

FLOOD INSURANCE STUDY

FEDERAL EMERGENCY MANAGEMENT AGENCY

VOLUME 3 OF 7



RIVERSIDE COUNTY, CALIFORNIA AND INCORPORATED AREAS

COMMUNITY NAME	NUMBER	COMMUNITY NAME	NUMBER
Agua Caliente Band of Cahuilla Indian Reservation	060763	City of Lake Elsinore	060636
City of Banning	060246	City of Menifee	060176
City of Beaumont	060247	City of Moreno Valley	065074
City of Blythe	060248	City of Murrieta	060751
City of Calimesa	060740	City of Norco	060256
City of Canyon Lake	060753	City of Palm Desert	060629
City of Cathedral City	060704	City of Palm Springs	060257
City of Coachella	060249	City of Perris	060258
City of Corona	060250	City of Rancho Mirage	060259
City of Desert Hot Springs	060251	City of Riverside	060260
City of Eastvale	060155	City of San Jacinto	065056
City of Hemet	060253	City of Temecula	060742
City of Indian Wells	060254	City of Wildomar	060221
City of Indio	060255	Colorado River Indian Reservation	060069
City of Jurupa Valley	060286	Riverside County, Unincorporated Areas	060245
City of La Quinta	060709		

REVISED:

MONTH DAY, YEAR

FLOOD INSURANCE STUDY NUMBER
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FEMA

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Table 24: Floodway Data

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
1001 Ranch Drain								
A	660 ¹	130	1,270	0.4	802.4	802.4	803.4	1.0
B	1,000 ¹	140	1,040	0.5	802.4	802.4	803.4	1.0
C	1,940 ¹	20	50	8.6	813.5	813.5	814.5	1.0
D	2,450 ¹	30	61	7.0	845.6	845.6	846.6	1.0
E	3,320 ¹	26	223	2.8	853.2	853.2	853.2	0.0
F	3,670 ¹	32	50	7.1	856.6	856.6	856.6	0.0
G	4,050 ¹	275	619	0.5	874.6	874.6	874.8	0.2
H	4,475 ¹	47	95	3.2	875.0	875.0	875.1	0.1
I	4,780 ¹	53	108	2.1	881.8	881.8	882.2	0.4
J	5,370 ¹	10	27	8.4	902.1	902.1	903.1	1.0
K	5,750 ¹	30	55	4.2	906.4	906.4	907.4	1.0
L	6,590 ¹	70	420	0.6	931.8	931.8	932.8	1.0
M	7,570 ¹	40	66	1.7	974.6	974.6	975.6	1.0
1001 Ranch Drain West Tributary								
A	0 ²	140	900	0.2	802.4	802.4	803.4	1.0
B	350 ²	70	110	1.5	806.1	806.1	807.1	1.0
C	1,000 ²	40	73	2.3	827.0	827.0	828.0	1.0
D	1,100 ²	190	740	0.3	833.5	833.5	834.5	1.0
E	1,300 ²	250	1,060	0.2	844.7	844.7	845.7	1.0

¹ Feet Above Limit of Detailed Study

² Feet Above Confluence With 1001 Ranch Drain

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERSIDE COUNTY, CA AND INCORPORATED AREAS	FLOODWAY DATA FLOODING SOURCES: 1001 RANCH DRAIN - 1001 RANCH DRAIN WEST TRIBUTARY
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Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Arenas Canyon Creek								
N ²	950							
A	3,350	760 ^{3,4}	423	6.9	518.2	517.3 ⁵	517.3 ⁵	0.0
B	4,400	760 ^{3,4}	515	5.6	524.8	523.8 ⁵	523.8 ⁵	0.0
C	5,270	760 ^{3,6}	962	3.0	525.8	525.2 ⁵	525.4 ⁵	0.2
D	6,100	760 ^{3,4}	999	2.9	525.8	525.7 ⁵	526.2 ⁵	0.5
E	6,860	760 ^{3,4}	1,538	1.9	525.9	525.9	526.5	0.6

¹Feet Above Mouth

²Shared With Palm Canyon Wash-See Palm Canyon Wash for Floodway and Base Flood Water Surface Elevation Data

³Width as Regulated by Riverside County Flood Control District

⁴Width Lies Entirely Within Agua Caliente Indian Reservation

⁵Elevation Computed Without Consideration of Overflow From Palm Canyon Wash

⁶Width Lies Partially Within Agua Caliente Indian Reservation

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERSIDE COUNTY, CA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: ARENAS CANYON CREEK

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Bear Creek								
A	1,000	1,000	3,157	1.7	42.2	42.2	43.2	1.0
B	4,000	950	3,123	1.7	43.8	43.8	44.8	1.0
C	6,000	770	2,653	1.8	45.0	45.0	46.0	1.0
D	7,800	860	2,752	1.7	47.2	47.2	48.2	1.0
E	8,800	440	874	5.1	50.7	50.7	51.7	1.0
F	14,850	160	264	15.2	142.0	142.0	142.0	0.0
Bedford Canyon Wash								
A	700	127	663.5	6.6	805.6	805.6	806.4	0.8
B	3000	121	416.4	10.5	869.6	869.6	869.6	0.0
Bly Channel								
A	1,270	60	282	8.9	700.6	700.6	701.6	1.0
B	5,900	40	151	8.9	730.4	730.4	731.4	1.0
C	9,150	30	110	10.7	736.7	736.7	736.7	0.0
D	11,980	20	48	18.8	747.5	747.5	747.5	0.0
E	13,235	20	68	11.1	757.1	757.1	758.1	1.0

¹Feet Above Limit of Detailed Study

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERSIDE COUNTY, CA AND INCORPORATED AREAS	FLOODWAY DATA FLOODING SOURCES: BEAR CREEK - BEDFORD CANYON WASH BLY CHANNEL
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Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Calimesa Channel								
A	0	40	230	5.2	2,362.8	2,362.8	2,363.8	1.0
B	380	20	110	11.2	2,375.7	2,375.7	2,375.8	0.1
C	580	80	1,120	1.1	2,388.3	2,388.3	2,388.3	0.0
D	820	30	280	4.3	2,388.3	2,388.3	2,388.3	0.0
E	1,000	80	480	2.5	2,396.1	2,396.1	2,396.1	0.0
F	1,500	30	100	7.0	2,396.5	2,396.5	2,396.9	0.4
G	2,700	40	83	8.5	2,420.0	2,420.0	2,420.0	0.0
H	2,960	15	33	19.1	2,432.4	2,432.4	2,432.4	0.0
I	4,300	10	22	24.1	2,453.0	2,453.0	2,453.0	0.0
J	5,600	10	111	32.0	2,483.3	2,483.3	2,483.3	0.0
K	6,150	40	150	2.4	2,500.7	2,500.7	2,501.7	1.0
L	6,850	30	67	5.2	2,522.7	2,522.7	2,523.7	1.0
M	7,000	40	220	1.6	2,529.2	2,529.2	2,530.2	1.0
N	7,770	50	130	2.8	2,548.2	2,548.2	2,549.2	1.0

¹Feet Above Limit of Detailed Study

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERSIDE COUNTY, CA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: CALIMESA CHANNEL

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
RIVER MILES	DISTANCE ¹	WIDTH ² (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Colorado River								
107.0	107.0	199	*	*	244.7	244.7	244.7	0.0
108.0	108.0	290	*	*	245.8	245.8	245.8	0.0
109.0	109.0	196	*	*	246.9	246.9	246.9	0.0
110.0	110.0	0	*	*	248.1	248.1	248.1	0.0
111.0	111.0	315	*	*	249.3	249.3	249.3	0.0
112.0	112.0	255	*	*	250.5	250.5	250.5	0.0
113.0	113.0	328	*	*	251.9	251.9	251.9	0.0
114.0	114.0	334	*	*	253.4	253.4	253.4	0.0
115.0	115.0	249	*	*	254.9	254.9	254.9	0.0
116.0	116.0	220	*	*	256.2	256.2	256.2	0.0
117.0	117.0	202	*	*	257.5	257.5	257.5	0.0
118.0	118.0	0	*	*	258.8	258.8	258.8	0.0
119.0	119.0	510	*	*	260.2	260.2	260.2	0.0
120.0	120.0	685	*	*	261.2	261.2	261.2	0.0
121.0	121.0	410	*	*	262.7	262.7	262.7	0.0
122.0	122.0	295	*	*	263.8	263.8	263.8	0.0
123.0	123.0	99	*	*	265.4	265.4	265.4	0.0
124.0	124.0	644	*	*	266.9	266.9	266.9	0.0
125.0	125.0	473	*	*	268.5	268.5	268.5	0.0
126.0	126.0	382	*	*	270.3	270.3	270.3	0.0
127.0	127.0	496	*	*	272.1	272.1	272.1	0.0
128.0	128.0	338	*	*	273.8	273.8	273.8	0.0
129.0	129.0	509	*	*	275.4	275.4	275.4	0.0
130.0	130.0	530	*	*	277.0	277.0	277.0	0.0

¹Miles above U.S.-Mexico Border

²Width inside county (on west)

*Data not available

TABLE 24

**FEDERAL EMERGENCY MANAGEMENT AGENCY
RIVERSIDE COUNTY, CA
AND INCORPORATED AREAS**

FLOODWAY DATA

FLOODING SOURCE: COLORADO RIVER

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
RIVER MILES	DISTANCE ¹	WIDTH ² (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Colorado River, Continued								
131.0	131.0	441	*	*	278.7	278.7	278.7	0.0
132.0	132.0	521	*	*	280.4	280.4	280.4	0.0
133.0	133.0	204	*	*	281.8	281.8	281.8	0.0
134.0	134.0	468	*	*	282.2	282.2	282.2	0.0
135.0	135.0	435	*	*	288.1	288.1	288.1	0.0
136.0	136.0	563	*	*	290.5	290.5	290.5	0.0
137.0	137.0	519	*	*	292.2	292.2	292.2	0.0
138.0	138.0	850	*	*	294.5	294.5	294.5	0.0
139.0	139.0	554	*	*	296.0	296.0	296.0	0.0
140.0	140.0	530	*	*	297.0	297.0	297.0	0.0
141.0	141.0	595	*	*	298.0	298.0	298.0	0.0
142.0	142.0	436	*	*	299.3	299.3	299.3	0.0
143.0	143.0	414	*	*	300.4	300.4	300.4	0.0
144.0	144.0	502	*	*	302.9	302.9	302.9	0.0
145.0	145.0	775	*	*	304.3	304.3	304.3	0.0
146.0	146.0	304	*	*	305.6	305.6	305.6	0.0
147.0	147.0	470	*	*	306.8	306.8	306.8	0.0
148.0	148.0	232	*	*	308.3	308.3	308.3	0.0
149.0	149.0	597	*	*	309.8	309.8	309.8	0.0
150.0	150.0	415	*	*	311.1	311.1	311.1	0.0
151.0	151.0	405	*	*	312.3	312.3	312.3	0.0
152.0	152.0	658	*	*	313.6	313.6	313.6	0.0
153.0	153.0	563	*	*	315.2	315.2	315.2	0.0

¹Miles above U.S.-Mexico Border

²Width inside county (on west)

*Data not available

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERSIDE COUNTY, CA AND INCORPORATED AREAS	FLOODWAY DATA FLOODING SOURCE: COLORADO RIVER
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Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
RIVER MILES	DISTANCE ¹	WIDTH ² (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Colorado River, continued								
154.0	154.0	354	*	*	317.1	317.1	317.1	0.0
155.0	155.0	738	*	*	318.9	318.9	318.9	0.0
156.0	156.0	922	*	*	319.8	319.8	319.8	0.0
157.0	157.0	0	*	*	321.0	321.0	321.0	0.0
158.0	158.0	277	*	*	322.7	322.7	322.7	0.0
159.0	159.0	186	*	*	324.4	324.4	324.4	0.0
160.0	160.0	480	*	*	325.5	325.5	325.5	0.0
161.0	161.0	319	*	*	327.2	327.2	327.2	0.0
162.0	162.0	449	*	*	329.3	329.3	329.3	0.0
163.0	163.0	476	*	*	331.5	331.5	331.5	0.0
164.0	164.0	355	*	*	333.7	333.7	333.7	0.0
165.0	165.0	324	*	*	336.0	336.0	336.0	0.0

¹Miles above U.S.-Mexico Border

²Width inside county (on west)

*Data not available

TABLE 24

FEDERAL EMERGENCY MANAGEMENT AGENCY
RIVERSIDE COUNTY, CA
 AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: COLORADO RIVER

Table 24: 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
Country Club Creek								
A	800 ¹	100	2,210	0.4	596.5	596.5	597.5	1.0
B	2,020 ¹	70	170	4.1	617.4	617.4	618.4	1.0
C	2,250 ¹	80	360	1.9	625.6	625.6	626.6	1.0
D	2,430 ¹	30	83	4.8	628.6	628.6	629.6	1.0
E	2,590 ¹	100	700	0.6	634.0	634.0	635.0	1.0
F	2,940 ¹	70	140	2.9	634.3	634.3	635.3	1.0
G	3,640 ¹	30	71	5.2	648.8	648.8	649.8	1.0
H	5,120 ¹	60	122	2.9	702.0	702.0	703.0	1.0
I	5,900 ¹	30	78	4.5	740.5	740.5	741.5	1.0
Country Club Creek North Tributary								
A	180 ²	30	69	5.8	626.1	626.1	627.1	1.0
B	1,520 ²	20	46	8.7	652.4	652.4	653.4	1.0
C	3,160 ²	20	53	7.0	701.7	701.7	702.7	1.0
D	3,310 ²	110	760	0.5	711.4	711.4	712.4	1.0
E	3,860 ²	50	104	3.5	716.8	716.8	717.8	1.0
Day Creek								
A	600 ³	220	1,813	4.6	639.1	639.1	640.1	1.0
B	1,070 ³	300	1,713	4.8	640.5	640.5	641.5	1.0
C	1,600 ³	380	2,339	3.6	644.2	644.2	645.2	1.0
D	2,300 ³	430	1,207	8.3	649.0	649.0	650.0	1.0
E	2,800 ³	600	2,346	3.7	653.4	653.4	654.4	1.0

¹ Feet Above Limit of Detailed Study ² Feet Above Confluence With Country Club Creek ³ Feet Above Point 120 Feet Downstream of Lucretia Avenue

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERSIDE COUNTY, CA AND INCORPORATED AREAS	FLOODWAY DATA FLOODING SOURCES: COUNTRY CLUB CREEK - COUNTRY CLUB CREEK NORTH TRIBUTARY - DAY CREEK
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Table 24: 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
East Cathedral Channel								
A	2,250 ¹	140	450	7.4	326.6	326.6	327.6	1.0
B	3,250 ¹	160	475	6.8	362.4	362.4	363.4	1.0
C	4,250 ¹	290	690	4.6	404.2	404.2	405.2	1.0
D	5,250 ¹	830	953	3.4	447.9	447.9	448.9	1.0
E	6,250 ¹	280	490	3.1	495.6	495.6	496.6	1.0
F	7,250 ¹	140	310	5.0	548.4	548.4	549.4	1.0
G	8,250 ¹	300	590	2.6	595.4	595.4	596.4	1.0
H	9,050 ¹	130	284	5.4	629.2	629.2	630.2	1.0
I	10,250 ¹	300	845	5.4	684.2	684.2	685.2	1.0
El Cerrito Channel								
A	1,723 ²	20	40	32.8	789.6	789.6	789.6	1.0
B	2,118 ²	20	40	32.8	803.6	803.6	803.6	1.0
C	2,679 ²	20	31	25.0	830.1	830.1	830.1	1.0
D	3,250 ²	20	40	19.6	847.6	847.6	847.6	1.0
E	3,709 ²	20	34	23.1	853.2	853.2	853.5	1.0
F	4,077 ²	20	33	22.5	864.1	864.1	864.4	1.0
G	4,347 ²	20	35	20.8	870.0	870.0	870.8	1.0
H	4,700 ²	20	29	25.4	879.8	879.8	880.0	1.0
I	5,127 ²	20	26	28.1	893.6	893.6	893.6	1.0
J	5,621 ²	10	24	26.8	912.1	912.1	912.2	1.0
K	6,736 ²	10	32	20.3	950.4	950.4	951.4	1.0

¹Feet Above Confluence With the Whitewater River

²Feet Above Temescal Wash

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERSIDE COUNTY, CA AND INCORPORATED AREAS	FLOODWAY DATA FLOODING SOURCES: EAST CATHEDRAL CHANNEL - EL CERRITO CHANNEL
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Table 24: 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
Garden Air Golf Course Wash								
A	70 ¹	700	10,410	0.2	2,349.5	2,349.5	2,350.5	1.0
B	1,070 ¹	70	220	7.8	2,364.9	2,364.9	2,365.9	1.0
C	2,470 ¹	60	240	7.3	2,396.0	2,396.0	2,397.0	1.0
D	4,470 ¹	120	230	7.8	2,467.4	2,467.4	2,468.4	1.0
E	6,470 ¹	90	220	4.1	2,530.9	2,530.9	2,531.9	1.0
F	8,570 ¹	110	240	3.8	2,601.0	2,601.0	2,601.7	0.7
Gilman Home Channel								
A	850 ²	60	220	10.2	2,222.0	2,222.0	2,222.0	0.0
B	1,400 ²	130	270	8.8	2,231.0	2,231.0	2,231.0	0.0
C	2,150 ²	50	190	11.3	2,245.4	2,245.4	2,245.4	0.0
D	2,750 ²	40	170	12.3	2,258.8	2,258.8	2,258.8	0.0
E	3,200 ²	30	160	12.7	2,270.8	2,270.8	2,270.8	0.0
F	9,800 ²	7	40	27.8	2,468.8	2,468.8	2,468.8	0.0
G	10,500 ²	10	58	16.7	2,492.9	2,492.9	2,492.9	0.0
H	11,350 ²	40	110	9.2	2,531.7	2,531.7	2,531.7	0.0
I	12,200 ²	60	120	8.1	2,564.0	2,564.0	2,564.0	0.0
J	12,900 ²	40	110	9.9	2,597.6	2,597.6	2,597.6	0.0

¹Feet Above Limit of Detailed Study

²Feet Above Confluence With Smith Creek

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERSIDE COUNTY, CA AND INCORPORATED AREAS	FLOODWAY DATA FLOODING SOURCES: GARDEN AIR GOLF COURSE WASH - GILMAN HOME CHANNEL
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Table 24: 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
Highland Springs Channel								
A	11,100 ¹	20	45	21.6	2,603.6	2,603.6	2,603.6	0.0
B	11,800 ¹	20	45	21.6	2,614.4	2,614.4	2,614.4	0.0
C	12,500 ¹	20	45	21.8	2,626.1	2,626.1	2,626.1	0.0
Lakeland Village Channel								
A	400 ²	90	210	5.5	1,283.9	1,283.9	1,284.9	1.0
B	980 ²	110	279	7.1	1,304.7	1,304.7	1,305.7	1.0
C	2,030 ²	120	294	6.6	1,339.6	1,339.6	1,340.6	1.0
Marshall Creek								
A	6,400 ³	180	430	6.3	2,578.6	2,578.6	2,578.6	0.0
B	7,300 ³	120	310	9.2	2,593.8	2,593.8	2,593.8	0.0
C	8,000 ³	270	990	2.9	2,611.1	2,611.1	2,611.1	0.0

¹Feet Above Confluence With Smith Creek

²Feet Above a Point 460 Feet Downstream from Grand Avenue

³Feet Above Confluence With San Timoteo River

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERSIDE COUNTY, CA AND INCORPORATED AREAS	FLOODWAY DATA FLOODING SOURCES: HIGHLAND SPRINGS CHANNEL - LAKELAND VILLAGE CHANNEL - MARSHALL CREEK
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Table 24: 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
Montgomery Creek								
A	650 ¹	350	420	6.2	2,229.1	2,229.1	2,229.1	0.0
B	1,400 ¹	520	530	5.5	2,246.5	2,246.5	2,246.5	0.0
C	2,300 ¹	490	480	5.5	2,266.8	2,266.8	2,266.8	0.0
D	3,100 ¹	160	340	8.5	2,284.9	2,284.9	2,284.9	0.0
E	4,000 ¹	80	250	10.2	2,303.0	2,303.0	2,303.0	0.0
F	4,750 ¹	160	310	7.8	2,331.2	2,331.2	2,331.2	0.0
G	5,700 ¹	90	250	10.6	2,355.8	2,355.8	2,355.8	0.0
H	6,650 ¹	50	210	11.2	2,381.1	2,381.1	2,381.1	0.0
I	7,450 ¹	40	180	11.8	2,402.6	2,402.6	2,402.6	0.0
J	9,150 ¹	10	60	31.8	2,467.2	2,467.2	2,467.2	0.0
K	9,900 ¹	10	60	32.9	2,489.7	2,489.7	2,489.7	0.0
L	10,600 ¹	10	40	31.6	2,511.3	2,511.3	2,511.3	0.0
M	11,650 ¹	15	40	34.3	2,550.0	2,550.0	2,550.0	0.0
N	12,700 ¹	15	40	32.3	2,591.2	2,591.2	2,591.2	0.0
O	13,550 ¹	15	40	28.4	2,625.4	2,625.4	2,625.4	0.0
P	14,350 ¹	20	80	16.2	2,656.4	2,656.4	2,656.4	0.0
Mountain Avenue Wash								
A	2,290 ²	90	121	6.6	1,423.5	1,423.5	1423.9	0.4
B	3,050 ²	78	169	4.7	1,428.1	1,428.1	1428.8	0.7
C	3,735 ²	67	84	5.1	1,431.4	1,431.4	1431.9	0.5
D	4,130 ²	61	85	3.9	1,433.9	1,433.9	1434.5	0.6

¹Feet Above Confluence With Smith Creek

²Feet Above Confluence With San Jacinto River

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERSIDE COUNTY, CA AND INCORPORATED AREAS	FLOODWAY DATA FLOODING SOURCES: MONTGOMERY CREEK - MOUNTAIN AVENUE WASH
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Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)											
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY			WITHOUT FLOODWAY			WITH FLOODWAY			INCREASE		
					LOB ²	ROB ³	CHANNEL ¹	LOB ²	ROB ³	CHANNEL ¹	LOB ²	ROB ³	CHANNEL ¹	LOB ²	ROB ³	CHANNEL ⁴
Murrieta Creek																
A	500	205	3,954	7.8	— ⁵	— ⁵	991.2	— ⁵	— ⁵	991.2	— ⁵	— ⁵	992.1	— ⁵	— ⁵	0.9
B	2,000	240	2,913	10.6	— ⁵	— ⁵	994.4	— ⁵	— ⁵	994.4	— ⁵	— ⁵	994.8	— ⁵	— ⁵	0.4
C	4,000	230	3,081	10.0	— ⁵	— ⁵	998.2	— ⁵	— ⁵	998.2	— ⁵	— ⁵	999.2	— ⁵	— ⁵	1.0
D	6,000	215	2,784	11.1	— ⁵	— ⁵	1,001.8	— ⁵	— ⁵	1,001.8	— ⁵	— ⁵	1,002.8	— ⁵	— ⁵	1.0
E	7,200	190	2,586	11.9	— ⁵	— ⁵	1,004.8	— ⁵	— ⁵	1,004.8	— ⁵	— ⁵	1,005.7	— ⁵	— ⁵	0.9
F	8,000	160	2,666	11.6	— ⁵	— ⁵	1,007.4	— ⁵	— ⁵	1,007.4	— ⁵	— ⁵	1,007.4	— ⁵	— ⁵	0.0
G	9,980	360	5,126	6.0	— ⁵	— ⁵	1,009.8	— ⁵	— ⁵	1,009.8	— ⁵	— ⁵	1,010.6	— ⁵	— ⁵	0.8
H	12,000	467	4,451	6.9	1,012.8	1,012.8	1,012.8	1,012.8	1,012.8	— ⁶	1,012.8	1,012.8	— ⁶	0.0	0.0	— ⁶
I	14,400	533	4,268	7.2	1,016.1	1,016.1	1,016.1	1,016.1	1,016.1	— ⁶	1,016.1	1,016.1	— ⁶	0.0	0.0	— ⁶
J	16,140	465	2,661	10.8	1,018.7	1,018.6	1,018.7	1,018.7	1,018.6	— ⁶	1,018.7	1,018.6	— ⁶	0.0	0.0	— ⁶
K	17,740	290	2,750	10.0	1,022.4	1,022.3	1,022.0	1,022.4	1,022.3	— ⁶	1,022.4	1,022.3	— ⁶	0.0	0.0	— ⁶
L	19,522	549	2,309	9.2	1,025.5	1,025.4	1,025.0	1,025.5	1,025.4	— ⁶	1,025.6	1,025.5	— ⁶	0.1	0.1	— ⁶
M	20,567	700	2,779	8.8	1,027.7	1,026.7	1,027.0	1,027.7	1,026.7	— ⁶	1,027.7	1,027.3	— ⁶	0.0	0.6	— ⁶
N	22,187	1,383	5,034	6.2	1,030.7	1,030.8	1,028.8	1,030.7	1,030.8	— ⁶	— ⁶	1,030.8	— ⁶	?	0.0	— ⁶
O	23,707	1,167	3,550	8.3	1,031.7	1,034.8	1,033.7	1,031.7	1,034.8	— ⁶	— ⁶	1,034.8	— ⁶	?	0.0	— ⁶
P	25,727	138	845	12.3	1,036.6	1,037.4	1,037.7	1,036.6	1,037.4	— ⁶	— ⁶	1,037.4	— ⁶	?	0.0	— ⁶
Q	27,292	144	1,053	9.2	1,042.3	1,042.5	1,042.5	1,042.3	1,042.5	— ⁶	— ⁶	1,042.5	— ⁶	?	0.0	— ⁶
R	28,807	145	999	9.8	1,045.4	1,045.5	1,045.5	1,045.4	1,045.5	— ⁶	— ⁶	1,045.5	— ⁶	?	0.0	— ⁶
S	29,907	187	1,405	7.0	1,049.3	1,049.3	1,049.3	1,049.3	1,049.3	— ⁶	— ⁶	1,049.3	— ⁶	?	0.0	— ⁶
T	31,482	124	759	12.8	1,055.1	1,055.1	1,055.1	1,055.1	1,055.1	— ⁶	— ⁶	1,055.1	— ⁶	?	0.0	— ⁶
U	34,110	290	1,910	5.1	— ⁵	— ⁵	1,067.5	— ⁵	— ⁵	1,067.5	— ⁵	— ⁵	1,067.8	— ⁵	— ⁵	0.3
V	35,750	250	1,870	5.1	— ⁵	— ⁵	1,072.5	— ⁵	— ⁵	1,072.5	— ⁵	— ⁵	1,072.8	— ⁵	— ⁵	0.3

¹Feet above confluence with Santa Margarita River

²Left (looking downstream) overbank elevation assuming left levee fails

³Right (looking downstream) overbank elevation assuming right levee fails

⁴Channel elevation assuming both levees hold

⁵Not applicable; there are no levees in this reach

⁶Not computed

⁷Left channel/right channel

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERSIDE COUNTY, CA AND INCORPORATED AREAS	FLOODWAY DATA FLOODING SOURCE: MURRIETA CREEK
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Table 24: Floodway Data, Continued

LOCATION				FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)									
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY			WITHOUT FLOODWAY			WITH FLOODWAY			INCREASE		
					LOB ²	ROB ³	CHANNEL ¹	LOB ²	ROB ³	CHANNEL ¹	LOB ²	ROB ³	CHANNEL ¹	LOB ²	ROB ³	CHANNEL ⁴
Murrieta Creek, continued																
W	37,670	180	1,120	8.7	— ⁵	— ⁵	1,082.8	— ⁵	— ⁵	1,082.8	— ⁵	— ⁵	1,083.8	— ⁵	— ⁵	1.0
X	39,180	290	1,880	5.2	— ⁵	— ⁵	1,090.5	— ⁵	— ⁵	1,090.5	— ⁵	— ⁵	1,091.5	— ⁵	— ⁵	1.0
Y	40,880	550/250 ⁷	1,980	6.1	— ⁵	— ⁵	1,095.5	— ⁵	— ⁵	1,095.5	— ⁵	— ⁵	1,096.2	— ⁵	— ⁵	0.7
Z	43,900	220	1,376	7.0	— ⁵	— ⁵	1,109.5	— ⁵	— ⁵	1,109.5	— ⁵	— ⁵	1,110.2	— ⁵	— ⁵	0.7
AA	45,245	265	1,925	5.0	— ⁵	— ⁵	1,115.9	— ⁵	— ⁵	1,115.9	— ⁵	— ⁵	1,116.4	— ⁵	— ⁵	0.5
AB	46,505	248	2,101	4.8	— ⁵	— ⁵	1,121.2	— ⁵	— ⁵	1,121.2	— ⁵	— ⁵	1,122.1	— ⁵	— ⁵	0.9
AC	48,367	285	1,779	5.5	— ⁵	— ⁵	1,131.3	— ⁵	— ⁵	1,131.3	— ⁵	— ⁵	1,132.3	— ⁵	— ⁵	1.0
AD	49,997	220	1,316	7.9	— ⁵	— ⁵	1,141.9	— ⁵	— ⁵	1,141.9	— ⁵	— ⁵	1,142.8	— ⁵	— ⁵	0.9
AE	51,667	540	2,333	4.2	— ⁵	— ⁵	1,150.5	— ⁵	— ⁵	1,150.5	— ⁵	— ⁵	1,151.5	— ⁵	— ⁵	1.0
AF	53,132	195	1,213	8.0	— ⁵	— ⁵	1,164.6	— ⁵	— ⁵	1,164.6	— ⁵	— ⁵	1,165.5	— ⁵	— ⁵	0.9
AG	53,747	210	1,412	6.9	— ⁵	— ⁵	1,168.5	— ⁵	— ⁵	1,168.5	— ⁵	— ⁵	1,169.0	— ⁵	— ⁵	0.5

¹Feet above confluence with Santa Margarita River

⁵Not applicable; there are no levees in this reach

²Left (looking downstream) overbank elevation assuming left levee fails

⁶Not computed

³Right (looking downstream) overbank elevation assuming right levee fails

⁷Left channel/right channel

⁴Channel elevation assuming both levees hold

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERSIDE COUNTY, CA AND INCORPORATED AREAS	FLOODWAY DATA FLOODING SOURCE: MURRIETA CREEK
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Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Murrieta Creek, continued								
AH	55,037	311	1,912	6.0	1,174.6	1,174.6	1,175.2	0.6
AI	56,347	427	1,815	7.1	1,181.2	1,182.4	1,183.4	1.0
AJ	58,379	313	1,334	4.0	1,193.4	1,193.4	1,193.8	0.4
AK	59,899	457	1,214	4.4	1,199.6	1,199.6	1,199.8	0.2
AL	60,969	331	1,166	4.6	1,206.3	1,206.3	1,206.4	0.1
AM	62,099	347	811	6.6	1,209.0	1,209.0	1,209.9	0.9
AN	63,481	223	519	9.3	1,219.5	1,219.5	1,219.5	0.0

¹Feet Above Confluence With Santa Margarita River

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERSIDE COUNTY, CA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: MURRIETA CREEK

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
North Cathedral Channel								
A	1,100	60	290	12.9	290.5	290.5	291.5	1.0
B	2,100	60	400	9.1	292.7	292.7	293.7	1.0
C	3,100	60	410	9.0	293.8	293.8	294.8	1.0
D	3,850	60	340	10.8	294.2	294.2	295.2	1.0
E	4,780	50	340	10.8	300.0	300.0	301.0	1.0
F	5,200	50	290	7.9	301.9	301.9	302.9	1.0

¹Feet above Confluence With the Whitewater River

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERSIDE COUNTY, CA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: NORTH CATHEDRAL CHANNEL

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
North Norco Channel								
A	4,700	110	415	6.0	557.3	557.3	558.3	1.0
B	5,640	70	542	4.6	572.3	572.3	573.2	0.9
C	6,192	150	1,400	1.9	577.7	577.7	576.8	-0.9
D	7,257	40	200	12.6	578.0	578.0	578.0	0.0
E	22,810	80	263	4.7	630.0	630.0	630.0	0.0
F	23,950	80	333	2.7	631.9	631.9	631.5	-0.4

¹Feet Above Confluence With Temescal Wash

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERSIDE COUNTY, CA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: NORTH NORCO CHANNEL

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Palm Canyon Wash								
A	1,970	367	2,375	10.6	326.8	326.8	326.8	0.0
B	3,135	430	3,418	7.4	334.7	334.7	334.7	0.0
C	4,330	415	2,724	9.3	339.9	339.9	339.9	0.0
D	5,230	432	2,032	12.4	343.9	343.9	343.9	0.0
E	6,200	409	2,634	9.6	349.2	349.2	349.2	0.0
F ²	7,650	545	4,315	5.8	354.6	354.6	354.6	0.0
G ²	8,850	860 ³	2,446	10.3	358.6	358.6	358.6	0.0
H	10,240	1,133 ³	2,660	8.7	368.9	368.9	368.9	0.0
I	11,740	314 ⁴	1,742	13.3	388.4	388.4	388.4	0.0
J	13,070	363	2,034	11.4	404.8	404.8	404.8	0.0
K	14,590	502	2,035	11.4	425.5	425.5	426.5	1.0
L	15,700	401	1,886	12.3	445.8	445.8	445.8	0.0
M	17,120	309	1,724	13.5	467.3	467.3	467.3	0.0
N ⁵	18,780	677	2,252	10.3	489.2	489.2	489.2	0.0
O	20,900	468	2,006	11.7	519.2	519.2	519.2	0.0
P	22,000	478	2,048	11.5	529.4	529.4	529.4	0.0
Q	23,100	289	2,998	7.8	538.5	538.5	538.5	0.0
R	23,800	317	2,021	11.1	548.4	548.4	548.4	0.0

¹Feet Above Mouth

²Shared With Tahquitz Creek

³Width Lies Partially Within Agua Caliente Indian Reservation

⁴Width Lies Entirely Within Agua Caliente Indian Reservation

⁵Shared With Arenas Canyon Creek

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERSIDE COUNTY, CA AND INCORPORATED AREAS	FLOODWAY DATA FLOODING SOURCE: PALM CANYON WASH

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Pechanga Creek								
A	1,005	100	641	10.4	1,007.4	1,007.4	1,008.1	0.7
B	1,672	70	457	14.6	1,014.4	1,014.4	1,014.6	0.2
C	1,832	70	740	9.0	1,019.2	1,019.2	1,019.2	0.0
D	3,232	112	535	12.5	1,028.1	1,028.1	1,028.1	0.0
E	4,810	65	505	13.2	1,046.7	1,046.7	1,046.7	0.0
F	6,075	160	1,040	6.4	1,054.9	1,054.9	1,055.5	0.6
G	6,865	143	580	11.5	1,059.5	1,059.5	1,059.5	0.0
H	7,688	140	740	9.0	1,068.5	1,068.5	1,068.7	0.2
I	8,745	124	600	11.1	1,079.5	1,079.5	1,079.6	0.1

¹Feet Above Confluence With Temecula Creek

TABLE 24

FEDERAL EMERGENCY MANAGEMENT AGENCY
RIVERSIDE COUNTY, CA
 AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: PECHANGA CREEK

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Perris Valley Storm Drain								
A	10,085	1,058	2,584	5.0	1,423.1	1,423.1	1,423.8	0.7
B	10,959	1,186	6,177	2.2	1,427.1	1,427.1	1,428.0	0.9
C	11,965	632	3,929	3.3	1,427.4	1,427.4	1,428.4	1.0
D	12,959	506	3,831	3.4	1,427.8	1,427.8	1,428.7	0.9
E	14,090	513	3,506	3.7	1,428.4	1,428.4	1,429.1	0.7
F	15,096	469	2,590	5.0	1,429.1	1,429.1	1,429.5	0.4
G	16,112	436	1,452	9.0	1,432.1	1,432.1	1,432.3	0.2
H	17,053	388	1,696	7.7	1,434.3	1,434.3	1,434.4	0.1
I	18,031	389	1,895	6.9	1,435.8	1,435.8	1,435.9	0.1
J	18,981	476	2,779	4.7	1,437.1	1,437.1	1,437.2	0.1
K	19,948	241	1,403	10.4	1,437.5	1,437.5	1,437.5	0.0
L	20,780	363	1,545	8.4	1,440.3	1,440.3	1,440.3	0.0
M	21,629	1,068	4,004	3.5	1,443.5	1,443.5	1,444.5	1.0
N	22,602	1,194	3,052	4.8	1,444.9	1,444.9	1,445.5	0.6
O	23,659	1,257	5,058	3.6	1,446.8	1,446.8	1,447.2	0.4
P - X ²								

¹ Feet above confluence with San Jacinto River

² No floodway computed

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERSIDE COUNTY, CA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: PERRIS VALLEY STORM DRAIN

Table 24: 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
Pigeon Pass Channel								
A	400 ¹	30	80	16.0	1,618.1	1,618.1	1,618.1	0.0
B	950 ¹	30	90	14.8	1,622.0	1,622.0	1,622.1	0.1
C	1,380 ¹	30	70	17.8	1,623.0	1,623.0	1,623.0	0.0
D	2,010 ¹	30	80	17.5	1,628.1	1,628.1	1,628.1	0.0
E	2,270 ¹	20	110	11.1	1,632.8	1,632.8	1,632.8	0.0
F	2,670 ¹	180	500	2.6	1,635.7	1,635.7	1,636.7	1.0
G	3,300 ¹	20	110	11.5	1,645.1	1,645.1	1,645.1	0.0
Pyrite Channel								
A	400 ²	165	335	3.4	776.0	776.0	777.0	1.0
B	1,730 ²	20	56	20.3	791.7	791.7	791.7	0.0
C	2,050 ²	20	53	20.6	796.7	796.7	796.7	0.0
D	2,475 ²	20	55	20.1	802.6	802.6	802.6	0.0
E	3,100 ²	20	51	21.6	811.3	811.3	811.3	0.0
F	3,775 ²	20	45	24.0	825.3	825.3	825.3	0.0
G	4,575 ²	20	53	20.0	841.2	841.2	841.2	0.0
Reche Canyon								
A	0 ³	60	188	9.5	1,332.0	1,332.0	1,333.0	1.0
B	1,000 ³	80	208	8.5	1,355.3	1,355.3	1,356.3	1.0
C	2,000 ³	60	196	8.7	1,379.0	1,379.0	1,380.0	1.0
D	3,000 ³	110	154	7.2	1,405.1	1,405.1	1,406.1	1.0
E	4,000 ³	70	206	8.0	1,431.1	1,431.1	1,432.1	1.0
F	5,500 ³	50	198	8.1	1,473.6	1,473.6	1,474.6	1.0
G	6,000 ³	90	188	8.9	1,484.6	1,484.6	1,485.6	1.0
H	6,800 ³	60	146	8.9	1,515.0	1,515.0	1,516.0	1.0
I	7,600 ³	60	150	8.3	1,535.9	1,535.9	1,536.9	1.0

¹Feet Above Confluence With Sunnymead Storm Channel

²Feet Above Limit of Detailed Study

³Feet Above County Limits

TABLE 24

FEDERAL EMERGENCY MANAGEMENT AGENCY
RIVERSIDE COUNTY, CA
AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCES: PIGEON PASS CHANNEL - PYRITE CHANNEL - RECHE CANYON

Table 24: 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
Salt Creek								
A	10,163 ¹	692	3,774	3.5	1,408.8	1,408.8	1,408.9	0.1
B	14,763 ¹	471	2,389	5.5	1,413.6	1,413.6	1,413.6	0.0
C	18,163 ¹	449	2,264	5.8	1,418.1	1,418.1	1,418.1	0.0
D	75,500 ¹	450	1,560	5.89	1,522.3	1,522.3	1,522.3	0.0
E	76,000 ¹	250	1,574	5.79	1,523.2	1,523.2	1,523.2	0.0
F	77,000 ¹	250	1,483	6.14	1,524.2	1,524.2	1,524.2	0.0
G	78,000 ¹	250	1,434	6.35	1,525.3	1,525.3	1,525.3	0.0
H	79,500'	250	1,070	8.49	1,527.4	1,527.4	1,527.4	0.0
Salt Creek Tributary								
A	500 ²	230	670	4.20	1,589.7	1,589.7	1,590.0	0.3
B	1,450 ²	380	790	4.10	1,597.2	1,597.2	1,597.3	0.1

¹Feet Above Stream Gage at Upper Limits of Railroad Canyon Reservoir

²Feet Above Corporate Limits

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERSIDE COUNTY, CA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCES: SALT CREEK - SALT CREEK TRIBUTARY

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
San Gorgonio River								
A ²	82,100	1,680	1,660	7.6	2,401.8	2,401.8	2,401.8	0.0
B	83,200	900	1,250	9.6	2,434.2	2,434.2	2,434.2	0.0
C	84,200	400	1,100	11.0	2,459.7	2,459.7	2,459.7	0.0
D	85,100	360	1,170	10.3	2,494.2	2,494.2	2,494.2	0.0
E	86,150	290	1,100	11.0	2,547.3	2,547.3	2,547.3	0.0
F	87,250	190	950	12.7	2,597.5	2,597.5	2,597.5	0.0
G	88,400	630	1,350	9.3	2,654.9	2,654.9	2,654.9	0.0
H	89,550	690	1,430	8.4	2,707.8	2,707.8	2,707.8	0.0

¹Feet Above Confluence With Whitewater River

²Cross Section "A" is Not Included on the Effective FIRM

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERSIDE COUNTY, CA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: SAN GORGONIO RIVER

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
San Jacinto River								
A	975	293	2,350	10.4	1,265.9	1,265.9	1,265.9	0.0
B	1,475	293	2,556	9.6	1,267.3	1,267.3	1,267.3	0.0
C	1,968	293	2,673	9.2	1,268.3	1,268.3	1,268.3	0.0
D	2,056	270	2,688	9.1	1,268.5	1,268.5	1,268.5	0.0
E	2,535	440	3,196	7.7	1,271.5	1,271.5	1,271.5	0.0
F	2,936	275	2,791	8.8	1,272.3	1,272.3	1,272.5	0.2
G	3,211	216	2,330	10.5	1,273.8	1,273.8	1,273.9	0.1
H	3,638	260	3,013	8.1	1,276.4	1,276.4	1,276.4	0.0
I	3,929	210	3,022	8.1	1,276.6	1,276.6	1,276.9	0.3
J	4,087	250	2,756	8.9	1,276.8	1,276.8	1,277.2	0.4
K	4,615	240	2,266	10.8	1,278.7	1,278.7	1,278.9	0.2
L	5,021	350	4,169	5.9	1,284.4	1,284.4	1,284.4	0.0
M	5,423	320	3,036	8.1	1,284.5	1,284.5	1,284.5	0.0
N	5,824	340	3,596	6.8	1,285.4	1,285.4	1,285.5	0.1
O	6,225	325	2,872	8.5	1,285.8	1,285.8	1,285.9	0.1
P	6,627	270	2,799	8.8	1,286.5	1,286.5	1,286.8	0.3
Q	6,966	252	2,149	11.4	1,286.7	1,286.7	1,286.7	0.0
R	7,542	231	2,060	11.9	1,289.7	1,289.7	1,289.7	0.0
S	8,070	258	2,723	9.0	1,292.3	1,292.3	1,292.7	0.4
T	8,598	271	2,548	9.6	1,293.9	1,293.9	1,294.3	0.4
U	9,126	292	2,554	9.6	1,295.9	1,295.9	1,296.1	0.2
V	9,654	354	3,347	7.3	1,297.8	1,297.8	1,298.3	0.5
W	10,182	183	1,861	13.2	1,298.5	1,298.5	1,298.6	0.1
X	10,710	395	3,413	7.2	1,301.9	1,301.9	1,302.5	0.6
Y	11,238	340	2,750	8.9	1,303.3	1,303.3	1,303.6	0.3
Z	11,766	277	2,039	12.0	1,305.4	1,305.4	1,305.5	0.1
AA	12,294	200	2,383	10.3	1,308.5	1,308.5	1,308.5	0.0
AB	12,822	294	3,005	8.2	1,310.0	1,310.0	1,310.5	0.5

¹ Feet Above the Crest of Lake Elsinore Weir

TABLE 24

FEDERAL EMERGENCY MANAGEMENT AGENCY
RIVERSIDE COUNTY, CA
AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: SAN JACINTO RIVER

Table 24: 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 Jacinto River (continued)								
AC	13,350 ¹	165	2,027	12.1	1,310.9	1,310.9	1,311.2	0.3
AD	58,831 ²	271	2,616	9.4	1,415.6	1,415.6	1,415.8	0.2
AE	59,821 ²	473	4,021	6.1	1,417.5	1,417.5	1,418.1	0.6
AF	60,821 ²	427	3,985	6.2	1,418.3	1,418.3	1,419.1	0.8
AG	61,820 ²	1,204	10,895	2.3	1,419.2	1,419.2	1,420.1	0.9
AH	63,818 ²	1,410	11,034	2.3	1,419.5	1,419.5	1,420.3	0.8
AI	65,817 ²	1,504	12,393	2.0	1,419.8	1,419.8	1,420.6	0.8
AJ	66,817 ²	2,535	18,994	1.3	1,419.9	1,419.9	1,420.8	0.9
AK	67,317 ²	2,644	19,487	1.3	1,420.0	1,420.0	1,420.8	0.8
AL	68,817 ²	6,260	44,526	0.7	1,420.0	1,420.0	1,420.9	0.9
AM	70,817 ²	6,280	43,311	0.6	1,420.0	1,420.0	1,420.9	0.9
AN	72,317 ²	6,729	44,239	0.5	1,420.1	1,420.1	1,420.9	0.8
AO	73,782 ²	5,770	42,603	0.6	1,420.1	1,420.1	1,420.9	0.8
AP	73,997 ²	5,941	39,822	0.7	1,420.1	1,420.1	1,420.9	0.8
AQ	75,318 ²	6,422	42,319	0.6	1,420.1	1,420.1	1,421.0	0.9
AR	77,494 ²	5,994	41,480	0.6	1,420.1	1,420.1	1,421.0	0.9
AS	77,828 ²	5,753	47,345	0.7	1,420.2	1,420.2	1,421.0	0.8
AT	79,828 ²	7,400	51,973	0.5	1,420.3	1,420.3	1,421.1	0.8
AU	81,828 ²	7,986	41,501	0.6	1,420.3	1,420.3	1,421.1	0.8
AV	83,828 ²	5,818	33,667	0.7	1,420.4	1,420.4	1,421.2	0.8
AW	85,828 ²	5,402	28,453	0.9	1,420.5	1,420.5	1,421.2	0.7
AX	87,328 ²	3,913	14,717	1.8	1,420.6	1,420.6	1,421.3	0.7

¹Feet above Lake Elsinore Levee

²Feet above confluence with Lake Elsinore

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERSIDE COUNTY, CA AND INCORPORATED AREAS	FLOODWAY DATA FLOODING SOURCE: SAN JACINTO RIVER

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
San Jacinto River (continued)								
AY	89,328	2,638	10,767	3.8	1,422.1	1,422.1	1,422.7	0.6
AZ	91,328	2,421	12,493	3.1	1,423.6	1,423.6	1,424.4	0.8
BA	91,720	2,685	19,143	2.3	1,423.9	1,423.9	1,424.7	0.8
BB	92,329	2,802	19,578	2.1	1,424.5	1,424.5	1,425.2	0.7
BC	93,829	2,595	16,962	2.0	1,424.8	1,424.8	1,425.5	0.7
BD	95,829	3,059	19,746	1.8	1,425.2	1,425.2	1,425.8	0.6
BE	97,829	3,433	21,296	1.6	1,425.5	1,425.5	1,426.1	0.6
BF	99,829	3,200	21,829	1.6	1,425.9	1,425.9	1,426.3	0.4
BG	101,829	3,593	20,114	1.7	1,426.1	1,426.1	1,426.6	0.5
BH	103,829	3,570	20,207	1.7	1,426.5	1,426.5	1,426.9	0.4
BI	105,829	2,785	15,388	2.3	1,427.0	1,427.0	1,427.3	0.3
BJ	107,829	2,782	17,071	2.1	1,427.5	1,427.5	1,427.9	0.4
BK	109,105	2,954	15,179	2.3	1,427.8	1,427.8	1,428.2	0.4
BL	109,233	3,010	28,994	2.3	1,431.4	1,431.4	1,432.0	0.6
BM	110,076	2,677	25,621	1.3	1,431.5	1,431.5	1,432.1	0.6
BN	112,783	4,062	38,655	0.8	1,431.6	1,431.6	1,432.2	0.6
BO	116,927	7,196	35,024	1.0	1,431.6	1,431.6	1,432.3	0.7
BP	119,985	9,681	36,771	0.9	1,431.7	1,431.7	1,432.4	0.7
BQ	122,771	10,213	40,351	0.8	1,431.8	1,431.8	1,432.6	0.8
BR	126,604	13,616	94,067	0.3	1,431.9	1,431.9	1,432.6	0.7
BS	132,446	8,654	65,304	0.5	1,431.9	1,431.9	1,432.6	0.7
BT	136,855	8,837	67,811	0.5	1,431.9	1,431.9	1,432.7	0.8

¹Feet above confluence with Lake Elsinore

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERSIDE COUNTY, CA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: SAN JACINTO RIVER

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
San Sevaine Channel								
A-J ²								
K	12,578.26	220	285	28.0	739.3	739.3	739.3	0.0
L	14,988.52	100	390	21.0	767.4	767.4	767.4	0.0
M	17,200.94	120	611	12.8	780.2	780.2	780.2	0.0
N	18,292.93	100	740	10.6	796.9	796.9	797.9	1.0
O	20,294.18	130	840	9.3	815.4	815.4	816.4	1.0
P	23,090.20	150	1,020	7.7	851.3	851.3	852.3	1.0

¹Stream Distance 600 Feet Downstream of Limonite Avenue

²Contained in Channel

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERSIDE COUNTY, CA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: SAN SEVAINE CHANNEL

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Santa Ana River								
A	175,000	1,900	22,400	7.8	558.9	558.9	559.9	1.0
B	178,200	2,640	30,000	5.9	571.0	571.0	571.8	0.8
C	181,200	2,300	17,697	9.9	578.7	578.7	579.3	0.6
D	182,200	1,694	23,524	7.4	586.3	586.3	586.8	0.5
E	183,400	3,500	51,124	3.4	596.6	596.6	596.6	0.0
F	186,350	1,680	29,129	6.0	601.8	601.8	602.2	0.4
G	189,050	3,259	38,826	4.5	605.1	605.1	606.0	0.9
H	194,160	2,770	20,545	8.5	615.6	615.6	615.6	0.0
I	199,800	3,100	24,800	7.0	631.3	631.3	632.3	1.0
J	204,410	3,180	27,500	6.4	644.7	644.7	645.7	1.0
K	213,200	1,030	13,900	12.6	680.9	680.9	680.9	0.0
L	220,500	740	12,100	14.5	708.7	708.7	708.7	0.0
M	225,990	580	13,200	13.2	731.6	731.6	731.6	0.0
N	226,600	1,230	31,200	5.6	739.9	739.9	739.9	0.0
O	228,700	3,670	74,300	2.4	740.7	740.7	741.7	1.0
P	233,100	3,210	26,090	6.7	746.8	746.8	747.8	1.0
Q	240,200	900	13,500	13.0	778.7	778.7	779.7	1.0
R	251,600	980	10,300	17.0	821.5	821.5	822.5	1.0

¹Feet Above Mouth

TABLE 24

FEDERAL EMERGENCY MANAGEMENT AGENCY

RIVERSIDE COUNTY, CA

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: SANTA ANA RIVER

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Smith Creek								
A	10,200	420	1,520	10.8	2,061.2	2,061.2	2,061.2	0.0
B	11,200	330	1,840	10.0	2,077.1	2,077.1	2,077.1	0.0
C	12,000	480	1,530	10.6	2,086.9	2,086.9	2,086.9	0.0
D	12,850	500	1,670	10.2	2,100.2	2,100.2	2,100.4	0.2
E	13,700	590	1,800	9.7	2,110.4	2,110.4	2,110.5	0.1
F	14,800	260	990	14.1	2,123.8	2,123.8	2,124.0	0.2
G	15,750	270	1,130	12.6	2,134.4	2,134.4	2,135.1	0.7
H	16,750	330	1,420	11.1	2,144.6	2,144.6	2,144.6	0.0
I	17,800	280	1,190	11.8	2,153.8	2,153.8	2,153.8	0.0
J	18,800	250	1,170	12.3	2,165.2	2,165.2	2,165.2	0.0
K	19,800	90	820	17.1	2,177.4	2,177.4	2,177.4	0.0
L	21,300	310	1,300	10.9	2,189.9	2,189.9	2,189.9	0.0
M	22,400	230	2,730	4.9	2,207.8	2,207.8	2,207.8	0.0
N	23,500	400	1,300	10.1	2,212.4	2,212.4	2,212.4	0.0
O	24,750	230	930	11.4	2,224.3	2,224.3	2,224.3	0.0
P	25,650	390	1,190	9.1	2,231.6	2,231.6	2,231.6	0.0
Q	26,450	390	1,170	9.3	2,239.6	2,239.6	2,239.6	0.0
R	27,550	870	1,460	6.9	2,248.6	2,248.6	2,248.6	0.0
S	28,550	670	1,280	7.9	2,260.4	2,260.4	2,260.4	0.0

¹Feet Above Confluence With San Gorgonio River

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERSIDE COUNTY, CA AND INCORPORATED AREAS	FLOODWAY DATA FLOODING SOURCE: SMITH CREEK

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Smith Creek West Tributary								
A	44,700	260	730	9.5	2,512.0	2,512.0	2,512.0	0.0
B	48,650	70	520	10.7	2,526.0	2,526.0	2,526.0	0.0
C	49,650	80	370	14.1	2,542.5	2,542.5	2,542.5	0.0
D	50,900	100	430	11.8	2,560.1	2,560.1	2,560.1	0.0
E	51,450	220	600	9.5	2,578.3	2,578.3	2,578.3	0.0
F	52,400	610	1,210	4.5	2,590.7	2,590.7	2,590.7	0.0

¹Feet Above Confluence With San Gorgonio River

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERSIDE COUNTY, CA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: SMITH CREEK WEST TRIBUTARY

Table 24: 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
South Norco Channel								
A								
B ³	400 ¹	77 ²	55 ²	3.1	566.6	566.6	566.6	0.0
C ³								
D	2,870 ¹	100	173	7.5	571.9	571.9	572.2	0.3
E	3,800 ¹	64	279	4.7	581.5	580.7	579.7	1.0
F	4,810 ¹	90	299	4.2	586.0	586.0	586.1	0.1
G	5,730 ¹	120	259	4.9	595.3	595.3	595.3	0.0
H	7,200 ¹	120	241	7.5	607.3	607.3	607.5	0.2
I	12,600 ¹	60	63	5.1	644.8	644.8	644.8	0.0
J	13,730 ¹	60	58	5.5	651.2	651.2	651.2	0.0
K	14,800 ¹	60	59	5.5	656.5	656.5	656.5	0.0
L	16,000 ¹	60	60	5.3	660.7	660.7	661.1	0.4
South Norco Channel Tributary A								
A	3,600 ⁴	104	663	0.9	601.2	601.2	602.2	1.0
B	4,615 ⁴	70	89	6.5	602.3	602.3	602.3	0.0
C	5,439 ⁴	68	107	5.4	610.8	610.8	610.8	0.0
D	6,983 ⁴	40	137	4.1	625.0	625.0	623.9	0.7

¹Feet Above Confluence With Temescal Wash

²Width Excluding Influence From Temescal Wash

³Data Not Available

⁴Feet Above Confluence With South Norco Channel

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERSIDE COUNTY, CA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCES: SOUTH NORCO CHANNEL - SOUTH NORCO CHANNEL TRIBUTARY A

Table 24: 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
South Norco Channel Tributary B E	4,055 ¹	80	138	4.4	707.1	707.1	707.2	0.1
Spring Brook Wash AC	14,286 ²	140	259	1.1	852.9	852.9	853.9	1.0
AD	15,435 ²	38	85	3.3	862.4	862.4	863.4	1.0
AE	16,234 ²	24	56	5.0	874.4	874.4	875.4	1.0

¹Feet Above Confluence With South Norco Channel

²Feet Above Dexter Drive

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERSIDE COUNTY, CA AND INCORPORATED AREAS	FLOODWAY DATA FLOODING SOURCES: SOUTH NORCO CHANNEL TRIBUTARY B - SPRING BROOK WASH
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Table 24: 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
Sun City Channel A-A								
A	2,990 ¹	95	537	5.0	1,412.7	1,412.7	1,413.4	0.7
B	4,900 ¹	200	1,021	2.2	1,416.0	1,416.0	1,417.0	1.0
C	6,200 ¹	120	1,698	3.2	1,416.1	1,416.1	1,417.1	1.0
D	8,100 ¹	300	1,626	1.4	1,419.1	1,419.1	1,420.1	1.0
E	9,100 ¹	250	1,071	1.1	1,419.3	1,419.3	1,420.3	1.0
F	10,100 ¹	40	199	6.0	1,419.3	1,419.3	1,420.3	1.0
Sun City Channel H-H								
A	3,050 ²	20	72	7.0	1,433.0	1,433.0	1,434.0	1.0
B	3,530 ²	30	100	5.0	1,436.4	1,436.4	1,437.4	1.0
C	3,900 ²	20	79	6.3	1,440.4	1,440.4	1,441.4	1.0
D	4,500 ²	10	46	10.9	1,445.1	1,445.1	1,446.1	1.0

¹Feet above confluence with Salt Creek

²Feet above confluence with Sun City Channel A-A

TABLE 24

**FEDERAL EMERGENCY MANAGEMENT AGENCY
RIVERSIDE COUNTY, CA
AND INCORPORATED AREAS**

FLOODWAY DATA

FLOODING SOURCES: SUN CITY CHANNEL A-A – SUN CITY CHANNEL H-H

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Sunnymead Storm Channel								
A	195	27	95	22.4	1,570.6	1,570.6	1,570.6	0.0
B	1,258	27	100	21.2	1,580.2	1,580.2	1,580.2	0.0
C	1,400	27	118	17.9	1,583.3	1,583.3	1,583.3	0.0
D	1,872	27	104	20.0	1,585.1	1,585.1	1,585.1	0.0
E	3,040	30	110	17.8	1,591.3	1,591.3	1,591.3	0.0
F	3,530	30	110	18.1	1,593.9	1,593.9	1,593.9	0.0
G	4,330	30	180	10.4	1,601.0	1,601.0	1,602.0	1.0
H	4,770	40	140	13.6	1,604.0	1,604.0	1,604.0	0.0
I	5,270	40	130	14.2	1,607.1	1,607.1	1,607.1	0.0
J	6,250	30	80	17.7	1,611.2	1,611.2	1,611.2	0.0
K	6,640	20	40	19.4	1,616.1	1,616.1	1,616.1	0.0
L	7,030	20	40	19.8	1,620.7	1,620.7	1,620.7	0.0
M	7,900	20	30	25.5	1,633.1	1,633.1	1,633.1	0.0
N	8,720	20	40	21.7	1,653.9	1,653.9	1,654.1	0.2
O	9,630	30	50	4.1	1,682.8	1,682.8	1,683.1	0.3

¹Feet Above Limit of Detailed Study

TABLE 24

FEDERAL EMERGENCY MANAGEMENT AGENCY

RIVERSIDE COUNTY, CA

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: SUNNYMEAD STORM CHANNEL

Table 24: 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
Sunnyslope Channel								
A	2,450 ¹	30	68	26.4	762.5	762.5	762.5	0.0
B	2,850 ¹	30	64	28.1	768.4	768.4	768.4	0.0
C	3,130 ¹	30	82	21.8	783.8	783.8	783.8	0.0
D	3,930 ¹	30	79	22.7	791.5	791.5	791.5	0.0
E	4,170 ¹	30	94	18.0	796.9	796.9	796.9	0.0
F	4,750 ¹	30	82	20.7	799.9	799.9	799.9	0.0
G	6,000 ¹	30	124	12.6	814.1	814.1	814.1	0.0
H	8,000 ¹	30	57	23.5	819.2	819.2	819.2	0.0
I	8,500 ¹	30	60	22.2	826.2	826.2	826.2	0.0
J	8,890 ¹	30	64	20.9	832.1	832.1	832.1	0.0
K	9,180 ¹	30	56	23.8	839.5	839.5	839.5	0.0
L	9,660 ¹	30	66	20.3	847.6	847.6	848.0	0.4
M	9,900 ¹	30	77	17.4	850.7	850.7	851.7	1.0
Tahquitz Creek								
F ³	500 ²							
G ³	1,850 ²							
A	4,000 ²	515	1,260	5.3	367.8	367.8	367.8	0.0
B	5,420 ²	560	1,243	5.4	374.9	374.9	375.6	0.7
C	7,000 ²	600 ⁴	1,419	5.6	382.7	382.7	382.9	0.2
D	8,600 ²	850	1,506	5.3	390.0	390.0	390.0	0.0
E	10,560 ²	220 ⁵	828	9.7	398.6	398.6	399.4	0.8

¹Feet Above Confluence With Rubidoux Creek

²Feet Above Mouth

³Shared With Palm Canyon Wash-See Palm Canyon Wash for Floodway and Base Flood Water Surface Elevation

⁴Width Lies Partially Within Agua Caliente Indian Reservation

⁵Width Lies Entirely Within Agua Caliente Indian Reservation

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERSIDE COUNTY, CA AND INCORPORATED AREAS	FLOODWAY DATA FLOODING SOURCES: SUNNYSLOPE CHANNEL - TAHQUITZ CREEK
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Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Temecula Creek								
A	0	240	4,380	8.2	990.3	990.3	991.3	1.0
B	700	220	4,050	8.9	990.6	990.6	991.6	1.0
C	1,450	1,070	12,660	2.8	992.2	992.2	993.2	1.0
D	2,275	800	3,249	11.1	993.0	993.0	993.0	0.0
E	3,075	766	5,678	6.3	998.0	998.0	998.1	0.1
F	3,855	350	4,462	8.1	1,002.5	1,002.5	1,002.5	0.0
G	4,716	675	6,111	5.9	1,010.2	1,010.2	1,010.4	0.2
H	5,981	625	7,491	4.8	1,015.5	1,015.5	1,016.3	0.8
I	6,501	700	5,470	6.6	1,016.3	1,016.3	1,016.9	0.6
J	7,121	800	3,140	11.5	1,020.4	1,020.4	1,020.7	0.3
K	8,371	825	4,712	7.6	1,027.8	1,027.8	1,028.5	0.7

¹Feet above Confluence With Murrieta Creek

TABLE 24

FEDERAL EMERGENCY MANAGEMENT AGENCY
RIVERSIDE COUNTY, CA
 AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: TEMECULA CREEK

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	9,160	1,320	4,750	8.6	552.2	552.2	552.2	0.0
B	10,010	930	5,310	7.4	555.8	555.8	556.3	0.5
C	10,945	1,200	5,000	8.7	560.0	560.0	560.2	0.2
D	12,160	970	4,336	8.7	566.5	566.5	566.5	0.0
E	12,925	217	2,431	13.6	571.5	571.5	571.5	0.0
F	14,710	150	1,559	18.6	574.2	574.2	574.2	0.0
G	15,650	125	1,027	28.2	574.8	574.8	574.8	0.0
H	16,410	125	1,025	28.3	579.2	579.2	579.2	0.0
I	17,245	125	1,026	28.3	583.6	583.6	583.6	0.0
J	17,950	127	1,086	26.7	587.9	587.9	587.9	0.0
K	19,160	127	1,101	26.3	594.3	594.3	594.3	0.0
L	20,070	127	1,117	26.0	598.4	598.4	598.4	0.0
M	21,160	130	1,236	23.5	605.0	605.0	605.0	0.0
N	30,915	110	1,263	19.3	655.4	655.4	655.4	0.0
O	32,565	867	8,828	2.8	662.0	662.0	662.0	0.0
P	33,385	580	4,382	5.6	662.1	662.1	662.1	0.0
Q	34,400	1,098	2,632	9.3	680.8	680.8	680.8	0.0
R	35,425	960	5,060	4.8	685.3	685.3	685.5	0.2
S	36,325	99	4,388	5.6	687.9	687.9	688.1	0.2
T	38,166	541	4,245	5.7	698.6	698.6	698.6	0.0
U	40,116	279	1,725	14.1	707.8	707.8	707.8	0.0
V	41,116	470	3,725	6.6	717.4	717.4	717.5	0.1
W	43,051	425	2,948	8.3	737.0	737.0	737.0	0.0
X	45,016	371	3,445	7.1	749.5	749.5	749.5	0.0
Y	46,166	599	4,652	5.2	756.1	756.1	756.1	0.0
Z	47,916	580	3,816	6.4	767.1	767.1	767.1	0.0

¹Feet above Confluence With Santa Ana River

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERSIDE COUNTY, CA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: TEMESCAL WASH

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Temescal Wash								
AA	49,916	231	2,345	10.4	786.3	786.3	787.0	0.7
AB	50,376	185	2,612	8.7	792.4	792.4	793.0	0.6
AC	51,226	274	4,004	6.1	797.5	797.5	798.4	0.9
AD	52,626	260	2,297	10.6	805.2	805.2	805.2	0.0
AE	53,676	200	2,073	11.8	812.1	812.1	812.4	0.3
AF	54,676	110	1,318	18.5	817.7	817.7	818.3	0.6
AG	55,576	194	1,699	14.4	831.7	831.7	832.3	0.6
AH	56,276	159	2,084	11.7	837.6	837.6	838.2	0.6
AI	57,550	111	1,345	18.1	844.9	844.9	845.1	0.2
AJ	58,573	160	1,994	9.7	851.4	851.4	851.8	0.4
AK	59,723	190	1,680	11.6	859.5	859.5	859.8	0.3
AL	61,013	790	3,031	6.4	872.8	872.8	873.0	0.2
AM	62,073	480	2,424	8.0	879.1	879.1	879.1	0.0
AN	63,173	269	2,260	8.6	884.7	884.7	884.8	0.1
AO	64,323	537	5,331	3.6	887.1	887.1	887.4	0.3
AP	65,323	286	1,476	13.1	891.0	891.0	891.0	0.0
AQ	66,473	743	2,731	7.1	902.2	902.2	902.4	0.2
AR	67,548	465	2,564	7.6	910.0	910.0	910.0	0.0
AS	68,448	315	1,986	9.8	916.8	916.8	916.8	0.0
AT	70,193	379	3,000	5.3	932.0	932.0	932.0	0.0
AU	71,893	290	1,305	12.2	937.2	937.2	937.2	0.0
AV	72,643	554	2,406	6.6	945.6	945.6	945.6	0.0
AW	74,155	243	1,736	9.0	959.0	959.0	959.6	0.6
AX	75,605	386	3,130	5.1	969.1	969.1	969.3	0.2
AY	76,855	689	3,643	4.4	971.3	971.3	972.1	0.8
AZ	78,955	410	1,861	8.5	987.7	987.7	987.7	0.0

¹ Feet Above Confluence With Santa Ana River

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERSIDE COUNTY, CA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: TEMESCAL WASH

Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Temescal Wash, continued								
BA	79,955	291	1,312	12.1	995.4	995.4	995.4	0.0
BB	80,955	390	2,108	7.5	1,004.3	1,004.3	1,004.3	0.0
BC	83,505	527	1,396	9.0	1,026.4	1,026.4	1,026.4	0.0
BD	84,655	464	2,681	4.7	1,039.2	1,039.2	1,040.0	0.8
BE	85,655	334	1,366	9.2	1,048.2	1,048.2	1,048.7	0.5
BF	86,895	415	2,550	4.9	1,061.9	1,061.9	1,061.9	0.0
BG	88,145	549	1,426	8.8	1,075.0	1,075.0	1,075.1	0.1
BH	89,095	302	1,805	6.9	1,093.5	1,093.5	1,093.5	0.0
BI	90,395	535	1,339	7.8	1,112.0	1,112.0	1,112.0	0.0
BJ	91,045	218	3,488	3.0	1,156.7	1,156.7	1,156.7	0.0
BK	91,945	904	17,276	0.6	1,156.9	1,156.9	1,156.9	0.0
BL	93,145	1,331	25,244	0.4	1,156.9	1,156.9	1,156.9	0.0
BM	94,945	665	4,808	2.2	1,156.9	1,156.9	1,155.9	-1.0
BN	95,795	612	3,599	2.9	1,157.6	1,157.6	1,157.7	0.1
BO	96,645	383	1,119	9.3	1,159.9	1,159.9	1,159.9	0.0
BP	100,145	541	2,188	4.8	1,172.8	1,172.8	1,172.9	0.1
BQ	101,245	492	2,379	4.4	1,175.5	1,175.5	1,175.8	0.3
BR	102,297	399	1,899	5.5	1,179.4	1,179.4	1,179.5	0.1
BS	104,686	769	2,645	3.9	1,191.2	1,191.2	1,191.4	0.2
BT	105,986	317	1,179	8.8	1,200.3	1,200.3	1,200.3	0.0
BU	106,936	423	2,176	4.8	1,205.6	1,205.6	1,206.3	0.7
BV	108,500	534	3,780	2.8	1,216.0	1,216.0	1,216.2	0.2
BW	109,400	590	3,402	3.1	1,217.2	1,217.2	1,217.5	0.3
BX	111,034	148	923	9.0	1,228.0	1,228.0	1,228.0	0.0
BY	112,034	96	952	8.7	1,230.8	1,230.8	1,231.7	0.9
BZ	113,184	257	2,343	3.5	1,233.5	1,233.5	1,233.9	0.4

¹Feet Confluence With Santa Ana River

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERSIDE COUNTY, CA AND INCORPORATED AREAS	FLOODWAY DATA
		FLOODING SOURCE: TEMESCAL WASH

Table 24: 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
Temescal Wash, continued								
CA	115,184 ¹	283	853	9.7	1,236.8	1,236.8	1,236.8	0.0
CB	116,134 ¹	286	1,144	7.3	1,245.9	1,245.9	1,245.9	0.0
CC	117,134 ¹	234	1,710	4.9	1,249.5	1,249.5	1,249.9	0.4
CD	118,084 ¹	280	1,619	4.3	1,251.6	1,251.6	1,252.3	0.7
CE	119,034 ¹	321	3,237	2.2	1,252.6	1,252.6	1,253.3	0.7
CF	120,034 ¹	249	1,832	3.8	1,253.2	1,253.2	1,253.9	0.7
CG	121,234 ¹	228	1,715	4.1	1,255.7	1,255.7	1,256.0	0.3
CH	122,234 ¹	225	2,184	3.2	1,257.0	1,257.0	1,257.3	0.3
CI	123,309 ¹	188	1,970	3.6	1,257.8	1,257.8	1,258.3	0.5
CJ	124,259 ¹	189	1,390	4.2	1,258.7	1,258.7	1,259.3	0.6
CK	125,131 ¹	261	2,579	2.2	1,259.7	1,259.7	1,260.4	0.7
CL	126,150 ¹	931	7,677	0.7	1,260.6	1,260.6	1,261.5	0.9
CM	128,750 ¹	1,114	13,262	0.3	1,260.6	1,260.6	1,261.5	0.9
CN	131,368 ¹	1,393	6,850	1.7	1,261.2	1,261.2	1,261.9	0.7
CO	134,924 ¹	189	965	2.9	1,262.6	1,262.6	1,263.0	0.4
Warm Spring Creek								
A	7,777 ²	255	1,468	6.5	1066.3	1066.3	1066.3	0.0
B	8,500 ²	175	1,285	7.5	1068.5	1068.5	1068.5	0.0

¹Feet Above Confluence With Santa Ana River

²Feet Above Confluence With Murrieta Creek

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERSIDE COUNTY, CA AND INCORPORATED AREAS	FLOODWAY DATA FLOODING SOURCES: TEMESCAL WASH - WARM SPRING CREEK
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Table 24: 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
West Cathedral Channel								
A	730 ¹	160	332	4.5	304.2	304.2	305.2	1.0
B	2,010 ¹	150	320	4.7	339.3	339.3	340.3	1.0
C	2,900 ¹	150	320	4.7	377.3	377.3	378.3	1.0
D	3,800 ¹	280	488	3.1	411.7	411.7	412.7	1.0
E	4,620 ¹	150	302	5.0	444.2	444.2	445.2	1.0
F	6,120 ¹	330	238	1.9	512.1	512.1	513.1	1.0
G	7,020 ¹	180	228	2.0	571.3	571.3	572.3	1.0
H	8,020 ¹	70	137	3.3	632.0	632.0	633.0	1.0
I	9,020 ¹	110	171	2.6	689.6	689.6	690.6	1.0
J	9,775 ¹	250	453	2.9	739.9	739.9	740.9	1.0
West Norco Channel								
A	1,170 ²	70	454	1.2	576.0	576.0	576.0	0.0
B	2,270 ²	120	368	1.0	576.1	576.1	576.1	0.0
C	3,010 ²	40	62	5.6	582.1	582.1	582.3	0.2
West Pershing Channel								
A	19,250 ³	20	30	21.8	2,565.2	2,565.2	2,565.2	0.0
B	20,150 ³	20	40	18.8	2,584.3	2,584.3	2,584.3	0.0

¹Feet Above Confluence With North Cathedral Channel
²Feet Above Confluence With Temescal Wash
³Feet Above Confluence With Smith Creek

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY RIVERSIDE COUNTY, CA AND INCORPORATED AREAS	FLOODWAY DATA FLOODING SOURCES: WEST CATHEDRAL CHANNEL - WEST NORCO CHANNEL - WEST PERSHING CHANNEL
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Table 24: Floodway Data, Continued

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Whitewater River								
A	190,742	442	3,311	14.2	309.4 ⁴	309.4	309.4	0.0
B	192,077	501	3,949	11.9	317.1 ⁴	317.1	317.1	0.0
C	192,662	690	5,179	9.1	319.8	319.8	319.8	0.0
D	193,650	710	- ³	- ³	323.6 ⁴	323.6	323.6	0.0
E	194,850	600 ²	3,597	13.1	331.0	331.0	331.0	0.0
F	195,990	750	5,511	8.5	337.7 ⁴	337.7	337.7	0.0
G	197,110	850	5,032	9.3	342.6 ⁴	342.6	342.6	0.0
H	198,230	930	4,810	9.8	348.6 ⁴	348.6	348.6	0.0
I	199,330	970	4,816	9.8	356.0	356.0	356.0	0.0
J	200,430	980	5,309	8.9	363.1	363.1	363.1	0.0
K	201,870	1,100	5,244	9.0	371.5 ⁴	371.5	371.5	0.0
L	202,970	1,190	5,163	9.1	379.2 ⁴	379.2	379.2	0.0
M	204,120	1,310	7,069	6.6	386.2 ⁴	386.2	386.2	0.0
N	205,220	1,405	6,548	7.2	391.5 ⁴	391.5	391.5	0.0
O	206,300	1,460 ²	4,222	11.1	400.5	400.5	400.5	0.0
P	207,320	1,585 ²	4,785	9.8	407.9	407.9	407.9	0.0
Q	208,340	1,640 ²	5,015	9.4	414.2	414.2	414.2	0.0
R	209,370	1,710	5,582	8.4	422.0 ⁴	422.0	422.0	0.0
S	210,430	1,710	5,688	8.3	429.8 ⁴	429.8	429.8	0.0
T	211,470	1,760	6,560	7.2	438.7 ⁴	438.7	438.7	0.0
U	212,525	1,780	6,223	7.7	446.2	446.2	446.2	0.0

¹Feet Above Mouth
²Lies Entirely Outside City Limits
³Data Not Available
⁴Channel Elevation Assuming Both Levees Hold

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	RIVERSIDE COUNTY, CA	
	AND INCORPORATED AREAS	FLOODING SOURCE: WHITEWATER RIVER

Table 25: 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 26: 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 31, “Map Repositories”).

6.5.1 Letters of Map Amendment

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

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

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

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

6.5.2 Letters of Map Revision Based on Fill

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

Information about obtaining an application for a LOMR-F can be obtained in the same manner as that for a LOMA, by visiting <http://www.fema.gov> for the “MT-1 Application Forms and

Instructions for Conditional and Final Letters of Map Amendment and Letters of Map Revision Based on Fill” or by calling the FEMA Map Information eXchange, toll free, at 1-877-FEMA MAP (1-877-336-2627). Fees for applying for a LOMR-F, if any, are listed in the “Flood Map-Related Fees” section.

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

6.5.3 Letters of Map Revision

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

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

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

**Table 27: Incorporated Letters of Map Change
[Not Applicable to this Flood Risk Project]**

6.5.4 Physical Map Revisions

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

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

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

6.5.5 Contracted Restudies

The NFIP provides for a periodic review and restudy of flood hazards within a given community. FEMA accomplishes this through a national watershed-based mapping needs assessment strategy,

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

6.5.6 Community Map History

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

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

The initial effective date for the Riverside County FIRMs in countywide format was 07/23/2008.

Table 28: Community Map History

Community Name	Initial Identification Date (First NFIP Map Published)	Initial FHBM Effective Date	FHBM Revision Date(s)	Initial FIRM Effective Date	FIRM Revision Date(s)
Agua Caliente Band of Chuilla Indian Reservation	05/01/85	--	--	05/01/85	08/28/08
Banning, City of	03/15/74	03/15/74	--	10/17/78	08/28/08
Beaumont, City of	04/05/74	04/05/74	--	10/17/78	08/18/14 08/28/08
Blythe, City of	05/10/74	05/10/74	--	06/30/76	08/28/08
Calimesa, City of	08/28/08	--	--	08/28/08	--
Canyon Lake, City of	11/20/96	--	--	11/20/96	08/18/14 08/28/08
Cathedral City, City of	05/01/85	--	--	05/01/85	08/28/08
Coachella, City of	05/17/74	05/17/74	--	09/30/80	08/28/08 04/26/83
Colorado River Indian Reservation	08/28/08	--	--	08/28/08	--
Corona, City of	05/24/74	05/24/74	--	05/15/78	08/28/08
Desert Hot Springs, City of	05/24/74	05/24/74	--	04/02/79	08/28/08
Eastvale, City of	08/28/08	--	--	08/28/08	--
Hemet, City of	05/24/74	05/24/74	--	09/29/78	08/28/08
Indian Wells, City of	06/28/74	06/28/74	--	09/14/79	08/28/08
Indio, City of	05/31/74	05/31/74	--	09/14/79	08/28/08
Jurupa Valley, City of	08/28/08	--	--	08/28/08	--
Lake Elsinore, City of	06/28/74	06/28/74	--	09/17/80	08/28/08
La Quinta, City of	06/19/85	--	--	06/19/85	08/28/08
Menifee, City of	08/28/08	--	--	08/28/08	08/18/14
Moreno Valley, City of	06/18/87	--	--	06/18/87	08/18/14 08/28/08
Murrieta, City of	04/15/80	--	--	04/15/80	08/28/08
Norco, City of	05/17/74	05/17/74	--	02/15/79	08/28/08
Palm Desert, City of	06/14/77	06/14/77	--	04/15/80	08/28/08
Palm Springs, City of	06/21/74	06/21/74	--	03/02/83	08/28/08
Perris, City of	09/06/74	09/06/74	--	04/16/79	08/18/14 08/28/08

Table 28: Community Map History, Continued

Community Name	Initial Identification Date (First NFIP Map Published)	Initial FHBM Effective Date	FHBM Revision Date(s)	Initial FIRM Effective Date	FIRM Revision Date(s)
Rancho Mirage, City of	09/14/79	--	--	09/14/79	08/28/08
Riverside, City of	07/19/74	07/19/74	--	01/06/83	08/28/08
Riverside County (Unincorporated Areas)	04/15/80	--	--	04/15/80	08/18/14 08/28/08
San Jacinto, City of	09/28/73	--	--	09/28/73	08/18/14 08/28/08
Temecula, City of	09/02/93	--	--	09/02/93	08/28/08
Wildomar, City of	08/28/08	--	--	08/28/08	--

-- Not Applicable

SECTION 7.0 – CONTRACTED STUDIES AND COMMUNITY COORDINATION

7.1 Contracted Studies

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

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

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
All Significant Flooding Sources Affecting the City of Norco	2/15/1979	Toups Corporation	H-3692	June 1977	Norco, City of
All Significant Flooding Sources Affecting the City of Banning	10/17/1978	Toups Corporation	H-3692	August 1977	Banning, City of
All Significant Flooding Sources Affecting the City of Hemet	9/29/1978	Toups Corporation	H-3692	July 1977	Hemet, City of

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

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
All Significant Flooding Sources Affecting the City of Indian Wells	1/19/1982	Toups Corporation	H-3692	February 1978	Indian Wells, City of
All Significant Flooding Sources Affecting the City of Indio	9/14/1979	Toups Corporation	H-3692	January 1978	Indio, City of
All Significant Flooding Sources Affecting the City of Lake Elsinore	9/17/1980	Toups Corporation	H-3692	November 1977	Lake Elsinore, City of
All Significant Flooding Sources Affecting the City of Rancho Mirage	9/14/1979	Toups Corporation	H-3692	January 1978	Rancho Mirage, City of
All Significant Flooding Sources Affecting the City of Riverside	1/6/1983	Cornell, Howland, Hayes & Merryfield, Clair A. Hill & Associates	H-1790	July 1973	Riverside, City of
All Significant Flooding Sources Except West Cathedral Channel	*	Toups Corporation	H-4032	August 1979	Palm Springs, City of
Coachella Valley Stormwater Channel (Whitewater River)	TBD	Northwest Hydraulic Consultants	Private Contract	March 2014	Coachella, City of
Coachella Valley Stormwater Channel (Whitewater River)	TBD	Northwest Hydraulic Consultants	Private Contract	March 2014	Indio, City of

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

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Coachella Valley Stormwater Channel (Whitewater River)	TBD	Northwest Hydraulic Consultants	Private Contract	March 2014	La Quinta, City of
Coachella Valley Stormwater Channel (Whitewater River)	TBD	Northwest Hydraulic Consultants	Private Contract	March 2014	Riverside County (Unincorporated Areas)
Dike 2	TBD	Pacific Advanced Civil Engineering (PACE) Inc.	Private Contract	September 2006	La Quinta, City of
Dike 4	TBD	PACE Inc.	Private Contract	June 2002	La Quinta, City of
Dike 4	TBD	PACE Inc.	Private Contract	June 2002	Riverside County (Unincorporated Areas)
La Quinta Evacuation Channel	*	Coachella Valley Water District	*	March 1984	Indio, City of
Lake Elsinore	*	USACE, Los Angeles District	*	1983	Riverside County (Unincorporated Areas)
Perris Valley Storm Drain	8/18/2014	Albert A. Webb Associates	Private Contract	May 2011	Moreno Valley, City of
Perris Valley Storm Drain	8/18/2014	Albert A. Webb Associates	Private Contract	May 2011	Perris, City of
San Jacinto River	8/18/2014	Albert A. Webb Associates	Private Contract	May 2011	Beaumont, City of
San Jacinto River	8/18/2014	Albert A. Webb Associates	Private Contract	May 2011	Canyon Lake, City of
San Jacinto River	8/18/2014	Albert A. Webb Associates	Private Contract	May 2011	Menifee, City of
San Jacinto River	8/18/2014	Albert A. Webb Associates	Private Contract	May 2011	Moreno Valley, City of

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

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
San Jacinto River	8/18/2014	Albert A. Webb Associates	Private Contract	May 2011	Riverside County (Unincorporated Areas)
San Jacinto River	8/18/2014	Albert A. Webb Associates	Private Contract	May 2011	San Jacinto, City of
Springbrook Wash, University Wash, Box Springs Wash, and Tequesquite Arroyo	*	Riverside County Flood Control and Water Conservation District and Dames & Moore	*	1980	Riverside, City of
Temecula Creek, Upstream of Pala Road	9/2/1993	McCutchan Company	*	*	Temecula, City of
Temescal Wash	*	Riverside County Flood Control District	*	1984	Corona, City of
Various Flooding Sources	4/15/1980	Anderson-Nichols & Co., Inc..	EMW-83 -C - 1164	*	Agua Caliente Band of Cahuilla Indian Reservation
Various Flooding Sources	5/1/1985	Toups Corporation	*	*	Agua Caliente Band of Cahuilla Indian Reservation
Various Flooding Sources	*	Toups Corporation	H-3692	November 1975	Agua Caliente Band of Cahuilla Indian Reservation
Various Flooding Sources	4/15/1980	Toups Corporation	H-3692	*	Cathedral City, City of
Various Flooding Sources	5/15/1978	Toups Corporation	H-3692	April 1977	Corona, City of
Various Flooding Sources	4/2/1979	Toups Corporation	H-3692	September 1977	Desert Hot Springs, City of
Various Flooding Sources	4/2/1979	Riverside County Flood Control and Water Conservation District	*	April 1985	Desert Hot Springs, City of

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

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Various Flooding Sources	4/2/1979	Anderson-Nichols & Co., Inc.	EMW-83-C-1164, Amendment No. M119-2	May 1985	Desert Hot Springs, City of
Various Flooding Sources	4/15/1980	Toups Corporation	*	*	La Quinta, City of
Various Flooding Sources	*	Bechtel Civil, Inc.	*	1990	La Quinta, City of
Various Flooding Sources	4/15/1980, Revised 5/1/84	Toups Corporation	H-3692	November 1975	Moreno Valley, City of
Various Flooding Sources	11/20/1996	Schaaf & Wheeler, Consulting Civil Engineers	EMW-90-C-3110	April 1994	Murrieta, City of
Various Flooding Sources	4/15/1980	Toups Corporation	H-3692	January 1978	Palm Desert, City of
Various Flooding Sources	4/16/1979	Toups Corporation	H-3692	September 1977	Perris, City of
Various Flooding Sources	4/16/1979	Toups Corporation	H-3692	September 1977	Perris, City of
Various Flooding Sources	*	Bechtel Corporation	*	1991	Rancho Mirage, City of
Various Flooding Sources	4/15/1980	Anderson-Nichols & Co., Inc.	EMW-83-C-1164	*	Riverside County (Unincorporated Areas)
Various Flooding Sources	*	Dames & Moore	*	1976 & 1977	Riverside, City of
Various Flooding Sources	9/28/1973	USACE, Los Angeles District	Inter-Agency Agreement No. IAA-H-15-72, Project Order No. 14	May 1973	San Jacinto, City of
Various Flooding Sources	*	Anderson-Nichols & Co., Inc.	EMW-83-C-1164	*	San Jacinto, City of

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

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Various Flooding Sources	4/15/1980	Anderson-Nichols & Co., Inc.	EMW-83-C-1164	*	Temecula, City of
Whitewater River	*	Coachella Valley Water District	*	March 1984	Indio, City of

*Data not available

7.2 Community Meetings

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

Table 30: Community Meetings

Community	FIS Report Dated	Date of Meeting	Meeting Type	Attended By
Banning, City of	10/17/78	03/18/76	Initial CCO Meeting	*
		05/04/77	Initial CCO Meeting	*
		09/14/77	Final CCO Meeting	*
	06/17/91	*	*	*
Beaumont, City of	10/17/78	03/18/76	Initial CCO Meeting	*
		05/04/77	Initial CCO Meeting	*
		09/14/77	Final CCO Meeting	*
Cathedral City, City of	05/01/85	06/23/82	Initial CCO Meeting	*
		02/17/84	Final CCO Meeting	*
	09/27/91	07/11/90	Final CCO Meeting	*
	06/18/96	10/25/89	Initial CCO Meeting	*
		10/25/94	Final CCO Meeting	*
	07/07/99	*	*	*
Corona, City of	05/15/78	03/19/76	Initial CCO Meeting	*
		11/17/76	Initial CCO Meeting	*
		04/28/77	Final CCO Meeting	*
	06/18/96	10/25/89	Initial CCO Meeting	*
		10/25/94	Final CCO Meeting	*
Desert Hot Springs, City of	04/02/79	03/17/76	Initial CCO Meeting	*
		07/08/77	Initial CCO Meeting	*
		05/02/78	Final CCO Meeting	*
	09/30/88	*	*	*

Table 30: Community Meetings, Continued

Community	FIS Report Dated	Date of Meeting	Meeting Type	Attended By
Hemet, City of	09/29/78	03/18/76	Initial CCO Meeting	*
		03/07/77	Initial CCO Meeting	*
		09/15/77	Final CCO Meeting	*
	08/04/88	*	*	*
	09/28/90	*	*	*
	08/19/97	*	*	*
Indian Wells, City of	09/14/79	09/15/77	Initial CCO Meeting	*
		03/17/76	Initial CCO Meeting	*
		09/29/77	Initial CCO Meeting	*
		11/01/77	Initial CCO Meeting	*
		12/07/77	Initial CCO Meeting	*
	01/19/82	*	*	*
	11/19/87	*	*	*
08/02/90	*	Initial CCO Meeting	*	
Indio, City of	09/14/79	03/17/76	Initial CCO Meeting	*
		03/08/77	Final CCO Meeting	*
		09/28/79	Final CCO Meeting	*
	05/01/85	*	*	*
La Quinta, City of	06/19/85	04/01/84	Initial CCO Meeting	*
		07/12/84	Final CCO Meeting	*
	08/19/91	*	*	*
Lake Elsinore, City of	09/17/80	03/22/76	Initial CCO Meeting	*
		07/18/77	Initial CCO Meeting	*
		10/23/78	Final CCO Meeting	*
	06/18/96	10/25/89	Initial CCO Meeting	*
		10/25/94	Final CCO Meeting	*
	08/18/03	*	*	*

Table 30: Community Meetings, Continued

Community	FIS Report Dated	Date of Meeting	Meeting Type	Attended By
Moreno Valley, City of	06/18/87	12/01/85	Initial CCO Meeting	*
		07/02/86	Final CCO Meeting	*
	05/17/93	*	*	*
Murrieta, City of	11/20/96	10/25/89	Initial CCO Meeting	*
		10/25/94	Final CCO Meeting	*
Norco, City of	02/15/79	03/19/76	Initial CCO Meeting	*
		11/17/76	Initial CCO Meeting	*
		05/02/77	Final CCO Meeting	*
Palm Desert, City of	04/15/80	03/17/76	Initial CCO Meeting	*
		09/29/77	Initial CCO Meeting	*
		11/01/77	Initial CCO Meeting	*
		11/21/77	Initial CCO Meeting	*
		12/01/77	Initial CCO Meeting	*
		12/27/77	Initial CCO Meeting	*
	09/28/78	Final CCO Meeting	*	
	09/04/86	*	*	*
06/18/96	10/25/89	Initial CCO Meeting	*	
	10/25/94	Final CCO Meeting	*	
Palm Springs, City of	03/02/83	08/04/78	Initial CCO Meeting	*
		09/09/80	Final CCO Meeting	*
	06/18/96	10/25/89	Initial CCO Meeting	*
		10/25/94	Final CCO Meeting	*
07/07/99	*	*	*	
Perris, City of	04/16/79	03/22/76	Initial CCO Meeting	*
		07/07/77	Initial CCO Meeting	*
		05/30/78	Final CCO Meeting	*
	07/02/92	*	*	*

Table 30: Community Meetings, Continued

Community	FIS Report Dated	Date of Meeting	Meeting Type	Attended By
Rancho Mirage, City of	09/14/79	03/17/76	Initial CCO Meeting	*
		09/29/77	Initial CCO Meeting	*
		11/01/77	Initial CCO Meeting	*
		11/21/77	Initial CCO Meeting	*
		12/07/77	Initial CCO Meeting	*
		12/27/77	Initial CCO Meeting	*
		09/27/78	Final CCO Meeting	*
	06/18/96	10/25/89	Initial CCO Meeting	*
		10/25/94	Initial CCO Meeting	*
Riverside, City of	01/06/83	02/18/81	Final CCO Meeting	*
	08/02/96	*	*	*
Riverside County (Unincorporated Areas)	04/15/80	12/10/74	Initial CCO Meeting	*
		12/12/74	Initial CCO Meeting	*
		01/22/76	Final CCO Meeting	*
	03/22/83	*	*	*
	09/30/88	07/12/84	Initial CCO Meeting	*
		03/01/85	Initial CCO Meeting	*
	11/20/96	10/25/89	Initial CCO Meeting	*
		10/25/94	Final CCO Meeting	*
08/18/03	*	*	*	
San Jacinto, City of	04/15/80	12/10/74	Initial CCO Meeting	*
		12/12/74	Initial CCO Meeting	*
	05/17/90	*	*	*
Temecula, City of	09/02/93	04/01/92	Initial CCO Meeting	*
	11/20/96	10/25/89	Initial CCO Meeting	*
		10/25/94	Final CCO Meeting	*

*Data Not Available

SECTION 8.0 – ADDITIONAL INFORMATION

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

The additional data that was used for this project includes the FIS Report and FIRM that were previously prepared for Riverside County.

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

Table 31: Map Repositories

Community	Address	City	State	Zip Code
Agua Caliente Band of Cahuilla Indian Reservation	Tribal Administrative Office 5401 Dinah Shore Drive	Palm Springs	CA	92264
Banning, City of	Public Works Department 99 East Ramsey Street	Banning	CA	92220
Beaumont, City of	Civic and Community Center 550 East 6th Street	Beaumont	CA	92223
Blythe, City of	Building and Safety 235 North Broadway	Blythe	CA	92225
Calimesa, City of	Planning Department 908 Park Avenue	Calimesa	CA	92320
Canyon Lake, City of	City Hall 31516 Railroad Canyon Road	Canyon Lake	CA	92587
Cathedral City, City of	City Hall 68-700 Avenida Lalo Guerrero	Cathedral City	CA	92234
Coachella, City of	Community Development Department 1515 6th Street	Coachella	CA	92236
Colorado River Indian Tribe	Water Resources Department 26600 Mohave Road	Parker	AZ	85344
Corona, City of	City Hall 400 South Vicentia Avenue	Corona	CA	92882
Desert Hot Springs, City of	Planning Department 65-950 Pierson Boulevard	Desert Hot Springs	CA	92240
Eastvale, City of	City Hall – Public Works Department 12363 Limonite Avenue Suite 910	Eastvale	CA	91752
Hemet, City of	Engineering Department 510 East Florida Avenue	Hemet	CA	92543

Table 31: Map Repositories, Continued

Community	Address	City	State	Zip Code
Indio, City of	Engineering Department 100 Civic Center Mall	Indio	CA	92201
Indian Wells, City of	Public Works 44-950 Eldorado Drive	Indian Wells	CA	92210- 7497
Jurupa Valley, City of	City Hall 8304 Limonite Avenue, Suite M	Jurupa	CA	92509
Lake Elsinore, City of	Engineering Division 130 South Main Street	Lake Elsinore	CA	92530
La Quinta, City of	City Hall - Community Development Department 78-495 Calle Tampico	La Quinta	CA	92253
Menifee, City of	Public Works/Engineering 29714 Haun Road	Menifee	CA	92586
Moreno Valley, City of	Public Works Department 14177 Frederick Street	Moreno Valley	CA	92552
Murrieta, City of	Public Works and Engineering 1 Town Square	Murrieta	CA	92562
Norco, City of	City Hall 2870 Clark Avenue	Norco	CA	92860
Palm Desert, City of	Department of Public Works 73-510 Fred Waring Drive	Palm Desert	CA	92260
Palm Springs, City of	Public Works and Engineering Department 3200 East Tahquitz Canyon Way	Palm Springs	CA	92262
Perris, City of	Engineering Department 120 North Perris Boulevard	Perris	CA	92570
Rancho Mirage, City of	Rancho Mirage City Hall 69-825 Highway 111	Rancho Mirage	CA	92270
Riverside, City of	Public Works 3900 Main Street 4th Floor	Riverside	CA	92522
Riverside County (Unincorporated Areas)	Riverside County Flood Control and Water Conservation District 1995 Market Street	Riverside	CA	92502
San Jacinto, City of	166 East Main Street Suite #2	San Jacinto	CA	92583
Temecula, City of	Temecula City Hall - Public Works Department 41000 Main Street	Temecula	CA	92590
Wildomar, City of	City Hall 23873 Clinton Keith Road Suite 201	Wildomar	CA	92595

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

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

Table 32: Additional Information

FEMA and the NFIP	
FEMA and FEMA Engineering Library website	http://www.fema.gov
NFIP website	http://www.fema.gov/national-flood-insurance-program
NFHL Dataset	http://msc.fema.gov
FEMA Region IX	Federal Regional Center, 505 14th Street, Suite 810, Oakland, CA 94612 (510) 879-0958
Other Federal Agencies	
USGS website	http://www.usgs.gov
Hydraulic Engineering Center website	http://www.hec.usace.army.mil
State Agencies and Organizations	
State NFIP Coordinator	James Eto California Dept. of Water Resources 3464 El Camino Avenue Suite 200 Sacramento, CA 95821 916-574-1409 jeto@water.ca.gov
State GIS Coordinator	David Harris Agency Information Officer California Resources Agency 1416 Ninth Street, Room 1311 Sacramento, CA 95814 (916) 445-5088 david.harris@resources.ca.gov

SECTION 9.0 – BIBLIOGRAPHY AND REFERENCES

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

Table 33: Bibliography and References

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/Date of Issuance	Link
Airborne 1 2010	Airborne 1	Light Detection and Ranging (LiDAR) Digital Data for the Coachella Valley Stormwater Channel Project	*	*	2010	
ASCE 1979	ASCE Journal of the Hydraulics Division, Vol 105, No V	"Flood Frequency Estimates on Alluvial Fans,"	Dawdy, D.R.	*	November 1979	
CADWR 1975	California Department of Water Resources	Bulletin 183-2, Riverside County Flood Hazard Investigation-Murrieta Creek	*	*	May 1975	
Dames 1982	Dames & Moore for the Federal Emergency Management Agency	Computer Program for Determining Flood Depths and Velocities on Alluvial Fans	Harty, D.S.	*	December 1982	
FEMA 1980	Federal Emergency Management Agency	Flood Insurance Study, Riverside County, California (Unincorporated Areas	*	*	April 1980	
FEMA 1982	Federal Emergency Management Agency	Flood Insurance Study, City of Palm Springs, California	*	*	September 1982	
FEMA 1985	Federal Emergency Management Agency	Flood Insurance Study, City of Indio, California	*	*	May 1985	

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/Date of Issuance	Link
FEMA 2012	Federal Emergency Management Agency	Light Detection and Ranging (LiDAR Digital Data	*	*	2012	
FEMA 2013	Federal Emergency Management Agency	Operating Guidance 12-13, Non-Accredited Levee Analysis and Mapping Guidance	*	*	2013	
HUD 1974	U.S. Department of Housing and Urban Development, Federal Insurance Administration	Flood Hazard Boundary Map, City of Hemet, California, Scale 1:12,000	*	*	1974	
HUD 1978	U.S. Department of Housing and Urban Development, Federal Insurance Administration	Flood Insurance Study, City of Corona, California	*	*	1978	
HUD 1979	U.S. Department of Housing and Urban Development, Federal Insurance Administration	Alluvial Fan Special Flood Hazard Zone Mapping	*	*	July 1979	

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/Date of Issuance	Link
HUD 1980	U.S. Department of Housing and Urban Development, Federal Insurance Administration	Flood Insurance Study, City of Lake Elsinore, California	*	*	1980	
HUD May 1974	U.S. Department of Housing and Urban Development, Federal Insurance Administration	Flood Hazard Boundary Map, City of Corona, California, Scale 1:12,000	*	*	May 1974, revised April 1977	
Inland 2009	Inland Aerial Surveys, Inc.	San Jacinto Watershed Contours and Spot Elevations Derived from LiDAR Surface	*	Riverside, California	August 9, 2015	
Musser 1991	Musser Engineering Consultants, Inc	Floodplain Map	*	*	March 1991	
PACE 2002	Pacific Advanced Civil Engineering (PACE)	Technical Memorandum for West Dike System, Dike No 4 Storage Analysis	*	*	2002	
PACE 2006	Pacific Advanced Civil Engineering (PACE)	West Dike System--Dike No 2 Storage Analysis	*	*	2006	

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/Date of Issuance	Link
Philip 1975	Philip Abrams, Consulting Engineers	Study of Benefit Assessments Resulting from Whitewater and Cabazon Dams	*	*	December 1975	
RCFCD 1968, 1972	Riverside County Flood Control District	Topographic Maps, Scale 1:2,400, Contour Intervals 4 and 5 feet	*	Riverside County, California,	May 1968 and November 1972	
RCFCD 1974	Riverside County Flood Control District	Orthophoto Flood Zone Boundary Maps, Scale 1:2,400, Contour Interval 4 feet	*	Riverside County, California,	1974	
RCFCW CD 1966	Riverside County Flood Control and Water Conservation District	Topographic Maps, Scale 1:2,400, Contour Interval 4 feet	*	Riverside County, California,	January 1966, May 1968, Dececeember 1971, November 1972, June 1982	
RCFCW CD 1973, 1974	Riverside County Flood Control and Water Conservation District	Topographic Maps, Scale 1:2,400, Contour Intervals 4 and 5 feet	*	Riverside County, California,	1973 and 1974	
RCFCW CD 1978	Riverside County Flood Control and Water Conservation District	Hydrology Manual	*	Riverside County, California,	April 1978	

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/Date of Issuance	Link
RCFCW CD 1980	Riverside County Flood Control and Water Conservation District	Topographic Maps, Scale 1:2,400, Contour Interval 4 feet	*	Riverside County, California,	June 1980	
RCFCW CD 1982	Riverside County Flood Control and Water Conservation District	Topographic Maps, Scale 1:2,400, Contour Intervals 2 and 4 feet	*	Riverside County, California,	October 1982	
RCFCW CD 1986	Riverside County Flood Control and Water Conservation District	Kitching Street Channel Project No 4-0-280, as-built plans	*	Riverside County, California,	July 1986	
RCFCW CD 2007	Riverside County Flood Control and Water Conservation District	Light Detection and Ranging (LiDAR Digital Data)	*	Riverside County, California,	2007	
RCFCW CD Unpublished	Riverside County Flood Control and Water Conservation District	Information. Correspondence.	*	Riverside County, California,	Unpublished	

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/Date of Issuance	Link
Tetra Tech 2012	Tetra Tech	San Jacinto River Levee System: County of Riverside, California, Levee Certification Report	*	*	April 12, 2015	
URA 1972	Urbanonics Research Associates	Riverside County Population Projection 1970-1990	*	*	1972	
USACE 1970	U.S. Army Corps of Engineers	Floodplain Information, San Jacinto River (San Jacinto River to Railroad Canyon)	*	*	May 1970	
USACE 1971	U.S. Army Corps of Engineers, Los Angeles District	Floodplain Information, Salt Creek, Hemet to Railroad Canyon Reservoir, Riverside County, California	*	*	June 1971	
USACE 1973	U.S. Army Corps of Engineers, Hydrologic Engineering Center.	HEC-2 Water-Surface Profiles, Generalized Computer Program, User's Manual	*	*	October 1973	
USACE 1975	U.S. Army Corps of Engineers, Los Angeles	Review Report on the Santa Ana River Main Stem (Including Santiago Creek and Oak Street Drain)	*	*	December 1975	
USACE 1978	U.S. Army Corps of Engineers, Los Angeles District	Report on Floods of February and March of 1978 in Southern California	*	*	November 1978	

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/Date of Issuance	Link
USACE 1980	U.S. Army Corps of Engineers, Los Angeles District, California.	Whitewater River Basin, Feasibility Report for Flood Control and Allied Purposes, San Bernardino and Riverside Counties, California, Appendix 1, Hydrology	*	*	May 1980	
USACE 1999	U.S. Army Corps of Engineers, Hydrologic Engineering Center.	HEC-5, Reservoir System Operations for Flood Control, Version 8.0	*	Davis, California	May 1999	
USACE June 1973	U.S. Army Corps of Engineer	Floodplain Information, San Gorgonio River and Smith Creek,	*	Riverside County, California	June 1973	
USACE May 1973	U.S. Army Corps of Engineers, Los Angeles District	Flood Insurance Study, San Jacinto, California	*	Unpublished	May 1973	
USGS 1970	U.S. Department of the Interior, Geological Survey	Water-Supply Paper 1685, Magnitude and Frequency of Floods in the United States, Part 2, Pacific Slope Basins in California, Volume 1	A O Waanen	*	August 1970	
USGS 1973	U.S. Department of the Interior, Geological Survey	7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Intervals 20 and 40 feet	*	Riverside County, California,	1973	

Table 33: Bibliography and References, Continued

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/Date of Issuance	Link
USGS 1974	U.S. Department of the Interior, Geological Survey	Flood-Prone Area Map	*	Sunnymead	1974	
USGS 1977	U.S. Department of the Interior, Geological Survey	Water Resources Investigation 77-21, Magnitude and Frequency of Floods in California	*	*	June 1977	
USGS 1993	USGS	Methods for Estimating the Magnitude and Frequency of Floods in the Southwestern United States, USGS Open File Report 93-419	B. E. Thomas, et al.	*	1993	
USGS February 1974	U.S. Department of the Interior, Geological Survey	Digital Simulation of the Effects of Urbanization on Runoff in the Upper Santa Ana Valley, California	*	*	February 1974	
Webb 2011	Albert A. Webb Associates	Application for a Letter of Map Revision (LOMR)	*	Riverside, California	2011	
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	Butterfield Engineering and Surveys Co and Robert J Lung and Associates	Topographic Maps. Scale 1:2,400, Contour Interval 20 feet with 4-foot subdivisions, supplied by the	*	City of Lake Elsinore	November 1987	
	California Department of Water Resources	Water Conditions and Flood Events in California Water Year 1976-77, Bulletin 202-77	*	*	September 1978	
	Chow, Ven Te	Computation of "n" values Using Cowan's Method, Chapter 5, Open Channel Hydraulics	*	McGraw-Hill	1959	
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	Federal Emergency Management Agency	Flood Insurance Study, City of Riverside, California	*	*	1983	
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	Riverside County Department of Public Utilities	Street Lighting Plans, Parcel Map No 156	*	Riverside, California	1974	
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	Riverside County Flood Control District	Box Springs Master Drainage Plan.	*	Riverside, California.		
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	Riverside County Flood Control District	Box Springs Drain, Stage III	*	Riverside County, California,	1975	
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	U.S. Army Corps of Engineers, Los Angeles District, California.	Whitewater River Basin, Feasibility Report for Flood Control, Palm Desert and La Quinta, Riverside County, California, Stage III, Appendix A, Hydrology	*	*	June 1983	
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