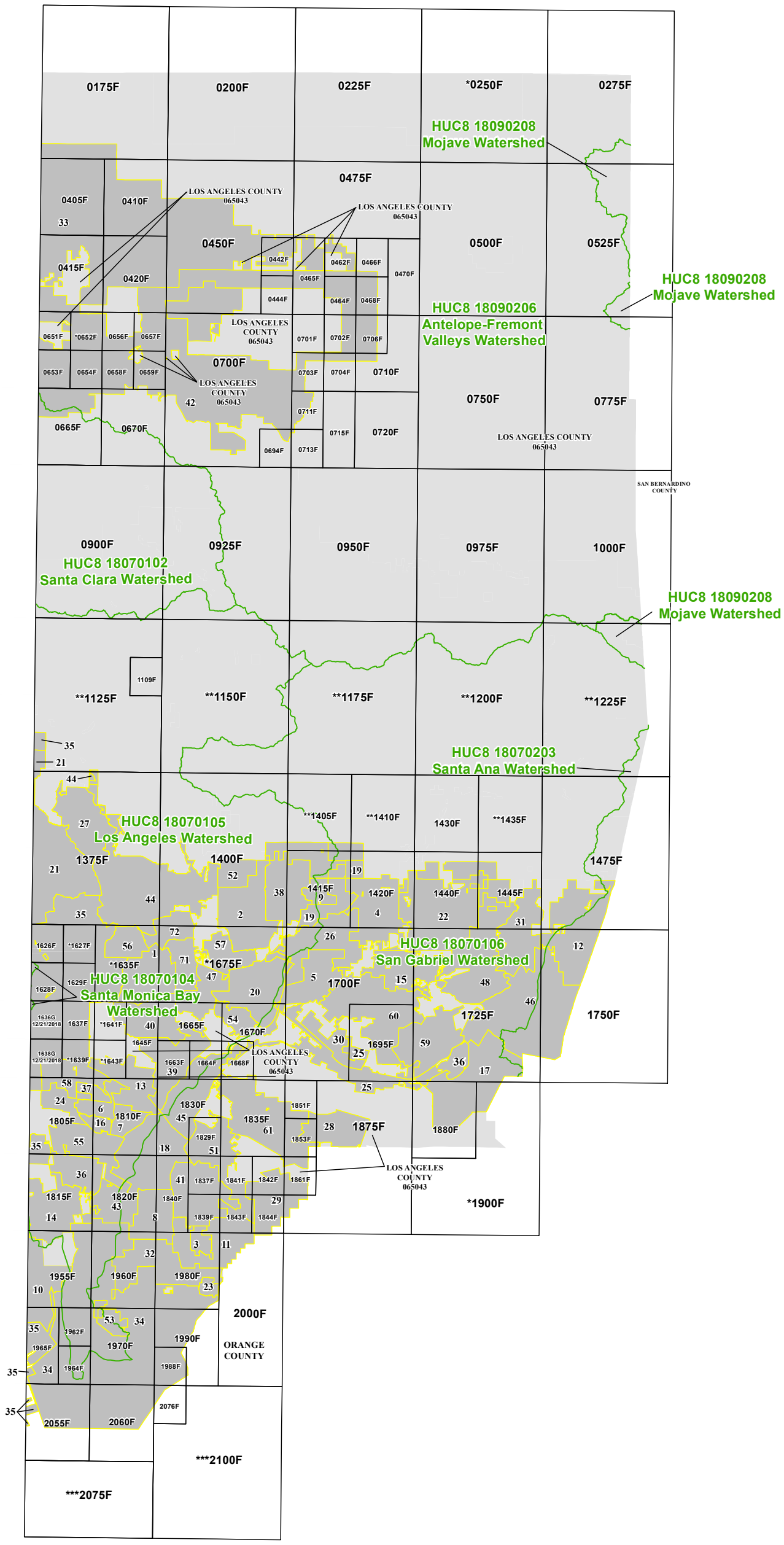
MAP NUMBER
06037CIND1D

MAP REVISED
DECEMBER 21, 2018

Figure 1: FIRM Panel Index, continued

KEY NUMBER	COMMUNITY	CID
1	ALHAMBRA, CITY OF[1]	060095
2	ARCADIA, CITY OF	065014
3	ARTESIA, CITY OF[1]	060097
4	AZUSA, CITY OF	065015
5	BALDWIN PARK, CITY OF[1]	060100
6	BELL, CITY OF[1]	060101
7	BELL GARDENS, CITY OF	060656
8	BELLFLOWER, CITY OF	060102
9	BRADBURY, CITY OF[1]	065017
10	CARSON, CITY OF	060107
11	CERRITOS, CITY OF	060108
12	CLAREMONT, CITY OF[1]	060109
13	COMMERCE, CITY OF	060110
14	COMPTON, CITY OF	060111
15	COVINA, CITY OF[1]	065024
16	CUDAHY, CITY OF	060657
17	DIAMOND BAR, CITY OF	060741
18	DOWNEY, CITY OF	060645
19	DUARTE, CITY OF[1]	065026
20	EL MONTE, CITY OF[1]	060658
21	GLENDALE, CITY OF[1]	065030
22	GLENDORA, CITY OF[1]	065031
23	HAWAIIAN GARDENS, CITY OF[1]	065032
24	HUNTINGTON PARK, CITY OF	060126
25	INDUSTRY, CITY OF[1]	065035
26	IRWINDALE, CITY OF[1]	060129
27	LA CANADA FLINTRIDGE, CITY OF[1]	060669
28	LA HABRA HEIGHTS, CITY OF[1]	060701
29	LA MIRADA, CITY OF	060131
30	LA PUENTE, CITY OF[1]	065039
31	LA VERNE, CITY OF	060133
32	LAKEWOOD, CITY OF	060130
33	LANCASTER, CITY OF	060672
34	LONG BEACH, CITY OF	060136
35	LOS ANGELES, CITY OF	060137
36	LYNWOOD, CITY OF	060635
37	MAYWOOD, CITY OF[1]	060651
38	MONROVIA, CITY OF[1]	065046
39	MONTEBELLO, CITY OF[1]	060141
40	MONTEREY PARK, CITY OF[1]	065047
41	NORWALK, CITY OF	060652
42	PALMDALE, CITY OF	060144
43	PARAMOUNT, CITY OF[1]	065049
44	PASADENA, CITY OF[1]	065050
45	PICO RIVERA, CITY OF[1]	060148
46	POMONA, CITY OF[1]	060149
47	ROSEMEAD, CITY OF[1]	060153
48	SAN DIMAS, CITY OF	060154
49	SAN GABRIEL, CITY OF[1]	065055
50	SAN MARINO, CITY OF[1]	065057
51	SANTA FE SPRINGS, CITY OF	060158
52	SIERRA MADRE, CITY OF[1]	065059
53	SIGNAL HILL, CITY OF[1]	060161
54	SOUTH EL MONTE, CITY OF[1]	060162
55	SOUTH GATE, CITY OF	060163
56	SOUTH PASADENA, CITY OF[1]	065061
57	TEMPLE CITY, CITY OF	060653
58	VERNON, CITY OF	060166
59	WALNUT, CITY OF[1]	065069
60	WEST COVINA, CITY OF	060666
61	WHITTIER, CITY OF	060169

[1] No Special Flood Hazard Areas Identified



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

1 inch = 7 miles 1:420,000

0 1.75 3.5 7 10.5 14 miles

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

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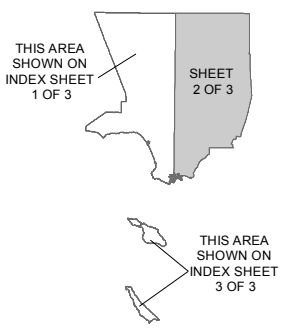
SEE FLOOD INSURANCE STUDY FOR ADDITIONAL INFORMATION

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

LOS ANGELES COUNTY, CA
INDEX LOCATOR DIAGRAM



NATIONAL FLOOD INSURANCE PROGRAM

FLOOD INSURANCE RATE MAP INDEX (Sheet 2 of 3)

LOS ANGELES COUNTY, CALIFORNIA and Incorporated Areas

PANELS PRINTED:

0175, 0200, 0225, 0275, 0405, 0410, 0415, 0420, 0442, 0444, 0450, 0462, 0464, 0465, 0466, 0468, 0470, 0475, 0500, 0525, 0651, 0653, 0654, 0656, 0657, 0658, 0659, 0665, 0670, 0694, 0700, 0701, 0702, 0703, 0704, 0706, 0710, 0711, 0713, 0715, 0720, 0750, 0775, 0900, 0925, 0950, 0975, 1000, 1109, 1375, 1400, 1415, 1420, 1430, 1440, 1445, 1475, 1626, 1628, 1629, 1636, 1637, 1638, 1645, 1663, 1664, 1665, 1668, 1670, 1695, 1700, 1725, 1750, 1805, 1810, 1815, 1820, 1829, 1830, 1835, 1837, 1839, 1840, 1841, 1842, 1843, 1844, 1851, 1853, 1861, 1875, 1880, 1955, 1960, 1962, 1964, 1965, 1970, 1980, 1988, 1990, 2000, 2055, 2060, 2076

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06037CIND2D

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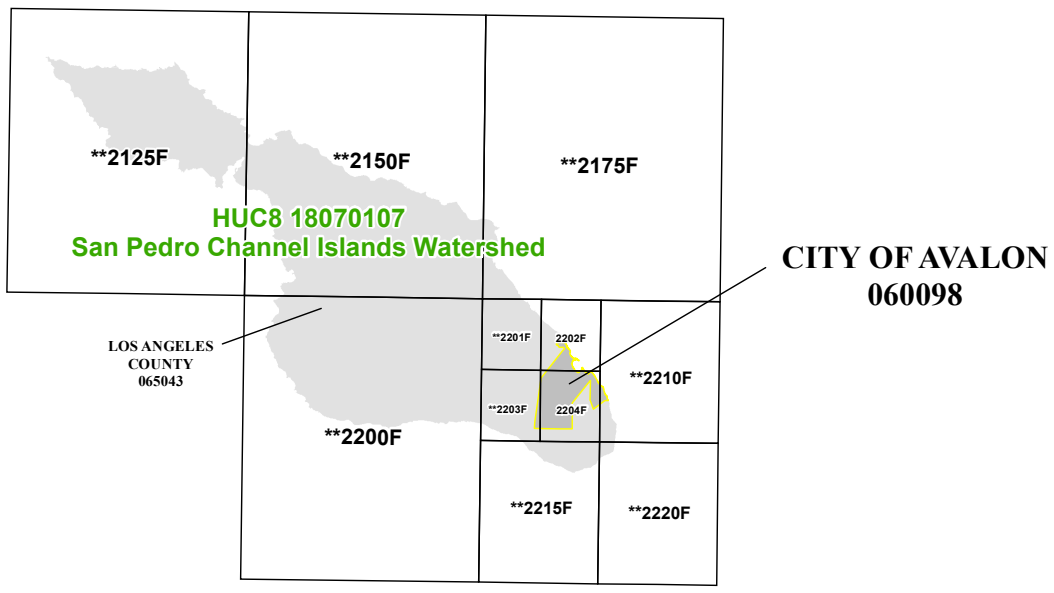
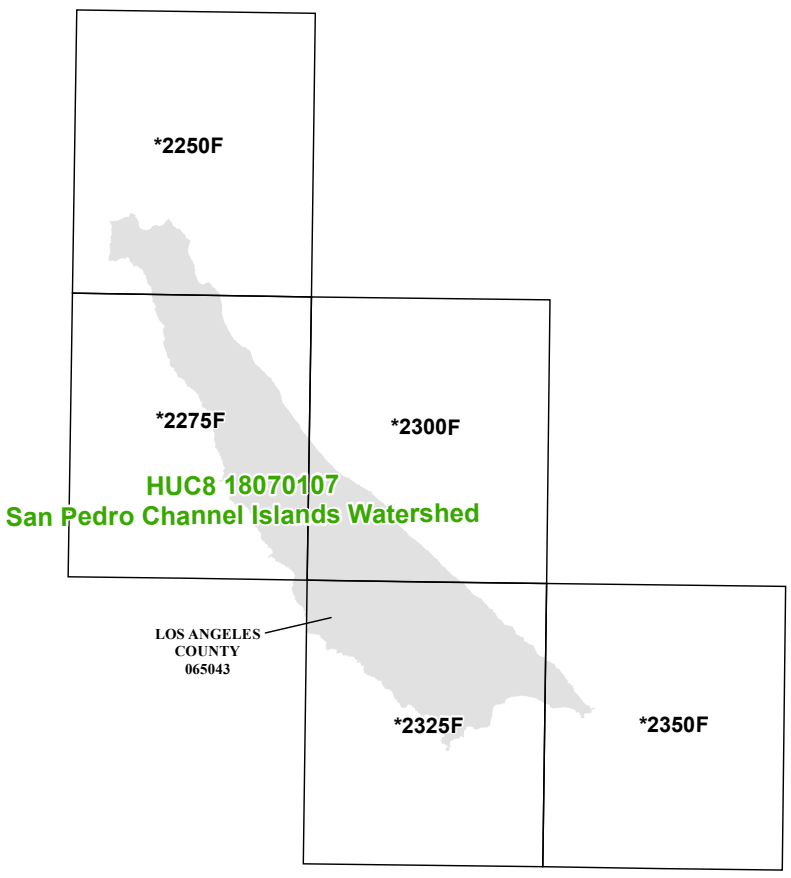
DECEMBER 21, 2018

Figure 1: FIRM Panel Index, continued





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

1 inch = 6 miles 1:369,600

0 3 6 12 Miles

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

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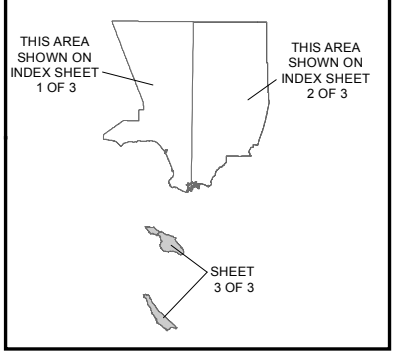
*PANEL NOT PRINTED - NO SPECIAL FLOOD HAZARD AREAS
**PANEL NOT PRINTED - AREA ALL IN ZONE D

LOS ANGELES COUNTY, CA
INDEX LOCATOR DIAGRAM



NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP INDEX (Sheet 3 of 3)

LOS ANGELES COUNTY, CALIFORNIA and Incorporated Areas
PANELS PRINTED:
2202, 2204

FEMA

MAP NUMBER
06037CIND3D

MAP REVISED
DECEMBER 21, 2018

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 Flood Map Service Center website at 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 Flood 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 Flood 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.

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 Non-Coastal 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.

Coastal Base Flood Elevations shown on the map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD88). Coastal flood elevations are also provided in the Coastal Transect Parameters table in the FIS Report for this jurisdiction. Elevations shown in the Coastal Transect Parameters table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on the FIRM.

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.

Figure 2. FIRM Notes to Users

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.

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 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 derived from multiple sources. Vector base map data provided by the Los Angeles County Department of Public Works and the Los Angeles County GIS Department. Digital ortho imagery was collected by the U.S. Department of Agriculture National Agriculture Imagery Program (NAIP). This imagery was flown in 2014 and was produced with a 1-meter ground sample distance. 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.

Figure 2. FIRM Notes to Users

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.

ATTENTION: The corporate limits shown on this FIRM Index are based on the best information available at the time pf publication. As such, they may be more current than those shown on FIRM panels issued before 12/21/2018.

SPECIAL NOTES FOR SPECIFIC FIRM PANELS

This Notes to Users section was created specifically for Los Angeles County, California, effective 12/21/2018.

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.

PROVISIONALLY 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 maintain accreditation, the levee owner or community is required to submit the data and documentation necessary to comply with Section 65.10 of the NFIP regulations by October 16, 2009. If the community or owner does not provide the necessary data and documentation or if the data and documentation provided indicate the levee system does not comply with Section 65.10 requirements, FEMA will revise the flood hazard and risk information for this area to reflect de-accreditation of the levee system. 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.

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.

Each FIRM panel contains an abbreviated legend for the features shown on the maps. However, the FIRM panel does not contain enough space to show the legend for all map features. Figure 3 shows the full legend of all map features. Note that not all of these features may appear on the FIRM panels in Los Angeles County.

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.
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.

Figure 3: Map Legend for FIRM

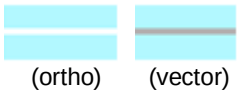
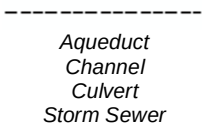
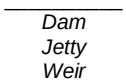
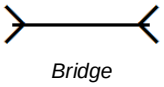
	Regulatory Floodway determined in Zone AE.
OTHER AREAS OF FLOOD HAZARD	
	Shaded Zone X: Areas of 0.2% annual chance flood hazards and areas of 1% annual chance flood hazards with average depths of less than 1 foot or with drainage areas less than 1 square mile.
	Future Conditions 1% Annual Chance Flood 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.
	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.
OTHER AREAS	
	Zone D (Areas of Undetermined Flood Hazard): The flood insurance rate zone that corresponds to unstudied areas where flood hazards are undetermined, but possible.
	Unshaded Zone X: Areas of minimal flood hazard.
FLOOD HAZARD AND OTHER BOUNDARY LINES	
	Flood Zone Boundary (white line on ortho-photography-based mapping; gray line on vector-based mapping)
	Limit of Study
	Jurisdiction Boundary
GENERAL STRUCTURES	
	Channel, Culvert, Aqueduct, or Storm Sewer
	Dam, Jetty, Weir
	Levee, Dike, or Floodwall
	Bridge

Figure 3: Map Legend for FIRM

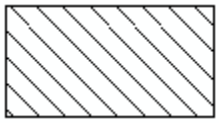
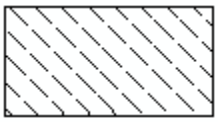
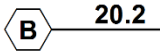
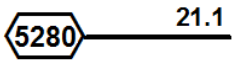
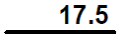
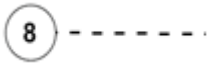
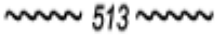
COASTAL BARRIER RESOURCES SYSTEM (CBRS) AND OTHERWISE PROTECTED AREAS (OPA): *CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.*	
 **CBRS AREA 09/30/2009**	Coastal Barrier Resources System Area: Labels are shown to clarify where this area shares a boundary with an incorporated area or overlaps with the floodway.
 **OTHERWISE PROTECTED AREA 09/30/2009**	Otherwise Protected Area
REFERENCE MARKERS	
	River mile Markers
CROSS SECTION & TRANSECT INFORMATION	
	Lettered Cross Section with Regulatory Water Surface Elevation (BFE)
	Numbered Cross Section with Regulatory Water Surface Elevation (BFE)
	Unlettered Cross Section with Regulatory Water Surface Elevation (BFE)
	Coastal Transect
	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.
	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.
	Base Flood Elevation Line
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

Figure 3: Map Legend for FIRM

BASE MAP FEATURES	
Missouri Creek	River, Stream or Other Hydrographic Feature
234	Interstate Highway
234	U.S. Highway
234	State Highway
234	County Highway
MAPLE LANE	Street, Road, Avenue Name, or Private Drive if shown on Flood Profile
RAILROAD	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.

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. Table 2 and Table 3 indicate the flood zone designations for each flooding source and each community within Los Angeles County, California, respectively.

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

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 and Zone A Tributaries	Los Angeles County, Unincorporated Areas	—	—	18070102	4.0	—	N	A, AO	1979
Agua Amarge Canyon Creek	Palos Verdes Estates, City of	—	—	18070104	0.7	—	N	A	—
Agua Dulce Canyon Creek and Tributaries	Los Angeles County, Unincorporated Areas	—	—	18070102	10.6	—	N	A, AO	1979
Aliso Canyon Creek	Los Angeles County, Unincorporated Areas	—	—	18070102	3.7	—	N	A	1979
Aliso Creek	Los Angeles, City of	—	—	18070105	7.0	—	N	AE	1979
Amargosa Creek	Lancaster, City of; Los Angeles County, Unincorporated Areas	—	—	18090206	6.6	—	N	A, AH, AO	1979
Amargosa Creek	Lancaster, City of	—	—	18090206	3.4	—	N	AE	1979
Amargosa Creek	Lancaster, City of; Palmdale, City of	—	—	18090206	5.4	—	N	A, AO	1979
Amargosa Creek	Los Angeles County, Unincorporated Areas; Palmdale, City of	Approximately 3 miles upstream of Avenue M	Approximately 1.1 miles upstream of Vinery Road	18090206	7.0	—	N	AE	1979
Amargosa Creek	Los Angeles County, Unincorporated Areas; Palmdale, City of	—	—	18090206	7.6	—	N	A	1979
Amargosa Creek Tributary	Lancaster, City of	—	—	18090206	0.1	—	N	A	1979
Anaverde Creek	Palmdale, City of	—	—	18090206	0.2	—	N	AO	1985
Anaverde Creek	Palmdale, City of	Approximately 195 feet downstream of State Highway 14	Approximately 138 feet upstream of California Aqueduct	18090206	3.3	—	Y	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
Anaverde Creek	Palmdale, City of	—	—	18090206	1.9	—	N	A	1985
Arrastre Canyon Creek	Los Angeles County, Unincorporated Areas	—	—	18070102	0.8	—	N	A	1979
Arroyo San Miguel	Whittier, City of	—	—	18070106	0.1	—	N	A	1978
Arroyo Sequit	Los Angeles County, Unincorporated Areas	—	—	18070104	1.9	—	N	A	1979
Avalon Canyon	Avalon, City of	Confluence with Pacific Ocean	Approximately 0.6 miles upstream of Tremont Street	18070107	0.9	—	N	AE	1977
Back Channel	Long Beach, City of	—	—	18070106	0.8	—	N	AE	1991
Ballona Creek	Culvert, City of; Los Angeles, City of; Los Angeles County, Unincorporated Areas	—	—	18070104	5.8	—	N	A, AE	1978
Ballona Creek Watershed	Culver City, City of; Inglewood, City of; Los Angeles, City of; Los Angeles County, Unincorporated Aras	—	—	18070104 18070105	*	—	N	AE	2015
Bar Creek	Diamond Bar, City of	—	—	18070106	0.1	—	N	A, AO	—
Bee Canyon (North)	Los Angeles County, Unincorporated Areas	—	—	18070102	0.8	—	N	A	1979
Bee Canyon (Mid)	Los Angeles County, Unincorporated Areas	—	—	18070102	0.8	—	N	A	1979
Bee Canyon (South)	Los Angeles, City of	—	—	18070105	0.6	—	N	A	1979

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
Big Rock Creek	Los Angeles, County Unincorporated Areas	—	—	18090206	9.3	—	N	A	1979
Big Rock Creek South Fork	Los Angeles, County Unincorporated Areas	—	—	18090206	1.2	—	N	A	1979
Big Rock Wash	Palmdale, City of	At Avenue L	Approximately 5,955 feet upstream of Avenue of East	18090206	4.5	—	N	AE	1985
Big Rock Wash	Los Angeles, County Unincorporated Areas	—	—	18090206	12.1	—	N	A	1979
Big Tujunga Wash	Los Angeles, City of	—	—	18070105	6.8	—	N	A, AO	1979
Boulder Canyon Creek	Los Angeles, County Unincorporated Areas	—	—	18090206	4.0	—	N	A	1979
Bouquet Canyon Creek	Santa Clarita, City of; Los Angeles County, Unincorporated Areas	—	—	18070102	8.9	—	N	A	1979
Bouquet Reservoir	Los Angeles, County Unincorporated Areas	—	—	18070102	—	0.9	N	A	1979
Broad Canyon Creek	Los Angeles, County Unincorporated Areas	—	—	18090206	8.9	—	N	A	1979
Browns Creek	Los Angeles, City of	—	—	18070105	3.3	—	N	AE	1979
Bull Creek	Los Angeles, City of	—	—	18070105	3.2	—	N	AE	1979
Canada De Los Alamos	Los Angeles, County Unincorporated Areas	—	—	18070102	3.9	—	N	A	1979
Castaic Creek	Los Angeles, County Unincorporated Areas	—	—	18070102	6.1	—	N	A	1979
Castaic Lagoon	Los Angeles, County Unincorporated Areas	—	—	18070102	—	0.3	N	A	1979

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
Castaic Lake	Los Angeles, County Unincorporated Areas	—	—	18070102	—	4.5	N	A	1979
Channel No. 2	Long Beach, City of	—	—	18070104	0.8	—	N	AE	1991
Channel No. 3	Long Beach, City of	—	—	18070104	0.7	—	N	AE	1991
Charlie Canyon Creek	Los Angeles, County Unincorporated Areas	—	—	18070102	2.0	—	N	A	1979
Chatsworth Reservoir	Los Angeles, City of	—	—	18070105	—	0.7	N	A	1979
Cherry Canyon Creek	Los Angeles County, Unincorporated Areas	—	—	18070102	3.2	—	N	A	1979
Cheseboro Creek	Agoura Hills, City of; Los Angeles County, Unincorporated Areas	Approximately 40 feet downstream of Driver Avenue	Approximately 400 feet upstream of confluence with Palo Comando Creek	18070104	0.6	—	N	AE	—
Cold Creek	Los Angeles County, Unincorporated Areas	Approximately 200 feet above confluence with Malibu Creek	Approximately 0.5 miles upstream of Cline Road	18070104	1.5	—	N	AE	2016
Cold Creek	Los Angeles County, Unincorporated Areas	—	—	18070104	2.3	—	N	A	1979
Colorado Lagoon	Long Beach, City of	—	—	18070106	—	0.02	N	AE	1979
Compton Creek	Carson, City of; Compton, City of; Long Beach, City of; Los Angeles County, Unincorporated Areas	—	—	18070105	3.1	—	N	A	1991
Consolidated Channel	Los Angeles, City of	—	—	18070104	0.6	—	N	AE	1979

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
Coyote Canyon Creek	Santa Clarita, City of	—	—	18070102	0.7	—	N	A	1984
Dark Canyon	Los Angeles County, Unincorporated Areas	Confluence with Cold Creek	Approximately 70 feet upstream of Wild Rose Drive	18070104	0.4	—	N	AE	2016
Dark Canyon West Branch	Los Angeles County, Unincorporated Areas	—	—	18070104	0.2	—	N	A	1979
Dewitt Canyon Creek	Los Angeles County, Unincorporated Areas	—	—	18070102	0.1	—	N	A	1979
Dominguez Channel	Carson, City of; Gardena, City of; Los Angeles, City of	—	—	18070106	9.1	—	N	A	1978
Dorr Canyon Creek	Los Angeles County, Unincorporated Areas	—	—	18090206	1.0	—	N	A	1979
Dowd Canyon	Los Angeles County, Unincorporated Areas	—	—	18070102	0.9	—	N	A, AO	1979
Dry Canyon	Los Angeles County, Unincorporated Areas	Approximately 2,360 feet upstream of the confluence with Cold Creek	Approximately 2.7 miles upstream of confluence with Cold Creek	18070104	2.3	—	N	AE	1979
Dry Canyon Creek	Santa Clarita, City of	—	—	18070102	0.4	—	N	AO	1984
Dry Canyon Flood Control Channel	Los Angeles, City of	—	—	18070105	0.4	—	N	AE	1979
East Basin	Los Angeles, City of	—	—	18070104	2.6	—	N	AE	1979
East Channel	Los Angeles, City of	—	—	18070106	0.5	—	N	AE	1979
Echo Park Lake	Los Angeles, City of	—	—	18070104	—	0.02	N	AE	1979
Elizabeth Canyon	Los Angeles County, Unincorporated Areas	—	—	18070102	2.9	—	N	A	1979

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
Elizabeth Lake	Los Angeles County, Unincorporated Areas	—	—	18070102	—	0.3	N	A	1979
Elizabeth Lake Canyon Creek	Los Angeles County, Unincorporated Areas	—	—	18070102	5.0	—	N	A	1979
Eller Slough	Los Angeles County, Unincorporated Areas	—	—	18090206	3.7	—	N	A	1979
Elsmere Canyon Creek	Santa Clarita, City of	—	—	18070102	0.8	—	N	A	1984
Encino Creek Channel	Los Angeles, City of	—	—	18070105	0.8	—	N	A	1979
Entrance Channel (Marina Del Ray)	Los Angeles County, Unincorporated Areas	—	—	18070104	0.5	—	N	AE	1979
Escondido Canyon	Malibu, City of	At Pacific Coast Highway	Approximately 2,050 feet upstream of Pacific Coast Highway	18070104	0.4	—	N	AE	1979
Escondido Canyon	Malibu, City of	—	—	18070104	0.2	—	N	A	1979
Escondido Canyon	Los Angeles County, Unincorporated Areas	—	—	18070104	0.7	—	N	AE	1979
Escondido Canyon	Los Angeles County, Unincorporated Areas	—	—	18070102	4.9	—	N	A, AO	1979
Fish Harbor	Los Angeles, City of	—	—	18070106	1.1	—	N	AE	1979
Flow Along Empire Avenue	Burbank, City of	Approximately 140 feet downstream of Hollywood Way	Approximately 2,090 feet upstream of Hollywood Way	18070105	0.4	—	N	AE	—
Flowline No. 1	Santa Fe Springs, City of	At Florence Avenue	Approximately 340 feet upstream of Telegraph Road	18070106	0.7	—	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
Franklin Canyon Reservoir	Los Angeles, City of	—	—	18070104	—	0.05	N	AE	1979
Freeman Canyon Creek	Los Angeles County, Unincorporated Areas	—	—	18070102	0.6	—	N	A	1979
Garapito Creek	Los Angeles County, Unincorporated Areas	Approximately 3,100 feet upstream of confluence with Topanga Canyon	Approximately 1.3 miles upstream of confluence with Topanga Canyon	18070104	1.3	—	N	AE	1979
Gorman Canyon Creek	Santa Clarita, City of	—	—	18070102	0.9	—	N	A	1984
Gorman Creek	Los Angeles County, Unincorporated Areas	—	—	18070102	11.4	—	N	A, AH, AO	1979
Graham Canyon Creek	Los Angeles County, Unincorporated Areas	—	—	18090206	2.9	—	N	A	1979
Grandview Canyon Creek	Los Angeles County, Unincorporated Areas	—	—	18090206	7.2	—	N	A	1979
Hacienda Creek	Los Angeles County, Unincorporated Areas	—	—	18070106	0.1	—	N	AE	1979
Harbor Lake	Los Angeles, City of	—	—	18070106	—	0.07	N	AE	1979
Haskell Canyon	Santa Clarita, City of	—	—	18070102	1.9	—	N	AO	1984
Haskell Channel	Los Angeles, City of	—	—	18070105	1.3	—	N	AE	1979
Hasley Canyon Creek	Los Angeles County, Unincorporated Areas	—	—	18070102	4.6	—	N	A, AO	1979
Haynes Canyon Channel	Los Angeles, City of	—	—	18070105	0.7	—	N	AE	1979
Holcomb Canyon Creek	Los Angeles County, Unincorporated Areas	—	—	18090206	0.9	—	N	A	1979

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
Hollywood Reservoir	Los Angeles, City of	—	—	18070104	—	0.2	N	AE	1979
Hughes Lake	Los Angeles County, Unincorporated Areas	—	—	18070102	—	0.05	N	A	1979
Iron Canyon	Los Angeles County, Unincorporated Areas; Santa Clarita, City of	—	—	18070102	1.6	—	N	A	1984
Jesus Canyon Creek	Los Angeles County, Unincorporated Areas	—	—	18090206	3.3	—	N	A	1979
Kagel Canyon	Los Angeles County, Unincorporated Areas	Northwest edge of Osbourne Street	Approximately 505 feet upstream of Blue Sage Drive	18070105	1.3	—	Y	AE	1979
Kentucky Springs Canyon Creek	Los Angeles County, Unincorporated Areas	—	—	18070102	3.8	—	N	A	1979
La Mirada Creek	La Mirada, City of; Los Angeles County, Unincorporated Areas; Whittier, City of	Approximately 770 feet upstream of Roma Drive	At Stamy Road (Extended)	18070106	1.5	—	N	AE	1979
Lake Lindero	Agoura Hills, City of; Westlake Village, City of	—	—	18070104	—	0.02	N	A	1979
Lake Palmdale	Los Angeles County, Unincorporated Areas	—	—	18090206	—	0.3	N	A	1979
Lake Street Overflow	Burbank, City of	Convergence with Burbank Western Flood Control Channel	Approximately 310 feet upstream of Chestnut Street	18070105	0.1	—	N	AE	—
Las Flores Canyon	Malibu, City of; Los Angeles County, Unincorporated Areas	At Pacific Coast Highway	Approximately 830 feet upstream of Las Flores Canyon Road	18070104	0.8	—	N	AE	1979

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
Las Flores Canyon	Los Angeles County, Unincorporated Areas	—	—	18070104	0.4	—	N	A	1979
Las Virgenes Creek	Calabasas, City of; Los Angeles County, Unincorporated Areas	Approximately 440 feet upstream of confluence with Malibu Creek	Approximately 2,030 feet upstream of Highway 101	18070104	4.7	—	N	AE	2010
Leaming Canyon Creek	Los Angeles County, Unincorporated Areas	—	—	18070102	0.2	—	N	A	1979
Lemontaine Creek	Los Angeles County, Unincorporated Areas	—	—	18090206	2.5	—	N	A	1979
Liberty Canyon	Agoura Hills, City of; Los Angeles County, Unincorporated Areas	—	—	18070104	0.4	—	N	AE	1979
Limekiln Creek	Los Angeles, City of	—	—	18070105	1.8	—	N	A	1979
Lindero Canyon Above Confluence with Medea Creek	Agoura Hills, City of	Confluence with Medea Creek	Approximately 2,540 feet upstream of confluence with Medea Creek	18070104	0.5	—	N	AE	—
Lindero Canyon Above Lake Lindero	Agoura Hills, City of; Westlake Village, City of	Upstream edge of spillway into Lake Lindero	Approximately 1,250 feet upstream of Reyes Adobe Road	18070104	1.4	—	N	AE	—
Little Rock Creek	Los Angeles County, Unincorporated Areas	—	—	18090206	6.3	—	N	A	1979
Little Rock Reservoir	Los Angeles County, Unincorporated Areas	—	—	18090206	—	0.1	N	A	1979
Little Rock Wash	Lancaster, City of; Los Angeles County, Unincorporated Areas; Palmdale, City of	—	—	18090206	14.5	—	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
Little Rock Wash Profile A	Palmdale, City of	At Avenue L	City of Palmdale	18090206	1.1	—	N	AE	1985
Little Rock Wash Profile A	Los Angeles County, Unincorporated Areas; Palmdale, City of	City of Palmdale corporate limits	Approximately 1,000 feet upstream of Avenue U	18090206	6.2	—	N	AE	1985
Little Rock Wash Profile B	Palmdale, City of	Convergence with Little Rock Wash Profile A	Divergence with Little Rock Wash Profile A	18090206	1.7	—	N	AE	1985
Little Rock Wash Profile C	Palmdale, City of	At Avenue T/ Convergence with Little Rock Wash Profile A	Divergence with Little Rock Wash Profile A	18090206	0.9	—	N	AE	1985
Little Tujunga Wash	Los Angeles, City of; Los Angeles County, Unincorporated Areas	—	—	18070105	2.1	—	N	A, AO	1979
Lobo Canyon	Los Angeles County, Unincorporated Areas	Approximately 1,300 feet downstream of Lobo Canyon Road	Approximately 1.3 miles upstream of Lobo Canyon Road	18070104	1.6	—	N	AE	2015
Lockheed Drain Channel	Burbank, City of; Los Angeles, City of	Confluence with Burbank Western Flood Control Channel	Approximately 1.1 miles upstream of Access Road	18070105	2.9	—	N	AE	1978
Lopez Canyon Channel	Los Angeles County, Unincorporated Areas	Approximately 50 feet upstream of Lopez Canyon Channel debris basin	Approximately 2,295 feet upstream of Lopez Canyon Channel debris basin	18070105	0.4	—	N	AE	1979
Lopez Canyon Channel	Los Angeles County, Unincorporated Areas	—	—	18070105	0.1	—	N	A	1979
Los Angeles County Flood Control Channel	Los Angeles, City of	—	—	18070105	0.9	—	N	A	1979

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 County Flood Control Channel to Aliso Creek	Los Angeles, City of	—	—	18070105	2.5	—	N	A	1979
Los Angeles County Storm Drain	Carson, City of; Los Angeles County, Unincorporated Areas	—	—	18070104	1.7	—	N	A	1979
Los Angeles County Storm Drain (2)	Carson, City of	—	—	18070104	1.4	—	N	A	1991
Los Angeles Harbor	Los Angeles, City of	—	—	18070104	2.8	—	N	AE	1979
Los Angeles Reservoir	Los Angeles, City of	—	—	18070105	—	0.3	N	A	1979
Los Angeles River	Compton, City of; Cudahy, City of; Long Beach, City of; Los Angeles, City of; Los Angeles County, Unincorporated Areas; Paramount, City of; South Gate, City of	—	—	18070105	21.7	—	N	A, AE	1991
Los Angeles River Flood Control Channel	Burbank, City of	—	—	18070105	0.5	—	N	A	1978
Los Cerritos Channel	Long Beach, City of	—	—	18070106	4.7	—	N	A	1991
Lyon Canyon Creek	Los Angeles County, Unincorporated Areas; Santa Clarita, City of	—	—	18070102	1.2	—	N	A	1979
Main Channel	Los Angeles, City of	—	—	18070106	2.1	—	N	AE	1979

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
Malaga Canyon	Palos Verdes Estates, City of	—	—	18070104	2.7	—	N	A	—
Malibu Creek	Malibu, City of	Approximately 1,530 feet upstream of Pacific Coast Highway	Approximately 1,120 feet upstream of Mariposa De Oror	18070104	0.5	—	N	AE	1979
Malibu Creek	Los Angeles County, Unincorporated Areas; Malibu, City of	—	—	18070104	9.4	—	N	A	1979
Malibu Lake	Los Angeles County, Unincorporated Areas	—	—	18070104	—	0.06	N	A	1979
Maple Canyon Creek	Los Angeles County, Unincorporated Areas	—	—	18070102	1.6	—	N	A	1979
Marina Del Ray	Los Angeles, City of; Los Angeles County, Unincorporated Areas	—	—	18070104	1.5	—	N	AE	1979
Marine Stadium	Long Beach, City of	—	—	18070106	1.8	—	N	AE	1991
May Canyon Creek	Los Angeles, City of	—	—	18070105	0.6	—	N	AE	1979
Medea Creek	Agoura Hills, City of; Los Angeles County, Unincorporated Areas	At Mulholland Highway	Approximately 1,015 feet upstream of Cornell Road	18070104	2.9	—	N	AE	—
Medea Creek (Above Ventura Freeway)	Agoura Hills, City of	At Ventura Freeway	Approximately 100 feet upstream of County Line Road	18070104	1.9	—	N	AE	—
Middle Harbor	Long Beach, City of	—	—	18070104	1.7	—	N	AE	1991
Mill Creek	Los Angeles County, Unincorporated Areas	Approximately 70 feet upstream of Angeles Forest Highway	Approximately 1 mile upstream of Angeles Forest Highway	18070105	1.0	—	N	AE	1979

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
Milton B. Arthur Lakes	Long Beach, City of	—	—	18070106	—	0.05	N	A	1991
Mint Canyon Creek	Los Angeles County, Unincorporated Areas; Santa Clarita, City of	—	—	18070102	12.8	—	N	A	2015
Mint Canyon Creek Overflow	Santa Clarita, City of	—	—	18070102	*	—	N	A	—
Mint Canyon Spring	Los Angeles County, Unincorporated Areas	—	—	18070102	0.3	—	N	A	1979
Montebello Municipal Golf Course Pond	Montebello, City of	—	—	18070105	—	0.001	N	A	1991
Morris Reservoir	Los Angeles County, Unincorporated Areas	—	—	18070106	—	0.5	N	AE	1979
Muscal Creek	Los Angeles County, Unincorporated Areas	—	—	18070106	5.3	—	N	A	1979
Myrick Canyon Creek	Los Angeles County, Unincorporated Areas	—	—	18070206	1.2	—	N	A	1979
Newhall Creek	Santa Clarita, City of	—	—	18070102	1.9	—	N	A, AE	1984
Newhall Creek Left Overbank 2	Santa Clarita, City of	Approximately 1,050 feet upstream of the Placerita Creek confluence	Downstream side of Southern Pacific Railroad	18070102	0.8	—	N	A	—
North Overflow (A)	Burbank, City of	Approximately 500 feet upstream of confluence with Lockheed Drain Channel	Confluence of North Overflow (B)	18070105	0.7	—	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
North Overflow (B)	Burbank, City of	Approximately 100 feet upstream of confluence with North Overflow (A)	North Buena Vista Street (Divergence from Lockheed Drain Channel)	18070105	0.6	—	N	AE	1978
Oak Springs Canyon	Los Angeles County, Unincorporated Areas; Santa Clarita, City of	—	—	18070102	2.4	—	N	A, AO	1984
Oakgrove Canyon Creek	Los Angeles County, Unincorporated Areas	—	—	18090206	0.7	—	N	A	1979
Old Topanga Canyon	Los Angeles County, Unincorporated Areas	—	—	18070104	1.7	—	N	A	1979
Old Topanga Canyon	Los Angeles County, Unincorporated Areas	8,000 feet above mouth	Approximately 285 feet upstream of Valley Drive	18070104	0.8	—	N	AE	2016
Old Topanga Canyon	Los Angeles County, Unincorporated Areas	—	—	18070104	0.8	—	N	A	1979
Oro Fino Canyon	Santa Clarita, City of	—	—	18070102	0.3	—	N	A	1984
Oso Canyon Creek	Los Angeles County, Unincorporated Areas	—	—	18090206	3.7	—	N	A	1979
Overflow Area of Lockheed Drain Channel	Los Angeles, City of	At Vanowen Street	At Southern Pacific Railroad	18070105	0.1	—	N	AE	1978
Overflow Area of Lockheed Storm Drain	Los Angeles, City of	At Vanowen Street	At Southern Pacific Railroad	18070105	0.1	—	N	AE	1978
Pacific Ocean	Los Angeles, City of	N/A	N/A	18070104	70	—	N	A, AE, V, VE, X	1984

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
Pacific Ocean	Avalon, City of; Redondo Beach, City of	N/A	N/A	18070104	70	—	N	A, AE, V, VE, X	1981
Pacific Ocean	Torrance, City of	N/A	N/A	18070104	70	—	N	A, AE, V, VE, X	1978
Pacific Ocean	El Segundo, City of; Hermosa Beach, City of; Los Angeles, City of; Los Angeles County; Malibu, City of, Manhattan Beach, City of; Santa Monica, City of	N/A	N/A	18070104	70	—	N	A, AE, V, VE, X	—
Pacific Terrace Harbor	Long Beach, City of	—	—	18070106	0.3	—	N	AE	1991
Pacoima Channel	Los Angeles, City of	—	—	18070105	1.5	—	N	A	1979
Pacoima Wash	Los Angeles, City of	—	—	18070105	1.9	—	N	A, AO	1979
Pallett Creek	Los Angeles County, Unincorporated Areas	—	—	18090206	15.9	—	N	A	1979
Palo Comando Creek	Agoura Hills, City of; Los Angeles County, Unincorporated Areas	Confluence with Cheseboro Creek	County limits	18070104	1.3	—	N	AE	—
Pico Canyon	Los Angles County, Unincorporated Areas; Santa Clarita, City of	—	—	18070102	2.8	—	N	A	1979
Pine Canyon Creek	Los Angles County, Unincorporated Areas	—	—	18070102	1.8	—	N	A	1979

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
Piru Creek	Los Angles County, Unincorporated Areas	—	—	18070102	1.9	—	N	A	1979
Placerita Creek	Los Angles County, Unincorporated Areas; Santa Clarita, City of	—	—	18070102	4.7	—	N	A	1984
Plum Canyon Creek	Los Angles County, Unincorporated Areas	—	—	18070102	1.1	—	N	A	1979
Portal Ridge Wash	Lancaster, City of	—	—	18090206	1.4	—	N	AH	1979
Puzzle Canyon Creek	Los Angles County, Unincorporated Areas	—	—	18090206	2.7	—	N	A	1979
Pyramid Lake	Los Angles County, Unincorporated Areas	—	—	18070102	—	2.1	N	A	1979
Quail Lake	Los Angles County, Unincorporated Areas	—	—	18070102	—	0.4	N	A	1979
Quartz Hill Basin Wash	Lancaster, City of	—	—	18090206	0.8	—	N	AE	1979
Quartz Hill Basin Wash Tributary	Lancaster, City of	—	—	18090206	0.3	—	N	AE	1979
Quartz Hill Wash	Los Angeles County, Unincorporated Areas	—	—	18090206	0.6	—	N	AE	1979
Quigley Canyon Creek	Santa Clarita, City of	—	—	18070102	1.5	—	N	A	1984
Railroad Canyon	Santa Clarita, City of	—	—	18070102	1.2	—	N	A	1984
Railroad Canyon Left Overbank	Santa Clarita, City of	Confluence with Newhall Creek	Approximately 1,200 feet upstream of San Fernando Road	18070102	0.5	—	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
Ramirez Canyon	Malibu, City of; Los Angeles County, Unincorporated Areas	Approximately 1,415 feet downstream of Pacific Coast Highway	Approximately 1.1 miles upstream of Pacific Coast Highway	18070104	1.4	—	N	AE	1979
Rice Canyon Creek	Los Angles County, Unincorporated Areas	—	—	18070102	0.4	—	N	A	1979
Rio Hondo Channel	Bell Gardens, City of; Commerce, City of; Downey, City of; Los Angeles County, Unincorporated Areas; Montebello, City of; Pico Rivera, City of; South Gate, City of	—	—	18070105	8.0	—	N	A	1991
Rivo Alto Canal	Long Beach, City of	—	—	18070106	0.6	—	N	AE	1991
Roberts Canyon Creek	Azusa, City of	—	—	18070106	0.4	—	N	A	—
Rock Creek	Los Angles County, Unincorporated Areas	—	—	18090206	7.4	—	N	A	1979
Romero Canyon Creek	Los Angles County, Unincorporated Areas	—	—	18070102	1.4	—	N	A	1979
Rustic Canyon	Los Angeles, City of	—	—	18070104	4.0	—	N	A	1979
Rustic Canyon	Los Angeles, City of	Approximately 4,165 feet upstream of Latimer Road	Approximately 1,985 feet upstream of West Sunset Boulevard	18070104	0.8	—	Y	AE	1979
Salt Canyon Creek	Los Angles County, Unincorporated Areas	—	—	18070102	2.4	—	N	A	1979
San Dimas Wash	La Verne, City of; San Dimas, City of	—	—	18070106	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
San Francisquito Canyon Creek	Los Angeles County, Unincorporated Areas; Santa Clarita, City of	—	—	18070102	20.7	—	N	A	1979
San Gabriel Reservoir	Los Angeles County, Unincorporated Areas	—	—	18070106		0.5	N	AE	1978
San Gabriel River	Bellflower, City of; Cerritos, City of; Downey, City of; Long Beach, City of; Norwalk, City of; Pico Rivera, City of	—	—	18070106	12.2	—	N	AE	1978
San Gabriel River	Azusa, City of; Cerritos, City of; Lakewood, City of; Long Beach, City of; Los Angeles County, Unincorporated Areas	—	—	18070106	11.5	—	N	A	1978
San Martinez Chiquito Canyon	Los Angeles County, Unincorporated Areas	—	—	18070102	3.7	—	N	A	1979
San Martinez Grande Canyon Creek	Los Angeles County, Unincorporated Areas	—	—	18070102	1.1	—	N	A	1979
San Pedro Bay	Long Beach, City of	—	—	18070104	1.0	—	N	AE	1991
Sand Canyon	Los Angeles County, Unincorporated Areas; Santa Clarita, City of	—	—	18070102	1.7	—	N	A	1984
Sand Canyon Creek	Santa Clarita, City of	—	—	18070102	1.1	—	N	A	1984

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
Sand Canyon Creek	Santa Clarita, City of	Approximately 440 feet downstream of Robinson Ranch Road	Approximately 1,360 feet upstream of Robinson Ranch Road	18070102	0.3	—	N	AE	1984
Santa Clara River	Los Angeles County, Unincorporated Areas	—	—	18070102	7.0	—	N	AE	1984
Santa Clara River	Los Angeles County, Unincorporated Areas; Santa Clarita, City of	—	—	18070102	22.9	—	N	A	1984
Santa Maria Canyon	Los Angeles County, Unincorporated Areas	Confluence with Topanga Canyon	Approximately 450 feet upstream of Topanga Canyon Boulevard	18070104	0.2	—	N	AE	1979
Santa Maria Canyon	Los Angeles County, Unincorporated Areas	—	—	18070104	0.4	—	N	A	1979
Santa Susana Creek	Los Angeles, City of	—	—	18070105	2.9	—	N	AE	1979
Santa Susana Pass Wash	Los Angeles, City of	—	—	18070105	0.9	—	N	A, AE	1979
Santa Ynez Canyon Reservoir	Los Angeles, City of	—	—	18070104	—	0.01	N	A	1979
Savage Creek	Whittier, City of	—	—	18070106	0.1	—	N	AE	1978
Sawtelle-Westwood Channel	Los Angeles, City of	—	—	18070104	0.4	—	N	AE	1978
Sierra Canyon Creek	Los Angeles County, Unincorporated Areas	—	—	18070104	1.2	—	N	A	1979
Silver Lake Reservoir	Los Angeles, City of	—	—	18070104	—	0.1	N	AE	1979
Sloan Canyon Creek	Los Angeles County, Unincorporated Areas	—	—	18070102	1.3	—	N	A	1979

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, Unincorporated Areas	—	—	18070102	1.7	—	N	A	1979
South Fork Santa Clara River	Santa Clarita, City of	—	—	18070102	3.8	—	N	A	1984
South Portal Canyon Creek	Los Angeles County, Unincorporated Areas	—	—	18070102	0.4	—	N	A	1979
Spade Spring Canyon Creek	Los Angeles County, Unincorporated Areas	—	—	18070102	2.8	—	N	A	1979
Stokes Canyon	Los Angeles County, Unincorporated Areas	—	—	18070104	1.2	—	N	A	1979
Stokes Canyon	Los Angeles County, Unincorporated Areas	At Mulholland Highway	Approximately 0.8 miles upstream of Mulholland Highway	18070104	0.8	—	N	AE	1979
Stone Canyon Reservoir	Los Angeles, City of	—	—	18070104	—	0.2	N	AE	1979
Stone Canyon Road Tributary	Los Angeles, City of	—	—	18070104	0.05	—	N	AE	1979
Sullivan Canyon	Los Angeles, City of	—	—	18070104	1.8	—	N	A	1979
Sunshine Canyon	Los Angeles, City of	—	—	18070105	0.1	—	N	A	1979
Tapia Canyon	Los Angeles County, Unincorporated Areas	—	—	18070102	1.3	—	N	A	1979
Texas Canyon Creek	Los Angeles County, Unincorporated Areas	—	—	18070102	0.5	—	N	A	1979
Tonner Canyon Creek	Los Angeles County, Unincorporated Areas	—	—	18070106	1.2	—	N	A	1979
Topanga Canyon	Los Angeles County, Unincorporated Areas	2,050 feet downstream of Topanga Canyon Boulevard	Approximately 450 feet upstream of Entrado Dr	18070104	4.5	—	N	AE	2016

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
Topanga Canyon	Los Angeles County, Unincorporated Areas	Approximately 300 feet above mouth at Pacific Ocean	Approximately 430 feet upstream of Brookside Drive	18070104	1.0	—	N	AE	1979
Topanga Canyon	Los Angeles, City of; Los Angeles County, Unincorporated Areas	—	—	18070104	7.7	—	N	A	1979
Towsley Canyon Creek	Los Angeles County, Unincorporated Areas; Santa Clarita, City of	—	—	18070102	3.2	—	N	A	1984
Trancas Creek	Malibu, City of	Approximately 500 feet above mouth	Approximately 1,620 feet above mouth	18070104	0.1	—	N	AE	1979
Triunfo Creek	Los Angeles County, Unincorporated Areas	Approximate 200 feet downstream of Crags Drive	At Westlake Dam	18070104	4.9	—	Y	AE	2015
Turnbull Canyon Creek	Whittier, City of	—	—	18070106	0.7	—	N	AE, AO	1978
Unnamed Canyon (Serra Retreat Area)	Los Angeles County, Unincorporated Areas; Malibu, City of	Approximately 270 feet upstream of Unnamed Road	Approximately 2,100 feet upstream of Unnamed Road	18070104	0.3	—	N	AE	1979
Unnamed Stream Main Reach	Palos Verdes Estates, City of	Approximately 340 feet upstream of Pacific Ocean	Approximately 230 feet upstream of Via Coronel	18070104	1.0	—	Y	AE	2012
Unnamed Stream Tributary 1	Palos Verdes Estates, City of	Confluence with Unnamed Stream Main Reach	Approximately 140 feet upstream of Via Landeta	18070104	0.2	—	Y	AE	2012
Unnamed Stream Tributary 2	Palos Verdes Estates, City of	Confluence with Unnamed Stream Main Reach	Approximately 180 feet upstream of Via Zurita	18070104	0.5	—	Y	AE	2012
Upper Franklin Canyon Reservoir	Los Angeles, City of	—	—	18070104	—	0.02	N	AE	1979

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
Upper Los Angeles River Left Overbank	Los Angeles, City of	At East Cezar Chavez Avenue	Approximately 1.6 miles upstream of East Cezar Chavez Avenue	18070105	1.6	—	N	AE	2016
Upper Stone Canyon Reservoir	Los Angeles, City of	—	—	18070104	—	0.02	N	AE	1979
Vasquez Canyon	Los Angeles County, Unincorporated Areas	—	—	18070102	2.6	—	N	A, AO	1979
Villa Canyon Creek	Los Angeles County, Unincorporated Areas	—	—	18070102	0.1	—	N	A	1979
Vine Creek	West Covina, City of	—	—	18070106	0.5	—	N	A	—
Violin Canyon Creek	Los Angeles County, Unincorporated Areas	—	—	18070102	1.2	—	N	AE	1979
Wayside Canyon Creek	Los Angeles County, Unincorporated Areas	—	—	18070102	2.2	—	N	A	1979
Weldon Canyon	Los Angeles, City of	Approximately 100 feet upstream of Golden State Freeway Bridge	Approximately 1,500 feet upstream of Golden State Freeway Bridge	18070105	0.3	—	Y	AE	1979
West Basin	Los Angeles, City of	—	—	18070106	2.7	—	N	AE	1979
West Channel	Los Angeles, City of	—	—	18070106	0.7	—	N	AE	1979
Westlake Lake	Westlake Village, City of	At Westlake Lake Dam	At County Boundary	18070104	—	0.2	N	AE	2015
Whitney Canyon Creek	Santa Clarita, City of	—	—	18070102	0.4	—	N	A	1984
Wilbur Creek	Los Angeles, City of	—	—	18070105	1.8	—	N	AE	1979
Wilbur Wash	Los Angeles, City of	—	—	18070105	0.4	—	N	AE	1979

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
Wilbur Wash East	Los Angeles, City of	—	—	18070105	0.4	—	N	AE	1979
Wiley Canyon Creek	Los Angeles County, Unincorporated Areas	—	—	18070102	0.4	—	N	A	1979
Willow Springs Canyon Creek	Lancaster, City of; Los Angeles County, Unincorporated Areas	—	—	18090206	5.9	—	N	A	1979
Wilson Canyon	Los Angeles, City of	—	—	18070105	1.1	—	N	AE	1979
Woodley Creek	Los Angeles, City of	—	—	18070105	0.8	—	N	AE	1979
Young Canyon Creek	Los Angeles County, Unincorporated Areas	—	—	18070102	0.1	—	N	A	1979
Zuma Canyon	Malibu, City of	—	—	18070104	0.2	—	N	A	1979
Zuma Canyon	Malibu, City of	At Pacific Coast Highway	Approximately 1,140 feet upstream of Bensall Road	18070104	1.8	—	N	AE	1979
Zuma Canyon	Los Angeles County, Unincorporated Areas; Malibu, City of	Not Provided	Not Provided	18070104	0.6	—	N	A	1979
UNKNOWN 1 near W. 3rd Street	Los Angeles, City of, West Hollywood, City of	—	—	18070104	1.0	—	N	AO	1980, 1985
UNKNOWN 2 near W. 3rd Street	Los Angeles, City of	—	—	18070104	0.2	—	N	A	1980, 1985
UNKNOWN 3 near W. 3rd Street	Los Angeles, City of	—	—	18070104	0.8	—	N	A	—
UNKNOWN 1 near 4th Street	Los Angeles, City of	—	—	18070104	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
UNKNOWN 1 near Aberdeen Avenue	Los Angeles, City of	—	—	18070104	0.9	—	N	A	—
UNKNOWN 1 near Alameda Street	Los Angeles, City of	—	—	18070104	0.2	—	N	A	—
UNKNOWN 2 near Alameda Street	Los Angeles, City of	—	—	18070104	0.2	—	N	A	—
UNKNOWN 1 near Alaska Avenue	Torrance, City of	—	—	18070104	0.2	—	N	AH	1978
UNKNOWN 1 near Amsler Street	Torrance, City of	—	—	18070104	0.1	—	N	AH	1978
UNKNOWN 1 to Anaverde Creek	Palmdale, City of	—	—	18090206	1.1	—	N	A	1985
UNKNOWN 1 near Anza Avenue	Torrance, City of	—	—	18070104	0.1	—	N	AH	1978
UNKNOWN 1 to Arroyo Calabasas	Hidden Hills, City of	—	—	18070105	0.7	—	N	A	—
UNKNOWN 2 to Arroyo Calabasas	Calabasas, City of	—	—	18070105	0.5	—	N	A	—
UNKNOWN 1 near Baile Avenue	Los Angeles, City of	—	—	18070105	0.3	—	N	AE	—
UNKNOWN 2 near Baile Avenue	Los Angeles, City of	—	—	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 1 near S. Beverley Glen Boulevard	Los Angeles, City of	—	—	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	Los Angeles, City of	—	—	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	—

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 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	Redondo Beach, City of	—	—	18070104	0.2	—	N	AE	1981
UNKNOWN 1 near Chaparal Street	Los Angeles, City of	—	—	18070104	0.2	—	N	AH	—
UNKNOWN 1 near Childs Court	Los Angeles, City of	—	—	18070104	0.9	—	N	AO	—
UNKNOWN 1 near Club View Drive	Los Angeles, City of	—	—	18070104	0.1	—	N	AH	—
UNKNOWN 1 near Denker Avenue	Los Angeles, City of	—	—	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	—

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 Eubank Avenue	Los Angeles, City of	—	—	18070104	0.1	—	N	A	—
UNKNOWN 1 near Glade Avenue	Los Angeles, City of	—	—	18070105	0.1	—	N	AE	—
UNKNOWN 2 near Glade Avenue	Los Angeles, City of	—	—	18070105	0.1	—	N	AH	—
UNKNOWN 1 to Glenoaks Boulevard	Los Angeles, City of	—	—	18070105	0.5	—	N	A	—
UNKNOWN 2 to Glenoaks Boulevard	Los Angeles, City of	—	—	18070105	0.3	—	N	A	—
UNKNOWN 3 to Glenoaks Boulevard	Los Angeles, City of	—	—	18070105	0.7	—	N	A	—
UNKNOWN 1 near Gould Avenue	Redondo Beach, City of	—	—	18070104	0.1	—	N	AE	1981
UNKNOWN 1 near Grenola Street	Los Angeles, City of	—	—	18070104	0.6	—	N	A	—
UNKNOWN 1 near N. Hoover Street	Los Angeles, City of	—	—	18070104	0.4	—	N	AH	—
UNKNOWN 1 near S. La Cienega Boulevard	Los Angeles, City of	—	—	18070104	0.1	—	N	A	—
UNKNOWN 1 near Lake Palmdale	Palmdale, City of	—	—	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	Los Angeles, City of	—	—	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	Lynwood, City of	—	—	18070105	0.3	—	N	AH	—
UNKNOWN 1 near Louise Avenue	Lynwood, City of	—	—	18070105	0.7	—	N	AH	—
UNKNOWN 1 near Lucerne Boulevard	Los Angeles, City of	—	—	18070104	0.3	—	N	AH	—
UNKNOWN 1 near S. Main Street	Burbank, City of	—	—	18070105	0.3	—	N	AO	—
UNKNOWN 1 near Magnolia Avenue	Los Angeles, City of	—	—	18070105	0.2	—	N	AH	—
UNKNOWN 1 to Malaga Canyon Creek	Palos Verdes Estates, City of	—	—	18070104	0.6	—	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
UNKNOWN 2 to Malaga Canyon Creek	Palos Verdes Estates, City of	—	—	18070104	0.7	—	N	A	—
UNKNOWN 2-A to Malaga Canyon Creek	Palos Verdes Estates, City of	—	—	18070104	0.1	—	N	A	—
UNKNOWN 1 near Marathon Street	Los Angeles, City of	—	—	18070104	0.1	—	N	AH	—
UNKNOWN 1 near Melrose Avenue	Los Angeles, City of	—	—	18070104	0.5	—	N	A	—
UNKNOWN 1 near Mines Avenue	Montebello, City of	—	—	18070105	0.1	—	N	AE	—
UNKNOWN 1 to Myrick Canyon Creek	Los Angeles County	—	—	18090206	0.7	—	N	A	—
UNKNOWN 1 near Overland Avenue	Los Angeles, City of	—	—	18070104	1.4	—	N	AO	—
UNKNOWN 2 near Overland Avenue	Los Angeles, City of	—	—	18070104	0.1	—	N	AH	—
UNKNOWN 1 near W. Olympic Boulevard	Los Angeles, City of	—	—	18070104	0.1	—	N	AH	—
UNKNOWN 1 to Pallett Creek	Los Angeles County	—	—	18090206	7.6	—	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
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	Los Angeles, City of	—	—	18070105	0.4	—	N	AE	—
UNKNOWN 1 near Pershing Drive	Los Angeles, City of	—	—	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	—

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-C to Portal Ridge Wash	Los Angeles County	—	—	18090206	1.0	—	N	A	—
UNKNOWN 1 near Rexbon Road	Los Angeles, City of	—	—	18070105	0.2	—	N	AE	—
UNKNOWN 1 near Ripley Avenue	Redondo Beach, City of	—	—	18070104	0.1	—	N	AE	1981
UNKNOWN 1 near Roscoe Boulevard	Los Angeles, City of	—	—	18070105	0.2	—	N	AH	—
UNKNOWN 1 near San Diego Freeway	Los Angeles, City of	—	—	18070105	0.2	—	N	AH	—
UNKNOWN 1 to San Fernando Road	Los Angeles, City of	—	—	18070105	0.4	—	N	A	—
UNKNOWN 2 to San Fernando Road	Los Angeles, City of	—	—	18070105	0.5	—	N	A	—
UNKNOWN 1 to San Gabriel River	Long Beach, City of	—	—	18070106	1.2	—	N	A	—
UNKNOWN 1 to Santa Susana Creek	Los Angeles, City of	—	—	18070105	0.4	—	N	A, AO	—
UNKNOWN 1-A to Santa Susana Creek	Los Angeles, City of	—	—	18070105	0.2	—	N	A	—
UNKNOWN 2 to Santa Susana Creek	Los Angeles, City of	—	—	18070105	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
UNKNOWN 1 near Sesnon Boulevard	Los Angeles, City of	—	—	18070105	0.1	—	N	AE	—
UNKNOWN 1 near Sheldon Street	Los Angeles, City of	—	—	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	Los Angeles, City of	—	—	18070105	0.2	—	N	A	—
UNKNOWN 1 near W. Sunset Boulevard	Los Angeles, City of	—	—	18070104	0.1	—	N	A	—
UNKNOWN 1 near Sunset Canyon Drive	Burbank, City of	—	—	18070105	0.8	—	N	AO	—
UNKNOWN 1 near Susanna Place	Los Angeles, City of	—	—	18070105	0.1	—	N	AH	—
UNKNOWN 1 near W. Temple Street	Los Angeles, City of	—	—	18070104	0.3	—	N	AH	—
UNKNOWN 1 near Toledo Street	Torrance, City of	—	—	18070104	0.1	—	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
UNKNOWN 2 near Toledo Street	Torrance, City of	—	—	18070104	0.3	—	N	AH	1978
UNKNOWN 1 near UCLA	Los Angeles, City of	—	—	18070104	2.4	—	N	AH	—
UNKNOWN 1 near Vail Avenue	Montebello, City of	—	—	18070105	0.3	—	N	A	—
UNKNOWN 1 near S. Van Ness Avenue	Los Angeles, City of	—	—	18070104	1.2	—	N	A, AH, AO	—
UNKNOWN 1 near Via Valmonte	Torrance, City of	—	—	18070104	0.1	—	N	A	1978
UNKNOWN 1 near Victory Boulevard	Los Angeles, City of	—	—	18070105	0.6	—	N	AH	—
UNKNOWN 1 near Vincent Street	Redondo Beach, City of	—	—	18070104	0.1	—	N	AE	1981
UNKNOWN 2 near Vincent Street	Redondo Beach, City of	—	—	18070104	0.1	—	N	AE	1981
UNKNOWN 1 to Vine Creek	West Covina, City of	—	—	18070106	0.4	—	N	A	—
UNKNOWN 2 to Vine Creek	West Covina, City of	—	—	18070106	0.3	—	N	A	—
UNKNOWN 1 near Walker Avenue	Los Angeles, City of	—	—	18070104	0.1	—	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
UNKNOWN 1 to Weldon Canyon Creek	Los Angeles, City of	—	—	18070105	0.1	—	N	AE	—
UNKNOWN 1-A to Weldon Canyon Creek	Los Angeles, City of	—	—	18070105	0.1	—	N	AE	—
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	—

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 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	Los Angeles, City of	—	—	18070104	2.6	—	N	AH, AO	—
UNKNOWN 2 near Wilshire Boulevard	Los Angeles, City of	—	—	18070104	0.2	—	N	AH	—
UNKNOWN 3 near Wilshire Boulevard	Los Angeles, City of	—	—	18070104	0.2	—	N	A	—
UNKNOWN 1 near Woodman Place	Los Angeles, City of	—	—	18070105	1.2	—	N	A	—

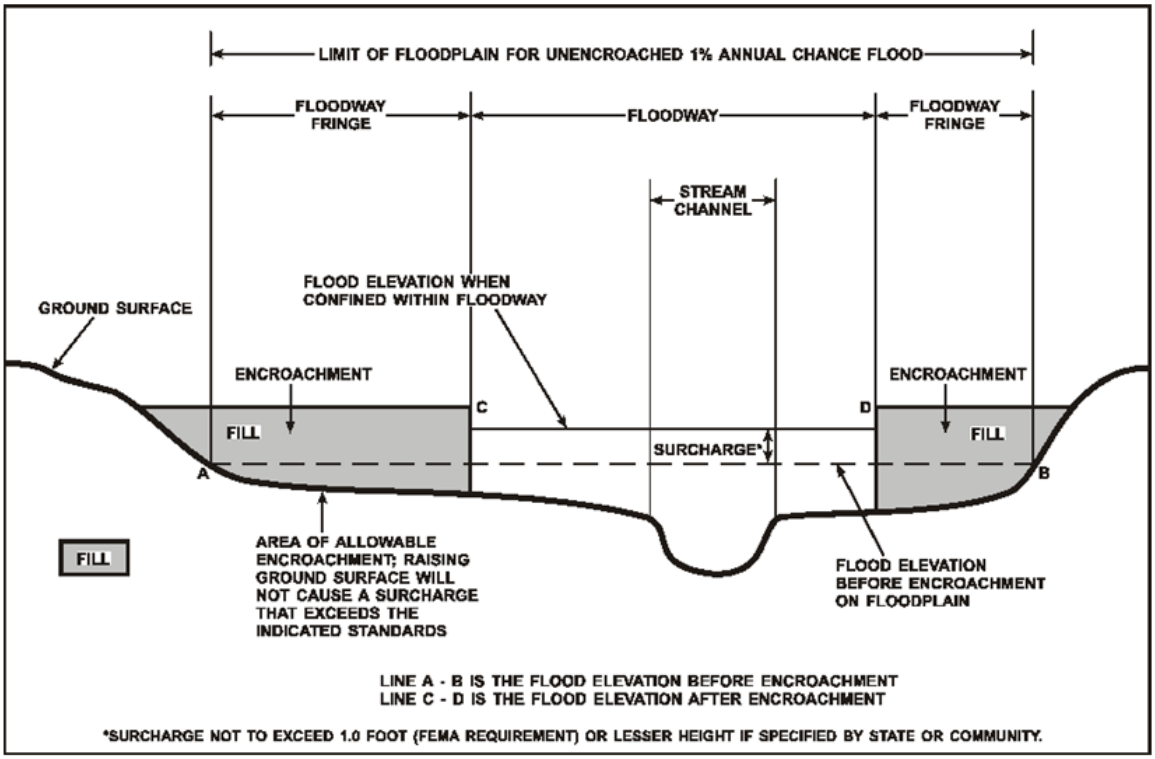
2.2 Floodways

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. 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 l% 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

This section is not applicable to this Flood Risk Project.

2.5 Coastal Flood Hazard Areas

Areas of the coast are subject to flooding during coastal storms and the FIRM panels depict the flood hazard areas during the 1% annual chance coastal flood event. Flooding is typically caused by several nearshore processes, which can include high storm surge and large waves, although the magnitude of each process varies regionally. Because the processes that cause coastal flooding are unique and different from the processes in riverine flooding, this section provides a brief summary of coastal flood processes.

2.5.1 Water Elevations and the Effects of Waves

Nearly all studies include analysis of offshore water levels and the determination of stillwater levels (SWL). The SWL is the water surface elevation resulting from astronomical tides, storm surge, and freshwater inputs, but excluding the effects of wave setup and wave runup.

- *Astronomical tides* are periodic increases and decreases in nearhsore water surface elevations caused by the gravitational forces exerted by the earth, moon and sun.

- *Storm surge* is the increase in nearshore water surface elevations that occur during large storm events. These events can include air pressure changes and strong winds that force water up against the coast.
- *Freshwater inputs* include runoff from surfaces and overland flow, and inputs from rivers that temporarily increase nearshore water surface elevations.

The 1% annual chance stillwater elevation (SWEL) is the statistically determined SWL that has been calculated for the 1% annual chance storm event. In a response-based analysis, the 1% annual chance SWEL is typically calculated from analyses of tide gage records or numerical model output. Observed tide gage records are usually assumed to include all the components of the SWL listed above. The 1% annual chance SWEL is largely determined by the highest historical SWL events for a particular region, which often occur during periods of combined high tides and storm surge. SWELs for different probabilities of occurrence can also be calculated.

During a coastal storm, large waves break in the surf zone and generate wave setup and runup at the shoreline. The total water level (TWL) is the SWL combined with the heights of wave setup and wave runup.

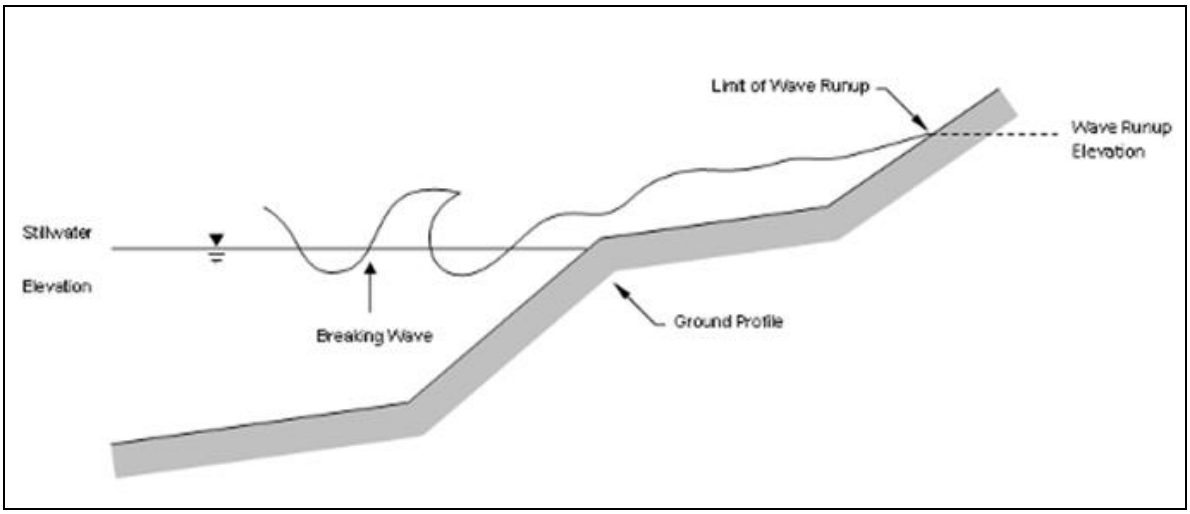
- *Wave setup* is the increase in water levels at the shoreline caused by the reduction of waves in shallow water. It occurs as breaking wave momentum is transferred across the surf zone.
- *Wave runup* is the vertical uprush of water across the foreshore and backshore (beach, bluff, or structure) due to breaking waves. It is usually a function of the height and period of the offshore waves, geometry of the shoreline, particularly slope, and the roughness.

Like the 1% annual chance SWEL, the TWL can be statistically determined for different probabilities of occurrence. In a response-based analysis, wave setup and runup heights are typically calculated using standard engineering equations or numerical models which incorporate offshore wave conditions. Time series of wave setup and runup heights are then combined with records of the SWL to form a time series of the TWL. On the Pacific coast, the highest TWLs are often the results of periods of combined high tides and large, long period waves during El Niño winters. The 1% annual chance TWL is then statistically determined from the time series using a statistical extreme value analysis (EVA).

Coastal analyses may also examine the effects of 1% annual chance events by analyzing storm-induced erosion, overland wave propagation, and/or wave overtopping.

- *Storm-induced erosion* is the eroding of the shoreline caused by a specific storm event, as opposed to long-term retreat which occurs over longer time periods.
- *Overland wave propagation* describes the local, wind-generated waves that form over inundated areas. It includes the combined effects of nearshore wave characteristics, inundation depth, wind strength and direction, and variations in ground elevation and land use.
- *Wave overtopping* refers to the splash or bore overtopping that occurs when wave runup passes over the crest of a barrier, such as a bluff or structure.

Figure 5: Wave Runup Transect Schematic



2.5.2 Floodplain Boundaries and BFEs for Coastal Areas

For coastal communities along the Atlantic and Pacific coasts, the Gulf of Mexico, the Great Lakes, and the Caribbean Sea, flood hazards must take into account how storm surges, waves, and high tides impact the coastline. Storm surge and waves must also be considered in assessing flood risk for certain communities on rivers or large inland bodies of water.

Beyond immediate 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 areas of the Pacific coast, wave setup and runup are the dominant components of flooding. The extent of the 1% annual chance floodplain in these areas is derived from the TWL (SWL combined with wave effects) for the 1% annual chance event. The methods that were used for calculation of the 1% annual chance TWL for coastal areas are described in Section 5.3 of this FIS Report. An example of the inland extent of flooding due to the 1% annual chance TWL is shown in Figure 8.

In areas where the calculated 1% annual chance TWL exceeds coastal barrier features, the 1% annual chance floodplain is based upon the inland limit of wave overtopping. The methods that were used for calculation of wave overtopping are described in Section 5.3 of this FIS Report. In limited areas that are expected to be inundated during the 1% annual chance event, the floodplain boundaries are determined by analysis of overland wave propagation. These areas are limited to inland bays on the Pacific coast.

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 generally calculated as the 1% annual chance TWL for each coastal reach. In areas of wave overtopping, coastal BFEs are determined from calculated splash or bore

elevations. In isolated areas of overland wave propagation, coastal BFEs are determined from modeled overland wave heights.

Coastal BFEs are calculated along analysis transects that are oriented perpendicular to the coastline and extend from an offshore water depth to beyond the inland limit of coastal flooding. Results of these analyses are mapped adjacent to each transect and are accurate until local topography, vegetation, or development type and density within the community significantly change.

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. These can include wave overtopping zones.
- *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.

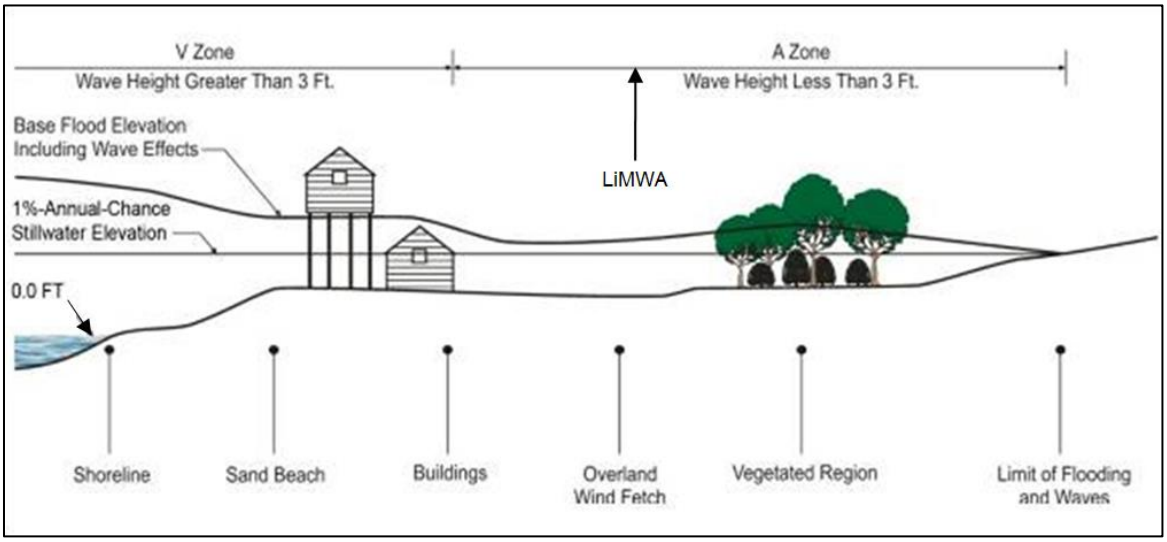
CHHAs are designated as "V" zones (for "velocity wave zones") and are subject to more stringent regulatory requirements and a different flood insurance rate structure. The areas of greatest risk are shown as VE on the FIRM. Zone VE is further subdivided into elevation zones and shown with BFEs on the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

The landward limit of the PFD occurs at the dune heel 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 BFE (which is based upon the 1% annual chance TWL or wave overtopping elevations), the 1% annual chance SWEL, 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 incident waves and overland propagation of waves 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."

2.5.4 Limit of Moderate Wave Action

This section is not applicable to this Flood Risk Project.

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 Los Angeles County.

Table 3: Flood Zone Designations by Community

Community	Flood Zone(s)
Agoura Hills, City of	A, AE, D, X
Alhambra, City of	X
Arcadia, City of	D, X
Artesia, City of	X
Avalon, City of	A, AE, D, VE, X
Azusa, City of	A, D, X
Baldwin Park, City of	X
Bell, City of	X
Bell Gardens, City of	A, X
Bellflower, City of	AE, X
Beverly Hills, City of	D, X
Bradbury, City of	D, X
Burbank, City of	A, AE, AO, D, X
Calabasas, City of	A, AE, D, X
Carson, City of	A, X
Cerritos, City of	A, AE, X
Claremont, City of	D, X
Commerce, City of	A, X
Compton, City of	A, X
Covina, City of	D, X
Cudahy, City of	A, X
Culver City, City of	A, AE, AO, X
Diamond Bar, City of	A, AO, D, X
Downey, City of	A, AE, X
Duarte, City of	D, X
El Monte, City of	X
El Segundo, City of	AE, VE, X
Gardena, City of	A, X
Glendale, City of	D, X
Glendora, City of	D, X
Hawaiian Gardens, City of	X
Hawthorne, City of	X

Table 3: Flood Zone Designations by Community, continued

Community	Flood Zone(s)
Hermosa Beach, City of	AE, VE, X
Hidden Hills, City of	A, D, X
Huntington Park, City of	X
Industry, City of	D, X
Inglewood, City of	X
Irwindale, City of	D, X
La Canada Flintridge, City of	D, X
La Habra Heights, City of	D, X
La Mirada, City of	AE, X
La Puente, City of	D, X
La Verne, City of	AE, D, X
Lakewood, City of	A, X
Lancaster, City of	A, AE, AH, AO, X
Lawndale, City of	X
Lomita, City of	X
Long Beach, City of	A, AE, AH, VE, X
Los Angeles, City of	A, AE, AH, AO, D, VE, X
Los Angeles County, Unincorporated Areas	A, AE, AH, AO, D, VE, X
Lynwood, City of	AH, X
Malibu, City of	A, AE, AO, VE, X
Manhattan Beach, City of	AE, VE, X
Maywood, City of	X
Monrovia, City of	D, X
Montebello, City of	A, AE, D, X
Monterey Park, City of	D, X
Norwalk, City of	AE, X
Palmdale, City of	A, AE, AO, D, X
Palos Verdes Estates, City of	A, AE, VE, X
Paramount, City of	A, AH, X
Pasadena, City of	D, X
Pico Rivera, City of	A, AE, D, X
Pomona, City of	D, X
Rancho Palos Verdes, City of	A, D, VE, X

Table 3: Flood Zone Designations by Community, continued

Community	Flood Zone(s)
Redondo Beach, City of	AE, VE, X
Rolling Hills, City of	D, X
Rolling Hills Estates, City of	X
Rosemead, City of	D, X
San Dimas, City of	AE, D, X
San Fernando, City of	X
San Gabriel, City of	X
San Marino, City of	X
Santa Clarita, City of	A, AE, AH, AO, D, X
Santa Fe Springs, City of	AE, AH, X
Santa Monica, City of	AE, D, VE, X
Sierra Madre, City of	D, X
Signal Hill, City of	X
South El Monte, City of	X
South Gate, City of	A, X
South Pasadena, City of	X
Temple City, City of	X
Torrance, City of	A, AE, AH, V, VE, X
Vernon, City of	X
Walnut, City of	D, X
West Covina, City of	A, D, X
West Hollywood, City of	X
Westlake Village, City of	A, AE, X
Whittier, City of	A, AE, AO, D, X

3.2 Coastal Barrier Resources System

This section is not applicable to this Flood Risk Project.

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)
Antelope – Fremont Valleys	18090206	Big Rock Creek / Little Rock Creek	Extended into Los Angeles county and Cities of Lancaster, and Palmdale. Development is to the east is generally commercial and industrial.	12,000
Calleguas	18070103	Calleguas Creek	Calleguas Creek drains an area of 343 square miles in Ventura County and a small portion of western Los Angeles County.	438
Los Angeles	18070105	Pacific Ocean	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
Middle Kern-Upper Tehachapi-Grapevine	18030003	Kern River	Drains an areas of the southern Sierra Nevada Mountains northeast of Bakersfield.	2,617
Mojave	18090208	Mojave River	Located in the Southwestern part of the Mojave Desert and extends from the San Bernardino and the San Gabriel Mountains.	4,618
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	Santa Ana River	Drainage area spans across Los Angeles, Orange, Riverside and San Bernardino counties.	1,694

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)
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
Santa Monica Bay	18070104	Malibu 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

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. However, 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 during major storms.
Alluvial Fans	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. 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.

Table 6: Principal Flood Problems, continued

Flooding Source	Description of Flood Problems
Alluvial Fans, continued	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. 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.
Antelope Valley	Flows in the Antelope Valley are northerly from the mountains across the broad alluvial plain, through a network of largely unimproved channels. During minor storms, much of the flow percolates into the ground. In major storms, flows reach the lake at the northern county limits, where flood flows pond until evaporated. 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. 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.
Ballona Creek	The City of Culver City has an extensive history of floods and flooding. 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 that resulted from major storms.
Dominguez Channel	The LACFCD flood overflow map indicates a history of flood streets, sump, and general flooding among Dominguez Channel in Torrance. The flooding problems were related to the inadequacy of local drainage facilities.
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. During the 1969 storms, much damage was caused by erosion and sedimentation of the natural watercourses. The most significant damage to private property was the destruction of a zoological compound located in the Santa Clara River floodplain.

Table 6: Principal Flood Problems, continued

Flooding Source	Description of Flood Problems
La Mirada Creek	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. 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.
Lockheed Drain	During a February 1992 storm, localized flooding was observed in the city of Burbank. Lockheed Drain overtopped upstream of an existing railroad spur bridge and flowed south down Griffith Park Drive to Burbank Boulevard. The overflow then flowed east along Burbank Boulevard until joining the flood flows in the Burbank Western Flood Control Channel.
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, and due to the lack of a very large flood event during the intervening period, the major cause of flood 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.

Table 6: Principal Flood Problems, continued

Flooding Source	Description of Flood Problems
Pacific Ocean	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. 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.
Rainfall Runoff	In the City of Los Angeles, city engineers have indicated that an inland strip along the beach, northwest of Ballona Creek outlet, has historically been subject to shallow flooding because, during major storms, the drains serving the area have not functioned at high tide. In the City of Burbank, flooding is caused by surface runoff associated with high-intensity orographic rainfalls of several hours duration. Once the ground is saturated, subsequent rainfall, augmented by canyon flood flows and coupled with inadequate local drainage facilities, produces shallow flooding and ponding to a depth of approximately 3 feet.
Redondo Beach Watersheds	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. 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.

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	1969	*	USGS gage
Big Tujunga Creek	Near Sunland, CA	1574.6	1943	*	USGS gage
Malibu Creek	At Crater Camp near Calabasas, CA	433.0	1969	*	USGS gage
Santa Clara River	At Los Angeles County/Ventura County line	1046.2	2005	*	USGS gage
Topanga Canyon	Near Topanga Beach, CA	268.2	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
Amargosa Creek	N/A	Drain	Lancaster, City of	Interceptor drain was contrasted along the east side that will contain a 1-percent annual chance flood.
Lockheed Drain Channel	N/A	Channel	Burbank, City of	Constructed storm-drain channel where the upstream section above Clybourn Avenue is an excavated earthen section with a levee on the north side of the channel. Downstream of Clybourn Avenue the channel is either in a closed conduit or is a rectangular reinforced concrete open channel section.
Los Angeles River	Hansen Dam	Dam	Los Angeles, City of	Flood control dam.
Los Angeles River	Sepulveda Flood Control Basin	Earthen Dam	Los Angeles, City of	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.

Table 8: Non-Levee Flood Protection Measures, continued

Flooding Source	Structure Name	Type of Measure	Location	Description of Measure
Pacific Ocean	N/A	Seawall	Various Locations within Los Angeles County	Constructed to halt erosion and to absorb the impact of wave forces.
Pacific Ocean	N/A	Revetment	Various Locations within Los Angeles County	Constructed to halt erosion and to absorb the impact of wave forces.
San Gabriel River	Whittier Narrows Flood Control Basin	Earthen Dam	Montebello, City of	Flood control facility that controls runoff originating in the northeastern portion of Los Angeles County. The Rio Hondo originates at Whittier Narrows Dam.
San Pedro Bay	N/A	Jetties	Long Beach, City of	Breakwater jetties along Long Beach.
Trancas Creek	N/A	Channel	Malibu, City of	Concrete-lined channel.
Tujunga Wash	Hansen Flood Control Reservoir	Earthen Dam	Los Angeles, City of	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 not 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. Levees identified as PALs in the table are labeled on the FIRM to indicate their provisional status.

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.

Table 9: Levees

Community	Flooding Source	Levee Location	Levee Owner	USACE Levee	Levee ID	Covered Under PL84-99 Program?	FIRM Panel(s)
Bell, City of; Cudahy, City of; Southgate, City of; Vernon, City of	Los Angeles River	Left and Right Banks	Los Angeles County	Yes	25a	*	06037C1810F
Bell Gardens, City of; Downey, City of; Montebello, City of; Pico Rivera, City of; Southgate, City of	Rio Hondo Channel	Left and Right Banks	Los Angeles County	Yes	31	*	06037C1663F 06037C1664F 06037C1810F 06037C1820F 06037C1830F
Bellflower, City of: Cerritos, City of; Downey, City of; Lakewood, City of; Long Beach, City of; Los Angeles County, Unincorporated Areas; Norwalk, City of; Pico Rivera, City of; Santa Fe Springs, City of	San Gabriel River	Left and Right Banks	Los Angeles County	Yes	33	*	06037C1664F 06037C1668F 06037C1829F 06037C1830F 06037C1840F 06037C1980F 06037C1988F 06037C1990F 06037C2076F
Burbank, City of; Los Angeles, City of	Lockheed Storm Drain	Left and Right Banks	*	*	*	*	06037C1328F
Carson, City of; Compton, City of; Long Beach, City of; Los Angeles County, Unincorporated Areas	Compton Creek	Left and Right Banks	Los Angeles County	Yes	20b	*	06037C1955F

Table 9: Levees, continued

Community	Flooding Source	Levee Location	Levee Owner	USACE Levee	Levee ID	Covered Under PL84-99 Program?	FIRM Panel(s)
Carson, City of; Los Angeles, City of	Dominguez Channel	Right Bank	Los Angeles County	No	22a	*	06037C1935F 06037C1955F 06037C1961F 06037C1963F
Carson, City of; Los Angeles, City of	Dominguez Channel	Left Bank	Los Angeles County	No	22b	*	06037C1935F 06037C1955F 06037C1961F 06037C1963F
Cerritos, City of; Hawaiian Gardens, City of; Lakewood, City of; Long Beach, City of	Coyote Creek	Right Bank	Los Angeles County	Yes	21	*	06037C1980F 06037C1990F 06037C2000F
Claremont, City of	San Antonio Creek	Left and Right Banks	*	*	*	*	06037C1475F
Compton, City of; Long Beach, City of; Paramount, City of; Southgate, City of;	Los Angeles River	Left and Right Banks	Los Angeles County	Yes	25b	*	06037C1810F 06037C1815F 06037C1820F 06037C1955F 06037C1962F 06037C1964F
Los Angeles County, Unincorporated Areas	Undetermined	*	*	No	28a	*	06037C0100F
Los Angeles County, Unincorporated Areas	Undetermined	*	*	No	28c	*	06037C0715F

Table 9: Levees, continued

Community	Flooding Source	Levee Location	Levee Owner	USACE Levee	Levee ID	Covered Under PL84-99 Program?	FIRM Panel(s)
Los Angeles County, Unincorporated Areas	Undetermined	*	*	No	28d	*	06037C0975F
Los Angeles County, Unincorporated Areas	Undetermined	*	*	No	29	*	06037C1780F
Santa Clarita, City of	Bouquet Canyon Creek	Left Bank	Los Angeles County Department of Public Works	No	13	*	06037C0820F
Santa Clarita, City of	Bouquet Canyon Creek	Right Bank	Los Angeles County Department of Public Works	No	14	*	06037C0820F
Santa Clarita, City of	Bouquet Canyon Creek	Right Bank	Los Angeles County Department of Public Works	No	15	*	06037C0820F
Santa Clarita, City of	Santa Clara River	Left Bank	Los Angeles County	No	2	*	06037C0820F
Santa Clarita, City of	Santa Clara River	Left Bank	Los Angeles County Department of Public Works	No	4	*	06037C0840F
Santa Clarita, City of	Santa Clara River	Right Bank	Los Angeles County Department of Public Works	No	5	*	06037C0840F
Santa Clarita, City of	Santa Clara River	Right Bank	Los Angeles County Department of Public Works	No	6	*	06037C0840F
Santa Clarita, City of	Santa Clara River	Right Bank	Los Angeles County Department of Public Works	No	7	*	06037C0840F

Table 9: Levees, continued

Community	Flooding Source	Levee Location	Levee Owner	USACE Levee	Levee ID	Covered Under PL84-99 Program?	FIRM Panel(s)
Santa Clarita, City of	Santa Clara River	Right Bank	Los Angeles County Department of Public Works	No	10	*	06037C0840F
Santa Clarita, City of	Santa Clara River	Left Bank	Los Angeles County	No	12	*	06037C0840F
Santa Clarita, City of	South Fork Santa Clara River	Left Bank	Los Angeles County Department of Public Works	No	23	*	06037C0820F
Santa Clarita, City of	South Fork Santa Clara River	Left Bank	Los Angeles County Department of Public Works	No	26	*	06037C0820F

*Data not available