

FLOOD INSURANCE STUDY

FEDERAL EMERGENCY MANAGEMENT AGENCY

VOLUME 3 OF 5



LOS ANGELES COUNTY, CALIFORNIA AND INCORPORATED AREAS

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

*No Special Flood Hazard Areas Identified

REVISED: April 4, 2018

FLOOD INSURANCE STUDY NUMBER

06037CV003C

Version Number 2.3.3.2



FEMA

COMMUNITY NAME	NUMBER	COMMUNITY NAME	NUMBER
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 CANADA 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 LAWDALE*	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	LOS ANGELES COUNTY UNINCORPORATED AREAS	065043
CITY OF PICO RIVERA	060148		

*No Special Flood Hazard Areas Identified

REVISED: April 4, 2018

FLOOD INSURANCE STUDY NUMBER

06037CV003C

Version Number 2.3.3.2



FEMA

TABLE OF CONTENTS

Volume 1

	<u>Page</u>
SECTION 1.0 – INTRODUCTION	1
1.1 The National Flood Insurance Program	1
1.2 Purpose of this Flood Insurance Study Report	2
1.3 Jurisdictions Included in the Flood Insurance Study Project	2
1.4 Considerations for using this Flood Insurance Study Report	18
SECTION 2.0 – FLOODPLAIN MANAGEMENT APPLICATIONS	29
2.1 Floodplain Boundaries	29
2.2 Floodways	30
2.3 Base Flood Elevations	71
2.4 Non-Encroachment Zones	71
2.5 Coastal Flood Hazard Areas	72
2.5.1 Water Elevations and the Effects of Waves	72
2.5.2 Floodplain Boundaries and BFEs for Coastal Areas	73
2.5.3 Coastal High Hazard Areas	74
2.5.4 Limit of Moderate Wave Action	75
SECTION 3.0 – INSURANCE APPLICATIONS	76
3.1 National Flood Insurance Program Insurance Zones	76
3.2 Coastal Barrier Resources System	79
SECTION 4.0 – AREA STUDIED	80
4.1 Basin Description	80
4.2 Principal Flood Problems	81
4.3 Non-Levee Flood Protection Measures	84
4.4 Levees	85

Figures

	<u>Page</u>
Figure 1: FIRM Panel Index	20
Figure 2: FIRM Notes to Users	23
Figure 3: Map Legend for FIRM	26
Figure 4: Floodway Schematic	31
Figure 5: Wave Runup Transect Schematic	73
Figure 6: Coastal Transect Schematic	75

Tables

	<u>Page</u>
Table 1: Listing of NFIP Jurisdictions	2
Table 2: Flooding Sources Included in this FIS Report	32
Table 3: Flood Zone Designations by Community	77
Table 4: Coastal Barrier Resources System Information	80
Table 5: Basin Characteristics	80
Table 6: Principal Flood Problems	81

Volume 1 (continued)

Tables

	<u>Page</u>
Table 7: Historic Flooding Elevations	84
Table 8 : Non-Levee Flood Protection Measures	85
Table 9 : Levees	87

Volume 2

	<u>Page</u>
SECTION 5.0 – ENGINEERING METHODS	89
5.1 Hydrologic Analyses	89
5.2 Hydraulic Analyses	126
5.3 Coastal Analyses	167
5.3.1 Total Stillwater Elevations	167
5.3.2 Waves	168
5.3.3 Coastal Erosion	172
5.3.4 Wave Hazard Analyses	172
5.4 Alluvial Fan Analyses	174

Figures

	<u>Page</u>
Figure 7: Frequency Discharge-Drainage Area Curves	121
Figure 8: 1% Annual Chance Total Stillwater Elevations for Coastal Areas	168
Figure 9: Transect Location Map	173

Tables

	<u>Page</u>
Table 10: Summary of Discharges	90
Table 11: Summary of Non-Coastal Stillwater Elevations	122
Table 12: Stream Gage Information used to Determine Discharges	125
Table 13: Summary of Hydrologic and Hydraulic Analyses	128
Table 14: Roughness Coefficients	164
Table 15: Summary of Coastal Analyses	167
Table 16: Tide Gage Analysis Specifics	168
Table 17: Coastal Transect Parameters	173
Table 18: Summary of Alluvial Fan Analyses	174
Table 19: Results of Alluvial Fan Analyses	174

Volume 3

	<u>Page</u>
SECTION 6.0 – MAPPING METHODS	175
6.1 Vertical and Horizontal Control	175
6.2 Base Map	177
6.3 Floodplain and Floodway Delineation	178
6.4 Coastal Flood Hazard Mapping	187
6.5 FIRM Revisions	188

Volume 3 (continued)

	<u>Page</u>
6.5.1 Letters of Map Amendment	188
6.5.2 Letters of Map Revision Based on Fill	188
6.5.3 Letters of Map Revision	189
6.5.4 Physical Map Revisions	189
6.5.5 Contracted Restudies	190
6.5.6 Community Map History	190
SECTION 7.0 – CONTRACTED STUDIES AND COMMUNITY COORDINATION	195
7.1 Contracted Studies	195
7.2 Community Meetings	211
SECTION 8.0 – ADDITIONAL INFORMATION	219
SECTION 9.0 – BIBLIOGRAPHY AND REFERENCES	222

Tables

	<u>Page</u>
Table 20: Countywide Vertical Datum Conversion	175
Table 21: Stream-Based Vertical Datum Conversion	176
Table 22: Base Map Sources	178
Table 23: Summary of Topographic Elevation Data used in Mapping	179
Table 24: Floodway Data	181
Table 25: Flood Hazard and Non-Encroachment Data for Selected Streams	187
Table 26: Summary of Coastal Transect Mapping Considerations	188
Table 27: Incorporated Letters of Map Change	189
Table 28: Community Map History	191
Table 29: Summary of Contracted Studies Included in this FIS Report	195
Table 30: Community Meetings	212
Table 31: Map Repositories	219
Table 32: Additional Information	222
Table 33: Bibliography and References	223

Volume 4

Exhibits

<u>Flood Profiles</u>	<u>Panel</u>
Amargosa Creek	01-03 P
Anaverde Creek	04-06 P
Avalon Canyon	07-10 P
Big Rock Wash	11-12 P
Cheseboro Creek	13-15 P
Cold Creek	16-21 P
Dark Canyon	22-23 P

Dry Canyon	24-33 P
Escondido Canyon	34-39 P
Flow Along Empire Avenue	40 P
Flowline No. 1	41 P
Garapito Creek	42-44 P
Hacienda Creek	45 P
Kagel Canyon	46-57 P
Lake Street Overflow	58 P
La Mirada Creek	59-62 P
Las Flores Canyon	63-66 P
Las Virgenes Creek	67-76 P
Intentionally Left Out	77 P
Liberty Canyon	78-79 P
Lindero Canyon above Confluence with Medea Creek	80-81 P
Lindero Canyon above Lake Lindero	82-87 P
Lindero Canyon spillway at Lindero	88 P
Little Rock Wash—Profile A	89-92 P
Little Rock Wash—Profile B	93 P
Little Rock Wash—Profile C	94 P
Lobo Canyon	95-98 P
Lockheed Drain Channel	99-102 P
Lopez Canyon Channel	103-104 P
Los Angeles River Left Overbank Path 2	105-108 P
Los Angeles River Right Overbank Path 1	109-111 P
Los Angeles River Right Overbank Path 2	112 P

Volume 5
Exhibits

<u>Flood Profiles</u>	<u>Panel</u>
Malibu Creek	113-115 P
Medea Creek	116-127 P
Medea Creek (above Ventura Freeway)	128-129 P
Mill Creek	130-134 P
North Overflow (A)	135 P
North Overflow (B)	136 P
Old Topanga Canyon	137-142 P
Overflow Area of Lockheed Drain Channel	143 P
Overflow Area of Lockheed Storm Drain	144 P
Palo Comando Creek	145-150 P
Ramirez Canyon	151-156 P
Rio Hondo Left Overbank Path 3	157 P
Rio Hondo Left Overbank Path 5	158-159 P

Rio Hondo Left Overbank Path 6	160 P
Rustic Canyon	161-164 P
Sand Canyon Creek	165 P
Santa Maria Canyon	166 P
Stokes Canyon	167-170 P
Topanga Canyon	171-195 P
Trancas Creek	196 P
Triunfo Creek	197-201 P
Unnamed Canyon (Serra Retreat Area)	202-203 P
Upper Los Angeles River Left Overbank	204 P
Weldon Canyon	205-206 P
Zuma Canyon	207-214 P
Unnamed Stream Main Reach	215-220 P
Unnamed Stream Tributary 1	221-222 P
Unnamed Stream Tributary 2	223-225 P

Published Separately

Flood Insurance Rate Map (FIRM)

SECTION 6.0 – MAPPING METHODS

6.1 Vertical and Horizontal Control

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

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

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

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

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

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

Table 20: Countywide Vertical Datum Conversion

[Not Applicable to this Flood Risk Project]

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

Table 21: Stream-Based Vertical Datum Conversion

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

Table 21: Stream-Based Vertical Datum Conversion, Continued

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

6.2 Base Map

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

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

Table 22: Base Map Sources

Data Type	Data Provider	Data Date	Data Scale	Data Description
Digital Orthophoto	U.S. Department of Agriculture (USDA)	2014	1:12,000	Digital ortho imagery from the National Agriculture Imagery Program (NAIP).
Digital Data Vector	U.S. Geological Survey (USGS)	1989	1:12,000	Spatial and attribute information for the index of USGS 7.5-Minute Series Topographic Map boundaries.
Digital Data Vector	U.S. Department of the Interior Bureau of Land Mangement (BLM)	2008	1:12,000	Spatial and attribute information for PLSS Section, Township, and Range Gridlines.
Digital Data Vector	U.S. Geological Survey (USGS)	1994	1:12,000	Spatial and attribute information for some streamlines and some general structures.
Digital Data Vector	Los Angeles County Department of Public Works	2013	1:12,000	Spatial and attribute information for political boundaries for Los Angeles County and Incorporated Areas.
Digital Data Vector	U.S. Department of the Interior Bureau of Land Mangement (BLM)	2005	1:12,000	Spatial and attribute information for Federal Lands and Military base.
Digital Data Vector	U.S. Dept. of Commerce, U.S. Census Bureau, Geography Divn.	2014	1:12,000	Spatial and attribute information for transportation labels.
Digital Data Vector	California Protected Areas Database, GreenInfo Network	2014	1:12,000	Spatial and attribute information for National Forests.

6.3 Floodplain and Floodway Delineation

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

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

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

The floodway widths presented in this FIS Report and on the FIRM were computed for certain stream segments on the basis of equal conveyance reduction from each side of the floodplain. Floodway widths were computed at cross sections. Between cross sections, the floodway boundaries were interpolated. Table 2 indicates the flooding sources for which floodways have been determined. The results of the floodway computations for those flooding sources have been tabulated for selected cross sections and are shown in Table 24, "Floodway Data."

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

Table 23: Summary of Topographic Elevation Data used in Mapping

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

BFEs shown at cross sections on the FIRM represent the 1% annual chance water surface

elevations shown on the Flood Profiles and in the Floodway Data tables in the FIS Report. Rounded whole-foot elevations may be shown on the FIRM in coastal areas, areas of ponding, and other areas with static base flood elevations.

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Anaverde Creek								
A	1,220	104	354	10.5	2,744.4	2,744.4	2,744.4	0.0
B	1,410	105	342	10.9	2,745.2	2,745.2	2,745.2	0.0
C	2,110	310	535	7.0	2,756.3	2,756.3	2,756.4	0.1
D	2,400	285	403	9.3	2,760.6	2,760.6	2,761.0	0.4
E	3,020	579 ²	596	6.3	2,768.9	2,768.9	2,768.9	0.0
F	4,090	257 ²	436	8.6	2,785.3	2,785.3	2,785.9	0.6
G	4,371	480	549	6.8	2,800.2	2,800.2	2,800.7	0.5
H	4,476	480	3,261	1.1	2,801.2	2,801.2	2,801.9	0.7
I	5,251	140	391	9.5	2,803.2	2,803.2	2,803.2	0.0
J	8,501	57 ³	292	12.4	2,859.5	2,859.5	2,859.5	0.0
K	8,871	53 ³	329	11.0	2,869.2	2,869.2	2,869.2	0.0
L	9,261	80 ³	372	9.8	2,875.4	2,875.4	2,875.4	0.0
M	9,711	105 ³	488	7.4	2,879.8	2,879.8	2,880.3	0.5
N	10,191	127 ³	342	9.4	2,886.7	2,886.7	2,886.7	0.0
O	12,251	139 ³	549	5.8	2,905.7	2,905.7	2,905.7	0.0
P	12,581	139 ³	432	7.4	2,907.6	2,907.6	2,907.6	0.0
Q	13,291	220	1,008	3.2	2,914.0	2,914.0	2,914.1	0.1
R	13,561	220	1,401	2.3	2,914.4	2,914.4	2,914.6	0.2
S	13,941	250	997	3.2	2,914.6	2,914.6	2,914.9	0.3
T	14,381	139	333	7.3	2,916.2	2,916.2	2,916.6	0.4
U	18,091	115	812	3.0	2,928.4	2,928.4	2,928.5	0.1
V	18,341	31	300	8.1	2,928.6	2,928.6	2,928.7	0.1
W	18,611	31	272	9.0	2,931.8	2,931.8	2,931.8	0.0

¹ Feet above Division Street

² Area of stilling basin -- no floodway determined between sections

³ Lies entirely outside corporate limits of City of Palmdale

TABLE 24

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

FLOODWAY DATA

ANAVERDE CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Kagel Canyon A	650 ²	100	149	7.23	1,150.8	1,150.8	1,150.8	0.0
Rustic Canyon A	4,164 ³	60	216	9.63	192.8	192.8	192.8	0.0
B	4,780 ³	120	243	8.29	204.8	204.8	204.8	0.0
C	5,400 ³	150	149	7.23	219.8	219.8	219.8	0.0
D	6,130 ³	65	230	7.97	235.6	235.6	235.6	0.0
E	7,350 ³	29	180	9.81	259.2	259.2	259.2	0.0
F	8220 ³	49	141	12.01	281.6	281.6	281.6	0.0
Weldon Canyon A	1,290 ¹	70	210	5.40	1,377.9	1,377.9	1,377.9	0.0

¹ Feet Upstream of Golden State Freeway Bridge

² Feet Upstream from Northwest Edge of Osbourne Street

³ Feet Upstream of Latimer Road

TABLE 24

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

FLOODWAY DATA

KAGEL CANYON - RUSTIC CANYON - WELDON CANYON

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	106	191	2,235	9.0	737.0	737.0	737.0	0.0
B	2,997	238	2,449	7.9	747.6	747.6	747.9	0.3
C	5,561	262	2,437	8.0	756.0	756.0	756.9	0.9
D	7,584	308	3,884	5.0	770.6	770.6	770.6	0.0
E	9,813	135	2,609	7.2	783.4	783.4	783.7	0.3
F	12,066	308	3,544	5.0	790.1	790.1	790.5	0.4
G	14,071	310	2,920	6.0	800.5	800.5	800.5	0.0
H	16,651	144	1,803	8.8	811.7	811.7	812.6	0.9
I	19,121	257	2,029	7.6	825.2	825.2	825.9	0.7
J	21,133	130	1,372	11.1	833.8	833.8	834.2	0.4
K	23,133	190	1,159	13.1	842.2	842.2	842.4	0.2
L	25,905	142	1,788	8.4	861.2	861.2	861.2	0.0

¹Feet above confluence with Malibu Lake

TABLE 24

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

FLOODWAY DATA

FLOODING SOURCE: TRIUNFO CREEK

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

¹ Feet above Pacific Ocean

² 1% annual chance flood discharge contained in structure

TABLE 24

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

FLOODWAY DATA

UNNAMED STREAM MAIN REACH

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

¹ Feet above confluence with Unnamed Stream Main Reach

TABLE 24

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

FLOODWAY DATA

UNNAMED STREAM TRIBUTARY 1

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

¹ Feet above confluence with Unnamed Stream Main Reach

TABLE 24

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

FLOODWAY DATA

UNNAMED STREAM TRIBUTARY 2

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

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

[Not Applicable to this Flood Risk Project]

6.4 Coastal Flood Hazard Mapping

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

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

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

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

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

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

Table 26: Summary of Coastal Transect Mapping Considerations
[Not applicable to this Flood Risk Project]

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

6.5 FIRM Revisions

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

6.5.1 Letters of Map Amendment

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

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

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

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

6.5.2 Letters of Map Revision Based on Fill

A LOMR-F is an official revision by letter to an effective NFIP map. A LOMR-F states FEMA’s

determination concerning whether a structure or parcel has been elevated on fill above the base flood elevation and is, therefore, excluded from the SFHA.

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

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

6.5.3 Letters of Map Revision

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

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

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

Table 27: Incorporated Letters of Map Change

[Not Applicable to this Flood Risk Project]

6.5.4 Physical Map Revisions

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

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

For more information about the PMR process, please visit <http://www.fema.gov> and visit the

“Flood Map Revision Processes” section.

6.5.5 Contracted Restudies

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

6.5.6 Community Map History

The current FIRM presents flooding information for the entire geographic area of Los Angeles County. Previously, separate FIRMs, Flood Hazard Boundary Maps (FHBM) and/or Flood Boundary and Floodway Maps (FBFM) may have been prepared for the incorporated communities and the unincorporated areas in the county that had identified SFHAs. Current and historical data relating to the maps prepared for the project area are presented in Table 28, “Community Map History.” A description of each of the column headings and the source of the date is also listed below.

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

are completed, the FIRM Revision Dates in the table for each community affected by the PMR are updated with the date of the PMR, even if the PMR did not revise all the panels within that community.

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

Table 28: Community Map History

Community Name	Initial Identification Date (First NFIP Map Published)	Initial FHBM Effective Date	FHBM Revision Date(s)	Initial FIRM Effective Date	FIRM Revision Date(s)
Agoura Hills, City of	03/04/1986	—	—	03/04/1986	12/18/1986 08/03/1998 09/26/2008 04/04/2018
Alhambra, City of ¹	09/26/2008	—	—	09/26/2008	—
Arcadia, City of ¹	09/26/2008	—	—	09/26/2008	—
Artesia, City of ¹	09/26/2008	—	—	09/26/2008	—
Avalon, City of	10/08/1976	10/08/1976	—	09/29/1978	11/01/1985 09/26/2008
Azusa, City of	09/26/2008	—	—	09/26/2008	—
Baldwin Park, City of ¹	09/26/2008	—	—	09/26/2008	—
Bell, City of ¹	09/26/2008	—	—	09/26/2008	—
Bell Gardens, City of	09/26/2008	—	—	09/26/2008	—
Bellflower, City of	07/06/1998	—	—	07/06/1998	09/26/2008
Beverly Hills, City of ¹	09/26/2008	—	—	09/26/2008	—
Bradbury, City of ¹	09/26/2008	—	—	09/26/2008	—
Burbank, City of	07/19/1974	07/19/1974	09/26/1975	03/16/1981	01/20/1999 09/26/2008
Calabasas, City of	12/02/1980 (Los Angeles County)	—	—	12/02/1980 (Los Angeles County)	09/26/2008 01/06/2016
Carson, City of	07/06/1998	—	—	07/06/1998	09/26/2008
Cerritos, City of	09/26/2008	—	—	09/26/2008	—
Claremont, City of ¹	11/20/2000	—	—	11/20/2000	07/02/2004 09/26/2008
Commerce, City of	09/26/2008	—	—	09/26/2008	—
Compton, City of	07/06/1998	—	—	07/06/1998	09/26/2008

Table 28: Community Map History, Continued

Community Name	Initial Identification Date (First NFIP Map Published)	Initial FHBM Effective Date	FHBM Revision Date(s)	Initial FIRM Effective Date	FIRM Revision Date(s)
Covina, City of ¹	09/26/2008	—	—	09/26/2008	—
Cudahy, City of	09/26/2008	—	—	09/26/2008	—
Culver City, City of	06/28/1974	06/28/1974	10/31/1975 09/03/1976	02/01/1980	09/26/2008
Diamond Bar, City of	12/02/1980 (Los Angeles County)	—	—	12/02/1980 (Los Angeles County)	09/26/2008
Downey, City of	07/06/1998	—	—	07/06/1998	09/26/2008
Duarte, City of ¹	09/26/2008	—	—	09/26/2008	—
El Monte, City of ¹	09/26/2008	—	—	09/26/2008	—
El Segundo, City of	09/26/2008	—	—	09/26/2008	—
Gardena, City of	07/06/1998	—	—	07/06/1998	09/26/2008
Glendale, City of ¹	09/26/2008	—	—	09/26/2008	—
Glendora, City of	09/26/2008	—	—	09/26/2008	—
Hawaiian Gardens, City of ¹	09/26/2008	—	—	09/26/2008	—
Hawthorne, City of ¹	12/04/1979	—	—	12/04/1979	09/26/2008
Hermosa Beach, City of	09/26/2008	—	—	09/26/2008	—
Hidden Hills, City of	09/07/1984	—	—	09/07/1984	11/21/2001 01/19/2006 09/26/2008
Huntington Park, City of ¹	09/26/2008	—	—	09/26/2008	—
Industry, City of ¹	09/26/2008	—	—	09/26/2008	—
Inglewood, City of ¹	09/26/2008	—	—	09/26/2008	—
Irwindale, City of ¹	09/26/2008	—	—	09/26/2008	—
La Canada Flintridge, City of ¹	09/26/2008	—	—	09/26/2008	—
La Habra Heights, City of ¹	09/26/2008	—	—	09/26/2008	—
La Mirada, City of	06/28/1974	06/28/1974	10/10/1975 12/10/1976	07/02/1980	09/26/2008
La Puente, City of ¹	09/26/2008	—	—	09/26/2008	—

Table 28: Community Map History, Continued

Community Name	Initial Identification Date (First NFIP Map Published)	Initial FHBM Effective Date	FHBM Revision Date(s)	Initial FIRM Effective Date	FIRM Revision Date(s)
La Verne, City of	09/26/2008	—	—	09/26/2008	—
Lakewood, City of	07/06/1998	—	—	07/06/1998	09/26/2008
Lancaster, City of	09/11/1979	09/11/1979	—	01/06/1982	09/26/2008
Lawndale, City of ¹	09/26/2008	—	—	09/26/2008	—
Lomita, City of ¹	09/26/2008	—	—	09/26/2008	—
Long Beach, City of	07/26/1974	07/26/1974	07/11/1978	09/15/1983	07/06/1998 09/26/2008
Los Angeles, City of	12/13/1977	12/13/1977	04/08/1980	12/02/1980	02/04/1987 07/06/1998 05/04/1999 09/26/2008
Los Angeles County Unincorporated Areas	10/24/1978	10/24/1978	—	12/02/1980	11/15/1985 03/30/1998 07/06/1998 09/26/2008 01/06/2016 04/04/2018
Lynwood, City of	06/28/1974	06/28/1974	11/21/1975	04/15/1980	07/06/1998 09/26/2008
Malibu, City of	09/26/2008	—	—	09/26/2008	—
Manhattan Beach, City of	09/26/2008	—	—	09/26/2008	—
Maywood, City of ¹	09/26/2008	—	—	09/26/2008	—
Monrovia, City of ¹	09/26/2008	—	—	09/26/2008	—
Montebello, City of	06/28/1974	06/28/1974	12/19/1975	03/18/1980	07/06/1998 09/26/2008
Monterey Park, City of ¹	09/26/2008	—	—	09/26/2008	—
Norwalk, City of	09/26/2008	—	—	09/26/2008	—
Palmdale, City of	10/18/1974	10/18/1974	12/24/1976	01/06/1982	06/18/1987 03/30/1998 09/26/2008
Palos Verdes Estates, City of	09/07/1984	—	—	09/07/1984	11/21/2001 07/02/2004 09/26/2008 01/06/2016
Paramount, City of	07/06/1998	—	—	07/06/1998	09/26/2008
Pasadena, City of ¹	09/26/2008	—	—	09/26/2008	—

Table 28: Community Map History, Continued

Community Name	Initial Identification Date (First NFIP Map Published)	Initial FHBM Effective Date	FHBM Revision Date(s)	Initial FIRM Effective Date	FIRM Revision Date(s)
Pico Rivera, City of	07/06/1998	—	—	07/06/1998	09/26/2008
Pomona, City of ¹	09/26/2008	—	—	09/26/2008	—
Rancho Palos Verdes, City of	09/26/2008	—	—	09/26/2008	01/06/2016
Redondo Beach, City of	06/28/1974	06/28/1974	05/21/1976	09/15/1983	09/26/2008
Rolling Hills, City of ¹	09/26/2008	—	—	09/26/2008	—
Rolling Hills Estates, City of ¹	09/26/2008	—	—	09/26/2008	—
Rosemead, City of ¹	09/26/2008	—	—	09/26/2008	—
San Dimas, City of	06/28/1974	06/28/1974	—	04/01/1977	06/02/1978 09/26/2008
San Fernando, City of ¹	09/26/2008	—	—	09/26/2008	—
San Gabriel, City of ¹	09/26/2008	—	—	09/26/2008	—
San Marino, City of ¹	09/26/2008	—	—	09/26/2008	—
Santa Clarita, City of	10/24/1978	10/24/1978	—	12/02/1980	09/29/1989 09/26/2008
Santa Fe Springs, City of	06/28/1974	06/28/1974	10/03/1975	04/15/1980	09/26/2008
Santa Monica, City of	09/26/2008	—	—	09/26/2008	—
Sierra Madre, City of ¹	09/26/2008	—	—	09/26/2008	—
Signal Hill, City of ¹	09/26/2008	—	—	09/26/2008	—
South El Monte, City of ¹	09/26/2008	—	—	09/26/2008	—
South Gate, City of	07/06/1998	—	—	07/06/1998	09/26/2008
South Pasadena, City of ¹	09/26/2008	—	—	09/26/2008	—
Temple City, City of ¹	09/26/2008	—	—	09/26/2008	—
Torrance, City of	08/02/1974	08/02/1974	12/05/1975	12/18/1979	01/06/2016 09/26/2008
Vernon, City of ¹	09/26/2008	—	—	09/26/2008	—

Table 28: Community Map History, Continued

Community Name	Initial Identification Date (First NFIP Map Published)	Initial FHBM Effective Date	FHBM Revision Date(s)	Initial FIRM Effective Date	FIRM Revision Date(s)
Walnut, City of ¹	09/26/2008	—	—	09/26/2008	—
West Covina, City of	12/02/2004	—	—	12/02/2004	09/26/2008
West Hollywood, City of	06/18/1987	—	—	06/18/1987	09/26/2008
Westlake Village, City of	09/26/2008	—	—	09/26/2008	04/04/2018
Whittier, City of	06/28/1974	06/28/1974	12/12/1975	01/16/1981	09/26/2008

¹ No Special Flood Hazard Areas Identified

SECTION 7.0 – CONTRACTED STUDIES AND COMMUNITY COORDINATION

7.1 Contracted Studies

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

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

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Acton Canyon and tributaries	—	Los Angeles County Flood Control District (LACFCD)	H-3940	—	Los Angeles County
Agua Amarge Canyon	—	LACFCD	H-3940	—	City of Palos Verdes Estates
Agua Dulce Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Agua Dulce Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Agua Dulce Canyon Creek Lateral	01/01/2015	HDR Engineering Inc.	EMF-2003-CO-0045, Task Order 21	August 2008	Los Angeles County

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

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Alamitos Bay	—	LACFCD	H-3940	—	City of Long Beach
Aliso Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Amargosa Creek	—	Rick Engineering Company	EMW-84-1639	November 1985	City of Lancaster; Los Angeles County; City of Palmdale
Amargosa Creek Tributary	—	LACFCD	H-3940	—	City of Lancaster
Anaverde Creek	—	Rick Engineering Company	EMW-84-1639	November 1985	City of Palmdale
Arrastre Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Arroyo Calabasas	—	LACFCD	H-3940	—	City of Los Angeles
Arroyo San Miguel	—	LACFCD	H-3940	August 1978	City of Whittier
Arroyo Sequit	—	LACFCD	H-3940	—	Los Angeles County
Avalon Bay	—	LACFCD	H-3940	—	City of Avalon
Avalon Canyon	—	LACFCD	H-3940	—	City of Avalon
Back Channel	—	LACFCD	H-3940	—	City of Long Beach
Ballona Creek	—	LACFCD	H-3940	—	City of Los Angeles
Ballona Creek	—	LACFCD	H-3940	—	City of Culver City; City of Los Angeles

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

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Ballona Creek watershed	pending	BakerAECOM	HSFEHQ-D-09-0368	September 2015	City of Los Angeles, Los Angeles County
Bar Creek	—	LACFCD	H-3940	—	City of Diamond Bar
Bee Canyon Creek	—	LACFCD	H-3940	—	City of Los Angeles, Los Angeles County
Big Rock Creek	—	LACFCD	H-3940	—	Los Angeles County
Big Rock Creek South Fork	—	LACFCD	H-3940	—	Los Angeles County
Big Rock Wash	—	LACFCD	H-3940	—	City of Lancaster; Los Angeles County
Big Rock Wash (Profile Base Line)	—	Rick Engineering Company	EMW-84-1639	November 1985	City of Palmdale
Big Tujunga Wash	—	LACFCD	H-3940	—	City of Los Angeles
Boulder Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Bouquet Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Bouquet Reservoir	—	LACFCD	H-3940	—	Los Angeles County
Broad Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Browns Creek	—	LACFCD	H-3940	—	City of Los Angeles
California Aqueduct	—	LACFCD	H-3940	—	Los Angeles County
Canada De Los Alamos Creek	—	LACFCD	H-3940	—	Los Angeles County

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

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Carlos Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Carr Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Castaic Creek	—	LACFCD	H-3940	—	Los Angeles County
Castaic Lagoon	—	LACFCD	H-3940	—	Los Angeles County
Castaic Lake	—	LACFCD	H-3940	—	Los Angeles County
Channel No. 2	—	LACFCD	H-3940	—	City of Long Beach
Channel No. 3	—	LACFCD	H-3940	—	City of Long Beach
Charlie Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Chatsworth Reservoir	—	LACFCD	H-3940	—	City of Los Angeles
Cherry Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Cheseboro Creek	—	LACFCD	H-3940	—	City of Agoura Hills; Los Angeles County
Cold Creek	—	LACFCD	H-3940	—	Los Angeles County
Cold Creek	—	LACFCD	H-3940	—	Los Angeles County
Colorado Lagoon	—	LACFCD	H-3940	—	City of Long Beach
Consolidated Channel	—	LACFCD	H-3940	—	City of Los Angeles

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

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Coyote Canyon Creek	—	LACFCD	H-3940	—	City of Santa Clarita
Coyote Creek	—	LACFCD	H-3940	—	City of Long Beach
Cruthers Creek	—	LACFCD	H-3940	—	Los Angeles County
Dark Canyon	—	LACFCD	H-3940	—	Los Angeles County
Dark Canyon West Branch	—	LACFCD	H-3940	—	Los Angeles County
Dewitt Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Dominguez Channel	—	LACFCD	H-3940	—	City of Los Angeles
Dorr Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Dowd Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Dry Canyon	—	LACFCD	H-3940	—	Los Angeles County; City of Santa Clarita, City of Calabasas
East Basin	—	LACFCD	H-3940	—	City of Los Angeles
Elizabeth Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Elizabeth Lake	—	LACFCD	H-3940	—	Los Angeles County
Eller Slough	—	LACFCD	H-3940	—	Los Angeles County
Elsmere Canyon Creek	—	LACFCD	H-3940	—	City of Santa Clarita

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

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Encino Reservoir	—	LACFCD	H-3940	—	City of Los Angeles
Entrance Channel (Marina Del Ray)	—	LACFCD	H-3940	—	Los Angeles County; City of Los Angeles
Escondido Canyon	—	LACFCD	H-3940	—	Los Angeles County, City of Malibu
Fenner Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Fish Harbor	—	LACFCD	H-3940	—	City of Los Angeles
Flood Control Channel to Aliso Creek	—	LACFCD	H-3940	—	City of Los Angeles
Flowline No. 1	—	LACFCD	H-3940	October 1978	City of Santa Fe Springs
Garapito Creek	—	LACFCD	H-3940	—	Los Angeles County
Gavin Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County; City of Santa Clarita
Gorman Creek	—	LACFCD	H-3940	—	Los Angeles County
Gorman Canyon Creek	—	LACFCD	H-3940	—	City of Santa Clarita
Graham Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Harbor Lake	—	LACFCD	H-3940	—	City of Los Angeles
Haskell Canyon	—	LACFCD	H-3940	—	Los Angeles County; City of Santa Clarita

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

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Hasley Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Holcomb Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Holmes Creek	—	LACFCD	H-3940	—	Los Angeles County
Hughes Lake	—	LACFCD	H-3940	—	Los Angeles County
Iron Canyon	01/06/2016	HDR Engineering Inc.	EMF-2003-CO-0045, Task Order 33	February 2010	Los Angeles County; City of Santa Clarita
Jesus Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Kagel Canyon	—	LACFCD	H-3940	—	City of Los Angeles, Los Angeles County
Kentucky Springs Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
La Mirada Creek	—	LACFCD	H-3940	—	City of La Mirada
Lake Lindero	—	LACFCD	H-3940	—	City of Agoura Hills; City of Westlake Village
Lake Palmdale	—	LACFCD	H-3940	—	Los Angeles County
Lake Street Overflow	—	LACFCD	H-3940	—	City of Burbank
Las Flores Canyon	—	LACFCD	H-3940	—	Los Angeles County; City of Malibu
Las Virgenes Creek	01/06/2016	BakerAECOM	HSFEHQ-09-D-0368, Task Order HSFE09-10-J-0002	August 2010	City of Calabasas; Los Angeles County

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

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Leaming Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Lemontaine Creek	—	LACFCD	H-3940	—	Los Angeles County
Liberty Canyon	—	LACFCD	H-3940	—	City of Agoura Hills; Los Angeles County
Limekiln Creek	—	LACFCD	H-3940	—	City of Los Angeles
Lindero Canyon	—	LACFCD	H-3940	—	City of Agoura Hills; City of Westlake Village
Little Rock Creek	—	LACFCD	H-3940	—	Los Angeles County
Little Rock Reservoir	—	LACFCD	H-3940	—	Los Angeles County
Little Rock Wash	—	LACFCD	H-3940	—	City of Lancaster; Los Angeles County
Little Rock Wash	—	LACFCD	H-3940	—	Los Angeles County
Little Rock Wash - Profile A	—	Rick Engineering Company	EMW-84-1639	November 1985	City of Palmdale, Los Angeles County
Little Rock Wash - Profile B	—	Rick Engineering Company	EMW-84-1639	November 1985	City of Palmdale
Little Rock Wash - Profile C	—	Rick Engineering Company	EMW-84-1639	November 1985	Los Angeles County; City of Palmdale
Little Tujunga Wash	—	LACFCD	H-3940	—	Los Angeles County; City of Los Angeles
Lobo Canyon	—	LACFCD	H-3940	—	Los Angeles County

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

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Lockheed Drain Channel	—	LACFCD	H-3940	—	City of Burbank; City of Los Angeles
Lockheed Storm Drain	—	LACFCD	H-3940	—	City of Burbank; City of Los Angeles
Lopez Canyon Channel	—	LACFCD	H-3940	—	Los Angeles County; City of Los Angeles
Los Angeles County Flood Control Channel	—	LACFCD	H-3940	—	City of Los Angeles
Los Angeles County Flood Control Channel to Aliso Creek	—	LACFCD	H-3940	—	City of Los Angeles
Los Angeles County Storm Drain	—	LACFCD	H-3940	—	City of Carson; Los Angeles County
Los Angeles Harbor	—	LACFCD	H-3940	—	City of Los Angeles
Los Angeles Reservoir	—	LACFCD	H-3940	—	City of Los Angeles
Los Angeles River	—	Schaaf & Wheeler, Consulting Civil Engineers	EMW-86-C-2248	May 1991	City of Compton; City of Cudahy; City of Long Beach; Los Angeles County; City of Paramount; City of South Gate
Los Angeles River Flood Control Channel	—	LACFCD	H-3940	—	City of Burbank
Los Angeles River Flood Control Channel	—	LACFCD	H-3940	—	City of Burbank

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

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Los Cerritos Channel	—	LACFCD	H-3940	—	City of Long Beach; City of Los Angeles
Lyon Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County; City of Santa Clarita
Main Channel	—	LACFCD	H-3940	—	City of Los Angeles
Malaga Canyon Creek	—	LACFCD	H-3940	—	City of Palos Verdes Estates
Malibu Creek	—	LACFCD	H-3940	—	Los Angeles County; City of Malibu
Malibu Lake	—	LACFCD	H-3940	—	Los Angeles County
Marina Del Ray	—	LACFCD	H-3940	—	Los Angeles County; City of Los Angeles
Marine Stadium	—	LACFCD	H-3940	—	City of Long Beach
Medea Creek	—	LACFCD	H-3940	—	City of Agoura Hills; Los Angeles County
Middle Harbor	—	LACFCD	H-3940	—	City of Long Beach
Mill Creek	—	LACFCD	H-3940	—	Los Angeles County
Milton B. Arthur Lakes	—	LACFCD	H-3940	—	City of Long Beach
Mint Canyon Creek	01/06/2015	HDR Engineering Inc.	EMF-2003-CO-0045, Task Order 33	February 2010	Los Angeles County; City of Santa Clarita
Mint Canyon Creek Overflow	—	LACFCD	H-3940	—	City of Santa Clarita

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

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Montebello Municipal Golf Course Pond	—	LACFCD	H-3940	—	City of Montebello
Muscal Creek	—	LACFCD	H-3940	—	Los Angeles County
Myrick Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Oak Springs Canyon	—	LACFCD	H-3940	—	Los Angeles County; City of Santa Clarita
Oakgrove Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Old Topanga Canyon	—	LACFCD	H-3940	—	Los Angeles County
Oro Fino Canyon Creek	—	LACFCD	H-3940	—	City of Santa Clarita
Oso Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Pacific Terrace Harbor	—	LACFCD	H-3940	—	City of Long Beach
Pacoima Channel	—	LACFCD	H-3940	—	City of Los Angeles
Pacoima Wash	—	LACFCD	H-3940	—	Los Angeles County; City of Los Angeles
Pallett Creek	—	LACFCD	H-3940	—	Los Angeles County
Palmdale Ditch	—	LACFCD	H-3940	—	Los Angeles County
Palo Comando Creek	—	LACFCD	H-3940	—	City of Agoura Hills; Los Angeles County

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

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Palomas Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Pico Canyon	—	LACFCD	H-3940	1984	Los Angeles County; City of Santa Clarita
Pine Canyon Creek	—	Rick Engineering Company	EMW-84-1639	November 1985	City of Palmdale
Pine Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Piru Creek	—	LACFCD	H-3940	—	Los Angeles County
Placerita Creek	—	LACFCD	H-3940	—	Los Angeles County; City of Santa Clarita
Plum Canyon	—	LACFCD	H-3940	—	Los Angeles County
Portal Ridge Wash	—	LACFCD	H-3940	—	City of Lancaster
Potrero Canyon	—	LACFCD	H-3940	—	Los Angeles County
Potrero Valley Creek (Westlake Lake)	—	LACFCD	H-3940	—	City of Westlake Village
Puzzle Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Pyramid Lake	—	LACFCD	H-3940	—	Los Angeles County
Quail Lake	—	LACFCD	H-3940	—	Los Angeles County
Quigley Canyon Creek	—	LACFCD	H-3940	1984	City of Santa Clarita

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

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Railroad Canyon	—	LACFCD	H-3940	1984	City of Santa Clarita
Ramirez Canyon	—	LACFCD	H-3940	—	Los Angeles County; City of Malibu
Reservoir near UCLA	—	LACFCD	H-3940	—	City of Los Angeles
Rice Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Rio Hondo River	—	Schaaf & Wheeler, Consulting Civil Engineers	EMW-86-C-2248	May 1991	City of Bell Gardens; City of Downey; Los Angeles County; City of Montebello; City of Pico Rivera; City of South Gate
Rio Hondo River Tributary	—	Schaaf & Wheeler, Consulting Civil Engineers	EMW-86-C-2248	May 1991	City of Montebello
Roberts Canyon Creek	—	LACFCD	H-3940	—	City of Azusa
Rock Creek	—	LACFCD	H-3940	—	Los Angeles County
Romero Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Rustic Canyon	—	LACFCD	H-3940	—	City of Los Angeles
Salt Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
San Dimas Wash	—	LACFCD	H-3940	—	City of San Dimas

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

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
San Francisquito Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
San Gabriel River	—	LACFCD	H-3940	—	City of Bellflower; City of Cerritos; City of Lakewood; City of Long Beach
San Gabriel River	—	LACFCD	H-3940	—	City of Azusa; Los Angeles County
San Martinez Chiquito Canyon	—	LACFCD	H-3940	—	Los Angeles County
San Martinez Grande Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
San Pedro Bay	—	LACFCD	H-3940	—	City of Long Beach
Sand Canyon Creek	—	LACFCD	H-3940	1984	Los Angeles County; City of Santa Clarita
Sand Canyon Creek Tributary 1	—	LACFCD	H-3940	1984	City of Santa Clarita
Sand Canyon Creek Tributary 2	—	LACFCD	H-3940	1984	City of Santa Clarita
Santa Clara River	—	LACFCD	H-3940	—	Los Angeles County
Santa Maria Canyon	—	LACFCD	H-3940	—	Los Angeles County
Santa Susana Pass Wash	—	LACFCD	H-3940	—	City of Los Angeles
Santa Ynez Canyon Reservoir	—	LACFCD	H-3940	—	City of Los Angeles

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

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Savage Creek	—	LACFCD	H-3940	August 1978	City of Whittier
Sierra Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Sloan Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Soledad Canyon	—	LACFCD	H-3940	—	Los Angeles County
South Portal Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Stokes Canyon	—	LACFCD	H-3940	—	Los Angeles County
Sullivan Canyon Creek	—	LACFCD	H-3940	—	City of Los Angeles
Sunshine Canyon Creek	—	LACFCD	H-3940	—	City of Los Angeles
Tacobi Creek	—	LACFCD	H-3940	August 1978	City of Whittier
Tapia Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Texas Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Tonner Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Topanga Canyon	—	LACFCD	H-3940	—	Los Angeles County; City of Los Angeles
Towsley Canyon Creek	—	LACFCD	H-3940	1984	Los Angeles County; City of Santa Clarita

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

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Trancas Creek	—	LACFCD	H-3940	—	City of Malibu
Triunfo Creek	—	LACFCD	D-0368	2015	Los Angeles County; City of Westlake Village
Turnbull Canyon Creek	—	LACFCD	H-3940	August 1978	City of Whittier
Unnamed Canyon Creek (Serra Retreat Area)	—	LACFCD	H-3940	—	Los Angeles County; City of Malibu
Unnamed Stream Main Reach	01/06/2016	HDR Engineering Inc.	EMF-2003-CO-0045, Task Order 15	February 2010	City of Palos Verdes Estates
Unnamed Stream Tributary 1	01/06/2016	HDR Engineering Inc.	EMF-2003-CO-0045, Task Order 15	February 2010	City of Palos Verdes Estates
Unnamed Stream Tributary 2	01/06/2016	HDR Engineering Inc.	EMF-2003-CO-0045, Task Order 15	February 2010	City of Palos Verdes Estates
Upper Los Angeles River Left Overbank	—	LACFCD	H-3940	—	City of Los Angeles
Vasquez Canyon	—	LACFCD	H-3940	—	Los Angeles County
Villa Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Vine Creek	—	LACFCD	H-3940	—	City of West Covina
Violin Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Violin Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County

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

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Wayside Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Weldon Canyon	—	LACFCD	H-3940	—	City of Los Angeles
West Basin	—	LACFCD	H-3940	—	City of Los Angeles
West Channel	—	LACFCD	H-3940	—	City of Los Angeles
Westlake Lake	—	LACFCD	D-0368	—	City of Westlake Village
Whitney Canyon Creek	—	LACFCD	H-3940	1984	Los Angeles County; City of Santa Clarita
Wildwood Canyon Creek	—	LACFCD	H-3940	1984	City of Santa Clarita
Wiley Canyon Creek	—	LACFCD	H-3940	1984	Los Angeles County; City of Santa Clarita
Willow Springs Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Young Canyon Creek	—	LACFCD	H-3940	—	Los Angeles County
Zuma Canyon	—	LACFCD	H-3940	—	Los Angeles County; City of Malibu

7.2 Community Meetings

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

Table 30: Community Meetings

Community	FIS Report Dated	Date of Meeting	Meeting Type	Attended By
Los Angeles County and Incorporated Areas	09/26/2008	05/09/2005-05/12/2005	Initial CCO	Representatives of FEMA, the County, California Department of Water Resources (DWR), Office of the County Engineer, and the study contractor
		11/15/2005-11/16/2005	Final CCO	Representatives of FEMA, the County, California Department of Water Resources (DWR), Office of the County Engineer, and the study contractor
Los Angeles County, Unincorporated Areas	09/26/2008	02/1976	Initial CCO	Representatives of FEMA, the County, California Department of Water Resources (DWR), Office of the County Engineer, and the study contractor
		05/07/1980	Final CCO	Representatives of FEMA, the County, California Department of Water Resources (DWR), Office of the County Engineer, and the study contractor
Los Angeles County, Unincorporated Areas	01/06/2016	03/10/2011	Initial CCO	Representatives of the City, FEMA, LAFCD, FEMA Region IX, and BakerAECOM
		08/05/2014	Final CCO	Representatives of the City, LAFCD, FEMA Region IX, and BakerAECOM
Los Angeles County, Unincorporated Areas	09/26/2008	04/05/2011	Initial CCO	Representatives of the City of Los Angeles, City of Inglewood, City of West Hollywood, City of Culver City, City of Beverly Hills, LAFCD, FEMA Region IX, and BakerAECOM
		5/21/2013	Flood Risk Review	Representatives of the City of Los Angeles, City of Inglewood, City of West Hollywood, City of Culver City, City of Beverly Hills, LAFCD, FEMA Region IX, and BakerAECOM
		04/28/2015	Flood Risk Review	Representatives of the City, LAFCD, FEMA Region IX, and BakerAECOM
City of Agoura Hills	09/26/2008	01/26/1984 10/12/1995	Initial CCO	Representatives of FEMA, the City, and the study contractor
		12/20/1984	Final CCO	Representatives of FEMA, the City, and the study contractor

Table 30: Community Meetings, Continued

Community	FIS Report Dated	Date of Meeting	Meeting Type	Attended By
City of Avalon	09/26/2008	02/1976	Initial CCO	Representatives of FEMA, the City, California DWR, and LACFCD
		11/09/1977	Final CCO	Representatives of FEMA, the City, California DWR, and LACFCD
City of Bellflower	09/26/2008	01/28/1986	Initial CCO	Representatives of FEMA, the City, County, LACFCD, USACE, and the study contractor
		10/30/1991	Final CCO	Representatives of FEMA, the study contractor and communities affected by the Los Angeles River and Rio Hondo restudy
City of Burbank	09/26/2008	02/1976	Initial CCO	Representatives of the City, community, FIA, California DWR, and the study contractor
		11/02/1979 10/15/1997	Final CCO	Representatives of the City, community, FIA, California DWR, and the study contractor
City of Calabasas	01/06/2016	03/10/2011	Initial CCO	Representatives of the City, FEMA, LAFCD, FEMA Region IX, and BakerAECOM
		08/05/2014	Final CCO	Representatives of the City, LAFCD, FEMA Region IX, and BakerAECOM
City of Carson	09/26/2008	01/28/1986	Initial CCO	Representatives of FEMA, the Cities of Downey, Long Beach, Lynwood, Vernon, Bellflower, Paramount, and the County, LACFCD, USACE, and the study contractor
		10/30/1991	Final CCO	Representatives of FEMA, the study contractor and communities affected by the Los Angeles River and Rio Hondo restudy
City of Compton	09/26/2008	01/28/1986	Initial CCO	Representatives of FEMA, the Cities of Downey, Long Beach, Lynwood, Vernon, Bellflower, Paramount, and the County, LACFCD, USACE, and the study contractor
		10/30/1991	Final CCO	Representatives of FEMA, the study contractor and communities affected by the Los Angeles River and Rio Hondo restudy

Table 30: Community Meetings, Continued

Community	FIS Report Dated	Date of Meeting	Meeting Type	Attended By
City of Culver City	09/26/2008	02/1976	Initial CCO	Representatives of the City, FIA, California DWR, and LACFCD (the study contractor)
		01/11/1979	Final CCO	Representatives of the City, FIA, and the study contractor
City of Culver City	09/26/2008	04/05/2011	Initial CCO	Representatives of the City of Los Angeles, City of Inglewood, City of West Hollywood, City of Culver City, City of Beverly Hills, LAFCD, FEMA Region IX, and BakerAECOM
		5/21/2013	Flood Risk Review	Representatives of the City of Los Angeles, City of Inglewood, City of West Hollywood, City of Culver City, City of Beverly Hills, LAFCD, FEMA Region IX, and BakerAECOM
City of Downey	09/26/2008	01/28/1986	Initial CCO	Representatives of FEMA, the Cities of Downey, Long Beach, Lynwood, Vernon, Bellflower, Paramount, and the County, LACFCD, USACE, and the study contractor
		10/30/1991	Final CCO	Representatives of FEMA, the study contractor and communities affected by the Los Angeles River and Rio Hondo restudy
City of Gardena	09/26/2008	01/28/1986	Initial CCO	Representatives of FEMA, the Cities of Downey, Long Beach, Lynwood, Vernon, Bellflower, Paramount, and the County, LACFCD, USACE, and the study contractor
		10/30/1991	Final CCO	Representatives of FEMA, the study contractor and communities affected by the Los Angeles River and Rio Hondo restudy
City of La Mirada	09/26/2008	02/1976	Initial CCO	The City Engineer and representatives of the FIA, California DWR, and LLACFCD
		05/21/1979	Final CCO	Representatives of the City, FIA, study contractor, and LACFCD, and the City

Table 30: Community Meetings, Continued

Community	FIS Report Dated	Date of Meeting	Meeting Type	Attended By
City of Lakewood	09/26/2008	01/28/1986	Initial CCO	Representatives of FEMA, the Cities of Downey, Long Beach, Lynwood, Vernon, Bellflower, Paramount, and the County, LACFCD, USACE, and the study contractor
		10/30/1991	Final CCO	Representatives of FEMA, the study contractor and communities affected by the Los Angeles River and Rio Hondo restudy
City of Lancaster	09/26/2008	02/1976	Initial CCO	Representatives of the City, FIA, the California DWR, and the study contractor
		01/13/1981	Final CCO	Representatives of the City, FIA, and the study contractor
City of Long Beach	09/26/2008	02/1976 01/28/1986	Initial CCO	Representatives of the Cities of Downey, Long Beach, Lynwood, Vernon, Bellflower, and Paramount, and of FEMA, the USACE, and LACFCD, and the study contractor
		10/27/1982 10/30/1991	Final CCO	Representatives of FEMA, the study contractor and communities affected by the Los Angeles River and Rio Hondo restudy
City of Los Angeles	09/26/2008	02/1976	Initial CCO	Representatives of FEMA, the California DWR, and the study contractor
		05/07/1980 12/03/1997	Final CCO	Representatives of FEMA, the City and the study contractor
City of Los Angeles	09/26/2008	04/05/2011	Initial CCO	Representatives of the City of Los Angeles, City of Inglewood, City of West Hollywood, City of Culver City, City of Beverly Hills, LAFCD, FEMA Region IX, and BakerAECOM
		5/21/2013	Flood Risk Review	Representatives of the City of Los Angeles, City of Inglewood, City of West Hollywood, City of Culver City, City of Beverly Hills, LAFCD, FEMA Region IX, and BakerAECOM
		04/28/2015	Flood Risk Review	Representatives of the City, LAFCD, FEMA Region IX, and BakerAECOM

Table 30: Community Meetings, Continued

Community	FIS Report Dated	Date of Meeting	Meeting Type	Attended By
City of Lynwood	09/26/2008	01/28/1986	Initial CCO	Representatives of FEMA, the Cities of Downey, Long Beach, Lynwood, Vernon, Bellflower, Paramount, and the County, LACFCD, USACE, and the study contractor
		10/30/1991	Final CCO	Representatives of FEMA, the study contractor and communities affected by the Los Angeles River and Rio Hondo restudy
City of Montebello	09/26/2008	02/1976 01/28/1986	Initial CCO	- Representatives of the City, FIA, State Department of Water Resources, and the study contractor - Representatives of the Cities of Downey, Long Beach, Lynwood, Vernon, Bellflower, and Paramount, and of FEMA, the LACFCD, USACE, and the study contractor
		01/24/1979 10/30/1991	Final CCO	Representatives of FEMA, the study contractor and communities affected by the Los Angeles River and Rio Hondo restudy
City of Palmdale	09/26/2008	02/1976 08/23/1990	Initial CCO	- Representatives of the City, FIA, California DWR, and LACFCD - Representatives of FEMA, the City, California DWR, Los Angeles County Department of Public Works, and the study contractor
		01/08/1986 04/24/1997	Final CCO	- Representatives of FEMA and the City - Representatives of FEMA and the City
City of Palos Verdes Estates	01/06/2016	07/28/2009	Initial CCO	Representatives of the City and FEMA
		08/05/2014	Final CCO	Representatives of the City, FEMA Region IX, and BakerAECOM
City of Paramount	09/26/2008	01/28/1986	Initial CCO	Representatives of FEMA, the Cities of Downey, Long Beach, Lynwood, Vernon, Bellflower, Paramount, and the County, LACFCD, USACE, and the study contractor

Table 30: Community Meetings, Continued

Community	FIS Report Dated	Date of Meeting	Meeting Type	Attended By
City of Paramount (continued)	09/26/2008	10/30/1991	Final CCO	Representatives of FEMA, the study contractor and communities affected by the Los Angeles River and Rio Hondo restudy
City of Pico Rivera	09/26/2008	01/28/1986	Initial CCO	Representatives of FEMA, the Cities of Downey, Long Beach, Lynwood, Vernon, Bellflower, Paramount, and the County, LACFCD, USACE, and the study contractor
		10/30/1991	Final CCO	Representatives of FEMA, the study contractor and communities affected by the Los Angeles River and Rio Hondo restudy
City of Redondo Beach	09/26/2008	02/1976	Initial CCO	Representatives of FEMA, the City Engineering Office, the California DWR, and LACFCD (the study contractor)
		10/27/1982	representatives of the EMA	Representatives of the City, EMA, and the study contractor
City of Santa Clarita	09/26/2008	10/11/1988	Initial CCO	Representatives of the City, FEMA, and the community
		11/17/1988	Final CCO	Representatives of the City, FEMA, and the community
City of Santa Fe Springs	09/26/2008	02/1976	Initial CCO	Representatives of the FIA, California DWR, and the study contractor
		02/28/1979	Final CCO	Representatives of the City, FIA, and the study contractor
City of South Gate	09/26/2008	01/28/1986	Initial CCO	Representatives of FEMA, the Cities of Downey, Long Beach, Lynwood, Vernon, Bellflower, Paramount, and the County, LACFCD, USACE, and the study contractor
		10/30/1991	Final CCO	Representatives of FEMA, the study contractor and communities affected by the Los Angeles River and Rio Hondo restudy
City of Torrance	09/26/2008	02/1976	Initial CCO	Representatives of the City, FIA, California DWR, and the study contractor

Table 30: Community Meetings, Continued

Community	FIS Report Dated	Date of Meeting	Meeting Type	Attended By
City of Torrance (continued)	09/26/2008	01/11/1979	Final CCO	Representatives of the City, FIA, and the study contractor
City of West Hollywood	09/26/2008	02/1976 02/1986	Initial CCO	Representatives of FEMA, the County, California DWR and the study contractor
		05/07/1980 07/03/1986	Final CCO	Representatives of FEMA, the County, Office of the County Engineer, and the study contractor
City of West Hollywood	09/26/2008	04/05/2011	Initial CCO	Representatives of the City of Los Angeles, City of Inglewood, City of West Hollywood, City of Culver City, City of Beverly Hills, LAFCD, FEMA Region IX, and BakerAECOM
		5/21/2013	Flood Risk Review	Representatives of the City of Los Angeles, City of Inglewood, City of West Hollywood, City of Culver City, City of Beverly Hills, LAFCD, FEMA Region IX, and BakerAECOM
City of Whittier	09/26/2008	02/1976	Initial CCO	Representatives of the City, FIA, California DWR, and the study contractor
		11/01/1979	Final CCO	Representatives of the City, FIA, LACFCD, and the study contractor

SECTION 8.0 – ADDITIONAL INFORMATION

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

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

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

Table 31: Map Repositories

Community	Address	City	State	Zip Code
City of Agoura Hills	30001 Ladyface Court	Agoura Hills	CA	91301
City of Alhambra	111 South First Street	Alhambra	CA	91801
City of Arcadia	240 West Huntington Drive	Arcadia	CA	91007
City of Artesia	18747 Clarksdale Avenue	Artesia	CA	90701
City of Avalon	410 Avalon Canyon Road	Avalon	CA	90704
City of Azusa	213 East Foothill Road	Azusa	CA	91702
City of Baldwin Park	14403 East Pacific Avenue	Baldwin Park	CA	91706
City of Bell	7100 South Garfield Avenue	Bell Gardens	CA	90201
City of Bell Gardens	6330 Pine Street	Bell	CA	90201
City of Bellflower	16600 Civic Center Drive	Bellflower	CA	90706
City of Beverly Hills	455 North Rexford Drive	Beverly Hills	CA	90210
City of Bradbury	600 Winston Avenue	Bradbury	CA	91010
City of Burbank	275 East Olive Avenue	Burbank	CA	91510
City of Calabasas	100 Civic Center Way	Calabasas	CA	91302
City of Carson	701 East Carson	Carson	CA	90745
City of Cerritos	18125 Bloomfield Avenue	Cerritos	CA	90703
City of Claremont	207 Harvard Avenue	Claremont	CA	91711
City of Commerce	2535 Commerce Way	Commerce	CA	90040
City of Compton	205 South Willowbrook Avenue	Compton	CA	90220
City of Covina	534 North Barranca Avenue	Covina	CA	91723
City of Cudahy	522 Santana Street	Cudahy	CA	90201
City of Culver City	City Hall 9770 Culver Boulevard	Culver City	CA	90232
City of Diamond Bar	21825 Copley Drive	Diamond Bar	CA	91765

Table 31: Map Repositories, Continued

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

Table 31: Map Repositories, Continued

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

The National Flood Hazard Layer (NFHL) dataset is a compilation of effective FIRM databases and LOMCs. Together they create a GIS data layer for a State or Territory. The NFHL is updated as studies become effective and extracts are made available to the public monthly. NFHL data can be viewed or ordered from the website shown in Table 32.

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

Table 32: Additional Information

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

SECTION 9.0 – BIBLIOGRAPHY AND REFERENCES

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

Table 33: Bibliography and References

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

Table 33: Bibliography and References, Continued

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

Table 33: Bibliography and References, Continued

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

Table 33: Bibliography and References, Continued

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

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
FEMA, 1980	Federal Emergency Management Agency	<i>Flood Insurance Study, City of Los Angeles, Los Angeles County, California</i>		Washington D.C.	September 1980	FEMA Map Service Center http://msc.fema.gov
FEMA, 1980	Federal Emergency Management Agency	<i>Flood Insurance Study, City of Los Angeles, Los Angeles County, California</i>		Washington D.C.	December 1980	FEMA Map Service Center http://msc.fema.gov
FEMA, 1980	Federal Emergency Management Agency	<i>Flood Insurance Study, City of Lynwood, California</i>		Washington D.C.	1980	FEMA Map Service Center http://msc.fema.gov
FEMA, 1980	Federal Emergency Management Agency	<i>Flood Insurance Study, City of Montebello, California</i>		Washington D.C.	1980	FEMA Map Service Center http://msc.fema.gov
FEMA, 1981	Federal Emergency Management Agency	<i>Flood Insurance Study, City of Whittier, California</i>		Washington D.C.	1981	FEMA Map Service Center http://msc.fema.gov
FEMA, 1982	Federal Emergency Management Agency	<i>Flood Insurance Study, City of Lancaster, California</i>		Washington D.C.	1982	FEMA Map Service Center http://msc.fema.gov
FEMA, 1982	Federal Emergency Management Agency	<i>Flood Insurance Study, City of Palmdale, California</i>		Washington D.C.	1982	FEMA Map Service Center http://msc.fema.gov
FEMA 1983	Federal Emergency Management Agency	<i>Flood Insurance Study, City of Long Beach, California</i>		Washington D.C.	1983	FEMA Map Service Center http://msc.fema.gov
FEMA 1984	Federal Emergency Management Agency	<i>Coastal Flood Frequency in Southern California</i>	Donald M. Thomas, Dames & Moore	Washington D.C.	July 1984	FEMA Map Service Center http://msc.fema.gov

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
FEMA, 1985	Federal Emergency Management Agency	<i>Flood Insurance Study, Los Angeles County, California (Unincorporated Areas)</i>		Washington D.C.	November 15, 1985	FEMA Map Service Center http://msc.fema.gov
FEMA, 1986	Federal Emergency Management Agency	<i>Flood Insurance Study, City of Agoura Hills, Los Angeles County, California</i>		Washington D.C.	March 4, 1986; Revised December 18, 1986	FEMA Map Service Center http://msc.fema.gov
FEMA, 1989	Federal Emergency Management Agency	<i>Flood Insurance Study, Ventura County, California (Unincorporated Areas)</i>		Washington D.C.	January 1989	FEMA Map Service Center http://msc.fema.gov
FEMA, 1990	Federal Emergency Management Agency	<i>Flood Insurance Study, Ventura County, California (Unincorporated Areas)</i>		Washington D.C.	September 28, 1990	FEMA Map Service Center http://msc.fema.gov
FEMA, 1994	Federal Emergency Management Agency	<i>National Flood Insurance Program and Related Regulations</i>		Washington D.C.	October 1, 1994	FEMA Map Service Center http://msc.fema.gov
FEMA, 1999	Federal Emergency Management Agency	<i>Flood Insurance Study, City of Burbank, California</i>		Washington D.C.	January 20, 1999	FEMA Map Service Center http://msc.fema.gov
FIA, 1975	U.S. Department of Housing and Urban Development, Federal Insurance Administration	<i>Flood Hazard Boundary Map, City of Burbank, Los Angeles County, California, Scale 1:12,000</i>		Washington, D.C.	September 26, 1975	http://portal.hud.gov/hudportal/HUD?src=/federal_housing_administration

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
FIA, 1975	U.S. Department of Housing and Urban Development, Federal Insurance Administration	<i>Flood Hazard Boundary Map, City of Santa Fe Springs, California, Scale 1:12,000</i>		Washington, D.C.	June 28, 1974; Revised October 3, 1975	http://portal.hud.gov/hudportal/ HUD?src=/federal_housing_administration
FIA, 1975	U.S. Department of Housing and Urban Development, Federal Insurance Administration	<i>Flood Hazard Boundary Map, City of Torrance, California, Scale 1:12,000</i>		Washington, D.C.	December 5, 1975	http://portal.hud.gov/hudportal/ HUD?src=/federal_housing_administration
FIA, 1975	U.S. Department of Housing and Urban Development, Federal Insurance Administration	<i>Flood Hazard Boundary Map, City of Whittier, California, Scale 1:12,000</i>		Washington, D.C.	December 12, 1975	http://portal.hud.gov/hudportal/ HUD?src=/federal_housing_administration
FIA, 1976	U.S. Department of Housing and Urban Development, Federal Insurance Administration	<i>Flood Hazard Boundary Map, City of Avalon, California, Scale 1:12,000</i>		Washington, D.C.	1976	http://portal.hud.gov/hudportal/ HUD?src=/federal_housing_administration
FIA, 1976	U.S. Department of Housing and Urban Development, Federal Insurance Administration	<i>Flood Hazard Boundary Map, City of Culver City, California, Scale 1:1,000</i>		Washington, D.C.	September 3, 1976	http://portal.hud.gov/hudportal/ HUD?src=/federal_housing_administration
FIA, 1976	U.S. Department of Housing and Urban Development, Federal Insurance Administration	<i>Flood Hazard Boundary Map, City of La Mirada, California, Scale 1:12,000</i>		Washington, D.C.	December 10, 1976	http://portal.hud.gov/hudportal/ HUD?src=/federal_housing_administration

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
FIA, 1976	U.S. Department of Housing and Urban Development, Federal Insurance Administration	<i>Flood Hazard Boundary Map, City of Redondo Beach, Los Angeles County, California, Scale 1:12,000</i>		Washington, D.C.	June 1974; Revised May 1976	http://portal.hud.gov/hudportal/HUD?src=/federal_housing_administration
FIA, 1977	U.S. Department of Housing and Urban Development, Federal Insurance Administration	<i>Flood Insurance Study, City of Fullerton, California</i>		Washington, D.C.	July 1977	http://portal.hud.gov/hudportal/HUD?src=/federal_housing_administration
FIA, 1978	U.S. Department of Housing and Urban Development, Federal Insurance Administration	<i>Flood Insurance Study, City of Avalon, California</i>		Washington, D.C.	March 1978	http://portal.hud.gov/hudportal/HUD?src=/federal_housing_administration
FIA, 1978	U.S. Department of Housing and Urban Development, Federal Insurance Administration	<i>Flood Hazard Boundary Map, Los Angeles County, California, Scale 1:24,000</i>		Washington, D.C.	October 24, 1978	http://portal.hud.gov/hudportal/HUD?src=/federal_housing_administration
FIA, 1979	U.S. Department of Housing and Urban Development, Federal Insurance Administration	<i>Flood Insurance Study, City of Buena Park, California</i>		Washington, D.C.	February 1979	http://portal.hud.gov/hudportal/HUD?src=/federal_housing_administration
FIA, 1979	U.S. Department of Housing and Urban Development, Federal Insurance Administration	<i>Flood Insurance Study, City of Hawthorne, California</i>		Washington, D.C.	1979	http://portal.hud.gov/hudportal/HUD?src=/federal_housing_administration

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
FIA, 1979	U.S. Department of Housing and Urban Development, Federal Insurance Administration	<i>Flood Insurance Study, Orange County, California (Unincorporated Areas)</i>		Washington, D.C.	September 1979	http://portal.hud.gov/hudportal/ HUD?src=/federal_housing_administration
FIA, 1979	U.S. Department of Housing and Urban Development, Federal Insurance Administration	<i>Flood Insurance Study, City of Torrance, California</i>		Washington, D.C.	1979	http://portal.hud.gov/hudportal/ HUD?src=/federal_housing_administration
FIA, 1980	U.S. Department of Housing and Urban Development, Federal Insurance Administration	<i>Flood Insurance Study, City of La Habra, California</i>		Washington, D.C.	February 1980	http://portal.hud.gov/hudportal/ HUD?src=/federal_housing_administration
FIA, 1980	U.S. Department of Housing and Urban Development, Federal Insurance Administration	<i>Flood Insurance Study, Los Angeles County, California (Unincorporated Areas)</i>		Washington D.C.	December 2, 1980	http://portal.hud.gov/hudportal/ HUD?src=/federal_housing_administration
FIA, 1980	U.S. Department of Housing and Urban Development, Federal Insurance Administration	<i>Flood Insurance Study, City of Santa Fe Springs, California</i>		Washington, D.C.	April 1980	http://portal.hud.gov/hudportal/ HUD?src=/federal_housing_administration
FWA, 1944	Federal Works Agency	Lockheed Storm Drain, Construction Drawing		City of Los Angeles	November 1944	
Gardena, 1991	City of Gardena	Community Development Department Fact Sheet		City of Gardena, CA	1991	City of Gardena library

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
Hale, Inc., 1979	Hale, Haaland & Associates, Inc.	Hydraulic and Structural Calculations			February 1979	
Kemmerer, 1977	Kemmerer Engineering Co., Inc.	Plans and Profiles, Las Flores Avenue, Stamy Road to Imperial Highway, Scale 1:4800		Kemmerer Engineering Co., Inc.	October 1977	
La Mirada, 1966	City of La Mirada	Base Map, Scale 1:6,000		City of La Mirada, CA	1966	City of La Mirada library
La Mirada, 1977	City of La Mirada	Topographic Map, Scale 1:1,200, Contour Interval 2 feet: La Mirada Creek Flood Plain		City of La Mirada, CA	1977	City of La Mirada library
LA Times, 1960	Los Angeles Times	article on storm		Los Angeles Times	March 24, 1960	http://www.latimes.com/
LA Times, 1964	Los Angeles Times	article on storm		Los Angeles Times	March 29, 1964	http://www.latimes.com/
LACFD, 1933	Los Angeles County Flood Control District	Flood Overflow Maps - Los Angeles County, California, Scale 1:24,000		Los Angeles County Flood Control District	1933	http://dpw.lacounty.gov/lacfd/
LACFD, 1950	Los Angeles County Flood Control District	Flood Overflow Maps, City of Culver City, California, Developed from USGS 1950 Topographic Map		Los Angeles County Flood Control District		http://dpw.lacounty.gov/lacfd/
LACFD, 1961	Los Angeles County Flood Control District	Kagel Canyon, Topographic Map, Scale 1:480, Contour Interval 2 feet		Los Angeles County Flood Control District	April 1961; June 1961	http://dpw.lacounty.gov/lacfd/

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
LACFD, 1963	Los Angeles County Flood Control District	Rustic Canyon, Topographic Map, Scale 1:480, Contour Interval 2 feet		Los Angeles County Flood Control District	October 1963	http://dpw.lacounty.gov/lacfd/
LACFD, 1968	Los Angeles County Flood Control District	Topographic Mapping for Lindero Canyon, Scale 1:480, Contour Interval 2 foot		Los Angeles County Flood Control District	1968	http://dpw.lacounty.gov/lacfd/
LACFD, 1968	Los Angeles County Flood Control District	Topographic Mapping for Medea Creek, Scale 1:480, Contour Interval 2 feet		Los Angeles County Flood Control District	1968	http://dpw.lacounty.gov/lacfd/
LACFD, 1971	Los Angeles County Flood Control District	Hydrology Manual		Los Angeles County Flood Control District	1971	http://dpw.lacounty.gov/lacfd/
LACFD, 1976	Los Angeles County Flood Control District	Survey Field Book, Flood Insurance Studies		Los Angeles County Flood Control District	1976	http://dpw.lacounty.gov/lacfd/
LACFD, 1977	Los Angeles County Flood Control District	<i>Field Book FC-3405</i>		Los Angeles County Flood Control District	November 1977	http://dpw.lacounty.gov/lacfd/
LACFD, 1977	Los Angeles County Flood Control District	<i>Field Book FC-3405, Elevation Reference Marks</i>		Los Angeles County Flood Control District	November 1977	http://dpw.lacounty.gov/lacfd/
LACFD, 1977	Los Angeles County Flood Control District	<i>Field Book FC-3405, Engineering Methodology for Flood Insurance Studies</i>		Los Angeles County Flood Control District	November 1977	http://dpw.lacounty.gov/lacfd/
LACFD, 1978	Los Angeles County Flood Control District	Mill Creek Topographic Map, Scale 1:1,200, Contour Interval 2 feet		Los Angeles County Flood Control District	1978	http://dpw.lacounty.gov/lacfd/

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
LACFD, 1978	Los Angeles County Flood Control District	Project No. 8152, Avenue Hump, Map No. 470-8152-TI, Scale 1:480, Contour Interval 2 feet		Los Angeles County Flood Control District	1978	http://dpw.lacounty.gov/lacfd/
LACFD, 1982	Los Angeles County Flood Control District	Empire and Lockheed System Hydrology Study		Los Angeles County Flood Control District	May 1982	http://dpw.lacounty.gov/lacfd/
LACFD, 1982	Los Angeles County Flood Control District	Hydraulic Analysis of Lockheed Channel		Los Angeles County Flood Control District	August 1982	http://dpw.lacounty.gov/lacfd/
LACFD, 1982	Los Angeles County Flood Control District	Hydrologic Report 1975-77		Los Angeles County Flood Control District	October 1982	http://dpw.lacounty.gov/lacfd/
LACFD, 1983	Los Angeles County Flood Control District	1983 Storm Report		Los Angeles County Flood Control District	June 1983	http://dpw.lacounty.gov/lacfd/
Lakewood, 1990	Greater Lakewood Chamber of Commerce	Community Economic Profile for Lakewood		Los Angeles County, CA	May 1990	http://www.lakewoodchamber.com/
Lockheed Engineering, 1993	Lockheed Engineering and Science Co.	Final Grading and Drainage for Plant B-1		Lockheed Engineering and Science Co.	October 1993	http://www.lockheedmartin.com/
Long Beach 1955	City of Long Beach	Beach-Alamitos Avenue to San Gabriel River		City of Long Beach, CA	1955	City of Long Beach library
Long Beach, 1987	City of Long Beach, California, Department of Public Works	National Geodetic Vertical Datum 1929		City of Long Beach, CA Department of Public Works	1929, 1987	City of Long Beach library

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
Long Beach Harbor, 1977	Long Beach Harbor Department	TP - for Los Angeles and Long Beach Harbors from Primary Tide Station Located at Los Angeles Outer Harbor		City of Long Beach, CA	1977	http://www.polb.com/
Long Beach Independent, 1939	Long Beach Independent (and Long Beach News-Signal)	various articles on storms and waves		Long Beach Independent (and Long Beach News-Signal)	September 26, 1939	http://www.longbeachindependent.com/
Long Beach Press, 1939	Long Beach Press-Telegram	various articles on storms and waves		Long Beach Press-Telegram	September 25, 1939	http://www.presstelegram.com/
Los Angeles	City of Los Angeles	Drainage Maps, Scale 1:4,800, Contour Intervals 5 and 25 feet		City of Los Angeles, CA	updated periodically	City of Los Angeles library
Los Angeles, 1935	City of Los Angeles	Plans and Profile, Weldon Canyon, Scale 1:480 (Horizontal) and 1:48 (Vertical)		City of Los Angeles, CA	October 1935	City of Los Angeles library
Los Angeles, 1967	City of Los Angeles	Topographic Map, Bixby Slough; Between 232nd Street and Anaheim Street, Scale 1:1,200, Contour Interval 2 feet		City of Los Angeles, CA	February 1967	City of Los Angeles library
Los Angeles, 1977	City of Los Angeles	Drainage Maps, Los Angeles, California, Scale 1:12,000		City of Los Angeles, CA	1977	City of Los Angeles library

Table 33: Bibliography and References, Continued

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

Table 33: Bibliography and References, Continued

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

Table 33: Bibliography and References, Continued

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

Table 33: Bibliography and References, Continued

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

Table 33: Bibliography and References, Continued

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

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
NGS, 1941	U.S. Department of Commerce, Coast and Geodetic Survey	<i>Manual of Harmonic Analysis and Prediction of Tides</i> , Special Publication No. 98	Shureman, P.	National Geodetic Survey	1941	http://www.commerce.gov/ http://www.ngs.noaa.gov/
NOAA, 1979	U.S. Department of Commerce, National Oceanic and Atmospheric Administration	Monthly Weather Review		NOAA	1976-1979	http://www.noaa.gov/
Palmdale, 1985	City of Palmdale	Service Level Report		City of Palmdale, CA	August 22, 1985	City of Palmdale library
Rick Engineering Company, 1985	Rick Engineering Company	<i>Topographic Map of Little Rock Wash, Scale 1"=400' Contour Interval 4 feet</i>		Rick Engineering Company	February 1985	http://www.rickengineering.com/
Santa Catalina Island Company, 1962	Santa Catalina Island Company	Topographic Map of City of Avalon, California, Scale 1:2,400, Contour Intervals 2 and 5 feet		Santa Catalina Island Company	1962	
Santa Fe Springs	City of Santa Fe Springs	Miscellaneous Engineering Drawings of Street Plans and Profiles, various scales		City of Santa Fe Springs, CA	various	City of Santa Fe Springs library
Scripps, 1980	Scripps Institution of Oceanography	Artificial Sediment Transport and Structures in Coastal Southern California	Shaw, Martha J.	Scripps Institution of Oceanography	December 1980	https://scripps.ucsd.edu/

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
Simons, 1992	Simons, Li & Associates, Inc.	Design Report, Rehabilitation Concept Plan for Medea Creek in Morrison Ranch	Simons, Li & Associates, Inc.	Simons, Li & Associates, Inc	October 7, 1992	
Tetra Tech, 1979	Tetra Tech, Inc.	Methodology for Computing Coastal Flooding Statistics in Southern California, Report No. TC-3205	Y.K. Lee et al.	Tetra Tech, Inc.	December 1979	www.tetrattech.com
Tetra Tech, 1982	Tetra Tech, Inc.	Methodology for Computing Coastal Flood Statistics in Southern California, Report No. TC-3205		Tetra Tech, Inc.	1982	www.tetrattech.com
Torrence, 1968	City of Torrance	Base Map, 1968		City of Torrance, CA	1968	City of Torrence library
UCLA, 1972	University of California, Los Angeles	<i>Some Meteorological Aspects of the Seasonal Distribution of Precipitation in the Western United States and Baja California</i> , Water Resource Center Contribution No. 139	Pyke, C.B.	University of California	October 1972	http://www.universityofcalifornia.edu/
USACE	U.S. Department of the Army, Corps of Engineers	<i>Flood Insurance Study, City of Burbank, California, Preliminary Draft</i>		Washington, D.C.	Unpublished	http://www.usace.army.mil/
USACE, 1971	U.S. Department of the Army, Corps of Engineers	Santa Clara River and Tributaries, California, Interim Review Report for Flood Control			December 1971	http://www.usace.army.mil/

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	<i>Publication Title, "Article," Volume, Number, etc.</i>	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
USACE, 1981	U.S. Department of the Army, Corps of Engineers, Hydrologic Engineering Center	HEC-1 Flood Hydrograph Package, Generalized Computer Program, User's Manual		Davis, CA	1981	http://www.usace.army.mil/
USACE, 1976	U.S. Department of the Army, Corps of Engineers, Hydrologic Engineering Center	Computer Program HEC-2 Water Surface Profiles, Generalized Computer Program		Davis, CA	November 1976	http://www.usace.army.mil/
USACE, 1982	U.S. Department of the Army, Corps of Engineers, Hydrologic Engineering Center	HEC-5 Simulation of Flood Control and Conservation Systems, User's Manual		Davis, CA	1982	http://www.usace.army.mil/
USACE, 1984	U.S. Department of the Army, Corps of Engineers, Hydrologic Engineering Center	Computer Program HEC-2 Water Surface Profiles, Generalized Computer Program		Davis, CA	May 1984	http://www.usace.army.mil/
USACE, 1985	U.S. Department of the Army, Corps of Engineers, Hydrologic Engineering Center	HEC-2 Water-Surface Profiles, Generalized Computer Program		Davis, CA	1985	http://www.usace.army.mil/

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	<i>Publication Title, "Article," Volume, Number, etc.</i>	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
USACE, 1990	U.S. Department of the Army, Corps of Engineers, Hydrologic Engineering Center	HEC-1 Flood Hydrograph Package, Generalized Computer Program		Davis, CA	September 1990	http://www.usace.army.mil/
USACE, 1990	U.S. Department of the Army, Corps of Engineers, Hydrologic Engineering Center	HEC-2 Water-Surface Profiles, Generalized Computer Program		Davis, CA	September 1990	http://www.usace.army.mil/
USACE, 1976	U.S. Department of the Army, Corps of Engineers, Los Angeles District	Hydrology - Antelope Valley Streams			1976, unpublished	http://www.spl.usace.army.mil/
USACE, 1978	U.S. Department of the Army, Corps of Engineers, Los Angeles District	Overflow Maps for Areas along the Los Angeles River		Los Angeles, California	1978	http://www.spl.usace.army.mil/

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
USACE, 1987	U.S. Department of the Army, Corps of Engineers, Los Angeles District	As Built Plans for Los Angeles River: Channel and Bridges from Arroyo Seco to Pacific Ocean, 1987, and As Constructed Plans for San Gabriel River Channel from Whittier Narrows Dam to the Pacific Ocean, 1969			1987 and 1969	http://www.spl.usace.army.mil/
USACE, 1987	U.S. Department of the Army, Corps of Engineers, Los Angeles District	Letter of Certification for Middle Reach		Los Angeles, California	September 1987	http://www.spl.usace.army.mil/
USACE, 1987	U.S. Department of the Army, Corps of Engineers, Los Angeles District	Overflow Maps for Areas Along the Los Angeles River		Los Angeles, California	1987	http://www.spl.usace.army.mil/
USACE, 1990	U.S. Department of the Army, Corps of Engineers, Los Angeles District	Los Angeles County Drainage Area Review Draft Feasibility Report, Appendix A		Los Angeles, California	Hydraulic July 1989; Hydrology, February 1990	http://www.spl.usace.army.mil/

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
USACE, 1978	U.S. Department of the Army, Corps of Engineers, Los Angeles and San Francisco Districts	Winter Storm Damage Along the California Coast	Domurat, George W.		1977-78	http://www.spl.usace.army.mil/
USACE, 1971	U.S. Department of the Army, Corps of Engineers, South Pacific Division	National Shoreline Study; California Regional Inventory			August 1971	http://www.spd.usace.army.mil/
USACE, 1980	U.S. Department of the Army, Corps of Engineers, Waterways Experiment Station	Type 19 Flood Insurance Study: Tsunami Predictions for Southern California, prepared for the Federal Emergency Management Agency	Houston, J.R.	Washington, D.C.	September 1980	http://www.usace.army.mil/
USDA, 1921	U.S. Department of Agriculture, Soil Conservation Service	Reconnaissance Soil Survey of the Central Southern Area, California		U.S. Department of Agriculture, Soil Conservation Service	1921	http://www.nrcs.usda.gov/wps/portal/nrcs/site/national/home/
USDA, 1963	U.S. Department of Agriculture, Soil Conservation Service	Guide for Selecting Roughness coefficient 'n' Values for Channels		Lincoln, NE	December, 1963	http://www.nrcs.usda.gov/wps/portal/nrcs/site/national/home/
U.S. Census, 1980	U.S. Department of Commerce, Bureau of the Census	1980 Census of Population, California		Washington D.C.	March 1982	http://www.census.gov/

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
U.S. Census, 1980	U.S. Department of Commerce, Bureau of the Census	PC(I)-A6, Number of Inhabitants, California		Washington D.C.	1980	http://www.census.gov/
U.S. Census, 1990	U.S. Department of Commerce, Bureau of the Census	Census of Population		Washington D.C.	1991	http://www.census.gov/
USGS, 1932	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series, Topographic Maps, Scale 1:24,000, Contour Interval 5 feet: Orange, California, 1932</i>		Washington, D.C.	1923	http://topomaps.usgs.gov
USGS, 1950	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Interval 25 feet: Malibu Beach, California, 1950</i>		Washington, D.C.	1950	http://topomaps.usgs.gov
USGS 1950	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Interval 20 feet: Thousand Oaks, California, 1950</i>		Washington, D.C.	1950	http://topomaps.usgs.gov
USGS, 1964	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Interval 5 feet, Long Beach, California, 1964</i>		Washington, D.C.	1964	http://topomaps.usgs.gov

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
USGS, 1964	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series, Topographic Maps, Scale 1:24,000, Contour Interval 5 feet: Los Alamitos, California, 1964</i>		Washington, D.C.	1964	http://topomaps.usgs.gov
USGS, 1964	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Interval 5 feet, South Gate, California, 1964</i>		Washington, D.C.	1964	http://topomaps.usgs.gov
USGS, 1966	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Interval 20 feet, Los Angeles, California, 1966</i>		Washington, D.C.	1966	http://topomaps.usgs.gov
USGS, 1967	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Interval 25 feet, Calabasas, California, 1952, Photorevised, 1967</i>		Washington, D.C.	1967	http://topomaps.usgs.gov
USGS, 1967	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Intervals 25 feet: Malibu Beach, California, 1950, Photorevised, 1967</i>		Washington, D.C.	1967	http://topomaps.usgs.gov

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
USGS, 1967	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Intervals 25 feet: Point Dume, California, 1950, Photorevised, 1967</i>		Washington, D.C.	1967	http://topomaps.usgs.gov
USGS, 1967	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Interval 20 feet, Thousand Oaks, California, 1950, Photorevised, 1967</i>		Washington, D.C.	1967	http://topomaps.usgs.gov
USGS, 1967	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Intervals 25 feet: Topanga, California, 1952, Photorevised, 1967</i>		Washington, D.C.	1967	http://topomaps.usgs.gov
USGS, 1967	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Intervals 25 feet: Triunfo Pass, California, 1949, Photorevised, 1967</i>		Washington, D.C.	1967	http://topomaps.usgs.gov
USGS, 1972	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series, Topographic Maps, Scale 1:24,000, Contour Interval 5 feet: Anaheim, California, 1965, Photorevised, 1972</i>		Washington, D.C.	1972	http://topomaps.usgs.gov

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
USGS, 1972	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Interval 20 feet: Beverly Hills, California, 1966, Photorevised, 1972</i>		Washington, D.C.	1972	http://topomaps.usgs.gov
USGS, 1972	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Interval 40 feet, Burbank, California, 1966, Photorevised, 1972</i>		Washington, D.C.	1972	http://topomaps.usgs.gov
USGS, 1972	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Interval 20 feet: El Monte, California, 1966 Photorevised, 1972</i>		Washington, D.C.	1972	http://topomaps.usgs.gov
USGS, 1972	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Interval 5 feet: Hollywood, California, 1966, Photorevised, 1972</i>		Washington, D.C.	1972	http://topomaps.usgs.gov
USGS, 1972	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series, Topographic Maps, Scale 1:24,000, Contour Interval 5 feet: Inglewood, California, 1964, Photorevised, 1972</i>		Washington, D.C.	1972	http://topomaps.usgs.gov

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
USGS, 1972	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Interval 20 feet: La Habra, California, 1964, Photorevised, 1972</i>		Washington, D.C.	1972	http://topomaps.usgs.gov
USGS, 1972	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series, Topographic Maps, Scale 1:24,000, Contour Interval 5 feet: Los Alamitos, California, 1964, Photorevised, 1972</i>		Washington, D.C.	1972	http://topomaps.usgs.gov
USGS, 1972	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series, Topographic Maps, Scale 1:24,000, Contour Interval 5 feet: Newport Beach, California, 1965, Photorevised, 1972</i>		Washington, D.C.	1972	http://topomaps.usgs.gov
USGS, 1972	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series, Topographic Maps, Scale 1:24,000, Contour Interval 20 feet: Orange, California, 1964, Photorevised, 1972</i>		Washington, D.C.	1974	http://topomaps.usgs.gov
USGS, 1972	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series, Topographic Maps, Scale 1:24,000, Contour Interval 20 feet: Redondo Beach, California, 1963, Photorevised, 1972</i>		Washington, D.C.	1972	http://topomaps.usgs.gov

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
USGS, 1972	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series, Topographic Maps, Scale 1:24,000, Contour Interval 20 feet: Torrance, California, 1964, Photorevised, 1972</i>		Washington, D.C.	1972	http://topomaps.usgs.gov
USGS, 1972	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series, Topographic Maps, Scale 1:24,000, Contour Interval 10 feet: Venice, California, 1964, Photorevised, 1972</i>		Washington, D.C.	1972	http://topomaps.usgs.gov
USGS, 1972	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Interval 20 feet: Whittier, California, 1965, Photorevised, 1972</i>		Washington, D.C.	1972	http://topomaps.usgs.gov
USGS, 1973	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series, Topographic Maps, Scale 1:24,000, Contour Interval 5 feet: Seal Beach, California, 1965, Photorevised, 1973</i>		Washington, D.C.	1973	http://topomaps.usgs.gov
USGS, 1973	U.S. Department of the Interior, Geological Survey	<i>Map of Flood-Prone Areas, Scale 1:24,000, Contour Interval 10 feet, Avalon, California, 1973</i>		Washington, D.C.	1973	http://topomaps.usgs.gov

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
USGS, 1973	U.S. Department of the Interior, Geological Survey	Map of Flood-Prone Areas, Scale 1:24,000, Contour Interval 10 feet: Santa Catalina Island East, California, 1973		Washington, D.C.	1973	http://topomaps.usgs.gov
USGS, 1977	U.S. Department of the Interior, Geological Survey	<i>Journal of Research</i> , "A Method for Adjusting Values of Manning's Roughness Coefficient for Flooded Urban Areas," Volume 5, Number 5	Hejl Jr., H. R.	City of Lawrence, KS	October 1977	Out of print
USGS, 1977	U.S. Department of the Interior, Geological Survey	<i>Magnitude and Frequency of Floods in California</i> , Water-Resources Investigations 77-21	A. O. Waananen, J. R. Crippen	Washington, D.C.	1977	http://pubs.usgs.gov/wri/wri77-21/
USGS, 1981	U.S. Department of the Interior, Geological Survey	<i>7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Interval 20 feet, Thousand Oaks, California, 1950, Photorevised 1981</i>		Washington, D.C.	1981	http://topomaps.usgs.gov
Whittier, 1968	City of Whittier	Base Map, 1968		City of Whittier, CA	1968	City of Whittier library
Whittier, 1955	City of Whittier	Metropolitan Topographic Survey, Scale 1:24,000, Contour Interval 5 feet		City of Whittier, CA	1955	City of Whittier library

N/A = Not Available