

FLOOD INSURANCE STUDY

FEDERAL EMERGENCY MANAGEMENT AGENCY

VOLUME 3 OF 7



SAN BERNARDINO COUNTY, CALIFORNIA AND INCORPORATED AREAS

COMMUNITY NAME	NUMBER	COMMUNITY NAME	NUMBER
ADELANTO, CITY OF	060639	NEEDLES, CITY OF	060277
APPLE VALLEY, TOWN OF	060752	ONTARIO, CITY OF	060278
BARSTOW, CITY OF	060271	RANCHO CUCAMONGA, CITY OF	060671
BIG BEAR LAKE, CITY OF	060731	REDLANDS, CITY OF	060279
CHINO, CITY OF	060272	RIALTO, CITY OF	060280
CHINO HILLS, CITY OF	060754	SAN BERNARDINO, CITY OF	060281
COLTON, CITY OF	060273	SAN BERNARDINO COUNTY, UNINCORPORATED AREAS	060270
FONTANA, CITY OF	060274	TWENTYNINE PALMS, CITY OF	060734
GRAND TERRACE, CITY OF	060737	UPLAND, CITY OF	065067
HESPERIA, CITY OF	060733	VICTORVILLE, CITY OF	065068
HIGHLAND, CITY OF	060732	YUCAIPA, CITY OF	060739
LOMA LINDA, CITY OF	065042	YUCCA VALLEY, TOWN OF	060750
MONTCLAIR, CITY OF	060276		

TRIBAL NATION**	TRIBAL NATION**	TRIBAL NATION**
CHEMEHUEVI INDIAN TRIBE	FORT MOJAVE INDIAN TRIBE (060743)	TWENTY-NINE PALMS BAND OF MISSION INDIANS
COLORADO RIVER INDIAN TRIBE (060069)	SAN MANUEL BAND OF MISSION INDIANS	

**Federally Recognized Tribal Nations

REVISED:

October 30, 2025

FLOOD INSURANCE STUDY NUMBER

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FEMA

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Published Separately

Flood Insurance Rate Map (FIRM)

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	0	800	2,196	8.2	1,999.7	1,999.7	2,000.7	1.0
B	1,478	800	3,689	4.9	2,004.7	2,004.7	2,005.7	1.0
C	6,320	750	3,422	5.3	2,019.3	2,019.3	2,020.3	1.0
D	8,078	1,090	4,888	3.7	2,023.5	2,023.5	2,024.5	1.0
E	10,090	1,120	3,279	5.5	2,028.8	2,028.8	2,029.8	1.0
F	12,128	1,265	4,936	3.8	2,034.7	2,034.7	2,035.7	1.0
G	14,652	1,116	4,367	4.3	2,043.1	2,043.1	2,043.1	0.0
H	17,878	1,557	5,004	3.8	2,052.2	2,052.2	2,052.3	0.1
I	20,069	1,126	4,196	4.5	2,058.3	2,058.3	2,058.6	0.3
J	24,341	869	2,793	6.7	2,071.5	2,071.5	2,071.5	0.0
K	26,791	795	3,542	5.3	2,078.5	2,078.5	2,079.5	1.0
L	27,477	829	3,502	5.4	2,080.9	2,080.9	2,081.9	1.0
M	29,188	759	3,802	4.9	2,086.8	2,086.8	2,087.2	0.4
N	33,713	313	2,101	9.0	2,099.5	2,099.5	2,099.7	0.2
O	36,353	656	4,162	4.5	2,106.4	2,106.4	2,107.1	0.7
P	40,212	969	4,153	4.5	2,117.4	2,117.4	2,117.4	0.0
Q	45,957	840	2,516	7.5	2,131.1	2,131.1	2,131.1	0.0
R	46,633	940	4,376	4.3	2,134.3	2,134.3	2,134.6	0.3
S	48,148	1,098	4,037	4.7	2,138.7	2,138.7	2,138.7	0.0
T	50,540	994	4,308	4.4	2,145.5	2,145.5	2,145.7	0.2
U	55,176	1,079	4,112	4.6	2,159.0	2,159.0	2,159.0	0.0
V	63,144	893	3,871	4.9	2,178.6	2,178.6	2,179.5	0.9

¹ Feet above confluence with Yucca Creek

* The limit of detailed study is located 195 feet downstream of Lenwood Road

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY
SAN BERNARDINO COUNTY, CA
AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: MOJAVE RIVER (AT BARSTOW)

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	8,474	1,482	5,283	5.9	2,847.7	2,847.7	2,847.7	0.0
B	9,655	1,523	5,338	5.8	2,852.0	2,852.0	2,852.0	0.0
C	12,468	866	3,639	8.4	2,860.9	2,860.9	2,861.2	0.3
D	14,268	820	4,380	7.2	2,867.5	2,867.5	2,867.8	0.3
E	16,844	803	3,306	11.4	2,875.5	2,875.5	2,875.6	0.1
F	21,683	893	4,766	6.7	2,891.1	2,891.1	2,891.6	0.5

¹ Feet above confluence with Yucca Creek

* The limit of detailed study is located 195 feet downstream of Lenwood Road

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY
SAN BERNARDINO COUNTY, CA
 AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: MOJAVE RIVER (AT HESPERIA AND APPLE)

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	194 ¹	1,370	5,447	5.7	2,407.8	2,407.8	2,408.7	0.9
B	3,719 ¹	1,439	5,809	5.3	2,418.5	2,418.5	2,419.4	0.9
C	6,955 ¹	797	6,484	4.8	2,431.3	2,431.3	2,432.3	1.0
D	10,867 ¹	725	3,481	8.9	2,440.9	2,440.9	2,441.7	0.8
E	14,556 ¹ /11,289 ²	1,440	6,874	4.5	2,454.8	2,454.8	2,454.9	0.1
F	14,488 ²	1,420	5,060	3.6	2,463.3	2,463.3	2,463.5	0.2
G	17,672 ²	1,500	4,468	4.0	2,472.9	2,472.9	2,473.0	0.1
H	20,872 ²	1,600	5,050	3.9	2,481.2	2,481.2	2,481.4	0.2
I	24,351 ²	1,550	5,200	3.5	2,492.6	2,492.6	2,493.6	1.0
J	26,849 ²	1,500	4,276	4.2	2,501.2	2,501.2	2,501.8	0.6
K	30,402 ²	1,600	4,604	3.9	2,511.5	2,511.5	2,512.3	0.8
L	33,069 ²	1,100	4,386	4.1	2,521.2	2,521.2	2,521.9	0.7
M	37,398 ²	1,400	5,175	3.5	2,533.5	2,533.5	2,533.8	0.3
N	40,075 ²	1,500	3,994	4.5	2,541.8	2,541.8	2,541.9	0.1
O	43,043 ²	1,230	3,379	5.3	2,552.3	2,552.3	2,552.3	0.0
P	45,588 ²	1,500	4,188	4.3	2,562.5	2,562.5	2,562.7	0.2
Q	49,188 ²	1,500	3,865	4.7	2,574.7	2,574.7	2,575.0	0.3
R	52,657 ²	1,300	4,699	3.8	2,587.0	2,587.0	2,587.8	0.8
S	55,361 ²	1,020	3,876	4.6	2,596.4	2,596.4	2,596.4	0.0
T	58,893 ²	1,000	3,790	4.7	2,608.7	2,608.7	2,609.2	0.5
U	62,029 ²	980	3,473	5.2	2,620.0	2,620.0	2,620.1	0.1
V	65,150 ²	950	3,780	4.8	2,631.3	2,631.3	2,631.4	0.1
W	68,101 ²	960	4,074	4.4	2,641.7	2,641.7	2,641.9	0.2
X	70,631 ²	1,000	3,681	4.9	2,650.5	2,650.5	2,651.4	0.9

¹ Feet above limit of detailed study located 6,200 feet downstream of the Vista Road Ridge

² Feet above limit of detailed study*

*The limit of detailed study is located 2,261 feet downstream of Vista Road

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY
SAN BERNARDINO COUNTY, CA
AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: MOJAVE RIVER (BELOW VICTORVILLE)

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	860	198	2,938	10.6	2,731.2	2,731.2	2,731.6	0.4
B	1,120	834	12,660	2.5	2,732.6	2,732.6	2,733.6	1.0
C	2,992	2,225	14,062	2.2	2,733.1	2,733.1	2,734.1	1.0
D	4,475	1,348	7,775	4.0	2,734.9	2,734.9	2,735.8	0.9
E	5,442	1,761	8,496	3.7	2,737.7	2,737.7	2,738.6	0.9
F	6,873	1,917	6,745	4.6	2,742.7	2,742.7	2,743.3	0.6
G	7,943	1,425	6,834	4.5	2,746.4	2,746.4	2,747.4	1.0
H	9,122	1,384	6,973	4.5	2,752.3	2,752.3	2,752.6	0.3
I	9,933	1,549	7,617	4.1	2,753.8	2,753.8	2,754.4	0.6
J	11,124	1,400	6,587	4.7	2,759.0	2,759.0	2,760.0	1.0
K	12,684	990	5,880	5.3	2,764.7	2,764.7	2,765.7	1.0
L	13,630	738	4,676	6.6	2,768.1	2,768.1	2,769.0	0.9

¹ Feet above upstream limit of State Highway 18

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY
SAN BERNARDINO COUNTY, CA
 AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: MOJAVE RIVER (UPPER NARROWS)

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,373	280	1,896	9.6	3,019.1	3,019.1	3,020.1	1.0
B	2,392	200	1,371	11.9	3,052.4	3,052.4	3,053.4	1.0
C	3,374	160	1,214	12.9	3,085.1	3,085.1	3,086.1	1.0
D	4,382	200	1,686	9.6	3,131.0	3,131.0	3,132.0	1.0
E	5,222	250	1,591	9.7	3,160.6	3,160.6	3,161.6	1.0
F	6,336	100	815	15.0	3,211.8	3,211.8	3,212.8	1.0
G	7,339	270	1,781	9.2	3,261.3	3,261.3	3,262.3	1.0
H	8,342	110	1,064	14.2	3,311.8	3,311.8	3,312.8	1.0
I	9,309	150	1,300	11.7	3,364.6	3,364.6	3,365.6	1.0
J	10,454	60	711	16.9	3,429.3	3,429.3	3,430.3	1.0
K	11,299	100	863	13.9	3,472.2	3,472.2	3,473.2	1.0

¹ Feet above confluence with Middle Fork Lytle Creek

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY
SAN BERNARDINO COUNTY, CA
AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: NORTH FORK LYTLE CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	211	40	138	6.9	3,326.4	3,326.4	3,327.4	1.0
B	686	30	103	9.2	3,349.9	3,349.9	3,350.9	1.0
C	1,214	50	157	6.1	3,377.4	3,377.4	3,378.4	1.0
D	1,901	40	137	6.9	3,429.2	3,429.2	3,430.2	1.0
E	2,798	40	126	5.1	3,492.7	3,492.7	3,493.7	1.0
F	3,485	40	92	3.8	3,540.1	3,540.1	3,541.1	1.0

¹ Feet above limit of detailed study*

*The limit of detailed study is located 740 feet downstream of Camino Del Cielo

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY
SAN BERNARDINO COUNTY, CA
AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: PINYON CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,055	939	2,205	8.2	2,664.6	2,664.6	2,665.3	0.7
B	4,165	810	2,864	6.3	2,742.8	2,742.8	2,743.4	0.6
C	7,205	121	1,130	15.9	2,825.3	2,825.3	2,826.2	0.9

¹ Feet above confluence with Joshua Tree Creek

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY
SAN BERNARDINO COUNTY, CA
 AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: QUAIL WASH

Table 23: Floodway Data (continued)

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

¹ Base flood is contained in channel and floodway regulation is removed due to restudy of channelization of Etiwanda and San Sevaine Channel

TABLE 23	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	SAN BERNARDINO COUNTY, CA	
	AND INCORPORATED AREAS	FLOODING SOURCE: SAN SEVAINE CHANNEL

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	290,200	1,260	14,849	11.0	865.3	865.3	866.2	0.9
B	292,185	975	12,278	12.2	872.4	872.4	873.3	0.9
C	294,090	910	7,985	17.5	877.2	877.2	877.2	0.0
D	294,740	880	10,508	13.3	881.9	881.9	881.9	0.0
E	295,960	1,370	15,816	10.6	891.5	891.5	892.5	1.0
F	297,917	769	14,341	9.8	895.8	895.8	896.0	0.2
G	298,757	653	10,702	13.1	897.2	897.2	897.4	0.2
H	300,082	339	6,646	21.1	901.0	901.0	901.7	0.7
I	300,822	628	13,375	10.6	909.1	909.1	909.7	0.6
J	301,417	1,104	20,565	8.5	920.7	920.7	920.9	0.2
K	302,507	915	15,934	8.8	921.2	921.2	922.0	0.8
L	303,847	1,243	19,576	8.0	925.1	925.1	926.0	0.9
M	305,605	998	12,578	11.1	929.1	929.1	930.1	1.0
N	307,168	882	9,456	14.8	936.9	936.9	937.2	0.3
O	308,820	790	9,288	15.1	944.7	944.7	944.7	0.0
P	310,226	700	8,255	8.5	951.3	951.3	951.6	0.3
Q	312,034	481	5,707	12.3	952.9	952.9	953.8	0.9
R	313,417	534	6,457	10.8	972.0	972.0	972.0	0.0
S	315,172	565	6,036	11.6	979.8	979.8	979.8	0.0
T	316,292	649	7,777	9.0	983.7	983.7	984.2	0.5
U	318,294	849	5,307	9.8	990.6	990.6	990.6	0.0
V	320,277	649	5,127	7.1	1,001.0	1,001.0	1,001.9	0.9
W	321,547	506	3,228	11.3	1,009.3	1,009.3	1,009.3	0.0
X	322,835	518	5,597	5.9	1,021.2	1,021.2	1,021.2	0.0
Y	323,903	505	3,606	9.2	1,023.3	1,023.3	1,023.3	0.0
Z	325,315	630	3,968	8.3	1,031.7	1,031.7	1,031.7	0.0

¹ Feet above Pacific Ocean

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY
SAN BERNARDINO COUNTY, CA
AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: SANTA ANA RIVER

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Santa Ana River (continued)								
AA	327,405	645	4,115	8.0	1,044.5	1,044.5	1,044.5	0.0
AB	328,148	594	3,488	9.5	1,049.9	1,049.9	1,049.9	0.0
AC	328,975	613	3,373	9.8	1,055.0	1,055.0	1,055.0	0.0
AD	329,984	609	3,354	9.8	1,061.6	1,061.6	1,061.6	0.0
AE	332,061	571	3,137	10.5	1,075.9	1,075.9	1,075.9	0.0
AF	333,034	686	3,620	9.1	1,082.9	1,082.9	1,082.9	0.0
AG	334,089	774	3,738	8.8	1,089.5	1,089.5	1,089.8	0.3
AH	335,464	967	4,413	7.5	1,097.8	1,097.8	1,098.3	0.5
AI	336,694	1,202	3,989	8.3	1,106.8	1,106.8	1,106.8	0.0
AJ	338,130	1,080	3,927	8.4	1,118.4	1,118.4	1,118.4	0.0
AK	339,980	1,310	3,782	8.7	1,135.6	1,135.6	1,135.6	0.0
AL	341,360	1,940	4,110	8.0	1,148.4	1,148.4	1,148.4	0.0
AM	342,380	2,180	3,042	9.2	1,158.4	1,158.4	1,158.6	0.2
AN	344,185	1,530	2,727	14.8	1,182.8	1,182.8	1,183.6	0.8
AO	346,175	775	2,723	10.3	1,198.9	1,198.9	1,198.9	0.0
AP	347,495	800	2,768	10.1	1,216.0	1,216.0	1,216.0	0.0
AQ	348,735	1,015	5,660	5.0	1,235.6	1,235.6	1,235.6	0.0
AR	350,115	1,025	5,081	5.5	1,253.4	1,253.4	1,253.4	0.0
AS	351,125	800	3,728	9.3	1,271.6	1,271.6	1,272.7	1.0
AT	352,825	350	4,235	6.6	1,298.7	1,298.7	1,298.8	0.1
AU	354,495	680	3,672	7.6	1,318.9	1,318.9	1,318.9	0.0
AV	355,635	1,850	2,899	9.7	1,338.7	1,338.7	1,338.9	0.2
AW	357,175	2,060	4,555	6.2	1,369.4	1,369.4	1,369.5	0.1
AX	358,465	2,250	5,151	5.1	1,394.7	1,394.7	1,394.7	0.0

¹ Feet above Pacific Ocean

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY
SAN BERNARDINO COUNTY, CA
AND INCORPORATED AREAS**

FLOODWAY DATA

FLOODING SOURCE: SANTA ANA RIVER

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Santa Ana River (continued)								
AY	359,655	1,900	3,486	7.2	1,417.2	1,417.2	1,417.9	0.7
AZ	361,255	2,170	3,529	7.1	1,454.1	1,454.1	1,454.1	0.0
BA	363,475	2,680	5,538	3.8	1,499.3	1,499.3	1,499.3	0.0
BB	365,375	2,760	5,601	5.6	1,539.5	1,539.5	1,539.7	0.2
BC	367,405	1,660	3,824	7.3	1,582.9	1,582.9	1,582.9	0.0
BD	369,305	1,570	2,414	10.4	1,629.7	1,629.7	1,630.3	0.6
BE	370,885	2,150	3,031	8.3	1,670.6	1,670.6	1,670.7	0.1
BF	372,685	1,730	900	6.1	1,724.4	1,724.4	1,724.7	0.3
BG	374,195	1,050	1,898	1.2	1,777.6	1,777.6	1,777.7	0.1
BH	375,585	780	892	7.3	1,815.4	1,815.4	1,815.4	0.0
BI	376,655	1,500	912	6.0	1,845.6	1,845.6	1,845.6	0.0
BJ	377,975	330	974	5.7	1,878.8	1,878.8	1,878.8	0.0
BK	379,380	260	675	8.1	1,921.8	1,921.8	1,921.8	0.0
BL	380,225	500	996	5.5	1,945.0	1,945.0	1,945.0	0.0
BM	382,543	260	883	6.2	2,012.2	2,012.2	2,012.2	0.0

¹ Feet above Pacific Ocean

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY
SAN BERNARDINO COUNTY, CA
 AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: SANTA ANA RIVER

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
San Timoteo Creek A	41,130 ¹	255	1,489	13.7	1,483.0	1,483.0	1,483.0	0.0
Soapmine Creek A	0 ²	70	263	7.6	2,088.1	2,088.1	2,089.1	1.0
B	634 ²	90	242	8.3	2,097.1	2,097.1	2,098.1	1.0
C	1,426 ²	60	249	8.0	2,109.4	2,109.4	2,110.4	1.0
D	2,096 ²	70	258	7.8	2,118.1	2,118.1	2,119.1	1.0
E	2,798 ²	60	254	7.9	2,134.5	2,134.5	2,135.5	1.0
F	3,379 ²	60	255	7.9	2,148.3	2,148.3	2,149.3	1.0

¹ Feet above San Timoteo Canyon Road Bridge
² Feet above Limit of Detailed Study
*The Limit of Detailed Study is located 504 feet downstream of Soapmine Road

TABLE 23	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	SAN BERNARDINO COUNTY, CA	
	AND INCORPORATED AREAS	FLOODING SOURCE: SAN TIMOTEO CREEK – SOAPMINE CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,410	395	2,099	10.0	1,736.0	1,736.0	1,737.0	1.0
B	4,850	500	2,015	11.0	1,756.8	1,756.8	1,757.1	0.3
C	7,940	450	2,374	9.0	1,775.9	1,775.9	1,776.4	0.5
D	11,500	1,190	3,198	6.0	1,799.0	1,799.0	1,799.3	0.3
E	13,899	1,940	5,984	7.0	1,824.6	1,824.6	1,825.6	1.0
F	14,892	1,240	4,607	7.0	1,832.9	1,832.9	1,833.9	1.0
G	15,900	1,010	3,834	9.0	1,842.6	1,842.6	1,843.6	1.0
H	17,099	1,120	4,416	8.0	1,856.9	1,856.9	1,857.6	0.7
I	18,102	860	3,814	8.0	1,865.4	1,865.4	1,866.4	1.0
J	18,699	1,090	4,360	8.2	1,873.0	1,873.0	1,874.0	1.0
K	19,702	2,020	8,293	3.2	1,884.5	1,884.5	1,885.5	1.0

¹ Feet above limit of detailed study*

*The limit of detailed study is located 446 feet downstream to Bullion Mountain Road

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY
SAN BERNARDINO COUNTY, CA
AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: TWENTYNINE PALMS CHANNEL

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	0	50	445	17.1	1,059.8	1,059.8	1,059.8	0.0
B	475	50	515	14.8	1,064.1	1,064.1	1,064.1	0.0
C	1,584	50	634	12.0	1,070.8	1,070.8	1,070.9	0.1
D	2,270	61	833	9.1	1,074.3	1,074.3	1,074.4	0.1
E	5,966	40	330	14.3	1,101.7	1,101.7	1,102.7	1.0
F	7,392	200	790	6.5	1,108.9	1,108.9	1,109.9	1.0
G	7,894	110	480	9.6	1,111.1	1,111.1	1,112.1	1.0
H	8,342	80	510	9.2	1,114.0	1,114.0	1,115.0	1.0

¹ Feet above confluence with East Twin Creek

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY
SAN BERNARDINO COUNTY, CA
 AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: WARM CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	100	50	173	8.0	2,784.7	2,784.7	2,785.7	1.0
B	1,299	20	130	10.0	2,884.2	2,884.2	2,885.2	1.0
C	1,901	50	182	7.0	2,940.0	2,940.0	2,941.0	1.0
D	2,503	50	183	7.0	3,000.0	3,000.0	3,001.0	1.0
E	3,152	20	85	8.0	3,045.7	3,045.7	3,046.7	1.0
F	3,659	20	85	8.0	3,100.1	3,100.1	3,101.1	1.0
G	4,261	50	126	6.0	3,138.8	3,138.8	3,139.8	1.0

¹ Feet above limit of detailed study*

*The limit of detailed study for Waterman Canyon is located 1,954 feet upstream of Old Waterman Canyon Road

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY
SAN BERNARDINO COUNTY, CA
AND INCORPORATED AREAS**

FLOODWAY DATA

FLOODING SOURCE: WATERMAN CANYON

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	433	73	580	16.2	1,998.4	1,998.4	1,998.4	0.0
B	933	71	576	16.3	2,006.8	2,006.8	2,006.8	0.0
C	997	75	588	16.0	2,009.9	2,009.9	2,009.9	0.0
D	1,108	96	967	9.7	2,017.0	2,017.0	2,017.0	0.0
E	1,318	55	534	17.6	2,023.5	2,023.5	2,023.5	0.0
F	1,384	164	1461	6.4	2,030.1	2,030.1	2,030.1	0.0
G	1,418	133	1327	7.1	2,030.1	2,030.1	2,030.1	0.0
H	1,630	85	696	13.5	2,029.6	2,029.6	2,029.6	0.0
I	1,680	83	937	10.8	2,031.1	2,031.1	2,031.1	0.0
J	1,857	64	570	16.7	2,031.1	2,031.1	2,031.1	0.0
K	1,891	62	512	16.2	2,031.9	2,031.9	2,031.9	0.0
L	1,978	118	6,094	5.4	2,040.8	2,040.8	2,040.8	0.0
M	2,006	121	5434	5.4	2,040.8	2,040.8	2,040.8	0.0
N	2,357	69	852	11.7	2,039.9	2,039.9	2,039.9	0.0
O	2,411	68	630	13.2	2,039.9	2,039.9	2,039.9	0.0
P	2,570	72	535	15.5	2,043.5	2,043.5	2,043.6	0.1
Q	2,922	71	837	15.5	2,049.9	2,049.9	2,049.9	0.0
R	3,433	69	732	15.7	2,059.1	2,059.1	2,059.1	0.0
S	3,734	115	630	13.2	2,064.8	2,064.8	2,064.8	0.0
T	3,931	66	524	15.9	2,067.5	2,067.5	2,067.5	0.0
U	4,152	64	518	16.0	2,071.5	2,071.5	2,071.5	0.0
V	4,432	66	521	15.9	2,078.1	2,078.1	2,078.1	0.0
W	4,991	69	529	15.7	2,090.5	2,090.5	2,090.5	0.0
X	5,170	69	529	15.7	2,094.4	2,094.4	2,094.4	0.0
Y	5,506	69	528	15.7	2,101.2	2,101.2	2,101.2	0.0
Z	5,918	71	536	15.5	2,109.7	2,109.7	2,109.7	0.0

¹ Feet above limit of detailed study*

*The limit of detailed study for Wilson Creek is located 710 feet downstream of Frontage Road

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY
SAN BERNARDINO COUNTY, CA
AND INCORPORATED AREAS**

FLOODWAY DATA

FLOODING SOURCE: WILSON CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
AA	6,362	69	530	15.7	2,117.5	2,117.5	2,117.5	0.0
AB	6,889	67	527	15.8	2,127.5	2,127.5	2,127.5	0.0
AC	7,023	70	530	15.7	2,129.1	2,129.1	2,129.1	0.0
AD	7,073	64	515	16.1	2,129.9	2,129.9	2,129.9	0.0
AE	7,172	68	528	15.7	2,135.0	2,135.0	2,135.0	0.0
AF	7,430	70	532	15.6	2,141.0	2,141.0	2,141.0	0.0
AG	7,924	71	713	15.5	2,153.0	2,153.0	2,153.0	0.0
AH	8,425	67	522	15.9	2,164.0	2,164.0	2,164.0	0.0
AI	9,125	68	527	15.7	2,183.5	2,183.5	2,183.5	0.0
AJ	9,508	69	528	15.7	2,194.4	2,194.4	2,194.4	0.0
AK	9,946	66	519	16.0	2,206.6	2,206.6	2,206.6	0.0
AL	10,164	66	478	15.2	2,212.1	2,212.1	2,212.1	0.0
AM	10,221	65	476.0	15.3	2,214.7	2,214.7	2,214.7	0.0
AN	10,271	60	462.0	15.8	2,216.2	2,216.2	2,216.2	0.0
AO	10,336	60	599.0	12.2	2,221.7	2,221.7	2,221.7	0.0
AP	10,386	60	508.0	14.4	2,221.3	2,221.3	2,221.3	0.0
AQ	10,435	77	501	14.5	2,221.5	2,221.5	2,221.5	0.0
AR	10,754	102	553	13.2	2,230.8	2,230.8	2,230.8	0.0
AS	10,845	86	522	14.0	2,232.5	2,232.5	2,232.5	0.0
AT	10,900	59	460	15.9	2,235.1	2,235.1	2,235.1	0.0
AU	10,977	57	455	16.1	2,237.4	2,237.4	2,237.4	0.0
AV	11,035	36	390	18.7	2,239.8	2,239.8	2,239.8	0.0
AW	11,234	36	495	14.8	2,246.7	2,246.7	2,246.7	0.0
AX	11,322	30	367	19.9	2,246.8	2,246.8	2,246.8	0.0
AY	11,659	30	367	19.9	2,257.9	2,257.9	2,257.9	0.0
AZ	11,912	30	367	19.9	2,266.3	2,266.3	2,266.3	0.0

¹ Feet above limit of detailed study*

*The limit of detailed study for Wilson Creek is located 710 feet downstream of Frontage Road

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY
SAN BERNARDINO COUNTY, CA
AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: WILSON CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	475	270	808	8.1	1,912.2	1,912.2	1,913.2	1.0
B	1,346	1,470	4,783	1.5	1,919.3	1,919.3	1,920.3	1.0
C	2,693	150	736	8.0	1,920.5	1,920.5	1,921.5	1.0
D	3,854	160	825	7.2	1,929.3	1,929.3	1,930.3	1.0
E	4,594	160	816	7.2	1,930.8	1,930.8	1,931.8	1.0
F	5,966	170	1,690	3.5	1,937.5	1,937.5	1,938.5	1.0
G	7,339	440	2,495	2.8	1,937.5	1,937.5	1,938.5	1.0
H	9,398	180	1,188	5.0	1,940.3	1,940.3	1,941.3	1.0
I	10,613	160	872	6.8	1,941.5	1,941.5	1,942.5	1.0

¹ Feet above limit of detailed study*

*The limit of detailed study is located 1,015 feet downstream of Union Pacific Railroad

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY
SAN BERNARDINO COUNTY, CA
AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: YERMO FLOOD CHANNEL

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	132	300	585	2.5	2,106.0	2,106.0	2,107.0	1.0
B	818	200	1,252	1.2	2,127.8	2,127.8	2,128.8	1.0
C	1,030	170	559	2.6	2,129.8	2,129.8	2,130.8	1.0
D	2,983	240	583	2.5	2,186.1	2,186.1	2,187.1	1.0
E	3,353	80	167	8.7	2,198.4	2,198.4	2,199.4	1.0
F	4,609	60	179	8.1	2,245.5	2,245.5	2,246.5	1.0
G	6,088	60	184	5.7	2,293.4	2,293.4	2,294.4	1.0
H	7,260	70	219	4.9	2,325.4	2,325.4	2,326.4	1.0
I	7,973	80	244	4.4	2,347.5	2,347.5	2,348.5	1.0
J	8,781	60	134	8.0	2,366.9	2,366.9	2,367.9	1.0
K	9,636	100	237	4.5	2,391.6	2,391.6	2,392.6	1.0
L	10,164	50	162	6.6	2,405.7	2,405.7	2,406.7	1.0
M	10,850	70	194	5.5	2,427.2	2,427.2	2,428.2	1.0
N	11,553	30	112	6.3	2,445.6	2,445.6	2,446.6	1.0
O	12,540	30	100	7.0	2,466.9	2,466.9	2,467.9	1.0
P	13,015	50	138	5.1	2,484.6	2,484.6	2,485.6	1.0
Q	13,860	40	115	6.1	2,506.6	2,506.6	2,507.6	1.0
R	15,286	30	108	6.5	2,547.9	2,547.9	2,548.9	1.0
S	15,708	40	114	6.2	2,563.9	2,563.9	2,564.9	1.0
T	16,495	30	108	6.5	2,588.0	2,588.0	2,589.0	1.0

¹ Feet above confluence with Wildwood Channel

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY
SAN BERNARDINO COUNTY, CA
AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: YUCAIPA CREEK

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	910	2,050	4,003	7.5	2,531.3	2,531.3	2,532.3	1.0
B	4,190	1,480	4,173	7.2	2,571.8	2,571.8	2,572.4	0.6
C	9,250	374	1,422	10.5	2,657.1	2,657.1	2,657.6	0.5
D	13,270	354	1,196	10.5	2,726.5	2,726.5	2,727.0	0.5
E	18,480	523	1,365	9.2	2,820.7	2,820.7	2,821.4	0.7
F	23,630	691	1,415	8.5	2,912.1	2,912.1	2,912.2	0.1
G	29,180	577	1,212	8.3	3,016.6	3,016.6	3,016.9	0.3
H	32,700	395	1,167	8.6	3,084.5	3,084.5	3,085.3	0.8
I	34,930	166	913	11.0	3,124.5	3,124.5	3,125.1	0.6
J	38,390	125	767	12.5	3,170.0	3,170.0	3,170.4	0.4
K	41,520	125	817	11.7	3,194.5	3,194.5	3,195.0	0.5

¹ Feet above Sunever Road (at Joshua Tree)

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY
SAN BERNARDINO COUNTY, CA
AND INCORPORATED AREAS**

FLOODWAY DATA

FLOODING SOURCE: YUCCA CREEK (AT JOSHUA TREE)

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	0	160	1,052	9.0	3,197.3	3,197.3	3,198.3	1.0
B	1,003	160	975	9.7	3,200.8	3,200.8	3,201.8	1.0
C	3,490	170	872	8.8	3,213.8	3,213.8	3,214.8	1.0
D	4,282	80	624	13.0	3,221.8	3,221.8	3,222.8	1.0
E	5,280	330	1,759	6.8	3,226.3	3,226.3	3,227.3	1.0
F	6,801	70	570	12.6	3,238.8	3,238.8	3,239.8	1.0
G	8,300	90	613	11.8	3,248.5	3,248.5	3,249.5	1.0
H	9,979	270	1,027	5.6	3,260.8	3,260.8	3,261.8	1.0
I	11,722	220	690	7.5	3,276.2	3,276.2	3,277.2	1.0
J	13,221	60	148	5.5	3,286.1	3,286.1	3,287.1	1.0
K	14,488	50	148	5.5	3,301.3	3,301.3	3,302.3	1.0

¹ Feet above Paxton Road (at Yucca Valley)

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY
SAN BERNARDINO COUNTY, CA
AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: YUCCA CREEK (AT YUCCA VALLEY)

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	53	40	219	13.3	1,620.7	1,620.7	1,620.7	0.0
B	1,072	90	265	9.9	1,643.9	1,643.9	1,644.9	1.0
C	2,022	160	319	5.6	1,663.8	1,663.8	1,664.8	1.0
D	3,432	110	359	5.0	1,693.3	1,693.3	1,694.3	1.0
E	4,303	120	373	4.8	1,715.4	1,715.4	1,716.4	1.0
F	5,829	230	826	3.2	1,754.0	1,754.0	1,755.0	1.0
G	6,859	320	758	1.7	1,785.1	1,785.1	1,786.1	1.0
H	7,873	300	630	2.1	1,817.9	1,817.9	1,818.9	1.0
I	8,712	300	738	1.8	1,842.2	1,842.2	1,843.2	1.0
J	9,641	110	272	3.7	1,868.3	1,868.3	1,869.3	1.0

¹ Feet above Paxton Road (at Yucca Valley)

TABLE 23

**FEDERAL EMERGENCY MANAGEMENT AGENCY
SAN BERNARDINO COUNTY, CA
AND INCORPORATED AREAS**

FLOODWAY DATA

FLOODING SOURCE: THE ZANJA

Table 24: Flood Hazard and Non-Encroachment Data for Selected Streams

[Not applicable to this Flood Risk Project]

6.4 Coastal Flood Hazard Mapping

This section is not applicable to this Flood Risk Project.

Table 25: Summary of Coastal Transect Mapping Considerations

[Not applicable to this Flood Risk Project]

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 30, “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.

To obtain an application for a LOMA, visit www.fema.gov/flood-maps/change-your-flood-zone 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 www.fema.gov/flood-maps/tutorials.

For more information about how to apply for a LOMA, call the FEMA Mapping and Insurance 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 www.fema.gov/flood-maps/change-your-flood-zone 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 Mapping and Insurance 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 www.fema.gov/flood-maps/tutorials.

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 www.fema.gov/flood-maps/change-your-flood-zone 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 Mapping and Insurance 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 San Bernardino County FIRM are listed in Table 26. 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 26: Incorporated Letters of Map Change

Case Number	Effective Date	Flooding Source	FIRM Panel(s)
13-09-1511P	4/4/2014	Wilson Creek	06071C8736J 06071C8737J 06071C8738J 06071C8739J
14-09-0135P	1/12/2015	Wildwood Channel	06071C8738J 06071C8739J 06071C8745H ¹

¹ Although a portion of LOMR 14-09-0135P falls within the scope of this map revision, panel 06071C8745H was not revised. Therefore, users must continue to refer to the annotated FIRM attachment for this LOMR for FIRM panel 06071C8745H.

6.5.4 Physical Map Revisions

A Physical Map Revision (PMR) is 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 www.fema.gov and visit the Floods & Maps "Change Your Flood Zone Designation" 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 San Bernardino 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 27, "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 27 but not identified on the map, the community is treated as if it were unmapped.

- *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.
- *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 PMRs 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 San Bernardino County FIRMs in countywide format was 03/18/1996.

Table 27: Community Map History

Community Name	Initial Identification Date	Initial FHBM Effective Date	FHBM Revision Date(s)	Initial FIRM Effective Date	FIRM Revision Date(s)
Adelanto, City of	11/7/1978	11/7/1978	N/A	4/15/1980	9/2/2016 8/28/2008 3/18/1996
Apple Valley, Town of ¹	3/18/1996	N/A	N/A	3/18/1996	9/2/2016 8/28/2008 1/17/1997
Barstow, City of	1/17/1975	1/17/1975	N/A	2/1/1980	9/2/2016 8/28/2008 3/18/1996
Big Bear Lake, City of	9/29/1978	N/A	N/A	9/29/1978	8/28/2008 3/18/1996 7/2/1991 6/23/1981
Chino, City of ¹	3/18/1996	N/A	N/A	3/18/1996	5/8/2024 8/28/2008
Chino Hills, City of ¹	3/18/1996	N/A	N/A	3/18/1996	5/8/2024 8/28/2008
Colorado River Indian Tribes	8/28/2008	N/A	N/A	8/28/2008	N/A
Colton, City of	9/17/1980	N/A	N/A	9/17/1980	5/8/2024 9/2/2016 8/28/2008 3/18/1996 1/6/1988

¹ This community did not have a FIRM prior to the first countywide FIRM for San Bernardino County

Table 27: Community Map History (continued)

Community Name	Initial Identification Date	Initial FHBM Effective Date	FHBM Revision Date(s)	Initial FIRM Effective Date	FIRM Revision Date(s)
Fontana, City of	6/21/1974	6/21/1974	N/A	6/4/1987	9/2/2016 9/26/2014 8/28/2008 1/17/1997 3/18/1996 5/3/1993
Fort Mojave Indian Tribe ¹	3/18/1996	N/A	N/A	3/18/1996	8/28/2008
Grand Terrace, City of ¹	3/18/1996	N/A	N/A	3/18/1996	9/2/2016 8/28/2008
Hesperia, City of	9/29/1989	N/A	N/A	9/29/1989	9/2/2016 8/28/2008 1/17/1997 3/18/1996
Highland, City of	9/29/1989	N/A	N/A	9/29/1989	10/30/2025 9/2/2016 8/28/2008 3/18/1996
Loma Linda, City of	3/2/1973	3/2/1973	12/26/1975	7/16/1987	10/30/2025 9/2/2016 8/28/2008 3/18/1996
Montclair, City of ¹	3/18/1996	N/A	N/A	3/18/1996	8/28/2008
Needles, City of	6/14/1974	6/14/1974	12/31/1976	7/16/1979	9/2/2016 8/28/2008 3/18/1996
Ontario, City of	8/9/1974	8/9/1974	11/12/1976	12/2/1980	9/2/2016 2/18/2015 9/26/2014 8/28/2008 3/18/1996 6/19/1985 8/15/1983

¹ This community did not have a FIRM prior to the first countywide FIRM for San Bernardino County

Table 27: Community Map History (continued)

Community Name	Initial Identification Date	Initial FHBM Effective Date	FHBM Revision Date(s)	Initial FIRM Effective Date	FIRM Revision Date(s)
Rancho Cucamonga, City of	9/5/1984	N/A	N/A	9/5/1984	9/2/2016 2/18/2015 9/26/2014 8/28/2008 1/17/1997 3/18/1996
Redlands, City of	5/17/1974	5/17/1974	11/21/1975	1/3/1979	10/30/2025 9/2/2016 8/28/2008 3/18/1996 9/16/1988 12/21/1982
Rialto, City of ¹	3/18/1996	N/A	N/A	3/18/1996	5/8/2024 9/2/2016 8/28/2008
San Bernardino, City of	6/28/1974	6/28/1974	N/A	7/16/1979	10/30/2025 9/2/2016 8/28/2008 3/18/1996 2/2/1994
San Bernardino County Unincorporated Areas	9/29/1978	N/A	N/A	9/29/1978	10/30/2025 9/2/2016 9/26/2014 8/28/2008 1/17/1997 3/18/1996 6/2/1995 2/2/1994 9/28/1990 1/18/1983 6/23/1981
Twentynine Palms, City of	9/29/1978	N/A	N/A	9/29/1978	9/2/2016 8/28/2008 3/18/1996 4/17/1995
Upland, City of ¹	3/18/1996	N/A	N/A	3/18/1996	9/2/2016 2/18/2015 8/28/2008

¹ This community did not have a FIRM prior to the first countywide FIRM for San Bernardino County

Table 27: Community Map History (continued)

Community Name	Initial Identification Date	Initial FHBM Effective Date	FHBM Revision Date(s)	Initial FIRM Effective Date	FIRM Revision Date(s)
Victorville, City of	9/21/1973	N/A	N/A	9/21/1973	9/2/2016 8/28/2008 3/18/1996 8/5/1977 7/1/1974
Yucaipa, City of ¹	3/18/1996	N/A	N/A	3/18/1996	10/30/2025 8/28/2008
Yucca Valley, Town of ¹	3/18/1996	N/A	N/A	3/18/1996	9/2/2016 8/28/2008

¹ This community did not have a FIRM prior to the first countywide FIRM for San Bernardino County

SECTION 7.0 – CONTRACTED STUDIES AND COMMUNITY COORDINATION

7.1 Contracted Studies

Table 28 provides a summary of the contracted studies, by flooding source, that are included in this FIS Report.

Table 28: Summary of Contracted Studies Included in this FIS Report

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Alto Loma Basins Overflow, Apple Valley Dry Lake, Big Morongo Creek, Borosolvay Wash, Burnt Mountain Creek, Buzzard Wash, Chicken Springs Creek, Cucamonga Creek, Cypress Channel, Daley Channel Overflow, Deer Creek, Demens Channel, Devil and Cable Canyon Channel, Division Creek, East Burnt Mountain Creek, East Fork Little Morongo Creek, Gateway Wash, Half-Way Wash, Hospital Canyon, Lake Baldwin, Lemon Lilly Creek, Lenwood Channel, Little Morongo Creek, Little Sand Creek Channel, Lodge Creek, Long Canyon, Lower Cucamonga Creek, Lower Mill Creek, Metcalf Creek, Mill Creek (at Big Bear Lake), Miller Creek, Mountain Home Creek, North Barstow Tributary, Oro Grande Creek, Palms Channel, Pinto Cove Wash, Pinyon Creek, Red Ant Creek, Roadrunner Wash, San Timoteo Wash, Saw Mill Creek, Slide Creek, Snow Creek, Soda Lake, Storey Wash, Tributary to East Barstow Channel, Unnamed Creek Tributary to Twentynine Palms Channel, Unnamed Washes Tributary to the Mojave River, West Burnt Mountain Creek, Wilson Creek	Various	Various	Various	Various	Various
Horsethief Canyon Creek, Plunge Creek, West Fork Mojave River	9/29/1989	Toups Corporation	H-3692	September 1975	Various
Fox Wash, Leming Wash, Old Deer Creek, Rathbone Creek, Wash A at Needles, Wash B at Needles, West Cucamonga Creek	7/16/1979	Toups Corporation	H-3692	March 1978	Various
Cemetery Creek, Covington Wash, Coyote Creek Wash, Little Chino Creek, Wildwood Channel, Wounder Valley Wash	9/28/1990	P&D Technologies	EMW-83-C-1198	January 1985	Various

Table 28: Summary of Contracted Studies (continued)

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Acorn Canyon Creek, Argus Channel, Baldwin Lake, Bear Creek, Big Bear Lake, City Creek, Day Creek, Dean Wash, Del Rosa Channel, Desert Knolls Wash, Fortynine Palms Channel, Goats Wash, Grass Valley Creek, Grass Valley Lake, Green Valley Creek, Green Valley Lake, Holiday Wash, Joshua Tree Creek, Lake Arrowhead, Lake Gregory, Leopard Spring Creek, Little Bear Creek, Lytle Creek Wash, Mojave River, Needles Flood Channel, Oak Glen Creek, Oasis Creek, Palo Verde Wash, Quail Wash, Rockcrusher Channel, San Antonio Creek, SBCFCD Channel A, Seeley Creek, Seeley East Creek, Seeley East Creek Tributary, Sheep Creek, Silver Lake, Silverwood Lake, Smith Canyon Creek, South Fork Lytle Creek, Swarthout Creek, Sycamore Creek, Twins Lake, Van Dusen Creek, Water Canyon Tributary, Yermo Flood Channel, Yucca Creek (At Joshua Tree), Yucca Creek (At Yucca Valley)	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	October 1991	Various
Cable Creek, Devil Creek, East Twin Creek, Sand Creek, Santa Ana River, Twin Creek Channel	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	November 1991	Various
11th Street Storm Drain	1/6/1988	USACE, Los Angeles District	EMW-84-E-1506 Project Order No. 1, Amendment No. 12	March 1986	Colton, City of
Antelope Valley Wash	1/17/1997	Ensign & Buckley	EMW-90-C-4151	June 1995	Hesperia, City of
Armory Channel	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	October 1991	Barstow, City of

Table 28: Summary of Contracted Studies (continued)

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Armory Creek	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	October 1991	San Bernardino County Unincorporated Areas
Arrowhead Channel	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	October 1991	San Bernardino County Unincorporated Areas
Cable Creek	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	November 1991	San Bernardino, City of
Cable Creek Channel	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	November 1991	San Bernardino, City of
Cajon Wash	10/30/2025	*	LOMR 20-09-1006P	July 2022	San Bernardino, City of; San Bernardino County Unincorporated Areas
Carbon Canyon Creek	1/17/1997	*	97-09-301P	January 1997	Chino Hills, City of; Chino, City of
Chicken Springs Creek	3/18/1996	*	*	*	Yucaipa, City of
Chino Creek	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	October 1991	San Bernardino County Unincorporated Areas
City Creek	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	October 1991	Highland, City of; San Bernardino, City of; San Bernardino County Unincorporated Areas
Colorado River	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	October 1991	Colorado River Indian Tribes; Fort Mojave Indian Tribe; Needles, City of; San Bernardino County Unincorporated Areas
Colton Southwest Storm Drain	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	October 1991	San Bernardino County Unincorporated Areas

*Data Not Available

Table 28: Summary of Contracted Studies (continued)

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Cucamonga Creek	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	October 1991	Rancho Cucamonga, City of; San Bernardino County Unincorporated Areas; Upland, City of
Day Creek	9/5/1984	Toups Corporation	H-3692	September 1975	Ontario, City of; Rancho Cucamonga, City of
Deer Creek	12/2/1980	Toups Corporation	EMW-90-C-3109	March 1978	Ontario, City of; Rancho Cucamonga, City of
Del Rosa Channel	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	October 1991	San Bernardino, City of
Desert Knolls Wash	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	October 1991	Apple Valley, Town of
Devil Creek	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	November 1991	San Bernardino, City of
Eagle Pass Wash	7/16/1979	Toups Corporation	H-3692	March 1978	Needles, City of
East Adelanto Channel	4/15/1980	Toups Corporation	H-3692	February 1978	Adelanto, City of
East Barstow Channel	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	October 1991	Barstow, City of
East Etiwanda Creek	9/5/1984	Toups Corporation	H-3692	September 1975	Rancho Cucamonga, City of
East Rialto Storm Drain	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	November 1991	San Bernardino, City of
Etiwanda/San Sevaine System	3/18/1996	Birge Engineering, Inc.	11-09-1164	August 2011	Fontana, City of; Rancho Cucamonga, City of; San Bernardino County Unincorporated Areas

Table 28: Summary of Contracted Studies (continued)

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Grout Creek	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	October 1991	San Bernardino County Unincorporated Areas
Highgrove Channel	10/30/2025	STARR II	HSFE60-15-D-0005	March 2020	Colton, City of
Hook Creek	3/18/1996	Schaaf & Wheeler, Consulting Civil Engineers	EMF-2003-RP-001	July 2006	San Bernardino County Unincorporated Areas
Houston Creek	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	October 1991	San Bernardino County Unincorporated Areas
Joshua Tree Creek	3/18/1996	P&D Technologies	EMW-83-C-1198	January 1985	San Bernardino County Unincorporated Areas
Joshua Tree Creek	10/30/2025	*	LOMR 23-09-0659X	April 2023	San Bernardino County Unincorporated Areas
Kitchen Wash	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	October 1991	Barstow, City of
Kuffel Canyon Creek	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	October 1991	San Bernardino County Unincorporated Areas
Lenwood Creek	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	October 1991	Barstow, City of
Little Mountain Channel	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	November 1991	San Bernardino, City of

*Data Not Available

Table 28: Summary of Contracted Studies (continued)

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Little Sand Creek	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	November 1991	San Bernardino, City of
Lytle Creek and South Fork Lytle Creek	3/18/1996	PRC Engineering	EMW-83-C-1198	January 1985	San Bernardino County Unincorporated Areas
Lytle Creek	10/30/2025	*	LOMR 20-09-1006P	July 2022	Fontana, City of; Rialto, City of; San Bernardino, City of; San Bernardino County Unincorporated Areas
Lytle Creek (East Branch)	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	November 1991	San Bernardino, City of
Lytle Creek Left Split	10/30/2025	*	LOMR 20-09-1006P	July 2022	Fontana, City of; Rialto, City of; San Bernardino, City of; San Bernardino County Unincorporated Areas
Middle Fork Lytle Creek	3/18/1996	PRC Engineering	EMW-83-C-1198	January 1985	San Bernardino County Unincorporated Areas
Mill Creek Downstream	10/30/2025	Baker AECOM	HSFEHQ-09-D-0368	August 2014	San Bernardino County Unincorporated Areas
Mill Creek Upstream	10/30/2025	SBCFCD	*	March 2008	San Bernardino County Unincorporated Areas
Mojave River	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	October 1991	San Bernardino County Unincorporated Areas
Mojave River (At Barstow)	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	October 1991	Barstow, City of

*Data Not Available

Table 28: Summary of Contracted Studies (continued)

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Mojave River (At Hesperia and Apple Valley)	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	October 1991	San Bernardino County Unincorporated Areas
Mojave River (Below Victorville)	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	October 1991	San Bernardino County Unincorporated Areas
Mojave River (Upper Narrows)	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	October 1991	San Bernardino County Unincorporated Areas
North Fork Lytle Creek	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	October 1991	San Bernardino County Unincorporated Areas
Oak Glen Creek	10/30/2025	*	23-09-0131P	April 2023	Yucaipa, City of
Ontario Motor Speedway Drain	12/2/1980	BSI Consultants, Inc.	EMW-90-C-3109	October 1991	Ontario, City of
Pinyon Creek	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	October 1991	Yucca Valley, Town of
Prado Lane Creek	7/16/1987	PRC Engineering	H-4721	November 1985	Loma Linda, City of
Quail Wash	3/18/1996	P&D Technologies	EMW-83-C-1198	January 1985	San Bernardino County Unincorporated Areas
Rathbun Creek	9/29/1978	BSI Consultants, Inc.	EMW-90-C-3109	October 1991	Big Bear Lake, City of
Reche Canyon (<i>Channel</i>)	8/28/2008	Ensign & Buckley	97-09-363P	December 1997	Colton, City of
Reche Canyon (<i>Channel</i>)	1/6/1988	USACE, Los Angeles District	EMW-84-E-1506 Project Order No. 1, Amendment No. 12	March 1986	Colton, City of

*Data Not Available

Table 28: Summary of Contracted Studies (continued)

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
San Antonio Drain	12/2/1980	Toups Corporation	H-3692	March 1978	Ontario, City of
San Timoteo Creek	8/28/2008	Suarez & Associates	00-09-871P	June 2001	Colton, City of; Loma Linda, City of; Redlands, City of; San Bernardino, City of
San Timoteo Wash A	8/28/2008	Suarez & Associates	00-09-871P	June 2001	Colton, City of; Loma Linda, City of; Redlands, City of; San Bernardino, City of
San Timoteo Wash B	8/28/2008	Suarez & Associates	00-09-871P	June 2001	Colton, City of; Loma Linda, City of; Redlands, City of; San Bernardino, City of
Sand Creek	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	November 1991	Highland, City of; San Bernardino, City of
Santa Ana River	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	November 1991	San Bernardino, City of
Santa Ana River	10/30/2025	*	LOMR 22-09-0164P	April 2023	Colton, City of; Grand Terrace, City of
Santa Ana River (With Levee)	10/30/2025	STARR II	HSFE60-15-D-0005	March 2020	Colton, City of
Smoke Tree Wash	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	October 1991	Twentynine Palms, City of
Soapmine Creek	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	October 1991	San Bernardino County Unincorporated Areas

*Data Not Available

Table 28: Summary of Contracted Studies (continued)

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Southwest Barstow Channel A	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	October 1991	Barstow, City of
Sycamore Creek	10/30/2025	*	LOMR 20-09-1006P	July 2022	Fontana, City of; Rialto, City of; San Bernardino, City of; San Bernardino County Unincorporated Areas
Twentynine Palms Channel	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	October 1991	Twentynine Palms, City of
Twin Creek Channel (formerly Lower Warm Creek)	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	November 1991	San Bernardino, City of
Warm Creek	9/29/1989	Toups Corporation	H-3692	September 1975	Highland, City of
Washes B, C, and D at Barstow	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	October 1991	Barstow, City of
Waterman Canyon	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	October 1991	San Bernardino County Unincorporated Areas
West Barstow Channel	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	October 1991	Barstow, City of
West Fontana Channel	10/30/2025	*	LOMR 21-09-1351P	May 2022	San Bernardino County Unincorporated Areas
Western Avenue Stormdrain	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	November 1991	San Bernardino, City of
Wildwood Channel	3/18/1996	U.S. Army Corps of Engineers, Los Angeles District	*	June 1972	Yucaipa, City of

*Data Not Available

Table 28: Summary of Contracted Studies (continued)

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Wildwood Channel	10/30/2025	RBF Consulting	LOMR 14-09-0135P	May 2013	Yucaipa, City of
Wilson Creek	10/30/2025	RBF Consulting	LOMR 13-09-1511P	April 2014	Yucaipa, City of
Wilson Creek	10/30/2025	*	LOMR 23-09-0131P	April 2023	Yucaipa, City of
Yermo Flood Channel	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	October 1991	San Bernardino County Unincorporated Areas
Yucaipa Creek	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	October 1991	Yucaipa, City of
Yucca Creek (At Joshua Tree)	3/18/1996	P&D Technologies	EMW-83-C-1198	January 1985	San Bernardino County Unincorporated Areas
Yucca Creek (At Yucca Valley)	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	October 1991	San Bernardino County Unincorporated Areas
The Zanja	3/18/1996	BSI Consultants, Inc.	EMW-90-C-3109	October 1991	San Bernardino County Unincorporated Areas
The Zanja Downstream	10/30/2025	STARR II	HSFE60-15-D-0005	June 2020	Loma Linda, City of; Redlands, City of; San Bernardino County Unincorporated Areas

*Data Not Available

7.2 Community Meetings

The dates of the community meetings held for this Flood Risk Project and previous Flood Risk Projects are shown in Table 29. 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 29: Community Meetings

Community	FIS Report Dated	Date of Meeting	Meeting Type	Attended By
Adelanto, City of	8/28/2008	10/28/2007	Final CCO Meeting	Representatives from San Bernardino County, FEMA, and the study contractor.
Barstow, City of	8/28/2008	10/28/2007	Final CCO Meeting	Representatives from San Bernardino County, FEMA, and the study contractor.
Big Bear Lake, City of	8/28/2008	10/28/2007	Final CCO Meeting	Representatives from San Bernardino County, FEMA, and the study contractor.
Chino, City of	8/28/2008	10/28/2007	Final CCO Meeting	Representatives from San Bernardino County, FEMA, and the study contractor.
Chino Hills, City of	8/28/2008	10/28/2007	Final CCO Meeting	Representatives from San Bernardino County, FEMA, and the study contractor.
Colorado River Indian Tribes	8/28/2008	10/28/2007	Final CCO Meeting	Representatives from San Bernardino County, FEMA, and the study contractor.

Table 29: Community Meetings (continued)

Community	FIS Report Dated	Date of Meeting	Meeting Type	Attended By
Colton, City of	9/2/2016	12/11/2014	Final CCO Meeting	Communities, FEMA, and the study contractor.
Fontana, City of	9/26/2014	*	Final CCO Meeting	*
Fort Mojave Indian Tribe	8/28/2008	6/13/2006	Initial CCO Meeting	Representatives from San Bernardino County, FEMA, and the study contractor.
		10/28/2007	Final CCO Meeting	Representatives from San Bernardino County, FEMA, and the study contractor.
Grand Terrace, City of	9/2/2016	12/11/2014	Final CCO Meeting	Communities, FEMA, and the study contractor.
Hesperia, City of	9/2/2016	12/11/2014	Final CCO Meeting	Communities, FEMA, and the study contractor.
Highland, City of	10/30/2025	11/14/2019	Discovery Meeting	Representatives of the City of Redlands, City of Yucaipa, and San Bernardino County; California Department of Water Resources, USACE, FEMA, and STARR II.
		6/8/2021	FRR Meeting	Representatives of City of Loma Linda, City of Redlands, City of San Bernardino, and San Bernardino County; California Department of Water Resources, FEMA, and STARR II.
		1/18/2024	Final CCO Meeting	Representatives of City of Loma Linda, City of Redlands, City of San Bernardino, and San Bernardino County; California Department of Water Resources, FEMA, and STARR II.
Loma Linda, City of	10/30/2025	6/8/2021	FRR Meeting	Representatives of City of Loma Linda, City of Redlands, City of San Bernardino, and San Bernardino County; California Department of Water Resources, FEMA, and STARR II.
		1/18/2024	Final CCO Meeting	Representatives of City of Loma Linda, City of Redlands, City of San Bernardino, and San Bernardino County; California Department of Water Resources, FEMA, and STARR II.
Montclair, City of	8/28/2008	10/28/2007	Final CCO Meeting	Representatives from San Bernardino County, FEMA, and the study contractor.

* Information about Final CCO Meeting was not documented.

Table 29: Community Meetings (continued)

Community	FIS Report Dated	Date of Meeting	Meeting Type	Attended By
Needles, City of	9/2/2016	12/11/2014	Final CCO Meeting	Communities, FEMA, and the study contractor.
Ontario, City of	9/2/2016	12/11/2014	Final CCO Meeting	Communities, FEMA, and the study contractor.
Rancho Cucamonga, City of	9/2/2016	12/11/2014	Final CCO Meeting	Communities, FEMA, and the study contractor.
Redlands, City of	10/30/2025	11/14/2019	Discovery Meeting	Representatives of the City of Redlands, City of Yucaipa, and San Bernardino County; California Department of Water Resources, USACE, FEMA, and STARR II.
		6/8/2021	FRR Meeting	Representatives of City of Loma Linda, City of Redlands, City of San Bernardino, and San Bernardino County; California Department of Water Resources, FEMA, and STARR II.
		1/18/2024	Final CCO Meeting	Representatives of City of Loma Linda, City of Redlands, City of San Bernardino, and San Bernardino County; California Department of Water Resources, FEMA, and STARR II.
San Bernardino, City of	10/30/2025	6/8/2021	FRR Meeting	Representatives of City of Loma Linda, City of Redlands, City of San Bernardino, and San Bernardino County; California Department of Water Resources, FEMA, and STARR II.
		1/18/2024	Final CCO Meeting	Representatives of City of Loma Linda, City of Redlands, City of San Bernardino, and San Bernardino County; California Department of Water Resources, FEMA, and STARR II.

Table 29: Community Meetings (continued)

Community	FIS Report Dated	Date of Meeting	Meeting Type	Attended By
San Bernardino County, Unincorporated Areas	10/30/2025	11/14/2019	Discovery Meeting	Representatives of the City of Redlands, City of Yucaipa, and San Bernardino County; California Department of Water Resources, USACE, FEMA, and STARR II.
		6/8/2021	FRR Meeting	Representatives of City of Loma Linda, City of Redlands, City of San Bernardino, and San Bernardino County; California Department of Water Resources, FEMA, and STARR II.
		1/18/2024	Final CCO Meeting	Representatives of City of Loma Linda, City of Redlands, City of San Bernardino, and San Bernardino County; California Department of Water Resources, FEMA, and STARR II.
Twentynine Palms, City of	9/2/2016	12/11/2014	Final CCO Meeting	Communities, FEMA, and the study contractor.
Upland, City of	9/2/2016	12/11/2014	Final CCO Meeting	Communities, FEMA, and the study contractor.
Victorville, City of	9/2/2016	12/11/2014	Final CCO Meeting	Communities, FEMA, and the study contractor.
Yucaipa, City of	10/30/2025	11/14/2019	Discovery Meeting	Representatives of the City of Redlands, City of Yucaipa, and San Bernardino County; California Department of Water Resources, USACE, FEMA, and STARR II.
		1/18/2024	Final CCO Meeting	Representatives of City of Loma Linda, City of Redlands, City of San Bernardino, and San Bernardino County; California Department of Water Resources, FEMA, and STARR II.
Yucca Valley, Town of	9/2/2016	12/11/2014	Final CCO Meeting	Communities, FEMA, 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 www.fema.gov.

Table 30 is a list of the locations where FIRMs for San Bernardino 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 30: Map Repositories

Community	Address	City	State	Zip Code
Adelanto, City of	City Hall 11600 Air Expressway	Adelanto	CA	92301
Apple Valley, Town of	Town Hall 14955 Dale Evans Parkway	Apple Valley	CA	92307
Barstow, City of	Engineering Department 220 East Mountain View Drive, Suite A	Barstow	CA	92311
Big Bear Lake, City of	City Hall 39707 Big Bear Boulevard	Big Bear Lake	CA	92315
Chino, City of	City Hall 13220 Central Avenue	Chino	CA	91710
Chino Hills, City of	City Hall 14000 City Center Drive	Chino Hills	CA	91709
Colorado River Indian Tribes	Water Resources Department 26600 Mohave Road	Parker	CA	85344
Colton, City of	Public Works Department 160 South 10th Street	Colton	CA	92324
Fontana, City of	City Hall Engineering Department 8353 Sierra Avenue	Fontana	CA	92335
Fort Mojave Indian Tribe	Tribal Administrative Office 500 Merriman Avenue	Needles	CA	92363
Grand Terrace, City of	City Hall 22795 Barton Road	Grand Terrace	CA	92313
Hesperia, City of	City Hall 9700 Seventh Avenue	Hesperia	CA	92345
Highland, City of	Highland City Administration 27215 Base Line Street	Highland	CA	92346
Loma Linda, City of	City Hall 25541 Barton Road	Loma Linda	CA	92354

Table 30: Map Repositories (continued)

Community	Address	City	State	Zip Code
Montclair, City of	City Hall 5111 Benito Street	Montclair	CA	91763
Needles, City of	City Hall Engineering Department 817 Third Street	Needles	CA	92363
Ontario, City of	City Hall Engineering Department Public Counter 303 East B Street	Ontario	CA	91764
Rancho Cucamonga, City of	City Hall Engineering Department Plaza Level 10500 Civic Center Drive	Rancho Cucamonga	CA	91730
Redlands, City of	City Hall 35 Cajon Street, Suite 20	Redlands	CA	92373
Rialto, City of	City Hall 150 South Palm Avenue	Rialto	CA	92376
San Bernardino, City of	City Hall 201 North E Street	San Bernardino	CA	92401
San Bernardino County, Unincorporated Areas	Department of Public Works 825 East 3rd Street, Room 101	San Bernardino	CA	92415
Twentynine Palms, City of	City Hall 6136 Adobe Road	Twentynine Palms	CA	92277
Upland, City of	City Hall 460 North Euclid Avenue	Upland	CA	91786
Victorville, City of	City Hall Planning Department 14343 Civic Drive	Victorville	CA	92393
Yucaipa, City of	City Hall 34272 Yucaipa Boulevard	Yucaipa	CA	92399
Yucca Valley, Town of	Planning Division Monterey Business Center 58928 Business Center Drive	Yucca Valley	CA	92284

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 31.

Table 31 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 31: Additional Information

FEMA and the NFIP	
FEMA and FEMA Engineering Library website	www.fema.gov/flood-maps/products-tools/know-your-risk/engineers-surveyors-architects
NFIP website	www.fema.gov/flood-insurance
NFHL Dataset	msc.fema.gov
FEMA Region IX	Alison Kearns, Federal Emergency Management Agency 1111 Broadway, Suite 1200 Oakland, CA 94607-4052 (510) 627-7006
Other Federal Agencies	
USGS website	www.usgs.gov
Hydraulic Engineering Center website	www.hec.usace.army.mil
State Agencies and Organizations	
State NFIP Coordinator	Kelly Soule State NFIP Coordinator Chief, Community Assistance & Risk Awareness Branch Office of Floodplain Management, Division of Flood Management, CA Department of Water Resources 3464 El Camino Ave, Suite 200 Sacramento, California 95821 kelly.soule@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 32 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 32: 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
BEC UND	Boyle Engineering Corporation	<i>Floodplain Base Elevation Map, 100-Year Storm, Scale 1:2,400, Contour Interval 2 feet</i>	Boyle Engineering Corporation			
ESRI 2002	Environmental Systems Research Institute	<i>7.5-Minute Quadrangle Grid</i>	United States Geological Survey	Reston, VA	12/1/2002	
FEMA 1981	Federal Emergency Management Agency	<i>San Bernardino County, California Historic 1981 FIRM Maps</i>	Federal Emergency Management Agency	Washington, D.C.	6/23/1981	
FEMA 1996a	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Rancho Cucamonga, California (case number 97-09-245P)</i>	Federal Emergency Management Agency	Washington, D.C.	12/30/1996	
FEMA 1996b	Federal Emergency Management Agency	<i>Letter of Map Revision, Cities of Ontario and Loma Linda, California (case number 97-09-263P)</i>	Federal Emergency Management Agency	Washington, D.C.	12/30/1996	
FEMA 1996c	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Rancho Cucamonga, California (case number 96-09-733P)</i>	Federal Emergency Management Agency	Washington, D.C.	6/21/1996	
FEMA 1996d	Federal Emergency Management Agency	<i>Letter of Map Revision, San Bernardino County Unincorporated Areas, and the City of Upland, California (case number 96-09-918P)</i>	Federal Emergency Management Agency	Washington, D.C.	6/30/1998	

Table 32: Bibliography and References (continued)

Citation in this FIS	Publisher/ Issuer	<i>Publication Title, "Article,"</i> Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
FEMA 1997a	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Ontario, California (case number 97-09-731P)</i>	Federal Emergency Management Agency	Washington, D.C.	11/20/1997	
FEMA 1997b	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Rancho Cucamonga, California (case number 96-09-753P)</i>	Federal Emergency Management Agency	Washington, D.C.	3/6/1997	
FEMA 1997c	Federal Emergency Management Agency	<i>Letter of Map Revision, San Bernardino County Unincorporated Areas, California (case number 97-09-959P)</i>	Federal Emergency Management Agency	Washington, D.C.	8/8/1997	
FEMA 1998a	Federal Emergency Management Agency	<i>Letter of Map Revision, Cities of Colton, and San Bernardino, California (case number 97-09-363P)</i>	Federal Emergency Management Agency	Washington, D.C.	1/21/1998	
FEMA 1998b	Federal Emergency Management Agency	<i>Letter of Map Revision, Cities of Chino, and Chino Hills, California (case number 97-09-301P)</i>	Federal Emergency Management Agency	Washington, D.C.	1/21/1998	
FEMA 1998c	Federal Emergency Management Agency	<i>Letter of Map Revision, City of San Bernardino, California (case number 96-09-1144)</i>	Federal Emergency Management Agency	Washington, D.C.	10/4/1998	
FEMA 1998d	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Rancho Cucamonga, California (case number 98-09-381P)</i>	Federal Emergency Management Agency	Washington, D.C.	5/16/1998	

Table 32: Bibliography and References (continued)

Citation in this FIS	Publisher/ Issuer	<i>Publication Title, "Article,"</i> Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
FEMA 1998e	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Ontario, California, California (case number 98-09-609P)</i>	Federal Emergency Management Agency	Washington, D.C.	6/22/1998	
FEMA 1998f	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Chino, California (case number 96-09-1056P)</i>	Federal Emergency Management Agency	Washington, D.C.	9/17/1998	
FEMA 2000	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Rancho Cucamonga, California (case number 00-09-429P)</i>	Federal Emergency Management Agency	Washington, D.C.	4/4/2000	
FEMA 2001a	Federal Emergency Management Agency	<i>Letter of Map Revision, San Bernardino County Unincorporated Areas and the Cities of Colton, Redlands, San Bernardino, and Loma Linda, California (case number 00-09-871P)</i>	Federal Emergency Management Agency	Washington DC	6/27/2001	
FEMA 2002a	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Rancho Cucamonga, California (case number 02-09-044P)</i>	Federal Emergency Management Agency	Washington, D.C.	3/13/2002	
FEMA 2002b	Federal Emergency Management Agency	<i>Letter of Map Revision, San Bernardino County Unincorporated Areas (case number 02-09-555P)</i>	Federal Emergency Management Agency	Washington, D.C.	9/19/2002	

Table 32: Bibliography and References (continued)

Citation in this FIS	Publisher/ Issuer	<i>Publication Title, "Article,"</i> Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
FEMA 2003a	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Rancho Cucamonga, California (case number 03-09-1073P)</i>	Federal Emergency Management Agency	Washington, D.C.	7/12/2003	
FEMA 2003b	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Yucaipa, California (case number 03-09-0821P)</i>	Federal Emergency Management Agency	Washington, D.C.	9/2/2003	
FEMA 2004a	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Ontario, California (case number 04-09-1384P)</i>	Federal Emergency Management Agency	Washington, D.C.	11/29/2004	
FEMA 2004b	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Ontario, California (case number 04-09-1115P)</i>	Federal Emergency Management Agency	Washington, D.C.	4/28/2005	
FEMA 2005a	Federal Emergency Management Agency	<i>Letter of Map Revision, San Bernardino County Unincorporated Areas, and the Cities of Colton, Redlands, Rialto, San Bernardino, Highland, and Grand Terrace, California (case number 03-09-0798P)</i>	Federal Emergency Management Agency	Washington DC	2/23/2005	
FEMA 2005b	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Colton, California (case number 05-09-0670X)</i>	Federal Emergency Management Agency	Washington, D.C.	4/6/2005	

Table 32: 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 2006a	Federal Emergency Management Agency	<i>Letter of Map Revision, San Bernardino County Unincorporated Areas, and the City of Barstow, California (case number 06-09-B313P)</i>	Federal Emergency Management Agency	Washington, D.C.	11/30/2006	
FEMA 2006b	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Rancho Cucamonga, California (case number 05-09-A065P)</i>	Federal Emergency Management Agency	Washington, D.C.	2/24/2006	
FEMA 2006c	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Rancho Cucamonga, California (case number 06-09-B039P)</i>	Federal Emergency Management Agency	Washington, D.C.	3/31/2006	
FEMA 2006d	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Rancho Cucamonga, California (case number 06-09-BA67P)</i>	Federal Emergency Management Agency	Washington, D.C.	6/27/2006	
FEMA 2007a	Federal Emergency Management Agency	<i>Letter of Map Revision, City of San Bernardino, California (case number 06-09-BB30P)</i>	Federal Emergency Management Agency	Washington, D.C.	1/21/2007	
FEMA 2007b	Federal Emergency Management Agency	<i>Letter of Map Revision, San Bernardino County Unincorporated Areas, California (case number 07-09-0591X)</i>	Federal Emergency Management Agency	Washington, D.C.	1/23/2007	

Table 32: 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 2007c	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Rancho Cucamonga, California (case number 06-09-BC88P)</i>	Federal Emergency Management Agency	Washington, D.C.	1/23/2007	
FEMA 2007d	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Loma Linda, San Bernardino County, California (case number 07-09-1957P)</i>	Federal Emergency Management Agency	Washington DC	11/19/2007	
FEMA 2008a	Federal Emergency Management Agency	<i>Letter of Map Revision, City of San Bernardino, California (case number 08-09-1884P)</i>	Federal Emergency Management Agency	Washington, D.C.	12/12/2008	
FEMA 2008b	Federal Emergency Management Agency	<i>Letter of Map Revision, San Bernardino County Unincorporated Areas, California (case number 08-09-1595P)</i>	Federal Emergency Management Agency	Washington, D.C.	8/25/2008	
FEMA 2008c	Federal Emergency Management Agency	<i>SAN BERNARDINO County, CA Digital Flood Insurance Rate Map</i>	Federal Emergency Management Agency	Washington DC	8/28/2008	
FEMA 2008d	Federal Emergency Management Agency	<i>Federally recognized Indian communities and other incorporated community limits</i>	Federal Emergency Management Agency	Washington, D.C.	8/28/2008	

Table 32: Bibliography and References (continued)

Citation in this FIS	Publisher/ Issuer	<i>Publication Title, "Article,"</i> Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
FEMA 2008e	Federal Emergency Management Agency	<i>Letter of Map Revision, San Bernardino County Unincorporated Areas, California (case number 08-09-0702P)</i>	Federal Emergency Management Agency	Washington, D.C.	10/30/2008	
FEMA 2009a	Federal Emergency Management Agency	<i>Letter of Map Revision, City of San Bernardino, California (case number 09-09-1602P)</i>	Federal Emergency Management Agency	Washington, D.C.	10/15/2009	
FEMA 2009b	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Rancho Cucamonga, California (case number 09-09-3162P)</i>	Federal Emergency Management Agency	Washington, D.C.	12/23/2009	
FEMA 2009c	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Highland, California (case number 08-09-1617P)</i>	Federal Emergency Management Agency	Washington DC	2/27/2009	
FEMA 2009d	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Highland, San Bernardino County, California (case number 08-09-1617P)</i>	Federal Emergency Management Agency	Washington DC	2/27/2009	
FEMA 2009e	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Hesperia, California (case number 08-09-1552P)</i>	Federal Emergency Management Agency	Washington, D.C.	6/19/2009	
FEMA 2009f	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Fontana, California (case number 09-09-1669P)</i>	Federal Emergency Management Agency	Washington, D.C.	11/23/2009	

Table 32: 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 2009g	Federal Emergency Management Agency	<i>Letter of Map Revision, San Bernardino County Unincorporated Areas, California (case number 08-09-1742P)</i>	Federal Emergency Management Agency	Washington, D.C.	8/27/2009	
FEMA 2009h	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Fontana, California (case number 09-09-1180P)</i>	Federal Emergency Management Agency	Washington, D.C.	9/11/2009	
FEMA 2010a	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Highland, California (case number 09-09-2760P)</i>	Federal Emergency Management Agency	Washington DC	1/22/2010	
FEMA 2010b	Federal Emergency Management Agency	<i>Letter of Map Revision, City of San Bernardino, City of Colton, California (case number 09-09-2788P)</i>	Federal Emergency Management Agency	Washington, D.C.	11/15/2010	
FEMA 2010c	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Rancho Cucamonga, California (case number 10-09-1134P)</i>	Federal Emergency Management Agency	Washington, D.C.	2/26/2010	
FEMA 2010d	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Needles, California (case number 10-09-3098P)</i>	Federal Emergency Management Agency	Washington, D.C.	7/22/2010	
FEMA 2010e	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Rancho Cucamonga, California (case number 10-09-0755P)</i>	Federal Emergency Management Agency	Washington, D.C.	4/8/2010	

Table 32: 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 2011a	Federal Emergency Management Agency	<i>Letter of Map Revision, San Bernardino County, City of Rancho Cucamonga, California (case number 11-09-3693P)</i>	Federal Emergency Management Agency	Washington, D.C.	11/1/2011	
FEMA 2011b	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Rancho Cucamonga, California (case number 11-09-1023P)</i>	Federal Emergency Management Agency	Washington, D.C.	4/28/2011	
FEMA 2011c	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Fontana, California (case number 11-09-2831P)</i>	Federal Emergency Management Agency	Washington, D.C.	9/8/2011	
FEMA 2011d	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Highland, California (case number 11-09-0965P)</i>	Federal Emergency Management Agency	Washington, D.C.	1/27/2011	
FEMA 2011e	Federal Emergency Management Agency	<i>Letter of Map Revision, San Bernardino County, Cities of Fontana and Rancho Cucamonga, California (case number 11-09-1164P)</i>	Federal Emergency Management Agency	Washington, D.C.	5/29/2011	
FEMA 2011f	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Chino, California (case number 11-09-0232P)</i>	Federal Emergency Management Agency	Washington, D.C.	3/3/2011	
FEMA 2012	Federal Emergency Management Agency	<i>Letter of Map Revision, Town of Apple Valley, California (case number 12-09-1775P)</i>	Federal Emergency Management Agency	Washington, D.C.	10/15/2012	

Table 32: Bibliography and References (continued)

Citation in this FIS	Publisher/ Issuer	<i>Publication Title, "Article,"</i> Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
FEMA 2013a	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Ontario, California (case number 12-09-2406P)</i>	Federal Emergency Management Agency	Washington, D.C.	1/4/2013	
FEMA 2013b	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Fontana, California (case number 12-09-2642P)</i>	Federal Emergency Management Agency	Washington, D.C.	12/21/2012	
FEMA 2013c	Federal Emergency Management Agency	<i>Letter of Map Revision, Town of Apple Valley, California (case number 12-09-1907P)</i>	Federal Emergency Management Agency	Washington, D.C.	3/11/2013	
FEMA 2013d	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Victorville, California (case number 12-09-2880P)</i>	Federal Emergency Management Agency	Washington, D.C.	5/3/2013	
FEMA 2013e	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Redlands, City of San Bernardino, California (case number 12-09-0729P)</i>	Federal Emergency Management Agency	Washington DC	8/2/2013	
FEMA 2013f	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Ontario, California (case number 13-09-0673P)</i>	Federal Emergency Management Agency	Washington, D.C.	9/20/2013	
FEMA 2014a	Federal Emergency Management Agency	<i>Flood Insurance Study</i>	Federal Emergency Management Agency	Washington, D.C.	8/18/2014	

Table 32: 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 2014b	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Yucaipa, San Bernardino County, California (case number 13-09-1511P)</i>	Federal Emergency Management Agency	Washington, D.C.	4/4/2014	
FEMA 2014c	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Fontana, California (case number 14-09-0709P)</i>	Federal Emergency Management Agency	Washington, D.C.	6/13/2014	
FEMA 2014d	Federal Emergency Management Agency	<i>Letter of Map Revision, Town of Apple Valley, California (case number 13-09-2728P)</i>	Federal Emergency Management Agency	Washington, D.C.	8/15/2014	
FEMA 2015a	Federal Emergency Management Agency	<i>SAN BERNARDINO County, CA Digital Flood Insurance Rate Map</i>	Federal Emergency Management Agency	Washington DC	1/1/2015	
FEMA 2015b	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Yucaipa, San Bernardino County, California (case number 14-09-0135P)</i>	Federal Emergency Management Agency	Washington DC	1/12/2015	
FEMA 2015c	Federal Emergency Management Agency	<i>SAN BERNARDINO County, CA Digital Flood Insurance Rate Map</i>	Federal Emergency Management Agency	Washington DC	12/10/2015	
FEMA 2015d	Federal Emergency Management Agency	<i>Letter of Map Revision, City of San Bernardino, California (case number 14-09-2953P)</i>	Federal Emergency Management Agency	Washington, D.C.	8/24/2015	

Table 32: 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 2016	Federal Emergency Management Agency	<i>San Bernardino County Flood Insurance Study</i>	Federal Emergency Management Agency	Washington, D.C.	9/2/2016	http://msc.fema.gov
FEMA 2018	Federal Emergency Management Agency	<i>San Bernardino County, California NFHL Dataset</i>	Federal Emergency Management Agency	Washington DC	3/6/2018	
FEMA 2019a	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Victorville, California (case number 19-09-1887X)</i>	Federal Emergency Management Agency	Washington, D.C.	10/21/2019	http://msc.fema.gov
FEMA 2019b	Federal Emergency Management Agency	<i>Letter of Map Revision, San Bernardino County Unincorporated Areas, and the City of Colton, California (case number 19-09-1360P)</i>	Federal Emergency Management Agency	Washington, D.C.	12/18/2019	https://msc.fema.gov
FEMA 2019c	Federal Emergency Management Agency	<i>Letter of Map Revision, City of San Bernardino, California (case number 18-09-1543P)</i>	Federal Emergency Management Agency	Washington, D.C.	7/10/2019	http://msc.fema.gov
FEMA 2020a	Federal Emergency Management Agency	<i>Region IX, San Bernardino Co, CA (Santa Ana 316), Community-Initiated Map Change, Santa Ana River</i>	Federal Emergency Management Agency	Washington, D.C.	3/19/2020	msc.fema.gov
FEMA 2020b	Federal Emergency Management Agency	<i>Region IX, San Bernardino Co, CA (Santa Ana 316), Community-Initiated Map Change, LOMR 18-09-2150P Highgrove Channel</i>	Federal Emergency Management Agency	Washington, D.C.	3/19/2020	https://msc.fema.gov

Table 32: 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 2020c	Federal Emergency Management Agency	<i>Mill Creek Levee Discovery Project</i>	Strategic Alliance for Risk Reduction II	Washington, D.C.	3/30/2020	
FEMA 2020d	Federal Emergency Management Agency	<i>Letter of Map Revision, San Bernardino County Unincorporated Areas, and the City of San Bernardino, California (case number 20-09-1133P)</i>	Federal Emergency Management Agency	Washington, D.C.	12/14/2020	https://msc.fema.gov
FEMA 2021a	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Rancho Cucamonga, California (case number 21-09-0942P)</i>	Federal Emergency Management Agency	Washington, D.C.	12/15/2021	https://msc.fema.gov
FEMA 2021b	Federal Emergency Management Agency	<i>Zanja Flood Hazard Data</i>	Strategic Alliance for Risk Reduction II	Washington DC	5/28/2021	
FEMA 2022a	Federal Emergency Management Agency	<i>San Bernardino County, CA, The Zanja - PMR</i>	Strategic Alliance for Risk Reduction II	Washington DC	10/30/2025	
FEMA 2022b	Federal Emergency Management Agency	<i>Letter of Map Revision, San Bernardino County Unincorporated Areas, and the City of Fontana, California (case number 21-09-1351P)</i>	Federal Emergency Management Agency	Washington, D.C.	5/18/2022	https://msc.fema.gov

Table 32: 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 2022c	Federal Emergency Management Agency	<i>Letter of Map Revision, San Bernardino County Unincorporated Areas, City of San Bernardino, City of Fontana, City of Rialto, California (case number 20-09-1006P)</i>	Federal Emergency Management Agency	Washington, D.C.	7/25/2022	https://msc.fema.gov
FEMA 2023a	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Yucaipa, California (case number 23-09-0131P)</i>	Federal Emergency Management Agency	Washington, D.C.	4/28/2023	https://msc.fema.gov
FEMA 2023b	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Rancho Cucamonga, California (case number 22-09-0746P)</i>	Federal Emergency Management Agency	Washington, D.C.	5/19/2023	https://msc.fema.gov
FEMA 2023c	Federal Emergency Management Agency	<i>Letter of Map Revision, San Bernardino County Unincorporated Areas (case number 21-09-1996P)</i>	Federal Emergency Management Agency	Washington, D.C.	5/30/2023	https://msc.fema.gov
FEMA 2023d	Federal Emergency Management Agency	<i>Letter of Map Revision, City of Colton and City of Grand Terrace, California (case number 22-09-0164P)</i>	Federal Emergency Management Agency	Washington, D.C.	4/10/2023	https://msc.fema.gov
FEMA 2023e	Federal Emergency Management Agency	<i>Letter of Map Revision, San Bernardino County Unincorporated Areas, California (case number 23-09-0659X)</i>	Federal Emergency Management Agency	Washington, D.C.	4/4/2023	https://msc.fema.gov
Hromadka 1983	County of San Bernardino	<i>San Bernardino County Hydrology Manual</i>	Hromadka II, T.V. & Guymon, G.L.	San Bernardino, CA	1/1/1983	

Table 32: Bibliography and References (continued)

Citation in this FIS	Publisher/ Issuer	<i>Publication Title, "Article," Volume, Number, etc.</i>	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
NGS 2007	National Geodetic Survey	<i>Geodetic bench mark positions and descriptions</i>	National Geodetic Survey	Silver Spring, MD	1/1/2007	
PICSCI 1984	Pictorial Sciences, Inc.	<i>Topographic Maps, San Timoteo Creek, Scale 1:2,400, Contour Interval 4 feet</i>	Pictorial Sciences, Inc.	San Bernardino County, CA	1/1/1984	
SBCFCD 1986	San Bernardino County Flood Control District	<i>Synthetic Unit Hydrograph Method</i>	San Bernardino County Flood Control District		1/1/1986	
SBCFCD UND	San Bernardino County Flood Control District	<i>Topographic Maps, Cale 1:2,400, Contour Intervals 2, 4, and 5 feet</i>	San Bernardino County Flood Control District			
STARRII, Survey 2020	Federal Emergency Management Agency	<i>Zanja Survey</i>	Continental Mapping Consultants	Washington, D.C.	6/1/2020	
TOUPS 1976	Toups Corporation	<i>Topographic Maps, Scale 1:2,400 (reduced to 1:4,800), Contour Interval 4 feet.</i>	Toups Corporation	California	6/1/1976	
U.S. Census 2015	U.S. Census Bureau	<i>2015 TIGER/Line Shapefiles - TIGER primary, secondary, and local roads data</i>	U.S. Census Bureau	Washington, D.C.	1/1/2015	

Table 32: Bibliography and References (continued)

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
U.S. Census 2021	U.S. Census Bureau	<i>2021 TIGER/Line Shapefiles - Railway Data</i>	U.S. Census Bureau	Washington, D.C.	1/1/2021	
USACE 1960	U.S. Army Corps of Engineers, Los Angeles District	<i>Detailed Project Report for Quail Wash Levee</i>	United States Army Corps of Engineers	Davis, CA	6/1/1960	
USACE 1972	U.S. Army Corps of Engineers, Los Angeles District	<i>Flood Plain Information Report, Wilson and Wildwood Creeks, San Bernardino County, California</i>	United States Army Corps of Engineers		6/1/1972	
USACE 1973	United States Army Corps of Engineers, Hydrologic Engineering Center	<i>HEC-2 Water-Surface Profiles, Generalized Computer Program</i>	United States Army Corps of Engineers	Davis, CA	2/1/1973	
USACE 1973a	United States Army Corps of Engineers, Hydrologic Engineering Center	<i>HEC-1 Flood Hydrograph Package Version 2.0</i>	United States Army Corps of Engineers	Davis, CA	1/1/1973	
USACE 1975	United States Army Corps of Engineers	<i>Review Report on the Santa Ana River Main Stem Including Santiago Creek and Oak Street Drain</i>	United States Army Corps of Engineers		12/1/1975	

Table 32: Bibliography and References (continued)

Citation in this FIS	Publisher/ Issuer	<i>Publication Title, "Article," Volume, Number, etc.</i>	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
USACE 1982	United States Army Corps of Engineers, Hydrologic Engineering Center	<i>HEC-2 Water-Surface Profiles, Generalized Computer Program</i>	United States Army Corps of Engineers	Davis, CA	9/1/1982	
USACE 1985a	United States Army Corps of Engineers, Hydrologic Engineering Center	<i>Topographic Maps, Scale 1:2,400, Contour Interval 2 feet</i>	United States Army Corps of Engineers	Colton, CA	2/1/1985	
USACE 1985b	United States Army Corps of Engineers, Los Angeles District	<i>Detailed Project Report, Mission Zanja Creek, San Bernardino County, California, Appendix A, Hydrology</i>	United States Army Corps of Engineers	Davis, CA	11/1/1985	
USACE 1987	United States Army Corps of Engineers, Hydrologic Engineering Center	<i>HEC-1 Flood Hydrograph Package Version 4.0 Revised</i>	United States Army Corps of Engineers	Davis, CA	1/1/1987	
USACE 1988	United States Army Corps of Engineers	<i>1988 Hydrology DM Volume 7 Flood Frequency Curve</i>	United States Army Corps of Engineers	Davis, CA	1/1/1988	
USACE 1989	United States Army Corps of Engineers, Los Angeles District	<i>Preprocessor to HEC-1</i>	United States Army Corps of Engineers	Davis, CA	1/1/1989	

Table 32: Bibliography and References (continued)

Citation in this FIS	Publisher/ Issuer	<i>Publication Title, "Article," Volume, Number, etc.</i>	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
USACE 1990a	United States Army Corps of Engineers	<i>HEC-1 Flood Hydrograph Package Version 4.0 Revised</i>	United States Army Corps of Engineers	Davis, CA	1/1/1990	
USACE 1990b	United States Army Corps of Engineers	<i>HEC-2 Water Surface Profiles</i>	United States Army Corps of Engineers	Davis, CA	9/1/1990	
USACE 1998	United States Army Corps of Engineers, Hydrologic Engineering Center	<i>HEC-1 Flood Hydrograph Package Version 4.1</i>	United States Army Corps of Engineers	Davis, CA	6/1/1998	
USACE 2005	United States Army Corps of Engineers, Hydrologic Engineering Center	<i>HEC-RAS River Analysis System 3.1.3</i>	United States Army Corps of Engineers	Davis, CA	5/1/2005	
USACE 2006a	United States Army Corps of Engineers, Hydrologic Engineering Center	<i>Hydrologic Modeling System HEC-HMS</i>	United States Army Corps of Engineers	Davis, CA	11/1/2006	
USACE 2006b	United States Army Corps of Engineers, Hydrologic Engineering Center	<i>River Analysis System HEC-RAS</i>	United States Army Corps of Engineers	Davis, CA	11/1/2006	

Table 32: Bibliography and References (continued)

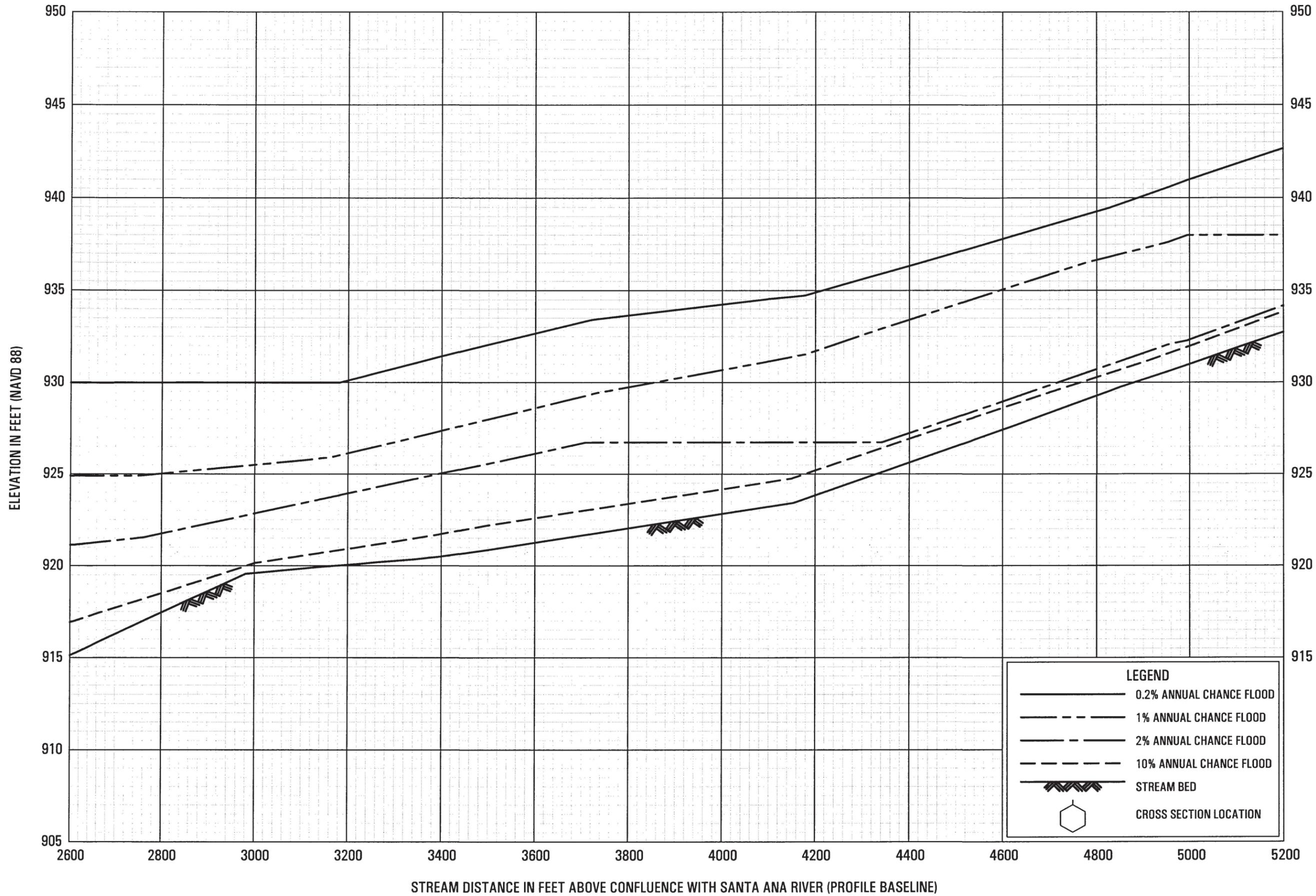
Citation in this FIS	Publisher/ Issuer	<i>Publication Title, "Article,"</i> Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
USACE 2008	United States Army Corps of Engineers, Hydrologic Engineering Center	<i>HEC-RAS River Analysis System 4.0.0</i>	United States Army Corps of Engineers	Davis, CA	3/1/2008	
USACE 2010	United States Army Corps of Engineers, Hydrologic Engineering Center	<i>HEC-RAS River Analysis System 4.1</i>	United States Army Corps of Engineers	Davis, CA	1/1/2010	
USACE 2018	United States Army Corps of Engineers, Hydrologic Engineering Center	<i>Hydrologic Modeling System HEC-HMS Version 4.1</i>	United States Army Corps of Engineers	Davis, CA	11/1/2018	
USACE 2019	United States Army Corps of Engineers, Hydrologic Engineering Center	<i>HEC-RAS River Analysis System Version 5.0.7</i>	United States Army Corps of Engineers	Davis, CA	3/1/2019	
USACE 2021	United States Army Corps of Engineers	<i>United States Army Corps of Engineers National Levee Database</i>	United States Army Corps of Engineers	Washington DC	1/1/2021	
USBR 1990	U.S. Bureau of Reclamation	<i>Colorado River Work Maps</i>	U.S. Bureau of Reclamation	Washington DC	1/1/1990	

Table 32: 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
USDA 2012	U.S. Department of Agriculture Farm Service Agency	<i>National Agriculture Imagery Program</i>	U.S. Department of Agriculture Farm Service Agency	Washington DC	6/18/2012	
USDA 2012	U.S. Department of Agriculture Farm Service Agency	<i>National Agriculture Imagery Program</i>	U.S. Department of Agriculture Farm Service Agency	Washington, D.C.	6/18/2012	
USDA 2020a	U.S. Department of Agriculture	<i>USDA-FSA-APFO Digital Ortho Mosaic – San Bernardino County</i>	USDA-FSA-APFO	Salt Lake City, UT	April 2020	
USDA 2020b	USDA FSA Aerial Photography Field Office	<i>National Hydrography Dataset (NHD) - 24k</i>	USDA/NRCS - National Geospatial Center of Excellence	Reston, VA	8/27/2020	
USDA 2020c	USDA FSA	<i>National Agriculture Imagery Program Remote Sensing Imagery</i>	USDA-FSA	Salt Lake City, UT	8/6/2020	
USDI 1970	United States Department of the Interior, Geological Survey	<i>Open-File Report, A Proposed Streamflow Data Program for California</i>	J.R. Crippen and R.M. Beall		8/1/1970	
USDI 1971	United States Department of the Interior, Geological Survey	<i>ATLAS HA-425 Flood of January 1969 Near Cucamonga, California</i>	John A. Singer and McGlone Price		1/1/1971	

Table 32: Bibliography and References (continued)

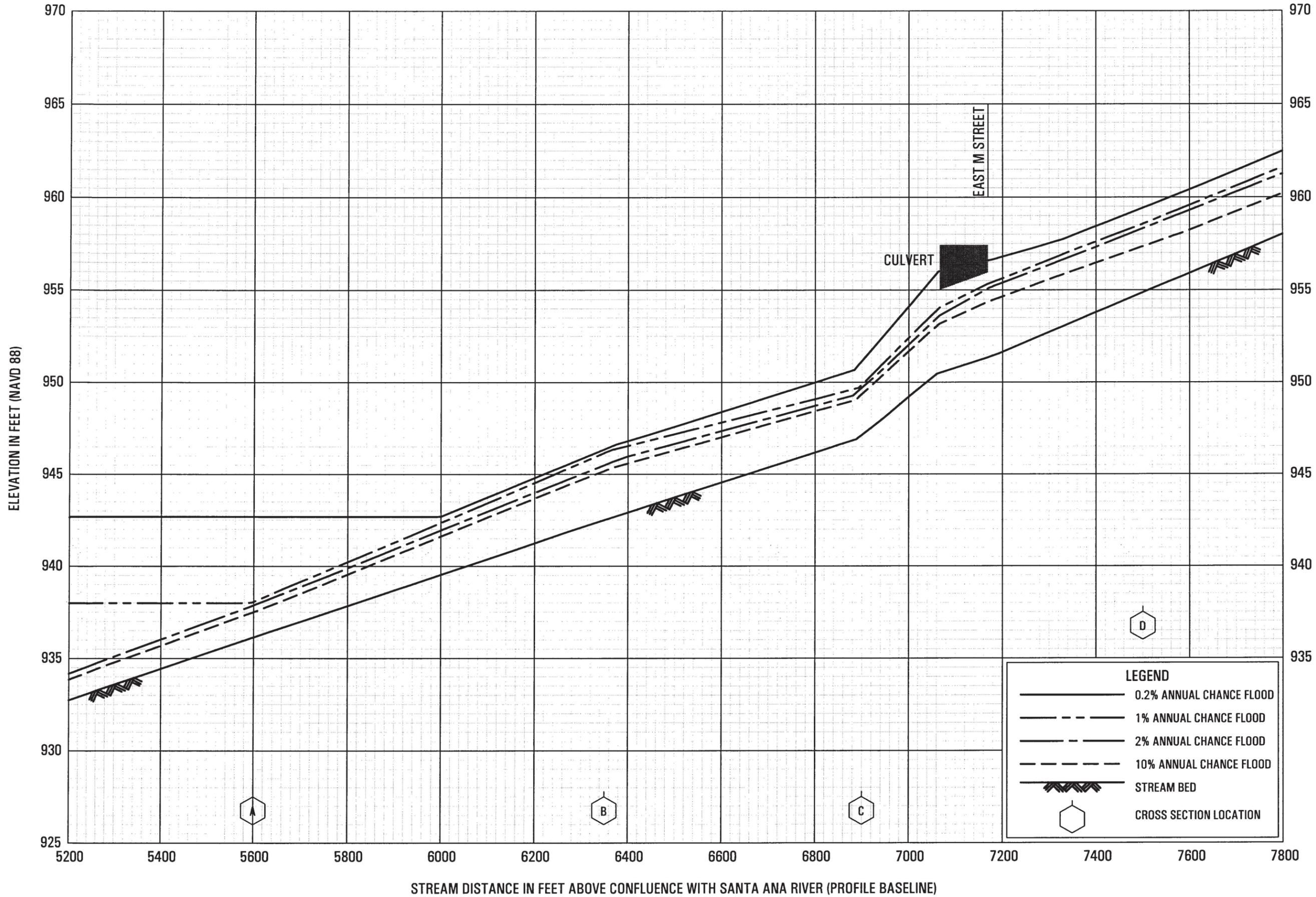
Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
USDI 1971a	United States Department of the Interior, Geological Survey	<i>7.5-Minute series Topographical Map, Scale 1:24,000, Contour Intervals 10, 20, and 40 feet</i>	United States Department of the Interior, Geological Survey	Barstow, CA	1/1/1971	
USDOT 1970	U.S. Department of Transportation	<i>Hydraulics Design Series, Hydraulics of Bridge Waterways.</i>	U.S. Department of Transportation		1/1/1970	
USGS 1977	United States Geological Survey	<i>Water Resources Investigations 77-21, Magnitude and Frequency of Floods in California</i>	Waananen, A.O. & Crippen, J.R.	Menlo Park, CA	6/1/1977	https://pubs.usgs.gov
USGS 1993	United States Geological Survey	<i>SAN BERNARDINO County PLSS data, state, and federal land boundaries</i>	California Spatial Information Library	Redlands, CA	11/1/1993	
USGS 2018	United States Geological Survey	<i>USGS Lidar Point Cloud CA SanBernardinoCo-AreaA 2013 6668 1820 LAS 2018</i>	United States Geological Survey	Reston, VA	3/27/2018	
USGS 2020	United States Geological Survey	<i>United States Geological Survey National Map: Orthoimagery</i>	United States Geological Survey	Reston, VA	10/1/2020	
USWRC 1967	U.S. Water Resources Council	<i>A Uniform Technique for Determining Flood Flow Frequencies, Bulletin 15</i>	U.S. Water Resources Council		12/1/1967	
WESCD 1958	West End Soil Conservation District	<i>Upper Chino Basin Watershed, prepared for the U.S. Department of Agriculture</i>	West End Soil Conservation District		5/1/1958	



FLOOD PROFILES

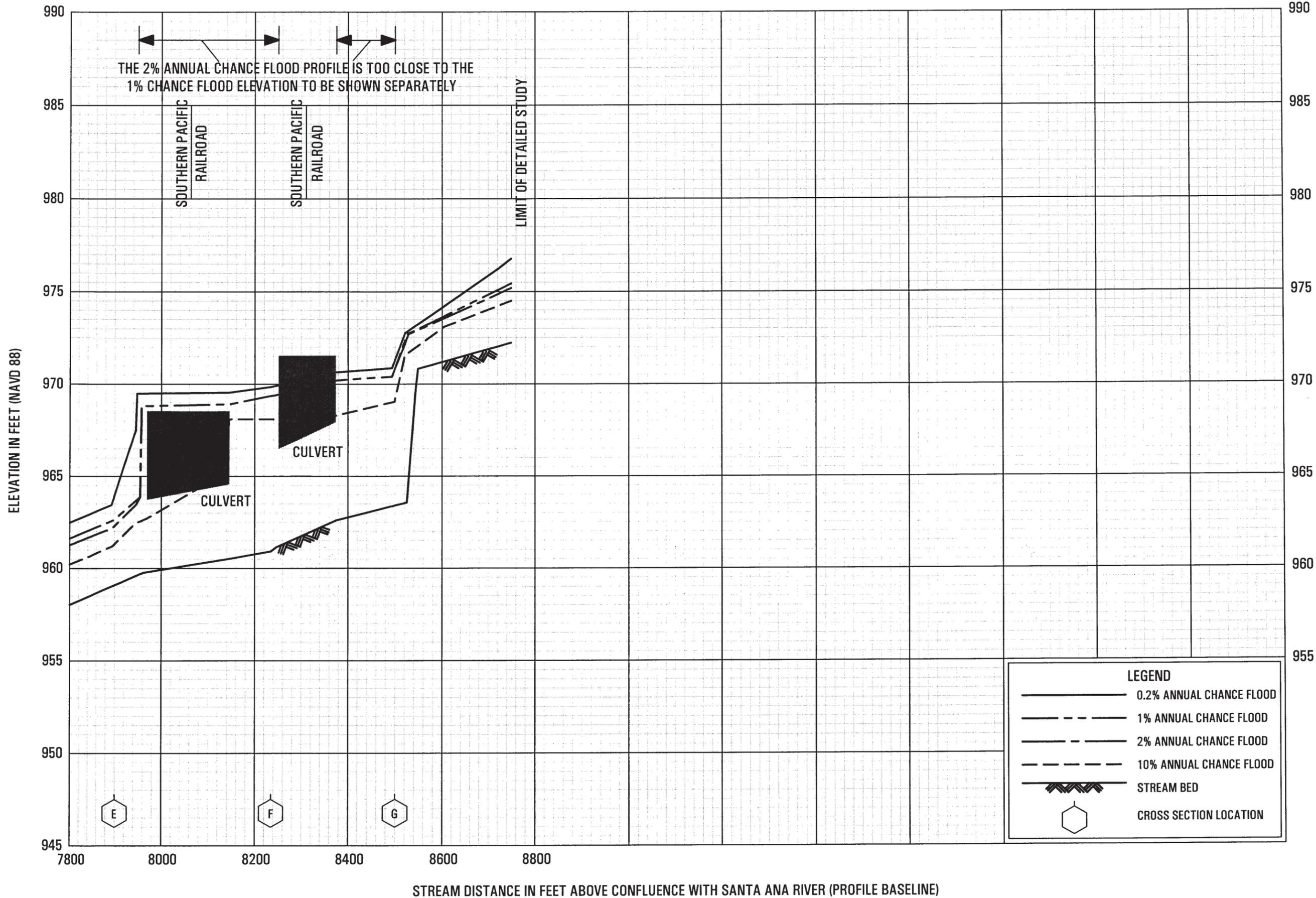
11TH STREET STORM DRAIN

FEDERAL EMERGENCY MANAGEMENT AGENCY
SAN BERNARDINO COUNTY, CA
 AND INCORPORATED AREAS



FLOOD PROFILES
11TH STREET STORM DRAIN

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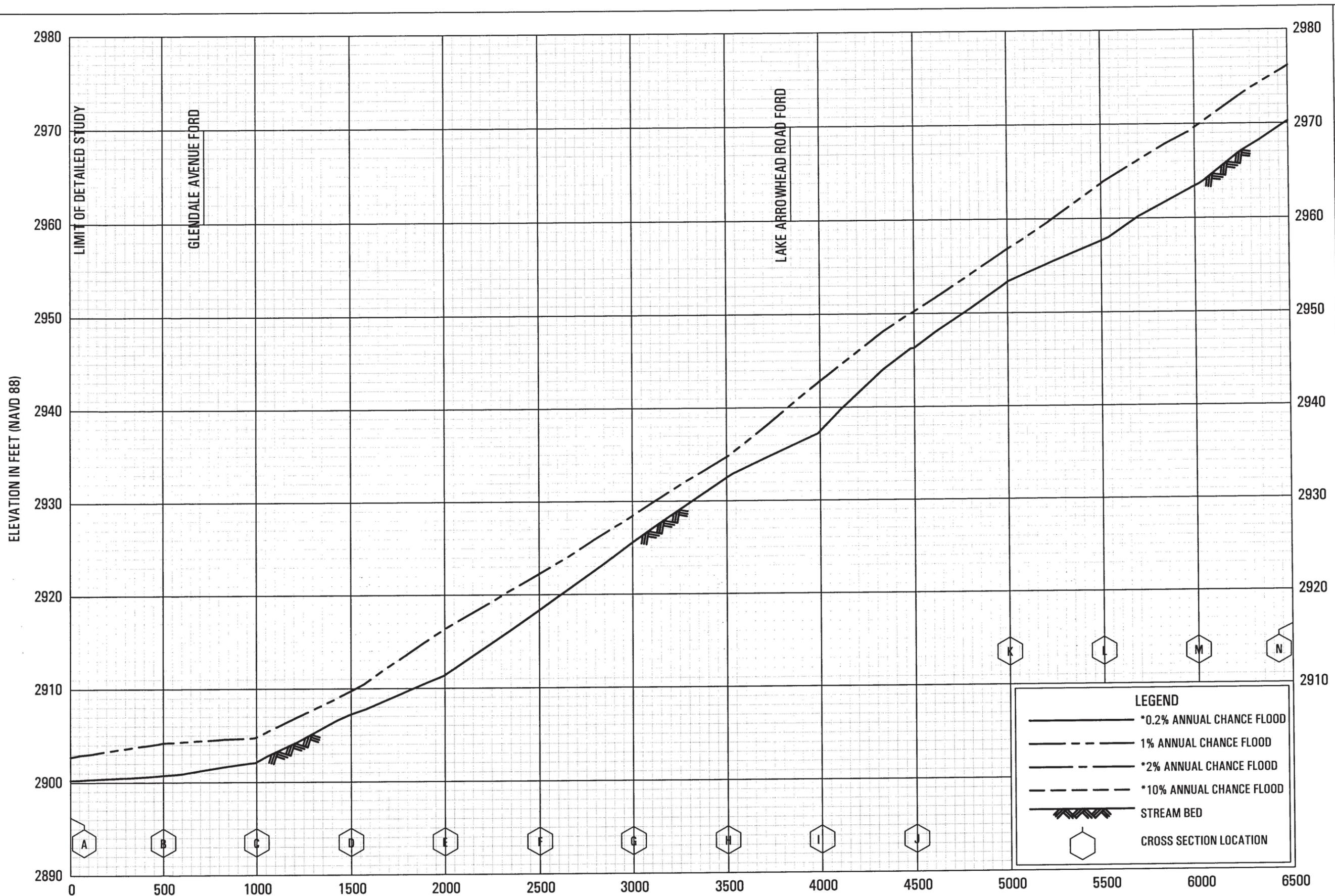
FLOOD PROFILES

11TH STREET STORM DRAIN

FEDERAL EMERGENCY MANAGEMENT AGENCY

SAN BERNARDINO COUNTY, CA

AND INCORPORATED AREAS



*LIMIT OF DETAILED STUDY IS APPROXIMATELY 1,030 FEET UPSTREAM OF CONFLUENCE WITH MOJAVE RIVER

STREAM DISTANCE IN FEET ABOVE LIMIT OF DETAILED STUDY*

*DATA NOT AVAILABLE

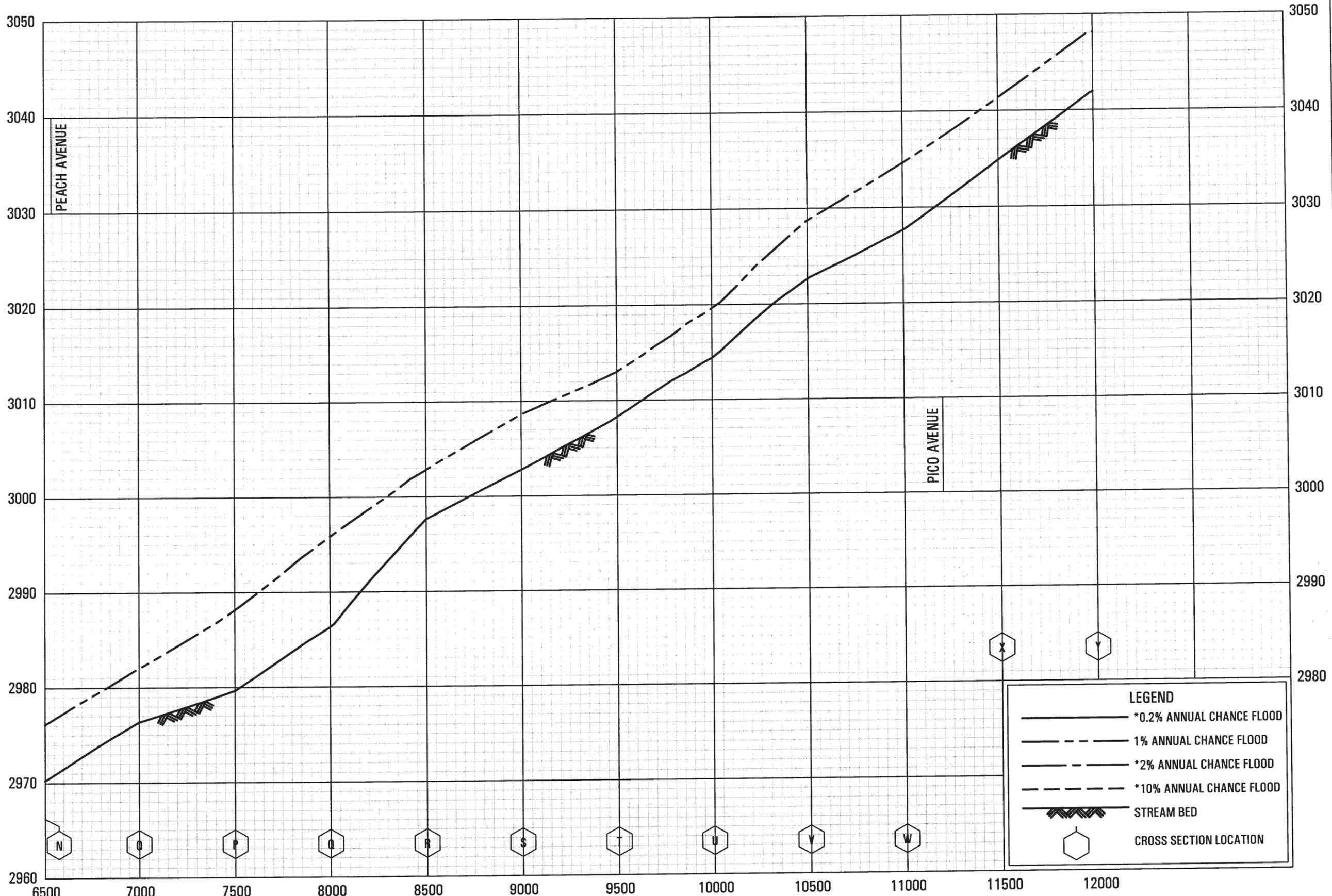
LEGEND	
	*0.2% ANNUAL CHANCE FLOOD
	1% ANNUAL CHANCE FLOOD
	*2% ANNUAL CHANCE FLOOD
	*10% ANNUAL CHANCE FLOOD
	STREAM BED
	CROSS SECTION LOCATION

FLOOD PROFILES
ANTELOPE VALLEY WASH

FEDERAL EMERGENCY MANAGEMENT AGENCY
SAN BERNARDINO COUNTY, CA
AND INCORPORATED AREAS

05P

ELEVATION IN FEET (NAVD 88)



*LIMIT OF DETAILED STUDY IS APPROXIMATELY 1,030 FEET UPSTREAM OF CONFLUENCE WITH MOJAVE RIVER

STREAM DISTANCE IN FEET ABOVE LIMIT OF DETAILED STUDY*

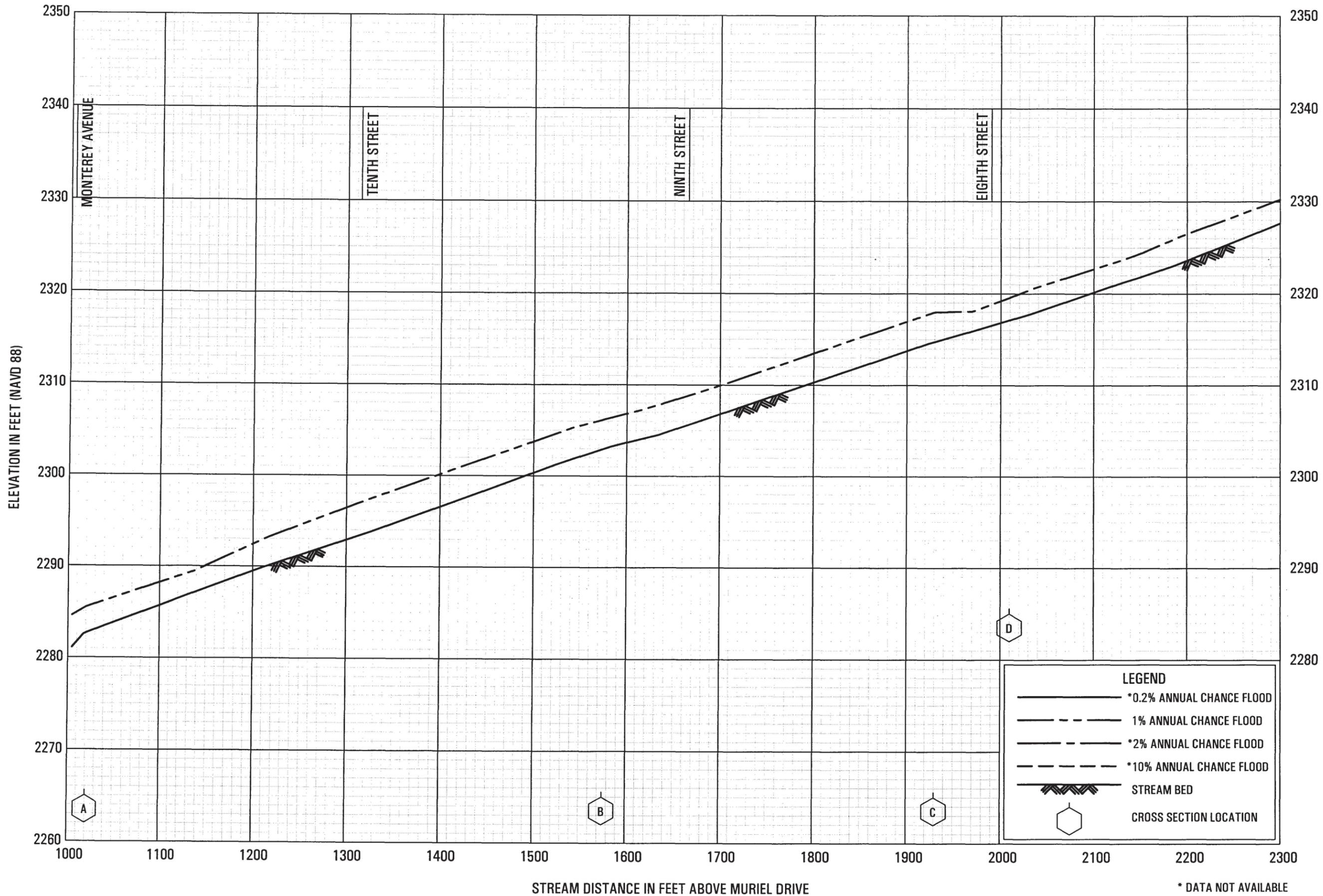
*DATA NOT AVAILABLE

FLOOD PROFILES

ANTELOPE VALLEY WASH

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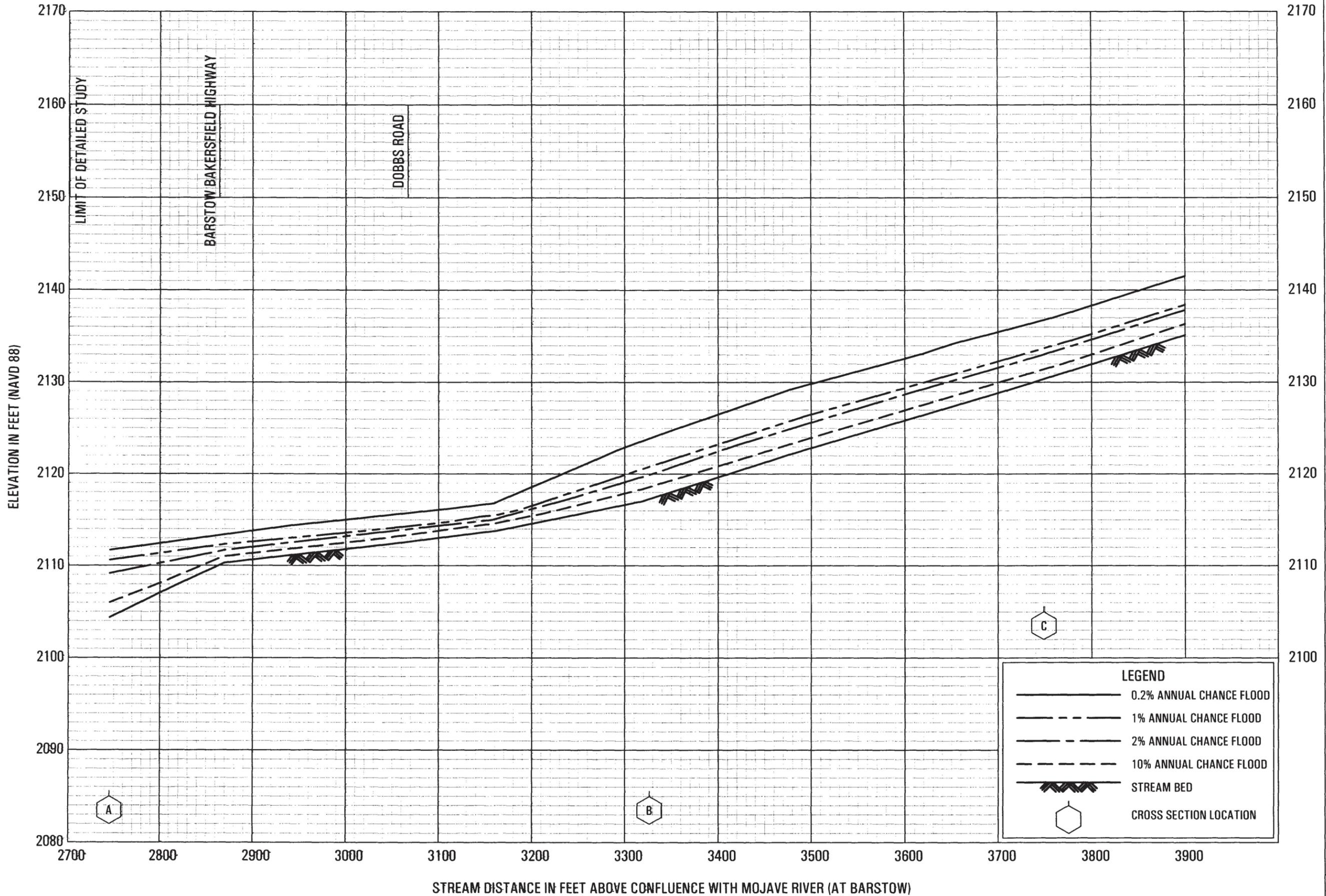
06P



FEDERAL EMERGENCY MANAGEMENT AGENCY
 SAN BERNARDINO COUNTY, CA
 AND INCORPORATED AREAS

FLOOD PROFILES
 ARMORY CREEK

* DATA NOT AVAILABLE



FLOOD PROFILES
ARROWHEAD CHANNEL

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