

FLOOD INSURANCE STUDY

FEDERAL EMERGENCY MANAGEMENT AGENCY

VOLUME 3 OF 5



LOS ANGELES COUNTY, CALIFORNIA AND INCORPORATED AREAS

Notice

This preliminary FIS report includes only revised Flood Profiles and Floodway Data tables. See “Notice to Flood Insurance Study Users” page for additional details.

| 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

PRELIMINARY 03/25/2016

FLOOD INSURANCE STUDY NUMBER

06037CV003C

Version Number 2.3.3.2



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| 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 LAWNSDALE* | 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

PRELIMINARY 03/25/2016

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| Cold Creek | 16-21 P |
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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.

Table 24: Floodway Data

| LOCATION | | FLOODWAY | | | 1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88) | | | |
|---------------|-----------------------|--------------|-------------------------|--------------------------|--|------------------|---------------|----------|
| CROSS SECTION | DISTANCE ¹ | WIDTH (FEET) | SECTION AREA (SQ. FEET) | MEAN VELOCITY (FEET/SEC) | REGULATORY | WITHOUT FLOODWAY | WITH FLOODWAY | INCREASE |
| A | 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 | 401 | 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

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 |
| Alhambra, City of ¹ | 06/28/1974 | — | — | 09/26/2008 | — |
| Arcadia, City of ¹ | 05/14/1976 | — | — | 09/26/2008 | — |
| Artesia, City of ¹ | 06/28/1974 | — | — | 09/26/2008 | — |
| Avalon, City of | 10/08/1976 | — | — | 09/29/1978 | 11/01/1985 |
| Azusa, City of | 06/14/1974 | — | — | 09/26/2008 | — |
| Baldwin Park, City of ¹ | 06/28/1974 | — | — | 05/26/1978 | — |
| Bell, City of ¹ | 06/28/1974 | — | — | 09/26/2008 | — |
| Bell Gardens, City of | 09/26/2008 | — | — | 09/26/2008 | — |
| Bellflower, City of | 06/28/1974 | — | — | 07/06/1998 | — |
| Beverly Hills, City of ¹ | 12/11/1979 | — | — | 09/26/2008 | — |
| Bradbury, City of ¹ | 11/21/1975 | — | — | 09/26/2008 | — |
| Burbank, City of | 06/26/1971 | 03/16/1981 | 09/26/1975 | 01/23/1981 | 01/20/1999 |
| Calabasas, City of | 09/26/2008 | — | — | 12/02/1980 | 01/06/2016 |
| Carson, City of | 01/14/1977 | — | — | 07/06/1998 | — |
| Cerritos, City of | 06/28/1974 | — | — | 09/26/2008 | — |
| Claremont, City of ¹ | 05/24/1974 | — | — | 11/20/2000 | 07/02/2004 |
| Commerce, City of | 06/28/1974 | — | — | 09/26/2008 | — |
| Compton, City of | 06/28/1974 | — | — | 07/06/1998 | — |

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 | 09/18/1971 | — | — | 10/22/1971 | — |
| Cudahy, City of | — | — | — | 09/26/2008 | — |
| Culver City, City of | 06/28/1974 | — | 10/31/1975 09/03/1976 | 02/01/1980 | — |
| Diamond Bar, City of | — | — | — | 12/02/1980 | — |
| Downey, City of | — | — | — | 07/06/1998 | — |
| Duarte, City of ¹ | 07/19/1974 | — | — | 09/26/2008 | — |
| El Monte, City of ¹ | — | — | — | 06/16/1999 | — |
| El Segundo, City of | 10/31/1975 | — | — | 09/26/2008 | |
| Gardena, City of | 12/05/1975 | — | — | 07/06/1998 | |
| Glendale, City of ¹ | 03/10/1972 | — | — | 09/26/2008 | |
| Glendora, City of | 04/20/1972 | — | — | 09/26/2008 | |
| Hawaiian Gardens, City of ¹ | 09/25/1970 | — | — | 05/14/1971 | — |
| Hawthorne, City of ¹ | 05/09/1978 | — | — | 12/04/1979 | — |
| Hermosa Beach, City of | 06/28/1974 | — | — | 09/26/2008 | — |
| Hidden Hills, City of | 04/23/1976 ¹ | — | — | 09/07/1984 | 11/21/2001 01/19/2006 |
| Huntington Park, City of ¹ | 06/28/1974 | — | — | 09/26/2008 | — |
| Industry, City of ¹ | 06/16/1972 | — | — | 09/26/2008 | — |
| Inglewood, City of ¹ | 10/17/1972 | — | — | 09/26/2008 | — |
| Irwindale, City of ¹ | 06/28/1974 | — | — | 09/26/2008 | — |
| La Canada Flintridge, City of ¹ | — | — | — | 09/26/2008 | — |
| La Habra Heights, City of ¹ | — | — | — | 09/26/2008 | — |
| La Mirada, City of | 06/28/1974 | — | 10/10/1975 12/10/1976 | 07/02/1980 | — |
| La Puente, City of ¹ | 10/03/1975 | — | — | 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 | 06/14/1974 | — | — | 09/26/2008 | — |
| Lakewood, City of | 07/19/1974 | — | — | 07/06/1998 | — |
| Lancaster, City of | 09/11/1979 | — | — | 01/06/1982 | — |
| Lawndale, City of ¹ | 06/28/1974 | — | — | 09/26/2008 | — |
| Lomita, City of ¹ | 06/28/1974 | — | — | 09/26/2008 | — |
| Long Beach, City of | 07/26/1974 | — | 07/11/1978 | 09/15/1983 | 07/06/1998 |
| Los Angeles, City of | 07/10/1970 | — | 04/08/1980 | 12/02/1980 | 02/04/1987 07/06/1998 |
| Los Angeles County Unincorporated Areas | 10/24/1978 | — | — | 12/02/1980 | 11/12/1985 03/30/1998 07/06/1998 09/26/2008 01/06/2016 |
| Lynwood, City of | 06/28/1974 | — | 11/21/1975 | 04/15/1980 | 07/06/1998 |
| Malibu, City of | — | — | — | 09/26/2008 | — |
| Manhattan Beach, City of | 08/06/1976 | — | — | 09/26/2008 | — |
| Maywood, City of ¹ | — | — | — | — | — |
| Monrovia, City of ¹ | 04/23/1976 | — | — | 09/26/2008 | — |
| Montebello, City of | 06/28/1974 | — | 12/19/1975 | 03/18/1980 | — |
| Monterey Park, City of ¹ | 04/20/1972 | — | — | 09/26/2008 | — |
| Norwalk, City of | — | — | — | 09/26/2008 | — |
| Palmdale, City of | 10/18/1974 | — | 12/24/1976 | 01/06/1982 | 06/18/1987 03/30/1998 |
| Palos Verdes Estates, City of | 05/17/1974 | — | — | 11/21/2001 | 07/02/2004 09/26/2008 01/06/2016 |
| Paramount, City of | 03/31/1972 | — | 07/01/1974 05/02/1975 | 07/06/1998 | — |
| Pasadena, City of ¹ | 05/02/1972 | — | — | 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 | 06/28/1974 | — | — | 07/06/1998 | — |
| Pomona, City of ¹ | 06/28/1974 | — | — | 09/26/2008 | — |
| Rancho Palos Verdes, City of | 01/28/1977 | — | — | 09/26/2008 | 01/06/2016 |
| Redondo Beach, City of | 06/28/1974 | — | 05/21/1976 | 09/15/1983 | — |
| Rolling Hills, City of ¹ | 07/13/1973 | — | — | 09/26/2008 | — |
| Rolling Hills Estates, City of ¹ | 06/28/1974 | — | — | 09/26/2008 | — |
| Rosemead, City of ¹ | 06/28/1974 | — | — | 09/26/2008 | — |
| San Dimas, City of | 06/28/1974 | — | — | 04/01/1977 | 06/02/1978 |
| San Fernando, City of | — | — | — | 02/11/1976 | — |
| San Gabriel, City of ¹ | — | — | — | 11/27/1970 | — |
| San Marino, City of ¹ | 03/18/1972 | — | — | 09/26/2008 | — |
| Santa Clarita, City of | 10/24/1978 | — | — | 12/02/1980 | 09/29/1989 |
| Santa Fe Springs, City of | 06/28/1974 | — | 10/03/1975 | 04/15/1980 | — |
| Santa Monica, City of | 07/26/1974 | — | — | 09/26/2008 | — |
| Sierra Madre, City of ¹ | 05/25/1973 | — | — | 09/26/2008 | — |
| Signal Hill, City of ¹ | 06/28/1974 | — | — | 09/26/2008 | — |
| South El Monte, City of ¹ | 06/21/1974 | — | — | 09/26/2008 | — |
| South Gate, City of | 06/28/1974 | — | — | 07/06/1998 | — |
| South Pasadena, City of ¹ | 04/18/1974 | — | — | 04/14/1972 | — |
| Temple City, City of ¹ | — | — | — | 09/26/2008 | — |
| Torrance, City of | 08/02/1974 | — | 12/05/1975 | 12/18/1979 | 01/06/2016 |
| Vernon, City of ¹ | — | — | — | 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 | 07/16/1976 | — | — | 09/26/2008 | — |
| West Covina, City of | 06/28/1974 | — | — | 12/02/2004 | — |
| West Hollywood, City of | — | — | — | 06/18/1987 | — |
| Westlake Village, City of | — | — | — | 09/26/2008 | — |
| Whittier, City of | 06/28/1974 | — | 12/12/1975 | 01/16/1981 | — |

¹ No Special Flood Hazard Areas Identified

SECTION 7.0 – CONTRACTED STUDIES AND COMMUNITY COORDINATION

7.1 Contracted Studies

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

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

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

Table 31: Map Repositories, Continued

| Community | Address | City | State | Zip Code |
|--|---|----------------------|-------|----------|
| City of Downey | 11111 Brookshire Avenue | Downey | CA | 90241 |
| City of Duarte | 1600 Huntington Drive | Duarte | CA | 91010 |
| City of El Monte | 11333 Valley Boulevard | El Monte | CA | 91731 |
| City of El Segundo | 350 Main Street | El Segundo | CA | 90245 |
| City of Gardena | 1700 West 162nd Street | Gardena | CA | 90247 |
| City of Glendale | 613 East Broadway | Glendale | CA | 91206 |
| City of Glendora | 116 East Foothill Road | Glendora | CA | 91741 |
| City of Hawaiian Gardens | 21815 Pioneer 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 |
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