APPENDIX N

Water Quality Assessment Report

The CV Link
Coachella Valley, Riverside County
Along the Whitewater River from Palm Springs to Coachella
Federal Project No. ATPL 6164 (022)
District 8 – Riverside County – 111-54.955

Prepared by

Stantec
46 Discovery, Suite 250
Irvine, CA 92618

September, 2016

Water Quality Assessment Report

The CV Link

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September 2016

STATE OF CALIFORNIA
Department of Transportation

Prepared By: _____ Date: 9/2/16

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The environmental review, consultation, and any other action required in accordance with applicable Federal laws for this project is being, or has been, carried-out by Caltrans under its assumption of responsibility pursuant to 23 USC 327.

Executive Summary

The purpose of the Water Quality Assessment Report (WQAR) is to fulfill the requirements of the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA), and provide information, to the extent possible, for the National Pollution Discharge Elimination System (NDPES) permitting.

This WQAR includes a discussion of the proposed project, the physical setting of the project area, and the regulatory framework with respect to water quality. It also includes data on surface water and groundwater resources within the project area and their water quality health, describes water quality impairments and beneficial uses, identifies potential water quality impacts/benefits associated with the proposed project, and recommends avoidance and/or minimization measures for potentially adverse impacts.

The CV Link (Project) is an innovative transportation alternative to the major arterial system within the Coachella Valley. It will allow bicycles, pedestrians, and low-speed electric vehicles (25 mph or less) to share a common pathway, approximately 58 miles long, mostly on top of the levee along the Whitewater River from Palm Springs to Coachella. The pathway will start from the Palm Springs Visitor Center through Palm Springs, Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, La Quinta, Indio and ends in Coachella. A spur off of the main pathway is aligned along Tahquitz Creek.

The project is within the Whitewater Watershed of the Colorado River Basin (Region 7). Its receiving waters are the Chino Canyon Creek, Tahquitz Creek Channel, Tahquitz Creek, Palm Canyon Channel, Cathedral Canyon Channel West, San Pasqual Channel, Whitewater River Channel (Coachella Valley Stormwater Channel) and stormwater runoff ultimately discharges to the Salton Sea. The Coachella Valley Stormwater Channel is listed as being impaired for DDT (Dichlorodiphenyltrichloroethane), Dieldrin, Nitrogen, ammonia (Total Ammonia), PCBs (Polychlorinated biphenyls), Toxaphene, Toxicity and Indicator Bacteria under Section 303(d) of the Clean Water Act (CWA). Total Maximum Daily Loads (TMDLs) for those pollutants listed above are in place for the Coachella Valley Stormwater Channel.

Since the proposed project is a common pathway for pedestrians, bikers and low-speed electric vehicles, potential impacts such as trash and debris could affect water quality.

Coachella Valley Association of Governments (CVAG) is the project sponsor and will be the leading agency for the California Environmental Quality Act (CEQA) document. California Department of Transportation (Caltrans) will be the sponsoring agency for the National Environmental Protection Act (NEPA) document, through its authority from the Federal Highway Administration.

The Project is divided into two types of improvements: pathway and access/staging points.

The pathway, in accordance with the Colorado River Basin Region NPDES Permit (NPDES No. CAS617002), is not a Priority Development project. Therefore, the pathway, in the absence of

post-construction Best Management Practices (BMPs), is in compliance with the NPDES Permit, and treatment BMPs are not required.

The access/staging points, in some instances, may consist of parking areas that exceed 5,000 sf in size or have more than 25 parking spaces. For these locations along the pathway, water quality requirements will be assessed in accordance with the NPDES Permit and water quality mitigation measures will be developed, including the preparation of a Water Quality Management Plan (WQMP) that specifies Best Management Practices (BMPs), if necessary.

A Stormwater Pollution Prevention Plan (SWPPP), which is prepared for projects greater than 1 acre, will be prepared and implemented during construction of the proposed project. The SWPPP identifies specific best management practices (BMPs) that will be implemented during project construction. BMPs implemented as a part of the project would meet the requirements of the California State Water Resources Control Board (SWRCB) NPDES Construction General Permit and the Caltrans NPDES Permit.

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1. INTRODUCTION

1.1 Project Description

The CV Link (Project) is an innovative transportation alternative to the major arterial system within the Coachella Valley. It will allow bicycles, pedestrians, and low-speed electric vehicles (25 mph or less) to share a common pathway, approximately 58 miles long, mostly on top of the levee along the Whitewater River from Palm Springs to Coachella. The pathway will start from the Palm Springs Visitor Center through Palm Springs, Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, La Quinta, Indio and ends in Coachella. A spur off of the main pathway is aligned along Tahquitz Creek.

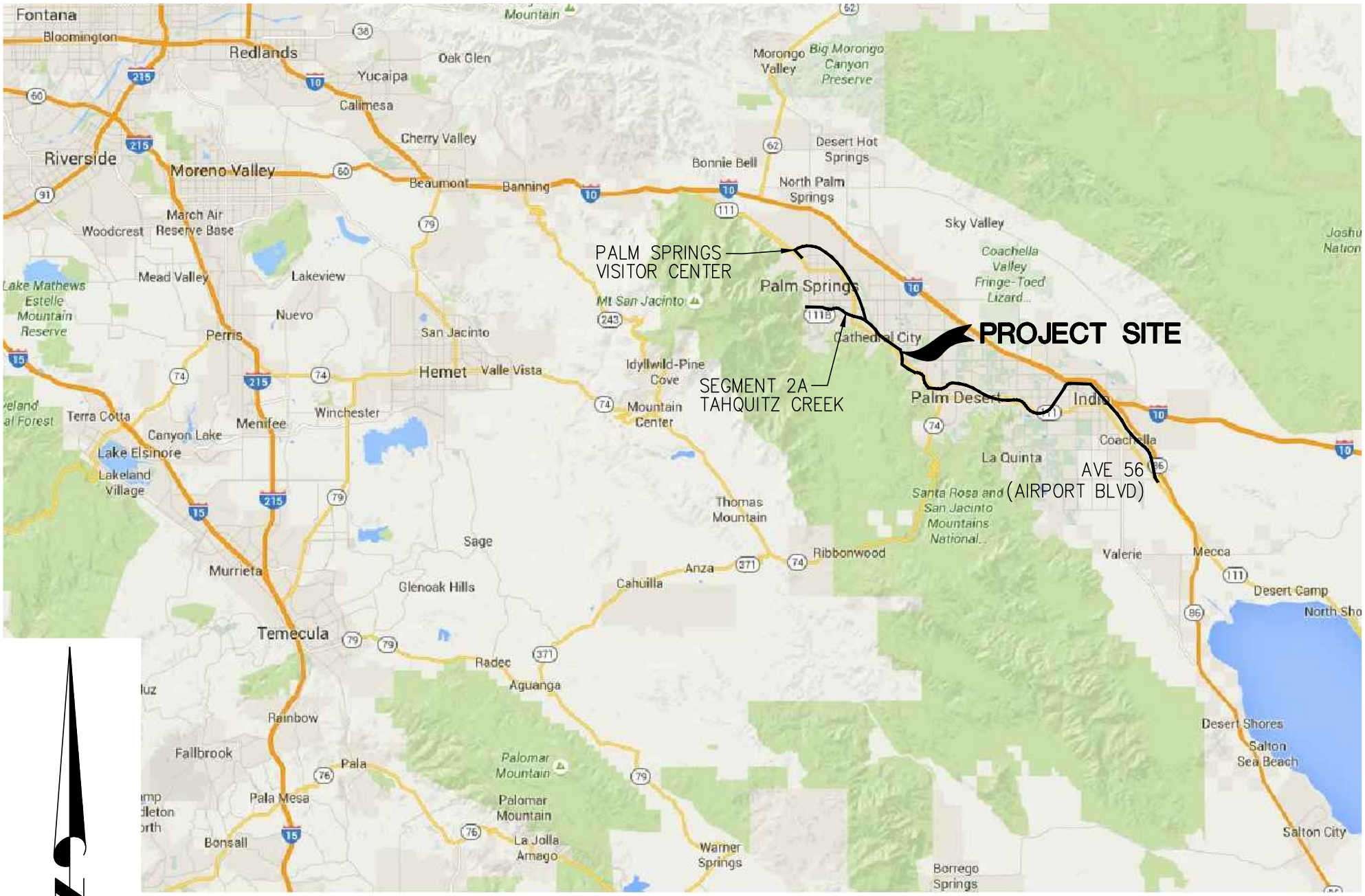
The purpose of the project is to alleviate congestion along Highway 111, which results in improved air quality; creates a tourist amenity, and promotes a safe avenue for an active and healthy lifestyle.

Runoff from the project site will discharge to the receiving waters. The receiving waters are the Chino Canyon Creek, Tahquitz Creek Channel, Tahquitz Creek, Palm Canyon Channel, Cathedral Canyon Channel West, San Pasqual Channel, Whitewater River Channel (Coachella Valley Stormwater Channel) and stormwater runoff ultimately discharges to the Salton Sea. The total disturbed surface area of the proposed project is approximately 279 acres, with 69% imperviousness and 31% perviousness.

A Risk Level Assessment was conducted based on the location at the beginning of the pathway, which is the Palm Springs Visitor Center (Latitude: 33.85833, Longitude: -115.44194). Construction is expected to commence in December 2017 and be completed in December 2020. Based on the EPA's LEW Calculator, it was determined that the R-factor is 29.07. Based on the GIS maps provided by the State Water Board, the K factor is 0.37 and LS factor is 1.61, which are the largest values for which the pathway lies. The watershed erosion estimate is 17.32 tons/acre. Site Sediment Risk Factor is Medium. The receiving waters are Chino Canyon Creek, Tahquitz Creek Channel, Tahquitz Creek, Palm Canyon Channel, Cathedral Canyon Channel West, San Pasqual Channel and Whitewater River Channel (Coachella Valley Stormwater Channel); none of which that have a receiving water risk. The Receiving Water Risk Factor is Low. The project combined risk is Risk Level 2. See Figures 1 and 2 for Project Location and Project Vicinity.

1.1.1 No Build Alternative

Under the No Build Alternative, the proposed project improvements would not be incorporated at the project site. The 58 mile long common pathway for bikers, pedestrians and low-speed electric vehicles would not be implemented throughout the Coachella Valley, and the project objective of alleviating congestion along Highway 111 would not be achieved under this alternative.



SOURCE: GOOGLE MAPS

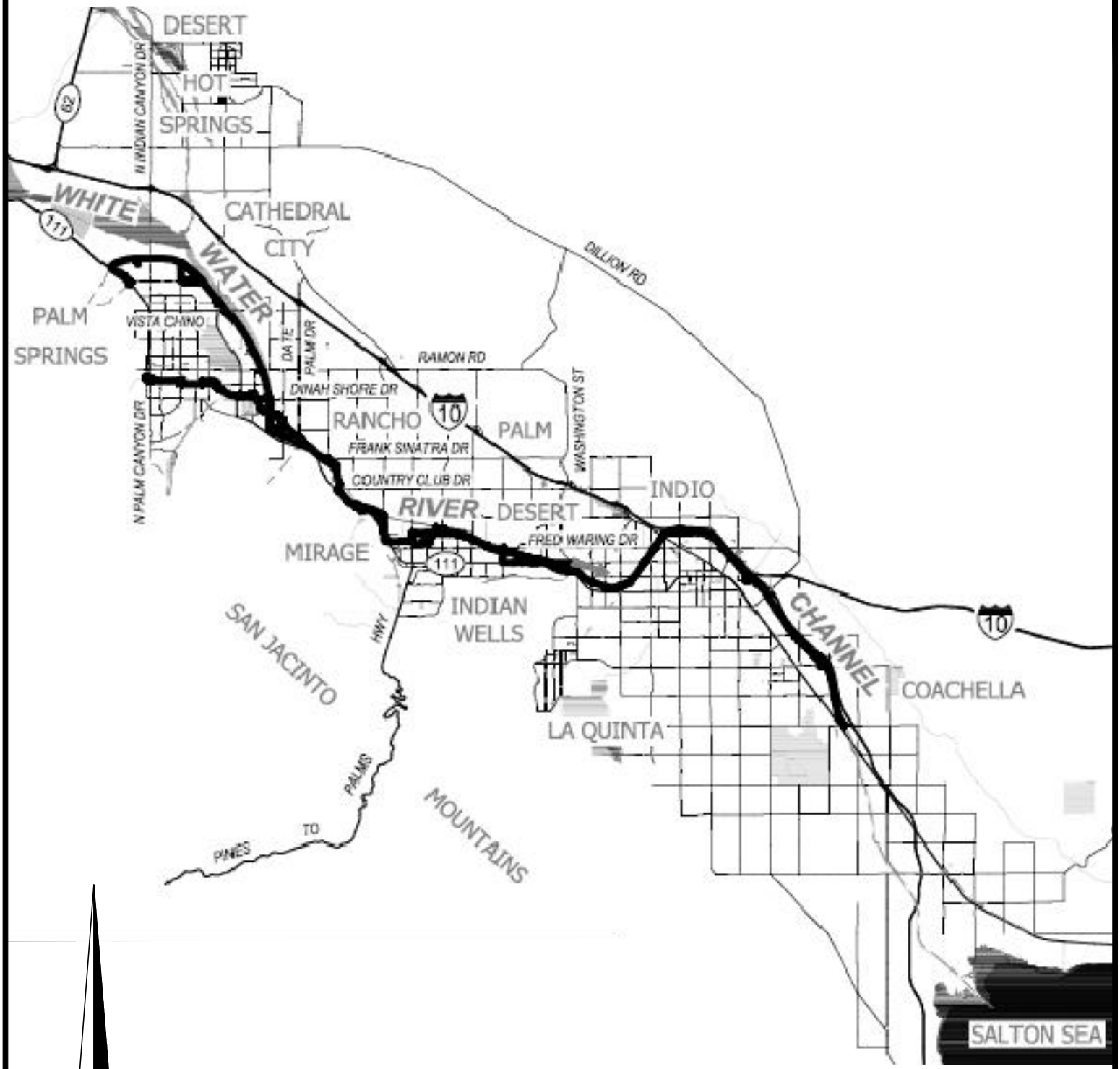
N.T.S.

Stantec

CV LINK
LOCATION MAP

DATE
6/16

FIGURE
1



N.T.S.

Stantec

CV LINK

VICINITY MAP

DATE
6/16

FIGURE
2

DWG: V:\2065\active\2065000219\Eng\CAD\Exhibits\EXH08-Vicinity Map\2065000219-EXH08-Vicinity Map.dwg BY: ccooke Jun 08, 2016 - 2:28:33pm

Although the No Build Alternative would avoid temporary operational impacts associated with construction of the proposed project, the No Build Alternative would not achieve its objective to create a safe, continuous route throughout the Coachella Valley, as well as improve air quality. The No Build Alternative will also prevent the community from uniting at a common location that is easily accessible. Currently, the storm water runoff does not pass through any best management practices (BMPs) prior to discharging into the receiving waters; therefore, the No Build Alternative would not treat the storm water runoff and remove any of its pollutants.

1.1.2 Build Alternative 1

The project proposes approximately a 58 mile long common pathway for pedestrians, bikers and low-speed electric vehicles on top of the levee along the Chino Canyon Creek, Whitewater River, Tahquitz Creek Channel and Tahquitz Creek from Palm Springs to Coachella. The project is divided up into 11 segments consisting of alignments: Segment 1, Segment 2, Segment 2A (Tahquitz Creek), Segment 3, Segment 4, Segment 5, Segment 6, Segment 7, Segment 8, Segment 9 and Segment 10, all of which run through Palm Springs, Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, La Quinta, Indio and Coachella. Access points, rest areas, benches, restrooms, bridges and under crossings are placed sporadically throughout the route. Build Alternative 1 will include all the alignments as well as alignment CL 4-3 to 7-2, which lies on the levee along the Whitewater River Channel. The estimated total disturbed soil area (DSA) for Build Alternative 1 is 234 acres. Refer to Figures 3 to 3k.

1.1.3 Build Alternative 2

Build Alternative 2 will have a majority of the same alignments as Build Alternative 1. The difference is that Build Alternative 2 will include the alignment CL 6-2a to 7-2a, not CL 4-3 to 7-2. Alignment CL 6-2a to 7-2a is approximately 4871 feet long and is on the channel side of the levee, adjacent to Four Seasons. The estimated total disturbed soil area (DSA) for Build Alternative 2 is 312 acres. Refer to Figures 3 to 3k for alignment depictions.

1.1.4 Build Alternative 3

Build Alternative 3 will have a majority of the same alignments as Build Alternative 1. The difference is that Build Alternative 3 will include the alignment CL 6-2b to 7-2b, not CL 4-3 to 7-2. It also will not include alignment CL 6-2a to 7-2a. Alignment CL 6-2b to 7-2b is approximately 4647 feet long and is on the residential side of the levee, adjacent to Four Seasons. The estimated total disturbed soil area (DSA) for Build Alternative 3 is 279 acres. Refer to Figures 3 to 3k for alignment depictions.

1.2 Approach to Water Quality Assessment

The purpose of the Water Quality Assessment Report (WQAR) is to fulfill the requirements of the National Environmental Policy Act (NEPA) and the California Environmental Quality Act

SEGMENT

ID	BEGIN	END	SHT
1	PALM SPRINGS VISITOR CENTER	VISTA CHINO RD	GI201
2	VISTA CHINO RD	JENKINS TRAIL @ TAHQUITZ CREEK CHANNEL	GI202
2A	BELARDO RD @ TAHQUITZ CREEK CHANNEL	JENKINS TRAIL @ TAHQUITZ CREEK CHANNEL	GI203
3	JENKINS TRAIL @ TAHQUITZ CREEK CHANNEL	COUNTRY CLUB DR	GI204
4	COUNTRY CLUB DR	MAGNESIA FALLS DR / COLLEGE OF THE DESERT @ MONTEREY AVE	GI205
5	MAGNESIA FALLS DR / COLLEGE OF THE DESERT @ MONTEREY AVE	FRED WARING DR	GI206
6	FRED WARING DR	WASHINGTON ST	GI207
7	WASHINGTON ST	COACHELLA CANAL	GI208
8	COACHELLA CANAL	VAN BUREN ST @ AVENUE 45	GI209
9	VAN BUREN ST @ AVENUE 45	TYLER ST @ SIERRA VISTA PARK	GI210
10	TYLER ST @ SIERRA VISTA PARK	AIRPORT BLVD	GI211

LEGEND

- ALIGNMENT
- ALIGNMENT NOT INCLUDED IN PLAN SET, SEE NOTES
- FUTURE ALIGNMENT
- CITY BOUNDARY
- ACCESS POINT, REST STOP, ENTRY POINT
- SEGMENT NUMBER

VICINITY MAP

NO SCALE

PROJECT SITE

PROJECT PLAN

SCALE: 1 INCH = 1 MILE

PLAN SCALE 1 0 1/2 1 2 MILES

FIGURE 3

30% DESIGN SUBMITTAL NOT FOR CONSTRUCTION

ISSUE		
MARK	DATE	DESCRIPTION

INFO	
PROJECT NO:	2015-093
CAD DWG FILE:	CVL_GI200
DESIGNED BY:	---
DRAWN BY:	SRB
REVIEWED BY:	DY
DATE:	2.22.2016
SCALE:	AS SHOWN

PRIME CONSULTANT: alta PLANNING + DESIGN www.altaplanning.com

PREPARED BY

CLIENT: COACHELLA VALLEY ASSOCIATION OF GOVERNMENTS
73-710 Fred Waring Drive, Suite 200
Palm Desert, CA 92260

CVAG PROJECT NO. CVL-2015-0309

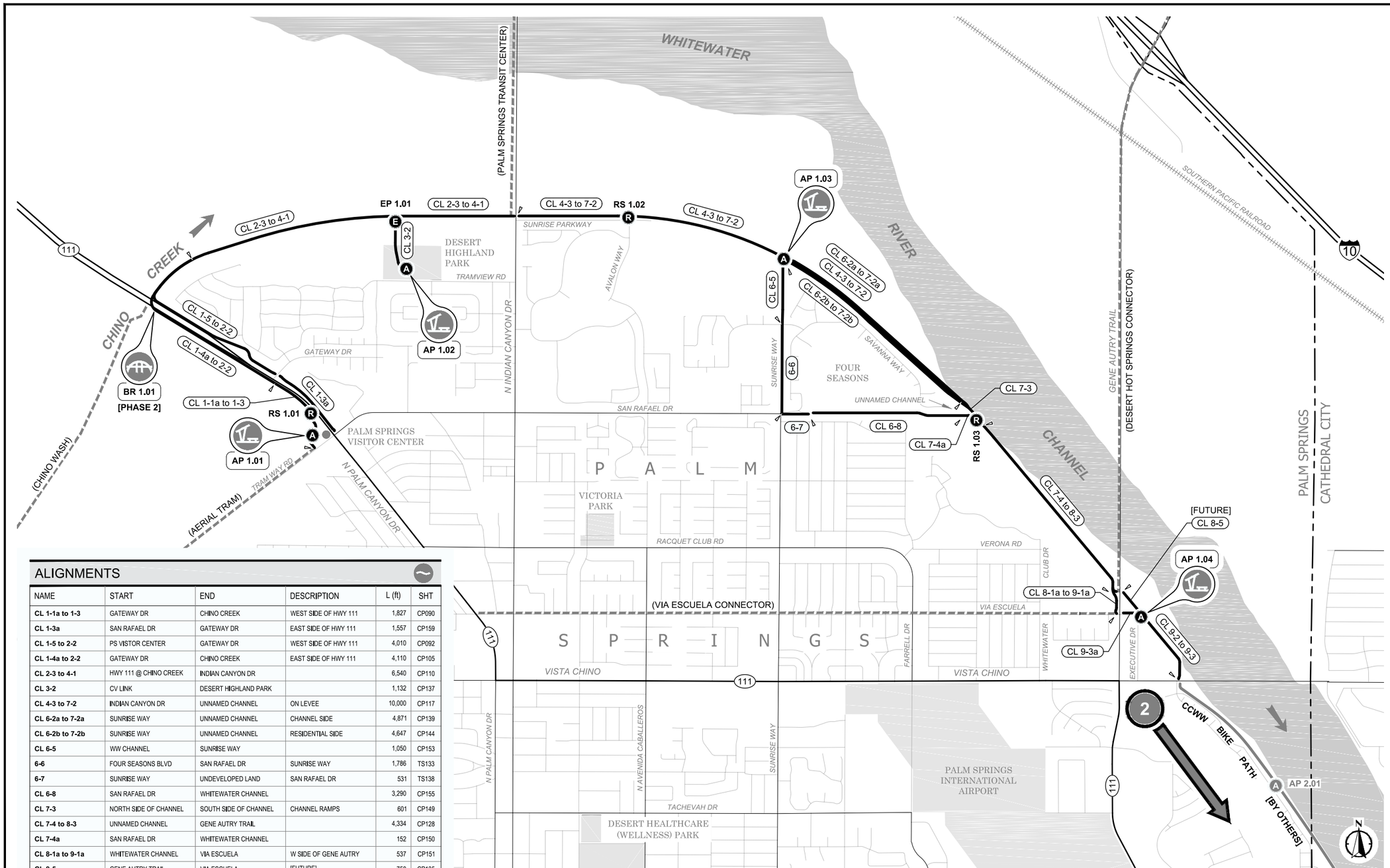
CV LINK CONNECTING THE COACHELLA VALLEY

MULTI-MODAL TRANSPORTATION FACILITY
COACHELLA VALLEY - CALIFORNIA

SHEET TITLE: RIVERSIDE COUNTY
PROJECT PLAN OVERVIEW

SHEET NO. GI200

SHEET 11 OF 780



LEGEND

- ALIGNMENT — CL XX to XX — NAME
- ALIGNMENT NOT INCLUDED IN PLAN SET, SEE NOTES
- FUTURE ALIGNMENT
- CONNECTOR [NOT IN CONTRACT] — (NAME)
- CITY BOUNDARY
- ACCESS POINT — A — AP 1.01 — ID NO.
- BRIDGE — BR 1.01
- UNDERCROSSING — UC 1.01
- REST STOP — R — RS 1.01
- ENTRY POINT — E — EP 1.01
- SEGMENT NUMBER — 1

ACCESS POINT

ID	NAME	SHT
AP 1.01	PS VISITOR CENTER	AS400
AP 1.02	DESERT HIGHLAND PARK	AS403
AP 1.03	SUNRISE WAY	AS405
AP 1.04	GENE AUTRY	AS407

REST STOP

ID	NAME	SHT
RS 1.01	PALM SPRINGS GATEWAY	AS401
RS 1.02	AVALON WAY	AS404
RS 1.03	FOUR SEASONS	AS406

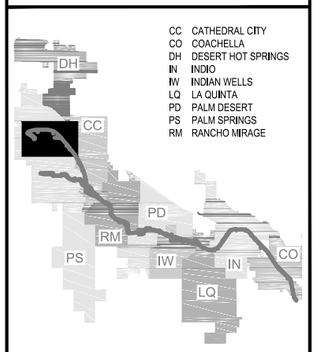
BRIDGE

ID	NAME	SHT
BR 1.01	HWY 111 OVERCROSSING	SS101

ALIGNMENTS

NAME	START	END	DESCRIPTION	L (ft)	SHT
CL 1-1a to 1-3	GATEWAY DR	CHINO CREEK	WEST SIDE OF HWY 111	1,827	CP090
CL 1-3a	SAN RAFAEL DR	GATEWAY DR	EAST SIDE OF HWY 111	1,557	CP159
CL 1-5 to 2-2	PS VISTOR CENTER	GATEWAY DR	WEST SIDE OF HWY 111	4,010	CP092
CL 1-4a to 2-2	GATEWAY DR	CHINO CREEK	EAST SIDE OF HWY 111	4,110	CP105
CL 2-3 to 4-1	HWY 111 @ CHINO CREEK	INDIAN CANYON DR		6,540	CP110
CL 3-2	CV LINK	DESERT HIGHLAND PARK		1,132	CP137
CL 4-3 to 7-2	INDIAN CANYON DR	UNNAMED CHANNEL	ON LEVEE	10,000	CP117
CL 6-2a to 7-2a	SUNRISE WAY	UNNAMED CHANNEL	CHANNEL SIDE	4,871	CP139
CL 6-2b to 7-2b	SUNRISE WAY	UNNAMED CHANNEL	RESIDENTIAL SIDE	4,647	CP144
CL 6-5	WW CHANNEL	SUNRISE WAY		1,050	CP153
6-6	FOUR SEASONS BLVD	SAN RAFAEL DR	SUNRISE WAY	1,786	TS133
6-7	SUNRISE WAY	UNDEVELOPED LAND	SAN RAFAEL DR	531	TS138
CL 6-8	SAN RAFAEL DR	WHITEWATER CHANNEL		3,290	CP155
CL 7-3	NORTH SIDE OF CHANNEL	SOUTH SIDE OF CHANNEL	CHANNEL RAMPS	601	CP149
CL 7-4 to 8-3	UNNAMED CHANNEL	GENE AUTRY TRAIL		4,334	CP128
CL 7-4a	SAN RAFAEL DR	WHITEWATER CHANNEL		152	CP150
CL 8-1a to 9-1a	WHITEWATER CHANNEL	VIA ESCUELA	W SIDE OF GENE AUTRY	537	CP151
CL 8-5	GENE AUTRY TRAIL	VIA ESCUELA	[FUTURE]	750	CP135
CL 9-2 to 9-3	GENE AUTRY TRAIL	VISTA CHINO		1,379	CP133
CL 9-3a	GENE AUTRY TRAIL	WHITEWATER CHANNEL	VIA ESCUELA	551	CP152

KEY MAP



SEGMENT 1
PROJECT PLAN
SCALE: 1" = 1000'

FIGURE 3a

1000 0 500 1000 2000
SCALE PLAN SCALE FEET

30% DESIGN SUBMITTAL
NOT FOR CONSTRUCTION

ISSUE			
MARK	DATE	DESCRIPTION	

INFO

PROJECT NO:	2015-093
CAD DWG FILE:	CVL_GI201
DESIGNED BY:	---
DRAWN BY:	SRB
REVIEWED BY:	DY
DATE:	2.22.2016
SCALE:	AS SHOWN

PRIME CONSULTANT
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PREPARED BY

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CV LINK
CONNECTING THE COACHELLA VALLEY
MULTI-MODAL TRANSPORTATION FACILITY
COACHELLA VALLEY - CALIFORNIA

SHEET TITLE
PALM SPRINGS / RIVERSIDE COUNTY
SEGMENT 1
PROJECT PLAN
SEGMENT 1

SHEET NO.
GI201
SHEET 12 OF 780

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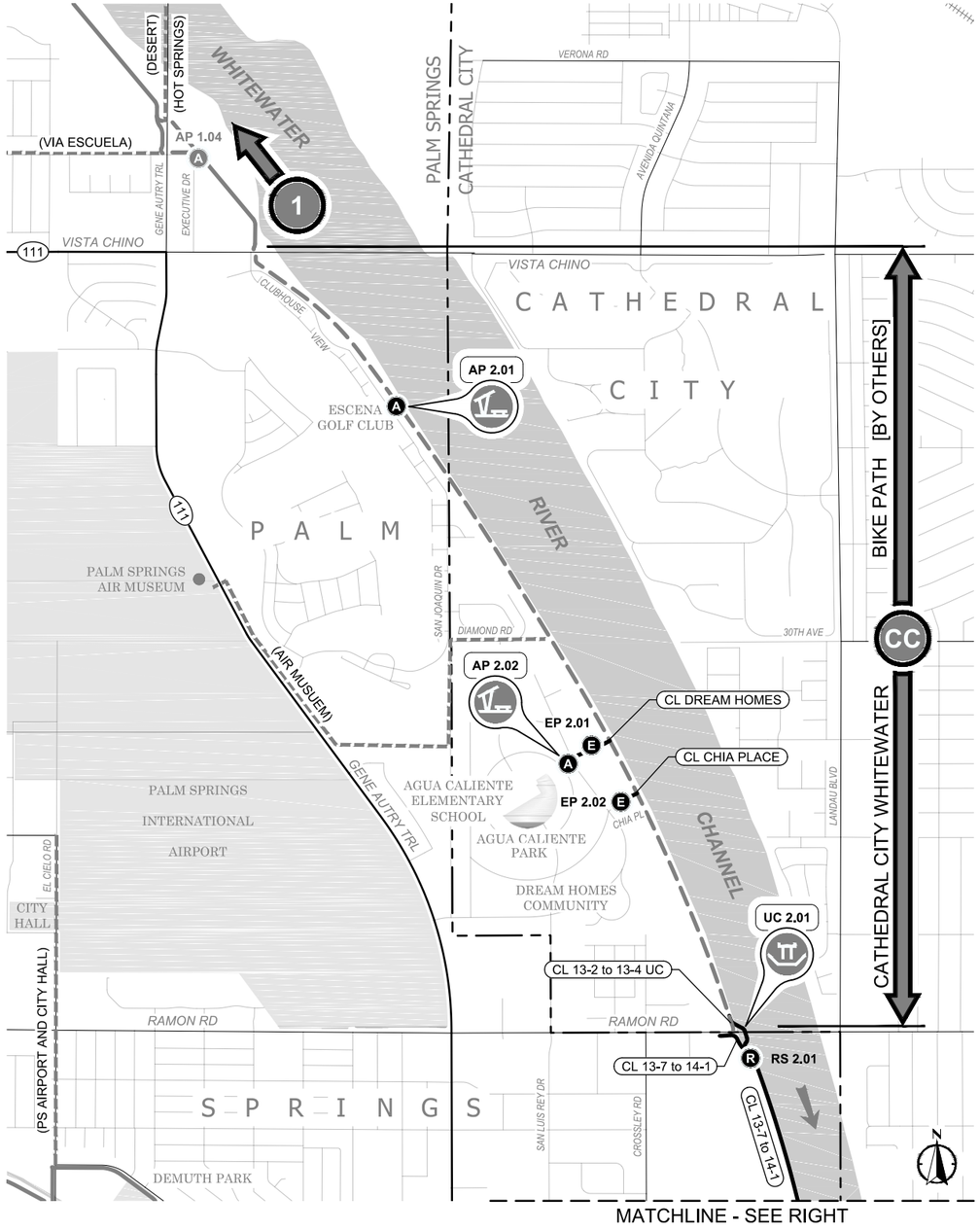


ALIGNMENTS

NAME	START	END	DESCRIPTION	L (ft)	SHT
CL CHIA PLACE	CHIA PLACE	CCWW BIKE PATH	CONNECTOR	264	CP185
CL DREAM HOMES	SAN DIEGO DR	CCWW BIKE PATH	CONNECTOR	550	CP184
CL 13-2 to 13-4 UC	N SIDE OF RAMON RD	S SIDE OF RAMON RD	UNDERCROSSING	733	CP171
CL 13-7 to 14-1	RAMON RD	PATH		4,850	CP172
CL 22-1 to 23-3	DINAH SHORE DR	JENKINS TRAIL		3,491	CP179
CL 22-6	DINAH SHORE DR	34TH AVE	CONNECTOR	850	CP183

LEGEND

- ALIGNMENT — CL XX to XX — NAME
- ALIGNMENT NOT INCLUDED IN PLAN SET, SEE NOTES
- FUTURE ALIGNMENT
- CONNECTOR [NOT IN CONTRACT] — (NAME)
- CITY BOUNDARY
- ACCESS POINT — A — AP 1.01 — ID NO.
- BRIDGE — BR 1.01
- UNDERCROSSING — UC 1.01
- REST STOP — R — RS 1.01
- ENTRY POINT — E — EP 1.01
- SEGMENT NUMBER — 1

ACCESS POINT

ID	NAME	SHT
AP 2.01	ESCENA	AS410
AP 2.02	AGUA CALIENTE	AS412
AP 2.03	34TH AVENUE	AS415

REST STOP

ID	NAME	SHT
RS 2.01	E RAMON RD	AS414

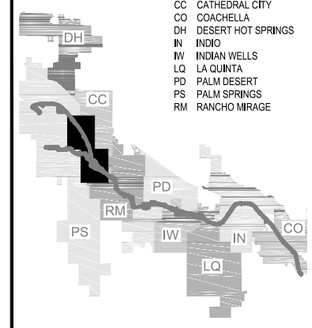
ENTRY POINT

ID	NAME	SHT
EP 2.01	DREAM HOMES	AS411
EP 2.02	CHIA PLACE	AS413

UNDERCROSSING

ID	NAME	SHT
UC 2.01	RAMON RD [FUTURE BRIDGE]	CP171
UC 2.02	DINAH SHORE DR	CP179

KEY MAP



30% DESIGN SUBMITTAL NOT FOR CONSTRUCTION

SEGMENT 2
PROJECT PLAN
SCALE: 1" = 1000'

FIGURE 3b

1000 0 500 1000 2000
SCALE PLAN SCALE FEET

ISSUE

MARK	DATE	DESCRIPTION

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CAD DWG FILE:	CVL_GI202
DESIGNED BY:	---
DRAWN BY:	SRB
REVIEWED BY:	MR
DATE:	2.22.2016
SCALE:	AS SHOWN

PRIME CONSULTANT: alta PLANNING + DESIGN www.altaplanning.com
PREPARED BY

CLIENT
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73-710 Fred Waring Drive, Suite 200 Palm Desert, CA 92260
CVAG PROJECT NO. CVL-2015-0309

CVLINK — CONNECTING THE COACHELLA VALLEY
MULTI-MODAL TRANSPORTATION FACILITY
COACHELLA VALLEY - CALIFORNIA

SHEET TITLE
PALM SPRINGS & CATHEDRAL CITY / RIVERSIDE COUNTY
SEGMENT 2
PROJECT PLAN
SEGMENT 2

SHEET NO.
GI202
SHEET 13 OF 780

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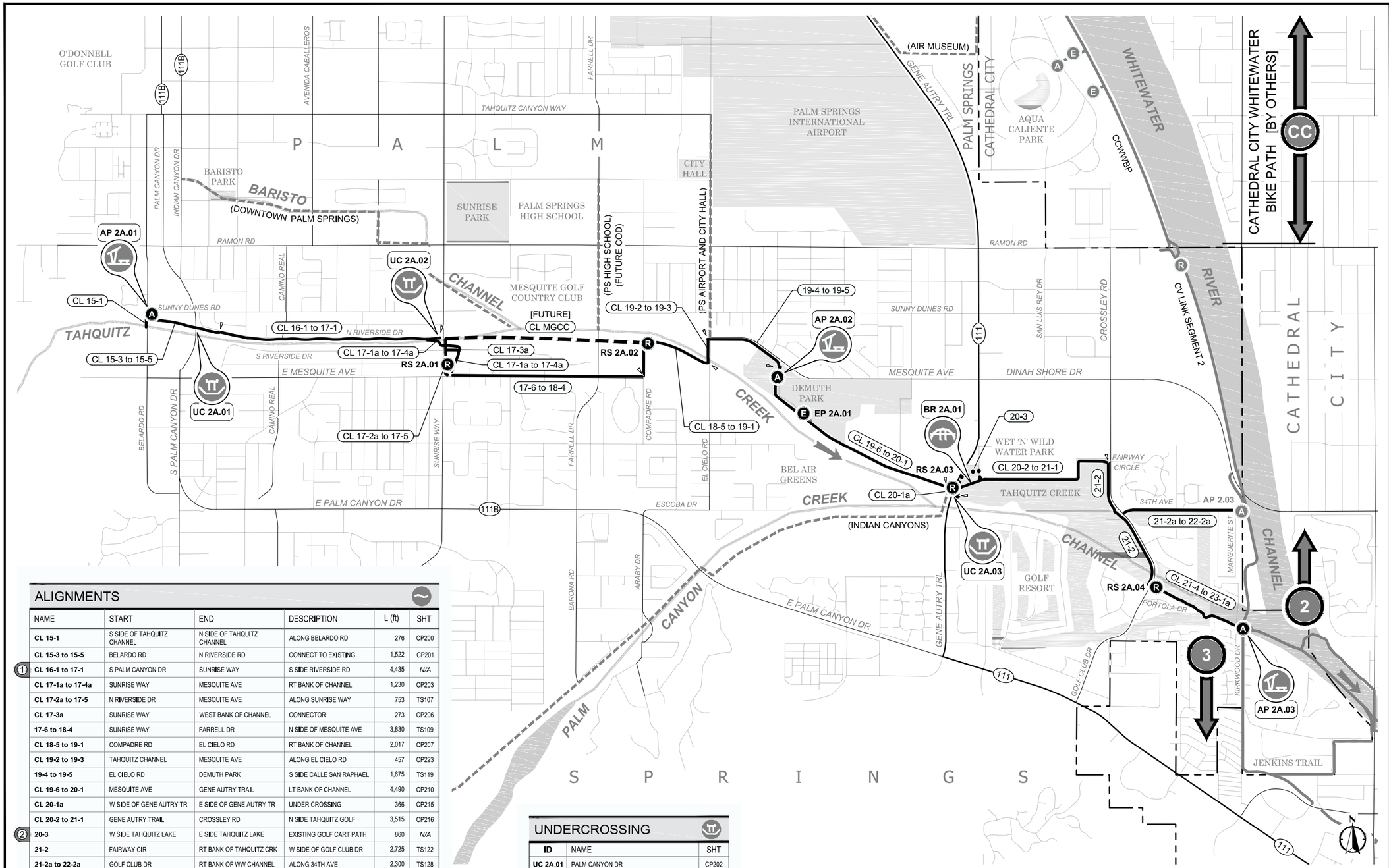

ALIGNMENTS

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	CL 15-1	S SIDE OF TAHQUITZ CHANNEL	N SIDE OF TAHQUITZ CHANNEL	ALONG BELARDO RD	276	CP200
	CL 15-3 to 15-5	BELARDO RD	N RIVERSIDE RD	CONNECT TO EXISTING	1,522	CP201
1	**CL 16-1 to 17-1**	S PALM CANYON DR	SUNRISE WAY	S SIDE RIVERSIDE RD	4,435	*N/A*
	CL 17-1a to 17-4a	SUNRISE WAY	MESQUITE AVE	RT BANK OF CHANNEL	1,230	CP203
	CL 17-2a to 17-5	N RIVERSIDE DR	MESQUITE AVE	ALONG SUNRISE WAY	753	TS107
	CL 17-3a	SUNRISE WAY	WEST BANK OF CHANNEL	CONNECTOR	273	CP206
	17-6 to 18-4	SUNRISE WAY	FARRELL DR	N SIDE OF MESQUITE AVE	3,830	TS109
	CL 18-5 to 19-1	COMPADRE RD	EL CIELO RD	RT BANK OF CHANNEL	2,017	CP207
	CL 19-2 to 19-3	TAHQUITZ CHANNEL	MESQUITE AVE	ALONG EL CIELO RD	457	CP223
	19-4 to 19-5	EL CIELO RD	DEMUTH PARK	S SIDE CALLE SAN RAPHAEL	1,675	TS119
	CL 19-6 to 20-1	MESQUITE AVE	GENE AUTRY TRAIL	LT BANK OF CHANNEL	4,490	CP210
	CL 20-1a	W SIDE OF GENE AUTRY TR	E SIDE OF GENE AUTRY TR	UNDER CROSSING	366	CP215
	CL 20-2 to 21-1	GENE AUTRY TRAIL	CROSSLEY RD	N SIDE TAHQUITZ GOLF	3,515	CP216
2	**20-3**	W SIDE TAHQUITZ LAKE	E SIDE TAHQUITZ LAKE	EXISTING GOLF CART PATH	860	*N/A*
	21-2	FAIRWAY CIR	RT BANK OF TAHQUITZ CRK	W SIDE OF GOLF CLUB DR	2,725	TS122
	21-2a to 22-2a	GOLF CLUB DR	RT BANK OF WW CHANNEL	ALONG 34TH AVE	2,300	TS128
	CL 21-4 to 23-1a	GOLF CLUB DR	KIRKWOOD DR	RT BANK OF CHANNEL	2,062	CP220
	CL DEMUTH PED	DEMUTH PARK ACCESS RD	CV LINK	PED CONNECTOR	215	AS414

1. NO DESIGN REQUIRED, NEW PATH CONSTRUCTED RECENTLY BY OTHERS.
2. EXISTING GOLF CART PATH, REDESIGN NOT INCLUDED IN THIS SUBMITTAL

UNDERCROSSING

ID	NAME	SHT
UC 2A.01	PALM CANYON DR	CP202
UC 2A.02	SUNRISE WAY	CP203
UC 2A.03	GENE AUTRY TRAIL	CP215

SEGMENT 2A
PROJECT PLAN
SCALE: 1" = 1000'

FIGURE 3c

1000 0 500 1000 2000
SCALE PLAN SCALE FEET

LEGEND

- ALIGNMENT — CL XX to XX — NAME
- ALIGNMENT NOT INCLUDED IN PLAN SET, SEE NOTES
- FUTURE ALIGNMENT
- CONNECTOR [NOT IN CONTRACT] — (NAME)
- CITY BOUNDARY
- ACCESS POINT — A — AP 1.01 — ID NO.
- BRIDGE — BR 1.01
- UNDERCROSSING — UC 1.01
- REST STOP — R — RS 1.01
- ENTRY POINT — E — EP 1.01
- SEGMENT NUMBER — 1

ACCESS POINT

ID	NAME	SHT
AP 2A.01	BELARDO RD	AS420
AP 2A.02	DEMUTH PARK	AS423
AP 2A.03	JENKINS TRAIL	AS427

REST STOP

ID	NAME	SHT
RS 2A.01	SUNRISE WAY	AS421
RS 2A.02	COMPADRE RD	AS422
RS 2A.03	GENE AUTRY TRAIL	AS425
RS 2A.04	GOLF CLUB DR	AS426

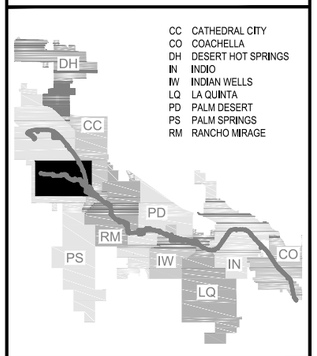
ENTRY POINT

ID	NAME	SHT
AP 2A.01	DEMUTH PARK - SOUTH	AS424

BRIDGE

ID	NAME	SHT
BR 2A.01	BOARDWALK OVER LAKE BRIDGE	SS103

KEY MAP



CC CATHEDRAL CITY
CO COACHELLA
DH DESERT HOT SPRINGS
IN INDIO
IW INDIAN WELLS
LQ LA QUINTA
PD PALM DESERT
PS PALM SPRINGS
RM RANCHO MIRAGE

30% DESIGN SUBMITTAL
NOT FOR CONSTRUCTION

ISSUE			
MARK	DATE	DESCRIPTION	

INFO	
PROJECT NO:	2015-093
CAD DWG FILE:	CVL_GI203
DESIGNED BY:	---
DRAWN BY:	SRB
REVIEWED BY:	MR
DATE:	2.22.2016
SCALE:	AS SHOWN

PRIME CONSULTANT
alta PLANNING + DESIGN
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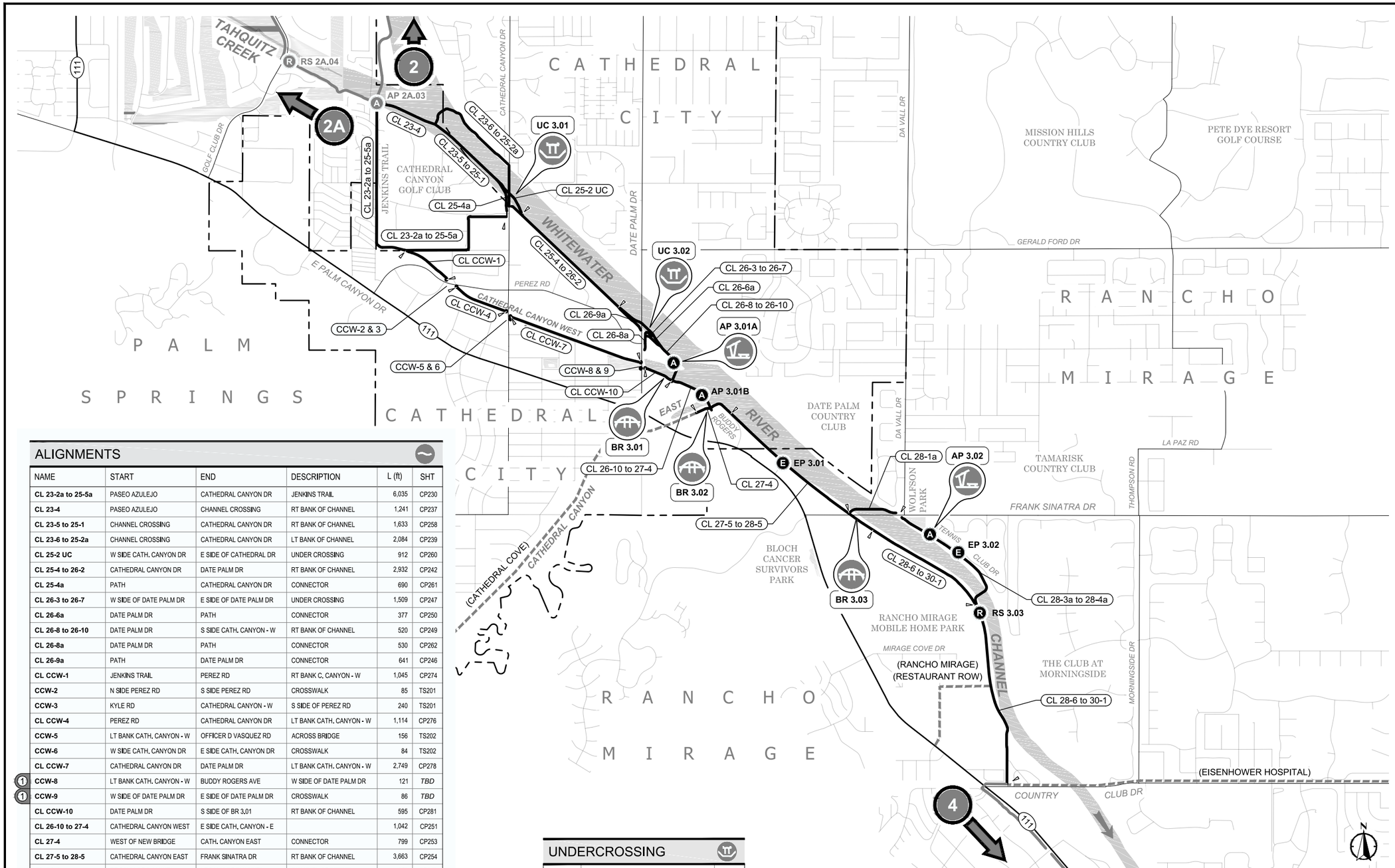
PREPARED BY

CLIENT
COACHELLA VALLEY ASSOCIATION OF GOVERNMENTS
73-710 Fred Waring Drive, Suite 200
Palm Desert, CA 92260
CVAG
CVAG PROJECT NO. CVL-2015-0309

CV LINK
CONNECTING THE COACHELLA VALLEY
MULTI-MODAL TRANSPORTATION FACILITY
COACHELLA VALLEY - CALIFORNIA

SHEET TITLE
PALM SPRINGS & CATHEDRAL CITY / RIVERSIDE COUNTY
SEGMENT 2A
PROJECT PLAN
SEGMENT 2A

SHEET NO.
GI203
SHEET 14 OF 780



ALIGNMENTS

NAME	START	END	DESCRIPTION	L (ft)	SHT
CL 23-2a to 25-5a	PASEO AZULEJO	CATHEDRAL CANYON DR	JENKINS TRAIL	6,035	CP230
CL 23-4	PASEO AZULEJO	CHANNEL CROSSING	RT BANK OF CHANNEL	1,241	CP237
CL 23-5 to 25-1	CHANNEL CROSSING	CATHEDRAL CANYON DR	RT BANK OF CHANNEL	1,633	CP258
CL 23-6 to 25-2a	CHANNEL CROSSING	CATHEDRAL CANYON DR	LT BANK OF CHANNEL	2,084	CP239
CL 25-2 UC	W SIDE CATH. CANYON DR	E SIDE OF CATHEDRAL DR	UNDER CROSSING	912	CP260
CL 25-4 to 26-2	CATHEDRAL CANYON DR	DATE PALM DR	RT BANK OF CHANNEL	2,932	CP242
CL 25-4a	PATH	CATHEDRAL CANYON DR	CONNECTOR	690	CP261
CL 26-3 to 26-7	W SIDE OF DATE PALM DR	E SIDE OF DATE PALM DR	UNDER CROSSING	1,509	CP247
CL 26-6a	DATE PALM DR	PATH	CONNECTOR	377	CP250
CL 26-8 to 26-10	DATE PALM DR	S SIDE CATH. CANYON - W	RT BANK OF CHANNEL	520	CP249
CL 26-8a	DATE PALM DR	PATH	CONNECTOR	530	CP262
CL 26-9a	PATH	DATE PALM DR	CONNECTOR	641	CP246
CL CCW-1	JENKINS TRAIL	PEREZ RD	RT BANK C, CANYON - W	1,045	CP274
CCW-2	N SIDE PEREZ RD	S SIDE PEREZ RD	CROSSWALK	85	TS201
CCW-3	KYLE RD	CATHEDRAL CANYON - W	S SIDE OF PEREZ RD	240	TS201
CL CCW-4	PEREZ RD	CATHEDRAL CANYON DR	LT BANK CATH. CANYON - W	1,114	CP276
CCW-5	LT BANK CATH. CANYON - W	OFFICER D VASQUEZ RD	ACROSS BRIDGE	156	TS202
CCW-6	W SIDE CATH. CANYON DR	E SIDE CATH. CANYON DR	CROSSWALK	84	TS202
CL CCW-7	CATHEDRAL CANYON DR	DATE PALM DR	LT BANK CATH. CANYON - W	2,749	CP278
(1) **CCW-8**	LT BANK CATH. CANYON - W	BUDDY ROGERS AVE	W SIDE OF DATE PALM DR	121	*TBD*
(1) **CCW-9**	W SIDE OF DATE PALM DR	E SIDE OF DATE PALM DR	CROSSWALK	86	*TBD*
CL CCW-10	DATE PALM DR	S SIDE OF BR 3,01	RT BANK OF CHANNEL	595	CP281
CL 26-10 to 27-4	CATHEDRAL CANYON WEST	E SIDE CATH. CANYON - E		1,042	CP251
CL 27-4	WEST OF NEW BRIDGE	CATH. CANYON EAST	CONNECTOR	799	CP253
CL 27-5 to 28-5	CATHEDRAL CANYON EAST	FRANK SINATRA DR	RT BANK OF CHANNEL	3,663	CP254
CL 28-1a	RT BANK OF CHANNEL	LT BANK OF CHANNEL	CHANNEL CROSSING	959	CP263
CL 28-3a to 28-4a	FRANK SINATRA DR	CHANNEL CROSSING	LT BANK OF CHANNEL	2,775	CP264
CL 28-6 to 30-1	FRANK SINATRA DR	COUNTRY CLUB DR	RT BANK OF CHANNEL	6,223	CP271

1. ALIGNMENT NOT INCLUDED IN THIS SUBMITTAL. ROUTE TO BE DETERMINED WITH ADDITIONAL SURVEY.

UNDERCROSSING

ID	NAME	SHT
UC 3.01	CATHEDRAL CANYON DR	CP260
UC 3.02	DATE PALM DR	CP247

SEGMENT 3
PROJECT PLAN
SCALE: 1" = 1000'

FIGURE 3d

LEGEND

- ALIGNMENT — CL XX to XX — NAME
- ALIGNMENT NOT INCLUDED IN PLAN SET, SEE NOTES
- FUTURE ALIGNMENT
- CONNECTOR [NOT IN CONTRACT] — (NAME)
- CITY BOUNDARY
- ACCESS POINT — AP 1.01 — ID NO.
- BRIDGE — BR 1.01
- UNDERCROSSING — UC 1.01
- REST STOP — RS 1.01
- ENTRY POINT — EP 1.01
- SEGMENT NUMBER — 1

ACCESS POINT

ID	NAME	SHT
AP 3.01A	CATHEDRAL PROMONTORY	AS430
AP 3.01B	CATHEDRAL PROMONTORY	AS431
AP 3.02	WOLFSON PARK	AS433

REST STOP

ID	NAME	SHT
RS 3.03	MIRAGE COVE	AS435

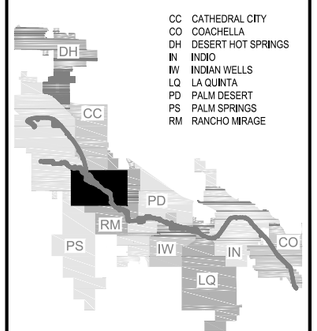
ENTRY POINT

ID	NAME	SHT
EP 3.01	ONE MIRAGE PLACE	AS432
EP 3.02	RANCHO MIRAGE RACQUET CLUB	AS434

BRIDGE

ID	NAME	SHT
BR 3.01	CATHEDRAL CANYON WEST	SS104
BR 3.02	CATHEDRAL CANYON EAST	SS105
BR 3.03	FRANK SINATRA DR OC BRIDGE	SS106

KEY MAP



30% DESIGN SUBMITTAL
NOT FOR CONSTRUCTION

ISSUE			
MARK	DATE	DESCRIPTION	

INFO
PROJECT NO: 2015-093
CAD DWG FILE: CVL_GI204
DESIGNED BY: ---
DRAWN BY: SRB
REVIEWED BY: ---
DATE: 2.22.2016
SCALE: AS SHOWN

PRIME CONSULTANT
alta PLANNING + DESIGN
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PREPARED BY

CLIENT
COACHELLA VALLEY ASSOCIATION OF GOVERNMENTS
73-710 Fred Waring Drive, Suite 200 Palm Desert, CA 92260
CVAG PROJECT NO. CVL-2015-0309

CVLINK
CONNECTING THE COACHELLA VALLEY
MULTI-MODAL TRANSPORTATION FACILITY
COACHELLA VALLEY - CALIFORNIA

SHEET TITLE
PALM SPRINGS & CATHEDRAL CITY / RIVERSIDE COUNTY
SEGMENT 3
PROJECT PLAN
SEGMENT 3

SHEET NO.
GI204
SHEET 15 OF 780

Line measures 1 inch on full scale drawing, if not 1 inch scale accordingly.

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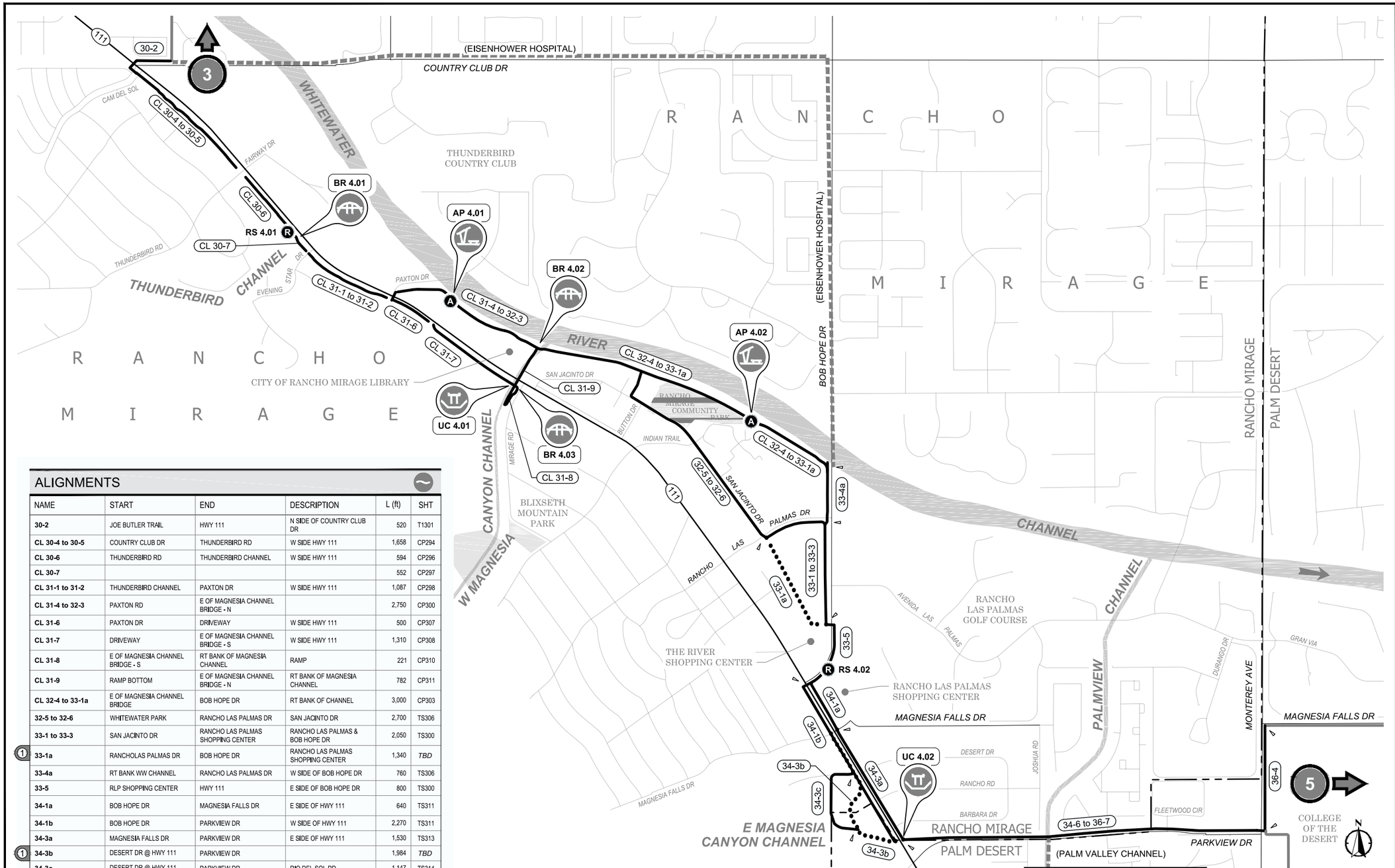


SEGMENT 4
PROJECT PLAN
SCALE: 1" = 600'

FIGURE 3e

ALIGNMENTS

NAME	START	END	DESCRIPTION	L (ft)	SHT
30-2	JOE BUTLER TRAIL	HWY 111	N SIDE OF COUNTRY CLUB DR	520	T1301
CL 30-4 to 30-5	COUNTRY CLUB DR	THUNDERBIRD RD	W SIDE HWY 111	1,658	CP294
CL 30-6	THUNDERBIRD RD	THUNDERBIRD CHANNEL	W SIDE HWY 111	594	CP296
CL 30-7				552	CP297
CL 31-1 to 31-2	THUNDERBIRD CHANNEL	PAXTON DR	W SIDE HWY 111	1,087	CP298
CL 31-4 to 32-3	PAXTON RD	E OF MAGNESIA CHANNEL BRIDGE - N		2,750	CP300
CL 31-6	PAXTON DR	DRIVEWAY	W SIDE HWY 111	500	CP307
CL 31-7	DRIVEWAY	E OF MAGNESIA CHANNEL BRIDGE - S	W SIDE HWY 111	1,310	CP308
CL 31-8	E OF MAGNESIA CHANNEL BRIDGE - S	RT BANK OF MAGNESIA CHANNEL	RAMP	221	CP310
CL 31-9	RAMP BOTTOM	E OF MAGNESIA CHANNEL BRIDGE - N	RT BANK OF MAGNESIA CHANNEL	782	CP311
CL 32-4 to 33-1a	E OF MAGNESIA CHANNEL BRIDGE	BOB HOPE DR	RT BANK OF CHANNEL	3,000	CP303
32-5 to 32-6	WHITEWATER PARK	RANCHO LAS PALMAS DR	SAN JACINTO DR	2,700	TS306
33-1 to 33-3	SAN JACINTO DR	RANCHO LAS PALMAS SHOPPING CENTER	RANCHO LAS PALMAS & BOB HOPE DR	2,050	TS300
(1) **33-1a**	RANCHOLAS PALMAS DR	BOB HOPE DR	RANCHO LAS PALMAS SHOPPING CENTER	1,340	*TBD*
33-4a	RT BANK WW CHANNEL	RANCHO LAS PALMAS DR	W SIDE OF BOB HOPE DR	760	TS306
33-5	RLP SHOPPING CENTER	HWY 111	E SIDE OF BOB HOPE DR	800	TS300
34-1a	BOB HOPE DR	MAGNESIA FALLS DR	E SIDE OF HWY 111	640	TS311
34-1b	BOB HOPE DR	PARKVIEW DR	W SIDE OF HWY 111	2,270	TS311
34-3a	MAGNESIA FALLS DR	PARKVIEW DR	E SIDE OF HWY 111	1,530	TS313
(1) **34-3b**	DESERT DR @ HWY 111	PARKVIEW DR		1,984	*TBD*
34-3c	DESERT DR @ HWY 111	PARKVIEW DR	RIO DEL SOL RD	1,147	TS314
34-6 to 36-7	HWY 111	MONTEREY AVE	N SIDE OF PARK VIEW DR	4,210	TS401
36-4	PARK VIEW DR		E SIDE OF MONTEREY AVE	1,260	TS409

1. ALIGNMENT NOT INCLUDED IN THIS SUBMITTAL. ROUTE TO BE DETERMINED WITH ADDITIONAL SURVEY.

LEGEND

- ALIGNMENT — CL XX to XX — NAME
- ALIGNMENT NOT INCLUDED IN PLAN SET, SEE NOTES
- FUTURE ALIGNMENT
- CONNECTOR [NOT IN CONTRACT] — (NAME)
- CITY BOUNDARY
- ACCESS POINT — A — AP 1.01 — ID NO.
- BRIDGE — BR 1.01
- UNDERCROSSING — UC 1.01
- REST STOP — R — RS 1.01
- ENTRY POINT — E — EP 1.01
- SEGMENT NUMBER — 1

ACCESS POINT

ID	NAME	SHT
AP 4.01	RANCHO MIRAGE LIBRARY	AS441
AP 4.02	RANCHO MIRAGE COMMUNITY PARK	AS442

REST STOP

ID	NAME	SHT
RS 4.01	THUNDERBIRD CHANNEL	AS440
RS 4.02	RANCHO LAS PALMAS	AS443

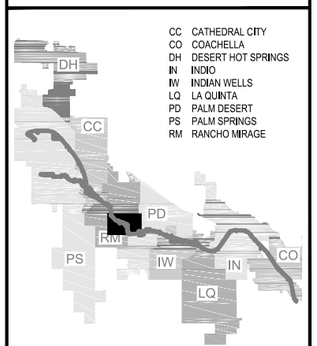
BRIDGE

ID	NAME	SHT
BR 4.01	THUNDERBIRD CHANNEL BRIDGE	SS108
BR 4.02	WEST MAGNESIA CANYON CHANNEL BRIDGE @ LIBRARY	SS109
BR 4.03	WEST MAGNESIA CANYON CHANNEL BRIDGE @ HWY 111	SS110

UNDERCROSSING

ID	NAME	SHT
UC 4.01	HWY 111 @ WEST MAGNESIA CANYON CHANNEL	CP310
UC 4.02	HWY 111 @ PARKVIEW DR	TS401

KEY MAP



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NOT FOR CONSTRUCTION

ISSUE			INFO	
MARK	DATE	DESCRIPTION	PROJECT NO:	2015-093
			CAD DWG FILE:	CVL_GI205
			DESIGNED BY:	---
			DRAWN BY:	SRB
			REVIEWED BY:	MR
			DATE:	2.22.2016
			SCALE:	AS SHOWN

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PREPARED BY

CLIENT
COACHELLA VALLEY ASSOCIATION OF GOVERNMENTS
73-710 Fred Waring Drive, Suite 200
Palm Desert, CA 92260
CVAG PROJECT NO. CVL-2015-0309

CVLINK
CONNECTING THE COACHELLA VALLEY
MULTI-MODAL TRANSPORTATION FACILITY
COACHELLA VALLEY - CALIFORNIA

SHEET TITLE
RANCHO MIRAGE / RIVERSIDE COUNTY
SEGMENT 4
PROJECT PLAN
SEGMENT 4

SHEET NO.
GI205
SHEET 16 OF 780

Dwg filename: C:\Users\sachabankhuff\Box Sync\CV Link Team\CAD\Plan Set\General\CVL_GI205.dwg Last saved by: sachabankhuff Plot date: 2/25/2016 7:25 AM Plotstyle table: CVLINK.ctb
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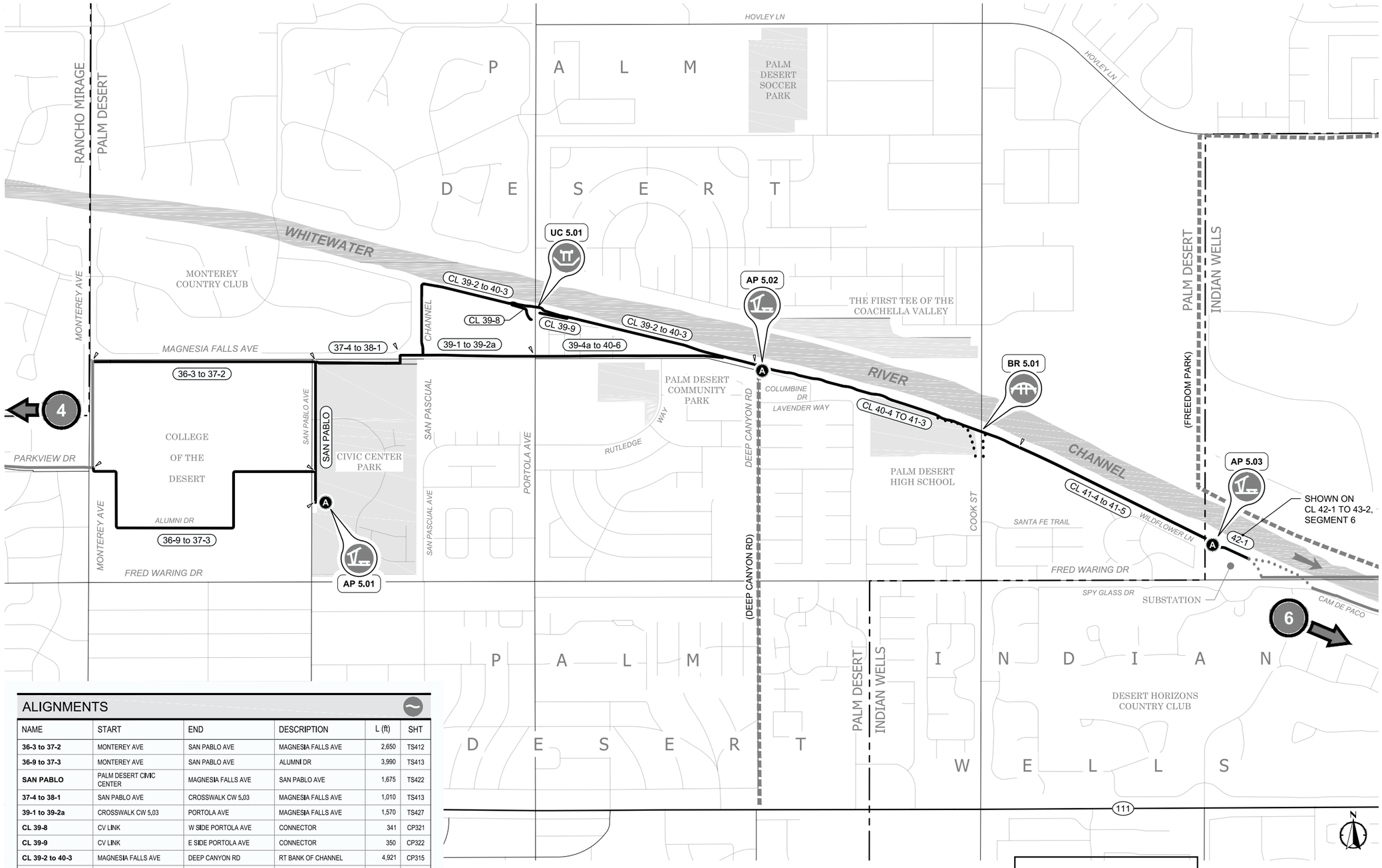


ALIGNMENTS

NAME	START	END	DESCRIPTION	L (ft)	SHT
36-3 to 37-2	MONTEREY AVE	SAN PABLO AVE	MAGNESIA FALLS AVE	2,650	TS412
36-9 to 37-3	MONTEREY AVE	SAN PABLO AVE	ALUMNI DR	3,990	TS413
SAN PABLO	PALM DESERT CIVIC CENTER	MAGNESIA FALLS AVE	SAN PABLO AVE	1,675	TS422
37-4 to 38-1	SAN PABLO AVE	CROSSWALK CW 5,03	MAGNESIA FALLS AVE	1,010	TS413
39-1 to 39-2a	CROSSWALK CW 5,03	PORTOLA AVE	MAGNESIA FALLS AVE	1,570	TS427
CL 39-8	CV LINK	W SIDE PORTOLA AVE	CONNECTOR	341	CP321
CL 39-9	CV LINK	E SIDE PORTOLA AVE	CONNECTOR	350	CP322
CL 39-2 to 40-3	MAGNESIA FALLS AVE	DEEP CANYON RD	RT BANK OF CHANNEL	4,921	CP315
39-4a to 40-6	PORTOLA AVE	DEEP CANYON RD	MAGNESIA FALLS AVE	2,520	TS431
CL 40-4 to 41-3	DEEP CANYON RD	COOK ST	RT BANK OF CHANNEL	5,783	CP325
CL 42-1	ACCESS ROAD	FRED WARING	RT BANK OF CHANNEL	1,120	CP333

SEGMENT 5
PROJECT PLAN
SCALE: 1" = 600'

FIGURE 3f

600 0 300 600 1200
SCALE PLAN SCALE FEET

LEGEND

- ALIGNMENT — CL XX to XX — NAME
- ALIGNMENT NOT INCLUDED IN PLAN SET, SEE NOTES
- FUTURE ALIGNMENT
- CONNECTOR [NOT IN CONTRACT] — (NAME)
- CITY BOUNDARY
- ACCESS POINT — A — AP 1.01 — ID NO.
- BRIDGE — BR 1.01
- UNDERCROSSING — UC 1.01
- REST STOP — R — RS 1.01
- ENTRY POINT — E — EP 1.01
- SEGMENT NUMBER — 1

ACCESS POINT

ID	NAME	SHT
AP 5.01	PALM DESERT CIVIC CENTER	AS450
AP 5.02	DEEP CANYON ROAD	AS451
AP 5.03	FRED WARING - WEST	AS452

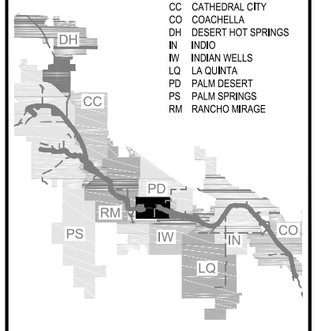
BRIDGE

ID	NAME	SHT
BR 5.01	COOK STREET OVERCROSSING	SS111

UNDERCROSSING

ID	NAME	SHT
UC 5.01	PORTOLA AVE	CP317

KEY MAP



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ISSUE

MARK	DATE	DESCRIPTION

INFO	
PROJECT NO:	2015-093
CAD DWG FILE:	CVL_GI206
DESIGNED BY:	---
DRAWN BY:	SRB
REVIEWED BY:	MR
DATE:	2.22.2016
SCALE:	AS SHOWN

PRIME CONSULTANT
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PREPARED BY

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CVAG PROJECT NO. CVL-2015-0309

CV LINK
CONNECTING THE COACHELLA VALLEY
MULTI-MODAL TRANSPORTATION FACILITY
COACHELLA VALLEY - CALIFORNIA

SHEET TITLE
PALM DESERT / RIVERSIDE COUNTY
SEGMENT 5
PROJECT PLAN
SEGMENT 5

SHEET NO.
GI206
SHEET 17 OF 780

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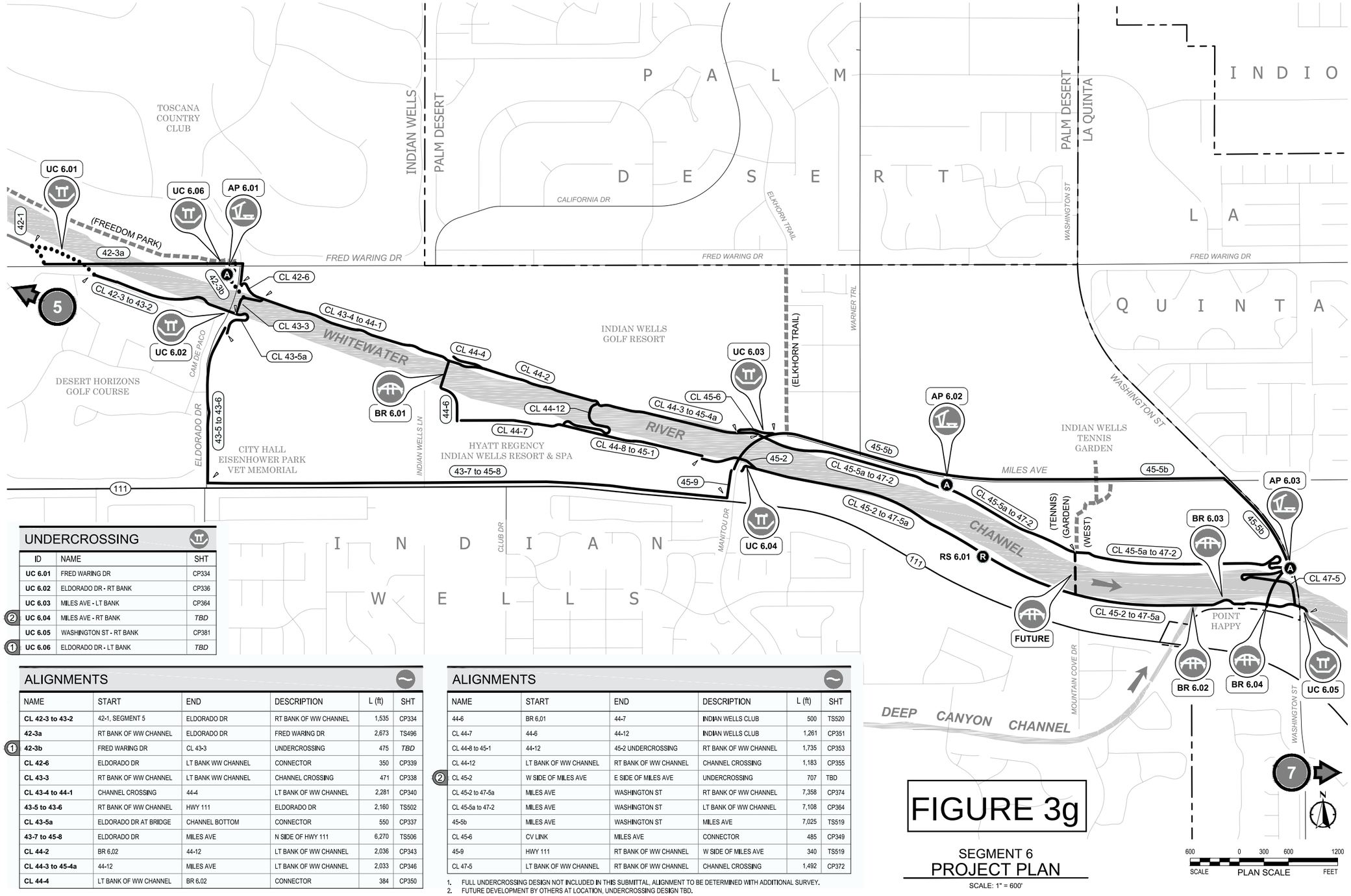

LEGEND

ALIGNMENT	CL XX to XX — NAME
	ALIGNMENT NOT INCLUDED IN PLAN SET, SEE NOTES
	FUTURE ALIGNMENT
CONNECTOR [NOT IN CONTRACT]	(NAME)
CITY BOUNDARY	
ACCESS POINT	AP 1.01 — ID NO.
BRIDGE	BR 1.01
UNDERCROSSING	UC 1.01
REST STOP	RS 1.01
ENTRY POINT	EP 1.01
SEGMENT NUMBER	1

ACCESS POINT

ID	NAME	SHT
AP 6.01	FRED WARING DR EAST	AS460
AP 6.02	MILES AVE	A461
AP 6.03	WASHINGTON ST	A463

REST STOP

ID	NAME	SHT
RS 6.01		A462

BRIDGE

ID	NAME	SHT
BR 6.01	HYATT REGENCY BRIDGE	SS113
BR 6.02	DEEP CANYON CHANNEL BRIDGE	SS114
BR 6.03	POINT HAPPY BRIDGE	SS115
BR 6.04	WASHINGTON ST CROSS CHANNEL BRIDGE	SS117
FUTURE	TENNIS GARDEN CROSSING	*NIC*

UNDERCROSSING

ID	NAME	SHT
UC 6.01	FRED WARING DR	CP334
UC 6.02	ELDORADO DR - RT BANK	CP336
UC 6.03	MILES AVE - LT BANK	CP364
(2) UC 6.04	MILES AVE - RT BANK	*TBD*
UC 6.05	WASHINGTON ST - RT BANK	CP381
(1) UC 6.06	ELDORADO DR - LT BANK	*TBD*

ALIGNMENTS

NAME	START	END	DESCRIPTION	L (ft)	SHT
CL 42-3 to 43-2	42-1, SEGMENT 5	ELDORADO DR	RT BANK OF WW CHANNEL	1,535	CP334
42-3a	RT BANK OF WW CHANNEL	ELDORADO DR	FRED WARING DR	2,673	TS496
(1) 42-3b	FRED WARING DR	CL 43-3	UNDERCROSSING	475	*TBD*
CL 42-6	ELDORADO DR	LT BANK WW CHANNEL	CONNECTOR	350	CP339
CL 43-3	RT BANK OF WW CHANNEL	LT BANK WW CHANNEL	CHANNEL CROSSING	471	CP338
CL 43-4 to 44-1	CHANNEL CROSSING	44-4	LT BANK OF WW CHANNEL	2,281	CP340
43-5 to 43-6	RT BANK OF WW CHANNEL	HWY 111	ELDORADO DR	2,160	TS502
CL 43-5a	ELDORADO DR AT BRIDGE	CHANNEL BOTTOM	CONNECTOR	550	CP337
43-7 to 45-8	ELDORADO DR	MILES AVE	N SIDE OF HWY 111	6,270	TS506
CL 44-2	BR 6.02	44-12	LT BANK OF WW CHANNEL	2,036	CP343
CL 44-3 to 45-4a	44-12	MILES AVE	LT BANK OF WW CHANNEL	2,033	CP346
CL 44-4	LT BANK OF WW CHANNEL	BR 6.02	CONNECTOR	384	CP350

ALIGNMENTS

NAME	START	END	DESCRIPTION	L (ft)	SHT
44-6	BR 6.01	44-7	INDIAN WELLS CLUB	500	TS520
CL 44-7	44-6	44-12	INDIAN WELLS CLUB	1,261	CP351
CL 44-8 to 45-1	44-12	45-2 UNDERCROSSING	RT BANK OF WW CHANNEL	1,735	CP353
CL 44-12	LT BANK OF WW CHANNEL	RT BANK OF WW CHANNEL	CHANNEL CROSSING	1,183	CP355
(2) CL 45-2	W SIDE OF MILES AVE	E SIDE OF MILES AVE	UNDERCROSSING	707	TBD
CL 45-2 to 47-5a	MILES AVE	WASHINGTON ST	RT BANK OF WW CHANNEL	7,358	CP374
CL 45-5a to 47-2	MILES AVE	WASHINGTON ST	LT BANK OF WW CHANNEL	7,108	CP364
45-5b	MILES AVE	WASHINGTON ST	MILES AVE	7,025	TS519
CL 45-6	CV LINK	MILES AVE	CONNECTOR	485	CP349
45-9	HWY 111	RT BANK OF WW CHANNEL	W SIDE OF MILES AVE	340	TS519
CL 47-5	LT BANK OF WW CHANNEL	RT BANK OF WW CHANNEL	CHANNEL CROSSING	1,492	CP372

1. FULL UNDERCROSSING DESIGN NOT INCLUDED IN THIS SUBMITTAL, ALIGNMENT TO BE DETERMINED WITH ADDITIONAL SURVEY.
2. FUTURE DEVELOPMENT BY OTHERS AT LOCATION, UNDERCROSSING DESIGN TBD.

KEY MAP

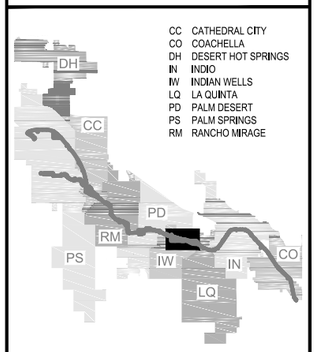

FIGURE 3g

SEGMENT 6
PROJECT PLAN
SCALE: 1" = 600'

30% DESIGN SUBMITTAL NOT FOR CONSTRUCTION

ISSUE MARK	DATE	DESCRIPTION

INFO	
PROJECT NO:	2015-093
CAD DWG FILE:	CVL_GI207
DESIGNED BY:	---
DRAWN BY:	SRB
REVIEWED BY:	MR
DATE:	2.22.2016
SCALE:	AS SHOWN

PRIME CONSULTANT: alta PLANNING + DESIGN www.altaplanning.com
PREPARED BY

CLIENT
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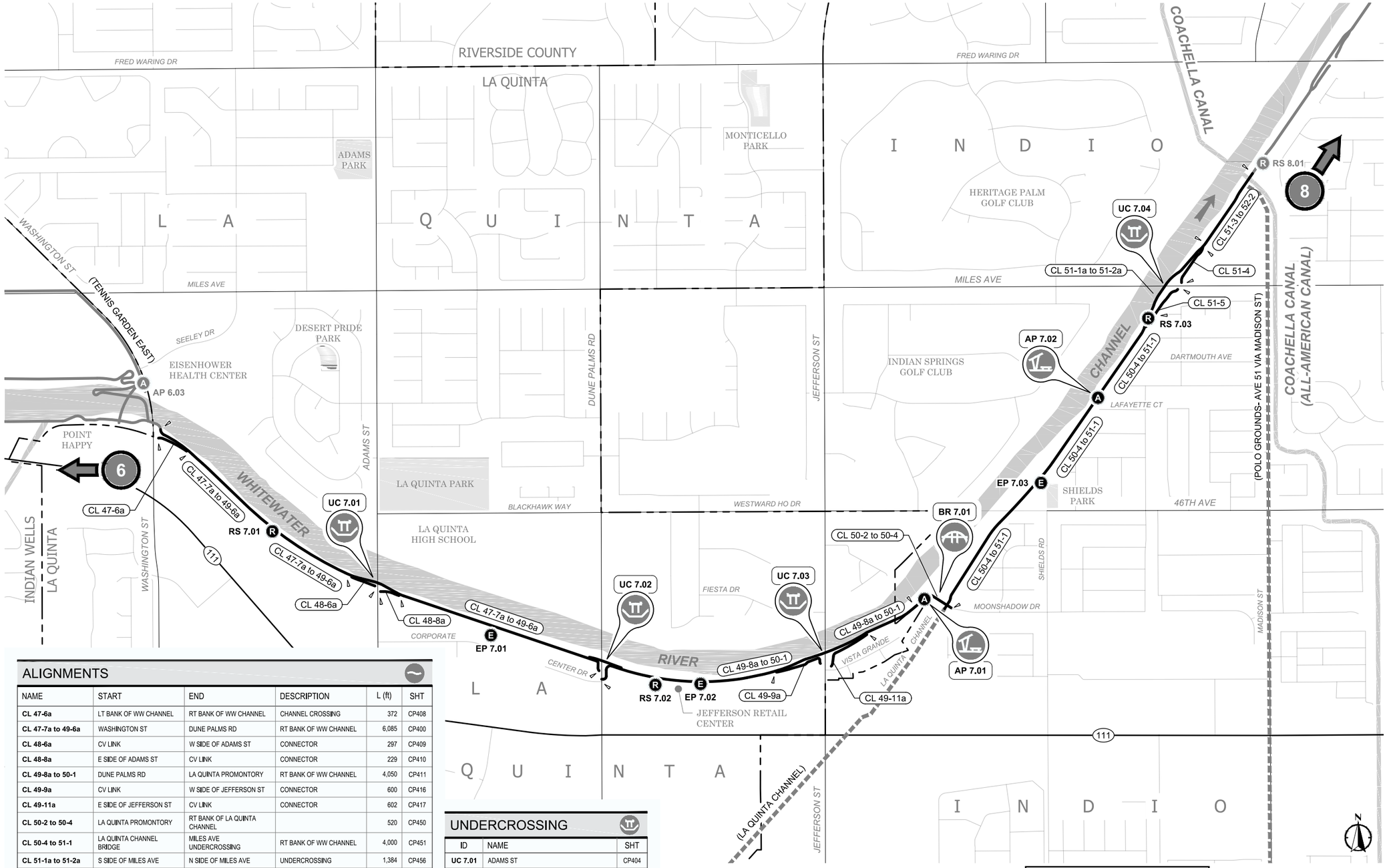
73-710 Fred Waring Drive, Suite 200 Palm Desert, CA 92260
CVAG PROJECT NO. CVL-2015-0309

CV LINK — CONNECTING THE COACHELLA VALLEY
MULTI-MODAL TRANSPORTATION FACILITY
COACHELLA VALLEY - CALIFORNIA

SHEET TITLE
INDIAN WELLS / RIVERSIDE COUNTY
SEGMENT 6
PROJECT PLAN
SEGMENT 6

SHEET NO. **GI207**
SHEET 18 OF 780

Line measures 1 inch on full scale drawing, if not 1 inch scale accordingly.
Dwg filename: C:\Users\sachabarkhuff\Box Sync\CV Link Team\CAD\Plan Set\General\CVL_GI207.dwg Last saved by: sachabarkhuff Plot date: 2/25/2016 7:27 AM Plotstyle table: CVLINK.ctb



LEGEND

ALIGNMENT	CL XX to XX — NAME
	ALIGNMENT NOT INCLUDED IN PLAN SET, SEE NOTES
	FUTURE ALIGNMENT
CONNECTOR [NOT IN CONTRACT]	(NAME)
CITY BOUNDARY	
ACCESS POINT	A — AP 1.01 — ID NO.
BRIDGE	BR 1.01
UNDERCROSSING	UC 1.01
REST STOP	R — RS 1.01
ENTRY POINT	E — EP 1.01
SEGMENT NUMBER	1

ACCESS POINT

ID	NAME	SHT
AP 7.01	LA QUINTA PROMONTORY	AS474
AP 7.02	LAFAYETTE COURT	AS476

REST STOP

ID	NAME	SHT
RS 7.01	SIMON DR	AS470
RS 7.02	JEFFERSON PLAZA	AS472
RS 7.03	MILES AVE SOUTH	AS477

ENTRY POINT

ID	NAME	SHT
EP 7.01	CORPORATE CENTER DR	AS471
EP 7.02	JEFFERSON PLAZA	AS473
EP 7.03	SHIELDS PARK	AS475

BRIDGE

ID	NAME	SHT
BR 7.01	LA QUINTA CHANNEL BRIDGE	SS118

ALIGNMENTS

NAME	START	END	DESCRIPTION	L (ft)	SHT
CL 47-6a	LT BANK OF WW CHANNEL	RT BANK OF WW CHANNEL	CHANNEL CROSSING	372	CP408
CL 47-7a to 49-6a	WASHINGTON ST	DUNE PALMS RD	RT BANK OF WW CHANNEL	6,085	CP400
CL 48-6a	CV LINK	W SIDE OF ADAMS ST	CONNECTOR	297	CP409
CL 48-8a	E SIDE OF ADAMS ST	CV LINK	CONNECTOR	229	CP410
CL 49-8a to 50-1	DUNE PALMS RD	LA QUINTA PROMONTORY	RT BANK OF WW CHANNEL	4,050	CP411
CL 49-9a	CV LINK	W SIDE OF JEFFERSON ST	CONNECTOR	600	CP416
CL 49-11a	E SIDE OF JEFFERSON ST	CV LINK	CONNECTOR	602	CP417
CL 50-2 to 50-4	LA QUINTA PROMONTORY	RT BANK OF LA QUINTA CHANNEL		520	CP450
CL 50-4 to 51-1	LA QUINTA CHANNEL BRIDGE	MILES AVE UNDERCROSSING	RT BANK OF WW CHANNEL	4,000	CP451
CL 51-1a to 51-2a	S SIDE OF MILES AVE	N SIDE OF MILES AVE	UNDERCROSSING	1,384	CP456
CL 51-3 to 52-2	MILES AVE	AMERICAN CANAL	RT BANK OF WW CHANNEL	973	CP458
CL 51-4	N SIDE OF MILES AVE	CV LINK	CONNECTOR	509	CP461
CL 51-5	CV LINK	S SIDE OF MILES AVE	CONNECTOR	612	CP460

UNDERCROSSING

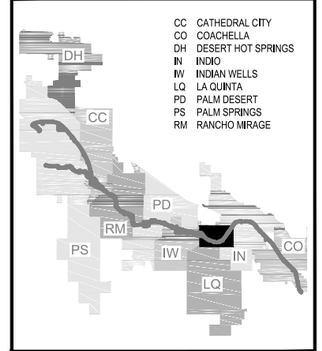
ID	NAME	SHT
UC 7.01	ADAMS ST	CP404
UC 7.02	DUNE PALMS RD [FUTURE BRIDGE]	*NIC*
UC 7.03	JEFFERSON ST	CP414
UC 7.04	MILES AVE	CP456

SEGMENT 4
PROJECT PLAN
SCALE: 1" = 600'

FIGURE 3h

600 0 300 600 1200
SCALE PLAN SCALE FEET

KEY MAP



30% DESIGN SUBMITTAL
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ISSUE

MARK	DATE	DESCRIPTION

INFO	
PROJECT NO:	2015-093
CAD DWG FILE:	CVL_GI208
DESIGNED BY:	---
DRAWN BY:	SRB
REVIEWED BY:	MR
DATE:	2.22.2016
SCALE:	AS SHOWN

PRIME CONSULTANT
alta PLANNING + DESIGN
www.altaplanning.com

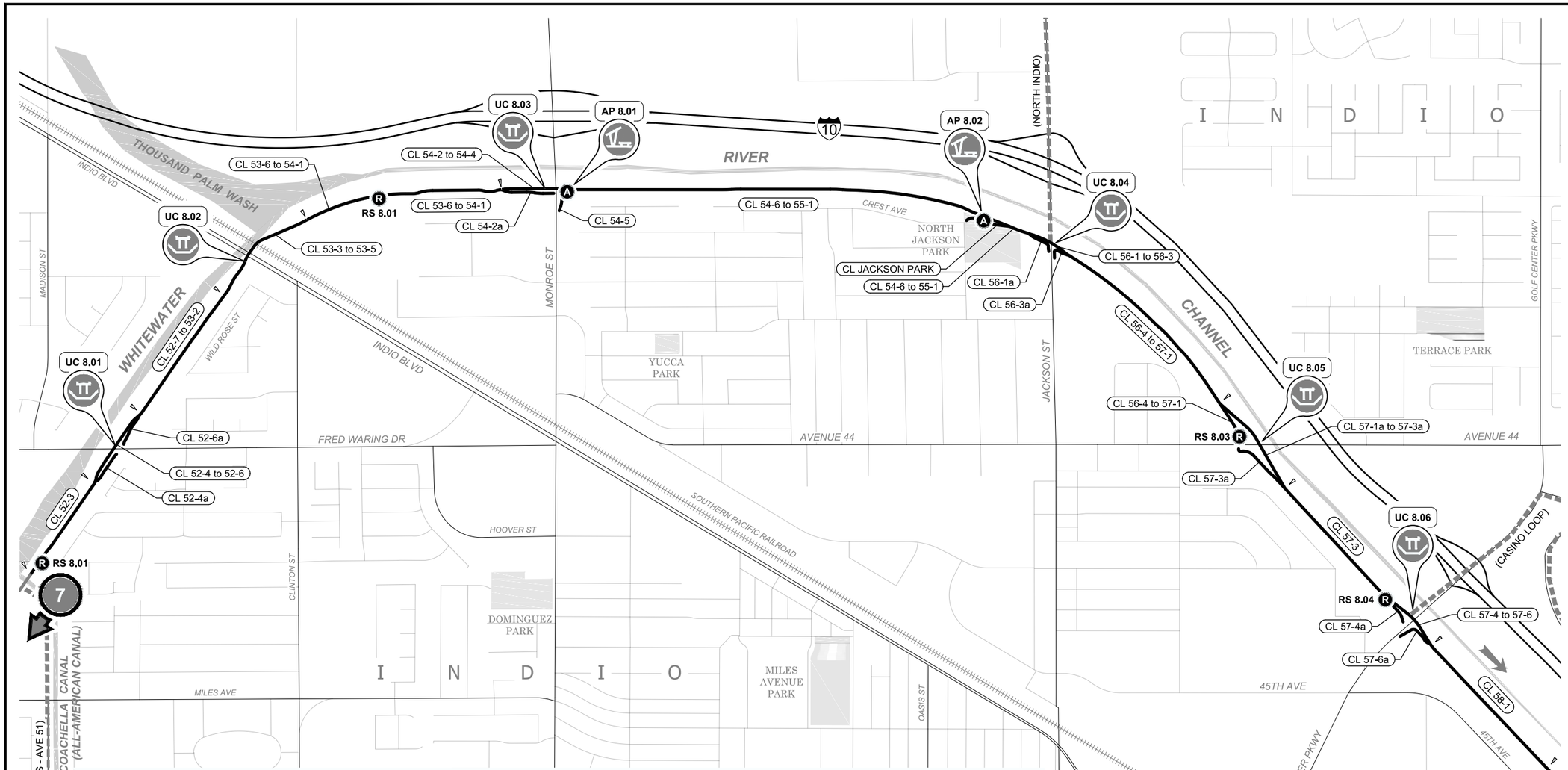
PREPARED BY

CLIENT
COACHELLA VALLEY ASSOCIATION of GOVERNMENTS
73-710 Fred Waring Drive, Suite 200
Palm Desert, CA 92260
CVAG PROJECT NO. CVL-2015-0309

CV LINK
CONNECTING THE COACHELLA VALLEY
MULTI-MODAL TRANSPORTATION FACILITY
COACHELLA VALLEY - CALIFORNIA

SHEET TITLE
INDIO & LA QUINTA / RIVERSIDE COUNTY
SEGMENT 7
PROJECT PLAN
SEGMENT 7

SHEET NO.
GI208
SHEET 19 OF 780



LEGEND

- ALIGNMENT — CL XX to XX — NAME
- ALIGNMENT NOT INCLUDED IN PLAN SET, SEE NOTES
- FUTURE ALIGNMENT
- CONNECTOR [NOT IN CONTRACT] — (NAME)
- CITY BOUNDARY
- ACCESS POINT — A — AP 1.01 — ID NO.
- BRIDGE — BR 1.01
- UNDERCROSSING — UC 1.01
- REST STOP — R — RS 1.01
- ENTRY POINT — E — EP 1.01
- SEGMENT NUMBER — 1

ACCESS POINT

ID	NAME	SHT
AP 8.01	MONROE ST	AS482
AP 8.02	NORTH JACKSON PARK	AS483

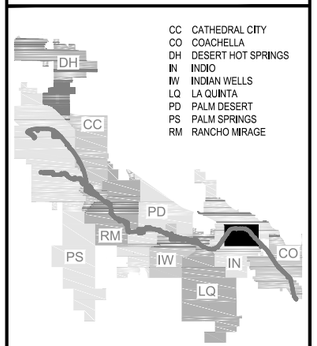
REST STOP

ID	NAME	SHT
RS 8.01	CANAL	AS480
RS 8.02		AS481
RS 8.03	AVENUE 44	AS484
RS 8.04	GOLF CENTER PARKWAY	AS485

UNDERCROSSING

ID	NAME	SHT
UC 8.01	FRED WARING DR	CP503
UC 8.02	INDIO BLVD & SOUTHERN PACIFIC RAILROAD	CP507
UC 8.03	MONROE ST	CP513
UC 8.04	JACKSON ST	CP522
UC 8.05	AVENUE 44	CP528
UC 8.06	GOLF CENTER PKWY	CP533

KEY MAP



ALIGNMENTS

NAME	START	END	DESCRIPTION	L (ft)	SHT
CL 52-3	AMERICAN CANAL	FRED WARING DR	RT BANK OF WW CHANNEL	1,150	CP500
CL 52-4 to 52-6	E SIDE OF FRED WARING DR	N SIDE FRED WARING DR	UNDERCROSSING	970	CP503
CL 52-4a	CV LINK	S SIDE OF FRED WARING DR	CONNECTOR	376	CP502
CL 52-6a	CV LINK	N SIDE FRED WARING DR	CONNECTOR	350	CP504
CL 52-7 to 53-2	FRED WARING DR	INDIO BLVD	RT BANK OF WW CHANNEL	1,509	CP505
CL 53-3 to 53-5	W SIDE OF INDIO BLVD	E SIDE OF INDIO BLVD	UNDERCROSSING	1,231	CP507
CL 53-6 to 54-1	INDIO BLVD	MONROE ST	RT BANK OF WW CHANNEL	2,112	CP510
CL 54-2 to 54-4	W SIDE OF MONROE ST	E SIDE OF MONROE ST	UNDERCROSSING	650	CP513
CL 54-2a	CVLINK	W SIDE OF MONROE ST	CONNECTOR	562	CP514
CL 54-5	E SIDE OF MONROE ST	CV LINK	CONNECTOR	238	CP515
CL 54-6 to 55-1	MONROE ST	JACKSON ST	RT BANK OF WW CHANNEL	5,013	CP516
CL 56-1 to 56-3	W SIDE OF JACKSON RD	E SIDE OF JACKSON RD	UNDERCROSSING	524	CP522

ALIGNMENTS

NAME	START	END	DESCRIPTION	L (ft)	SHT
CL 56-1a	CV LINK	W SIDE OF JACKSON RD	CONNECTOR	311	CP523
CL 56-3a	E SIDE OF JACKSON RD	CV LINK	CONNECTOR	248	CP524
CL 56-4 to 57-1	JACKSON RD	44TH AVE	RT BANK OF WW CHANNEL	2,700	CP525
CL 57-1a to 57-3a	N SIDE OF 44TH AVE	S SIDE OF 44TH AVE	UNDERCROSSING	1,147	CP528
CL 57-3	44TH AVE	GOLF CENTER PKWY	RT BANK OF WW CHANNEL	1,500	CP531
CL 57-3a	S SIDE OF 44TH AVE	CV LINK	CONNECTOR	673	CP530
CL 57-4 to 57-6	N SIDE OF GOLF CENTER PKWY	S SIDE OF GOLF CENTER PKWY	UNDERCROSSING	875	CP533
CL 57-4a	CV LINK	N SIDE OF GOLF CENTER PKWY	CONNECTOR	312	CP538
CL 57-6a	S SIDE OF GOLF CENTER PKWY	CV LINK	CONNECTOR	400	CP534
CL 58-1	GOLF CENTER PKWY	VAN BUREN ST	RT BANK OF WW CHANNEL	1,749	CP535
CL JACKSON PARK	CREST AVE	CV LINK	CONNECTOR	476	CP537

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ISSUE MARK	DATE	DESCRIPTION

INFO	
PROJECT NO:	2015-093
CAD DWG FILE:	CVL_GI209
DESIGNED BY:	---
DRAWN BY:	SRB
REVIEWED BY:	MR
DATE:	2,22,2016
SCALE:	AS SHOWN

PRIME CONSULTANT: alta PLANNING + DESIGN www.altaplanning.com

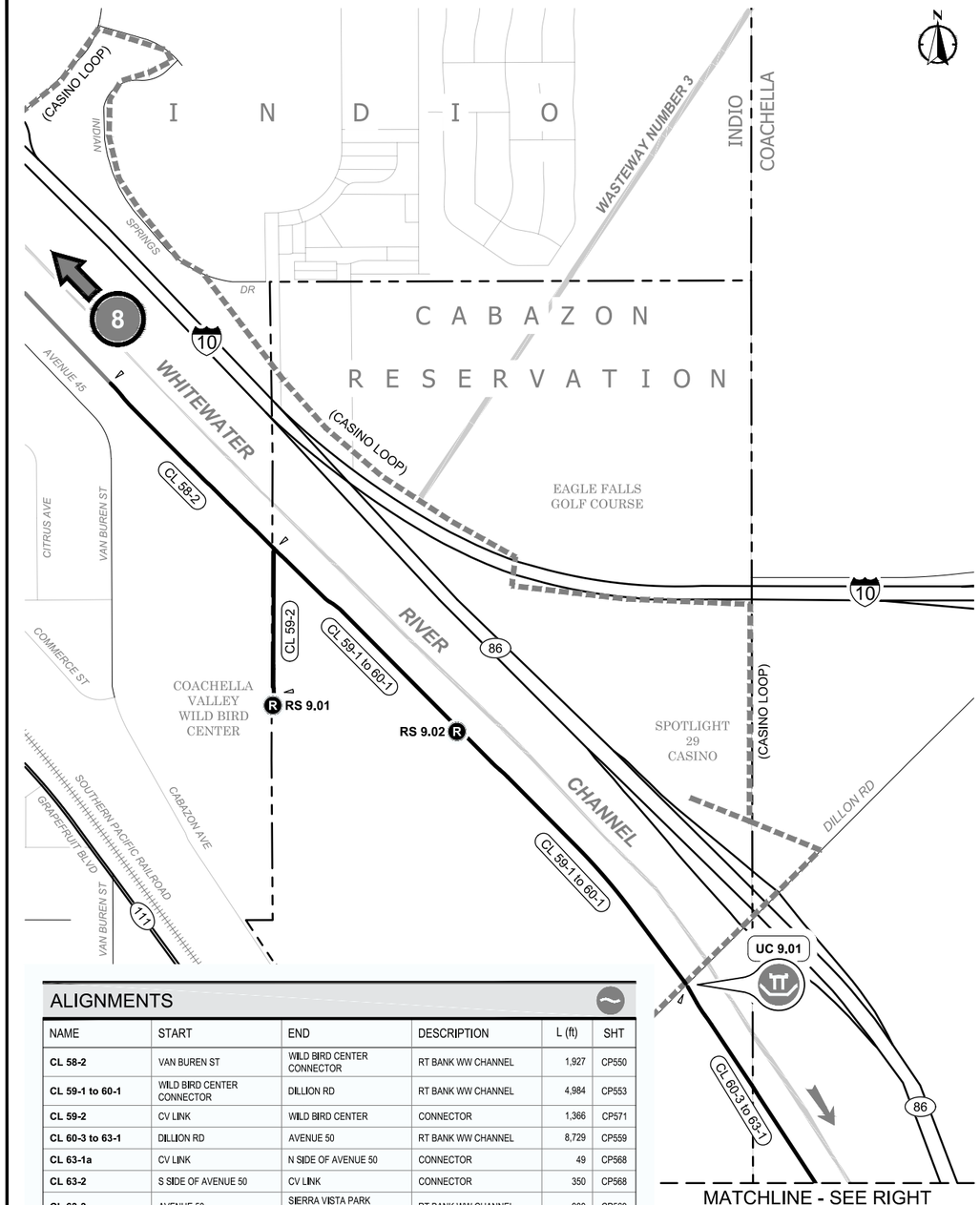
PREPARED BY

CLIENT: COACHELLA VALLEY ASSOCIATION OF GOVERNMENTS
73-710 Fred Waring Drive, Suite 200 Palm Desert, CA 92260
CVAG PROJECT NO. CVL-2015-0309

CVLINK — CONNECTING THE COACHELLA VALLEY
MULTI-MODAL TRANSPORTATION FACILITY
COACHELLA VALLEY - CALIFORNIA

SHEET TITLE
PALM SPRINGS / RIVERSIDE COUNTY
SEGMENT 8
PROJECT PLAN
SEGMENT 8

SHEET NO. GI209
SHEET 20 OF 780



ALIGNMENTS

NAME	START	END	DESCRIPTION	L (ft)	SHT
CL 58-2	VAN BUREN ST	WILD BIRD CENTER CONNECTOR	RT BANK WW CHANNEL	1,927	CP550
CL 59-1 to 60-1	WILD BIRD CENTER CONNECTOR	DILLION RD	RT BANK WW CHANNEL	4,984	CP553
CL 59-2	CV LINK	WILD BIRD CENTER	CONNECTOR	1,366	CP571
CL 60-3 to 63-1	DILLION RD	AVENUE 50	RT BANK WW CHANNEL	8,729	CP559
CL 63-1a	CV LINK	N SIDE OF AVENUE 50	CONNECTOR	49	CP568
CL 63-2	S SIDE OF AVENUE 50	CV LINK	CONNECTOR	350	CP568
CL 63-3	AVENUE 50	SIERRA VISTA PARK ACCESS	RT BANK WW CHANNEL	900	CP569
CL 63-6	CV LINK	AVENUE 50	CONNECTOR	241	CP568
CL SIERRA VISTA	CV LINK	SIERRA VISTA PARK	CONNECTOR	282	CP570

SEGMENT 9
PROJECT PLAN
SCALE: 1" = 600'

FIGURE 3j

600 0 300 600 1200
SCALE PLAN SCALE FEET

LEGEND

- ALIGNMENT — CL XX to XX — NAME
- ALIGNMENT NOT INCLUDED IN PLAN SET, SEE NOTES
- FUTURE ALIGNMENT
- CONNECTOR [NOT IN CONTRACT] — (NAME)
- CITY BOUNDARY
- ACCESS POINT — AP 1.01 — ID NO.
- BRIDGE — BR 1.01
- UNDERCROSSING — UC 1.01
- REST STOP — RS 1.01
- ENTRY POINT — EP 1.01
- SEGMENT NUMBER — 1

ACCESS POINT

ID	NAME	SHT
AP 9.01	SIERRA VISTA PARK	AS493

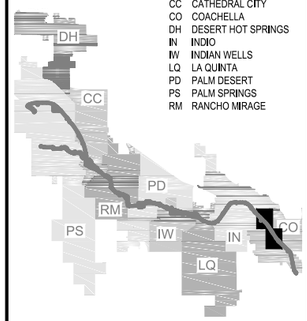
REST STOP

ID	NAME	SHT
RS 9.01	WILD BIRD CENTER	AS490
RS 9.02		AS491
RS 9.03		AS492

UNDERCROSSING

ID	NAME	SHT
UC 9.01	DILLION RD [FUTURE]	*NIC*
UC 9.02	AVENUE 50 [FUTURE]	*NIC*

KEY MAP



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NOT FOR CONSTRUCTION

ISSUE

MARK	DATE	DESCRIPTION

INFO

PROJECT NO:	2015-093
CAD DWG FILE:	CVL_GI210
DESIGNED BY:	---
DRAWN BY:	SRB
REVIEWED BY:	MR
DATE:	2.22.2016
SCALE:	AS SHOWN

PRIME CONSULTANT
alta PLANNING + DESIGN
www.altaplanning.com

PREPARED BY

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73-710 Fred Waring Drive, Suite 200
Palm Desert, CA 92260

CVAG PROJECT NO. CVL-2015-0309

CV LINK
CONNECTING THE COACHELLA VALLEY
MULTI-MODAL TRANSPORTATION FACILITY
COACHELLA VALLEY - CALIFORNIA

SHEET TITLE
INDIO & COACHELLA / RIVERSIDE COUNTY
SEGMENT 9
PROJECT PLAN
SEGMENT 9

SHEET NO.
GI210
SHEET 21 OF 780

Dwg filename: C:\Users\sachabarkhuff\Box Sync\CV Link Team\CAD\Plan Set\General\CVL_GI210.dwg Last saved by: sachabarkhuff Plot date: 2/25/2016 3:59 PM Plotstyle table: CVLINK.ctb
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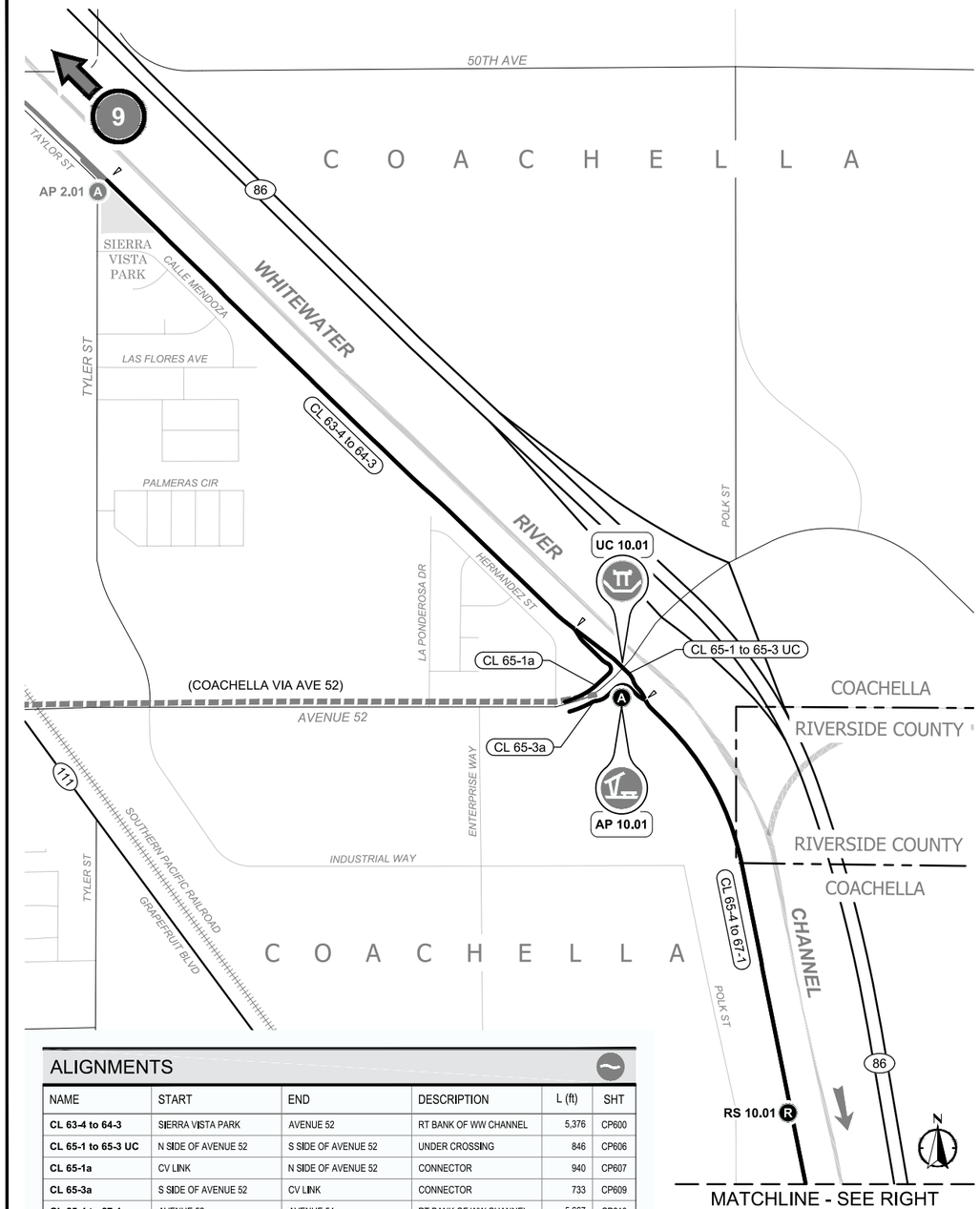
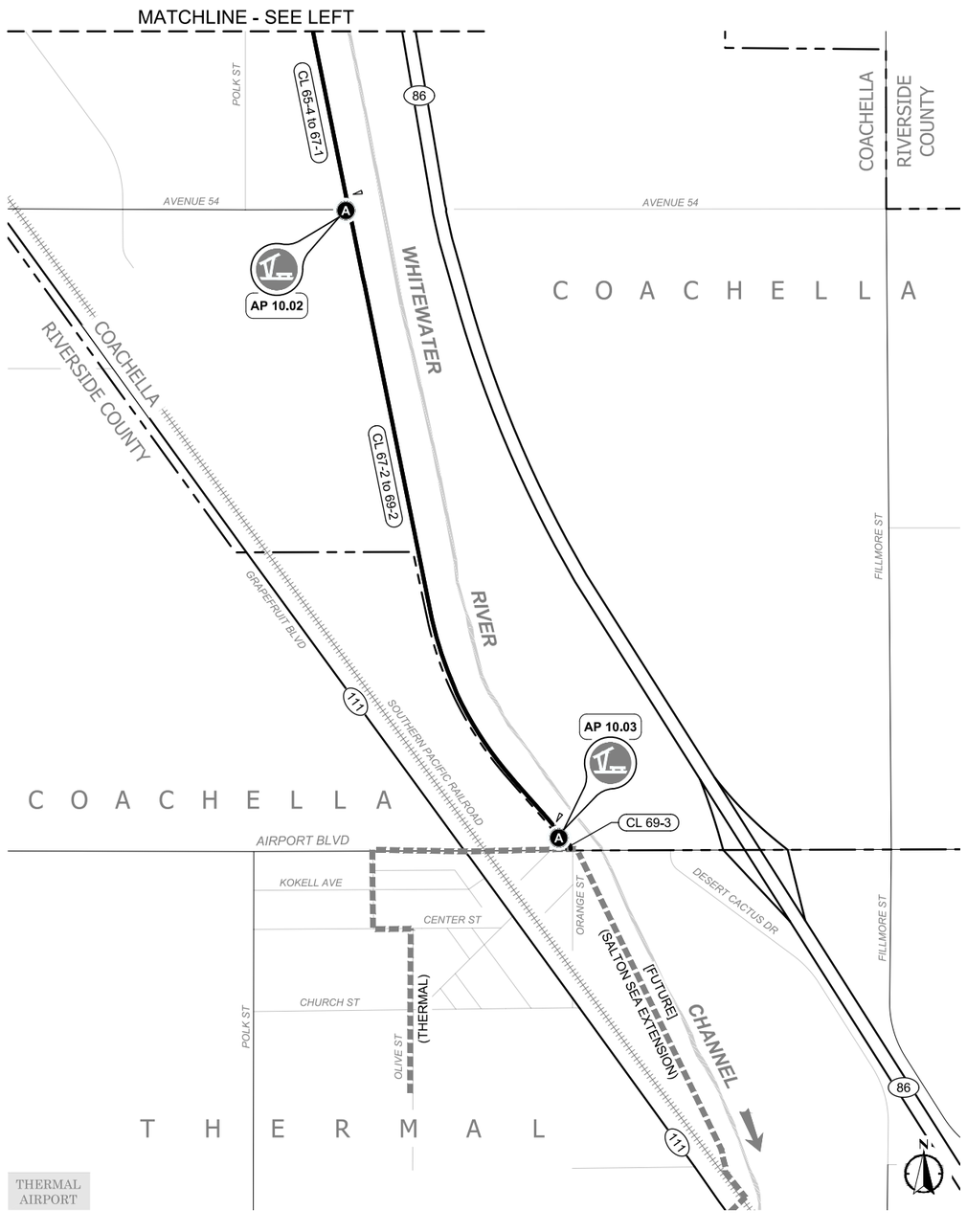




ALIGNMENTS

NAME	START	END	DESCRIPTION	L (ft)	SHT
CL 63-4 to 64-3	SIERRA VISTA PARK	AVENUE 52	RT BANK OF WW CHANNEL	5,376	CP600
CL 65-1 to 65-3 UC	N SIDE OF AVENUE 52	S SIDE OF AVENUE 52	UNDER CROSSING	846	CP606
CL 65-1a	CV LINK	N SIDE OF AVENUE 52	CONNECTOR	940	CP607
CL 65-3a	S SIDE OF AVENUE 52	CV LINK	CONNECTOR	733	CP609
CL 65-4 to 67-1	AVENUE 52	AVENUE 54	RT BANK OF WW CHANNEL	5,667	CP610
CL 67-2 to 69-2	AVENUE 54	AIRPORT BLVD	RT BANK OF WW CHANNEL	5,650	CP616
CL 69-3	CVLINK	N SIDE OF AIRPORT BLVD	CONNECTOR	116	CP622

SEGMENT 10
PROJECT PLAN
SCALE: 1" = 600'

FIGURE 3k

600 0 300 600 1200
SCALE PLAN SCALE FEET

LEGEND

- ALIGNMENT — CL XX to XX — NAME
- ALIGNMENT NOT INCLUDED IN PLAN SET, SEE NOTES
- FUTURE ALIGNMENT
- CONNECTOR [NOT IN CONTRACT] — (NAME)
- CITY BOUNDARY
- ACCESS POINT — A — AP 1.01 — ID NO.
- BRIDGE — BR 1.01
- UNDERCROSSING — UC 1.01
- REST STOP — R — RS 1.01
- ENTRY POINT — E — EP 1.01
- SEGMENT NUMBER — 1

ACCESS POINT

ID	NAME	SHT
AP 10.01	AVENUE 52	AS500
AP 10.02	AVENUE 54	AS502
AP 10.03	AIRPORT BLVD	AS503

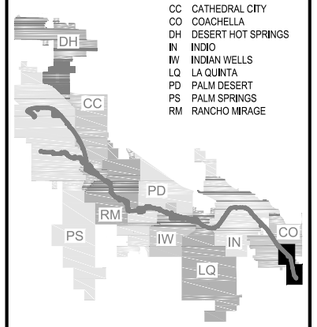
REST STOP

ID	NAME	SHT
RS 10.01		AS501

UNDERCROSSING

ID	NAME	SHT
UC 10.01	AVENUE 52	CP606

KEY MAP



30% DESIGN SUBMITTAL NOT FOR CONSTRUCTION

ISSUE MARK	DATE	DESCRIPTION

INFO
PROJECT NO: 2015-093
CAD DWG FILE: CVL_GI211
DESIGNED BY: ---
DRAWN BY: SRB
REVIEWED BY: MR
DATE: 2.22.2016
SCALE: AS SHOWN

PRIME CONSULTANT: alta PLANNING + DESIGN www.altaplanning.com
PREPARED BY

CLIENT
COACHELLA VALLEY ASSOCIATION OF GOVERNMENTS
73-710 Fred Waring Drive, Suite 200 Palm Desert, CA 92260
CVAG PROJECT NO. CVL-2015-0309

CVLINK — CONNECTING THE COACHELLA VALLEY
MULTI-MODAL TRANSPORTATION FACILITY
COACHELLA VALLEY - CALIFORNIA

SHEET TITLE
COACHELLA / RIVERSIDE COUNTY
SEGMENT 10
PROJECT PLAN
SEGMENT 10

SHEET NO.
GI211
SHEET 22 OF 780

(CEQA), and to provide information, to the extent possible, for National Pollution Discharge Elimination System (NPDES) permitting. The document includes a discussion of the proposed project, the physical setting of the project area, and the regulatory framework with respect to water quality; it also provides data on surface water and groundwater resources within the project area and the water quality of these waters, describes water quality impairments and beneficial uses, and identifies potential water quality impacts/benefits associated with the proposed project, and recommends avoidance and/or minimization measures for potentially adverse impacts.

2. Regulatory Setting

2.1 Federal Laws and Requirements

Clean Water Act

In 1972 Congress amended the Federal Water Pollution Control Act, making the addition of pollutants to the waters of the United States (U.S.) from any point source unlawful unless the discharge is in compliance with a NPDES permit. Known today as the Clean Water Act (CWA), Congress has amended it several times. In the 1987 amendments, Congress directed dischargers of storm water from municipal and industrial/construction point sources to comply with the NPDES permit scheme. Important CWA sections are:

- Sections 303 and 304 require states to promulgate water quality standards, criteria, and guidelines.

- Section 401 requires an applicant for a federal license or permit to conduct any activity, which may result in a discharge to waters of the U.S., to obtain certification from the State that the discharge will comply with other provisions of the act. (Most frequently required in tandem with a Section 404 permit request. See below).

- Section 402 establishes the NPDES, a permitting system for the discharges (except for dredge or fill material) of any pollutant into waters of the U.S. Regional Water Quality Control Boards (RWQCB) administer this permitting program in California. Section 402(p) requires permits for discharges of storm water from industrial/construction and Municipal Separate Storm Sewer Systems (MS4s).

- Section 404 establishes a permit program for the discharge of dredge or fill material into waters of the U.S. This permit program is administered by the U.S. Army Corps of Engineers (USACE).

The objective of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters."

USACE issues two types of 404 permits: Standard and General permits. For General permits there are two types: Regional permits and Nationwide permits. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to authorize a variety of minor project activities with no more than minimal effects.

There are also two types of Standard permits: Individual permits and Letters of Permission. Ordinarily, projects that do not meet the criteria for a Nationwide Permit may be permitted under one of USACE's Standard permits. For Standard permits, the USACE decision to approve is based on compliance with U.S. Environmental Protection Agency's (EPA) Section 404 (b)(1) Guidelines (U.S. EPA CFR 40 Part 230), and whether permit approval is in the public interest. The 404(b)(1) Guidelines were developed by the U.S. EPA in conjunction with USACE, and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The

Guidelines state that USACE may not issue a permit if there is a least environmentally damaging practicable alternative (LEDPA), to the proposed discharge that would have less effects on waters of the U.S., and not have any other significant adverse environmental consequences. Per Guidelines, documentation is needed that a sequence of avoidance, minimization, and compensation measures have been followed, in that order. The Guidelines also restrict permitting activities that violate water quality or toxic effluent standards, jeopardize the continued existence of listed species, violate marine sanctuary protections, or cause "significant degradation" to waters of the U.S. In addition, every permit from the USACE, even if not subject to the 404(b)(1) Guidelines, must meet general requirements. See 33 CFR 320.4.

National Flood Insurance Act

The National Flood Insurance Act of 1968 established the National Flood Insurance Program (NFIP), was amended by The Flood Disaster Protection Act of 1973, 42 U.S.C 4001 et.seq. The National Flood Insurance Reform Act of 1994 amended the Flood Disaster Protection Act of 1973. The NFIP is a federal program administered by the Flood Insurance Administration of the Federal Emergency Management Agency (FEMA). It enables individuals who have property within the 100-year flood plain to purchase insurance against flood losses. Community participation and eligibility, flood hazard identification, mapping, and floodplain management aspects are administered by state and local programs, and support directorate within FEMA. FEMA works with the states and local communities to identify flood hazard areas, and publishes a flood hazard boundary map of those areas. Floodplain mapping is an ongoing process, and maps are regularly updated for major rivers and tributaries as land uses and development patterns change.

Executive Order 11988 – Floodplain Management

Executive Order (EO) 11988 directs federal agencies to avoid, to the extent practicable and feasible, short- and long0term adverse impacts associated with the occupancy and modification of floodplains, and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. Further, EO 11988 requires the prevention of uneconomic, hazardous or incompatible use of floodplains; protection and preservation of the natural and beneficial floodplain values; and consistency with the standards and criteria of the NFIP.

The basic tools for regulating construction in potentially hazardous floodplain areas are local zoning techniques and FEMA floodplain mapping. The Federal Insurance Rate Map (FIRM) is the official map created and distributed by FEMA and NFIP that delineates Special Flood Hazard Areas (SFHAs) – areas that are subject to inundation by a base flood – for every county and community that participates in the NFIP. FIRMs contain flood risk information based on historic, meteorological, hydrologic, and hydraulic data, as well as open0space conditions, flood control works, and development.

For projects that would, upon construction, affect the hydrologic or hydraulic characteristic of a flooding source, and thus, result in the modification of the existing regulatory floodway, effective Base Flood Elevations (BFEs), or SFHA, a conditional letter of map revision

(CLOMR) would need to be prepared and approved by Caltrans, Riverside County and FEMA prior to any work occurring.

The FIRMs can be found in Appendix A.

California Fish and Game Code 1602

California Fish and Game Code 1602 require that the California Department of Fish and Wildlife (CDFW) be notified prior to commencing any activity that may substantially divert or obstruct the natural flow of any river, stream or lake; substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or deposit debris, waste or other materials that could pass into any river, stream or lake.

Environmental Protection Agency (EPA)

Portions of the Project's limits are within the tribal lands of the Agua Caliente Indian Reservation. The United States Environmental Protection Agency (USEPA) is responsible for implementing the requirements of the Clean Water Act on Indian lands. Work within "tribal lands" will require the implementation of the EPA's General Construction Permit (GCP) and EPA's NPDES Permit No. CAR1000I (NPDES permit for tribal lands within the State of California.)

Portions of the project are within the jurisdiction of Bureau of Land Management (BLM). Areas within BLM jurisdiction may or may not be "MS4" area. The BLM in this area may, through a Memorandum of Understanding (MOU) with the State Water Resources Control Board (SWRCB), comply with a Water Quality Management Plan instead of an NPDES Permit. CVAG shall contact the BLM to conform the water quality requirements.

2.2 State Laws and Requirements

Porter-Cologne Water Quality Control Act

California's Porter-Cologne Act, enacted in 1969, provides the legal basis for water quality regulation within California. This Act requires a "Report of Waste Discharge" for any discharge of waste (liquid, solid, or gaseous) to land or surface waters that may impair beneficial uses for surface and/or groundwater of the State. It predates the CWA and regulates discharges to waters of the State. Waters of the State include more than just waters of the U.S., like groundwater and surface waters not considered waters of the U.S. Additionally, it prohibits discharges of "waste" as defined and this definition is broader than the CWA definition of "pollutant". Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA.

The State Water Resources Control Board (SWRCB) and RWQCBs are responsible for establishing the water quality standards (objectives and beneficial uses) required by the CWA, and regulating discharges to ensure compliance with the water quality standards. Details regarding water quality standards in a project area are contained in the applicable RWQCB Basin Plan. In California, Regional Boards designate beneficial uses for all water body segments in their jurisdictions, and then set criteria necessary to protect these uses.

Consequently, the water quality standards developed for particular water segments are based on the designated use and vary depending on such use. In addition, the SWRCB identifies waters failing to meet standards for specific pollutants, which are then state-listed in accordance with CWA Section 303(d). If a state determines that waters are impaired for one or more constituents and the standards cannot be met through point source or non-source point controls (NPDES permits or Waste Discharge Requirements), the CWA requires the establishment of Total Maximum Daily Loads (TMDLs). TMDLs specify allowable pollutant loads from all sources (point, non-point, and natural) for a given watershed.

State Water Resources Control Board and Regional Water Quality Control Boards
The SWRCB adjudicates water rights, sets water pollution control policy, and issues water board orders on matters of statewide application, and oversees water quality functions throughout the state by approving Basin Plans, TMDLs, and NPDES permits. RWCQBs are responsible for protecting beneficial uses of water resources within their regional jurisdiction using planning, permitting, and enforcement authorities to meet this responsibility.

- **National Pollution Discharge Elimination System (NPDES) Program**

  Municipal Separate Storm Sewer Systems (MS4)
  Section 402(p) of the CWA requires the issuance of NPDES permits for five categories of storm water dischargers, including MS4s. The U.S. EPA defines an MS4 as "any conveyance or system of conveyances (roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels, and storm drains) owned or operated by a state, city, town, county, or other public body having jurisdiction over storm water, that are designed or used for collecting or conveying storm water." The SWRCB has identified the Department as an owner/operator of an MS4 pursuant to federal regulations. The Department's MS4 permit covers all Department rights-of-way, properties, facilities, and activities in the state. The SWRCB or the RWQCB issues NPDES permits for five years, and permit requirements remain active until a new permit has been adopted.

  The Department's MS4 Permit, currently under revision, contains three basic requirements:

  1. The Department must comply with the requirements of the CGP (see below);

  2. The Department must implement a year-round program in all parts of the State to effectively control storm water and non-storm water discharges; and

  3. The Department storm water discharges must meet water quality standards through implementation of permanent and temporary (construction) Best Management Practices (BMPs) to the Maximum Extent Practicable, and other measures as the SWRCB determines to be necessary to meet the water quality standards.

  To comply with the permit, the Department developed the Statewide Storm Water Management Plan (SWMP) to address storm water pollution controls related to highway planning, design, construction, and maintenance activities throughout California. The

SWMP assigns responsibilities within the Department for implementing storm water management procedures and practices as well as training, public education and participation, monitoring and research, program evaluation, and reporting activities. The SWMP describes the minimum procedures and practices the Department uses to reduce pollutants in storm water and non-storm water discharges. It outlines procedures and responsibilities for protecting water quality, including the selection and implementation of BMPs. The proposed project will be programmed to follow the guidelines and procedures outlined in the latest SWMP to address storm water runoff.

Construction General Permit

Construction General Permit (Order No. 2009-009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ), adopted on July 17, 2012, became effective on July 17, 2012. The permit regulates storm water discharges from construction sites which result in a Disturbed Soil Area (DSA) of one acre or greater, and/or are smaller sites that are part of a larger common plan of development. For all projects subject to the CGP, applicants are required to develop and implement an effective Storm Water Pollution Prevention Plan (SWPPP). In accordance with the Department's Standard Specifications, a Water Pollution Control Program (WPCP) is necessary for projects with DSA less than one acre.

By law, all storm water discharges associated with construction activity where clearing, grading, and excavation results in soil disturbance of at least one acre must comply with the provisions of the CGP. Construction activity that results in soil disturbances of less than one acre is subject to this CGP if there is potential for significant water quality impairment resulting from the activity as determined by the RWQCB. Operators of regulated construction sites are required to develop storm water pollution prevention plans; to implement sediment, erosion, and pollution prevention control measures; and to obtain coverage under the CGP.

The CGP separates projects into Risk Levels 1, 2, or 3. Risk levels are determined during the planning and design phases, and are based on potential erosion and transport to receiving waters. Requirements apply according to the Risk Level determined. For example, a Risk Level 3 (highest risk) project would require compulsory storm water runoff pH and turbidity monitoring, and pre- and post-construction aquatic biological assessments during specified seasonal windows.

NPDES Permit No. CAS000002 is not applicable to tribal lands. EPA's General Construction Permit and EPA NPDES Permit No. CAR100001 will address water pollution control issues as they relate to Section 402 of the Clean Water Act within tribal lands.

Section 401 Permitting

Under Section 401 of the CWA, any project requiring a federal license or permit that may result in a discharge to a water of the United States must obtain a 401 Certification, which certifies that the project will be in compliance with State water quality standards. The most common federal permit triggering 401 Certification is a CWA Section 404 permit, issued by USACE. The 401 permit certifications are obtained from the

appropriate RWQCB, dependent on the project location, and are required before USACE issues a 404 permit.

In some cases the RWQCB may have specific concerns with discharges associated with a project. As a result, the RWQCB may issue a set of requirements known as Waste Discharge Requirements (WDRs) under the State Water Code (Porter-Cologne Act) that define activities, such as the inclusion of specific features, effluent limitations, monitoring, and plan submittals that are to be implemented for protecting or benefiting water quality. WDRs can be issued to address both permanent and temporary discharges of a project.

2.3 Regional and Local Requirements

Colorado River Basin Regional Water Quality Control Board

The SWRCB carries out its water quality protection authority through the adoption of Basin Plans. These plans establish water quality standards for particular bodies of water. California water quality standards are composed of three parts: the designation of beneficial uses of water, water quality objectives to protect those uses, and implementation programs designed to achieve and maintain compliance with water quality objectives. The RWQCB, Colorado River Basin Region, is responsible for the Basin Plan for project due to its location. The RWQCB implements management plans to modify and adopt standards under provisions set forth in Section 303(c) of the CWQ and the California Water Code (Division 7, Section 13240).

The SWRCB adopted the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California in 2000. This policy provides implementation measures for criteria contained in the California Toxics Rule, promulgated in May 2000 by USEPA. When combined with the beneficial use designations in the Basin Plan, these documents establish statewide water quality standards for toxic constituents in surface water.

Basin Plan

The Basin Plan for the Colorado River Basin (RWQC Region 7), amended in March 2014, establishes water quality objectives for constituents that could potentially cause an adverse effect or impact on the beneficial uses of water. Specifically, Basin Plans are designed to accomplish the following:

1. Designate beneficial uses for surface and ground waters.
2. Set the narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to California's anti-degradation policy.
3. Describe implementation programs to protect the beneficial uses of all water in the region.
4. Describe surveillance and monitoring activities to evaluate the effectiveness of the Basin Plans.

Basin Plans incorporate by reference all applicable SWRCB and RWQCB plans and policies.

In addition to Basin Plan requirements, the RWQCB has water quality control authority under Section 401 of the CWA if a city were to apply for a nationwide Permit under Section 404 of the CWA.

Total Maximum Daily Load

Total Maximum Daily Load (TMDL) refers to the amount of a specific pollutant a river, stream, or lake can assimilate and still meet federal water quality standards as provided in the CWA. TMDL accounts for all sources of pollution, including point sources, non-point sources, and natural background sources. Section 303(d) requires that regulatory agencies determine TMDLs for all water bodies that do not meet water quality standards. The Section 303(d) list of impaired water bodies provides a prioritization and schedule for development of TMDLS for the state.

The SWRCB, in compliance with the Section 303(d) of the CWA (33 U.S. Code [USC] Section 1313[d], prepared, and USEPA approved, a 2010 list of impaired water bodies in California. The list includes a priority schedule for the development of TMDLs for each contaminant or "stressor" impacting the water body.

The proposed project area is adjacent to the Chino Canyon Creek, Tahquitz Creek Channel, Tahquitz Creek, Palm Canyon Channel, Cathedral Canyon Channel West, San Pasqual Channel and Whitewater River Channel/Coachella Valley Storm Channel. The Coachella Valley Stormwater Channel is listed as being impaired and on the TMDL required list for DDT (Dichlorodiphenyltrichloroethane), Dieldrin, Nitrogen, ammonia (Total Ammonia), PCBs (Polychlorinated biphenyls), Toxaphene, Toxicity and Indicator Bacteria under Section 303(d) of the Clean Water Act (CWA). Chino Canyon Creek, Tahquitz Creek Channel, Tahquitz Creek, Palm Canyon Channel, Cathedral Canyon Channel West and San Pasqual Channel are not included in the 303(d) list.

Riverside County Flood Control & Water Conservation District and County of Riverside NPDES MS4 Permit

The proposed project is subject to Colorado River Basin RWQCB's MS4 Permit, Order No. R7-2013-0011, NPDES No. CAS617002. The project design will have to comply with the requirements outlined in the municipal permit to minimize impacts to water quality and runoff hydrology for the construction and operational phases of the project.

Storm Water Management Plan

The Storm Water Management Plan (SWMP) was written for the Permittees (Riverside County Flood Control & Water Conservation District and County of Riverside) and Co-Permittees (Coachella Valley Water District and Cities) as a guidance document to comply with the requirements of the NPDES MS4 Permit for the Whitewater River Region. Section 4 of the SWMP discusses issues relating to new development and redevelopment. Section 5 discusses

issues relating to pollution prevention during construction. Section 8 describes the water quality monitoring program.

Whitewater River Region SWMP requirements apply to all MS4 facilities covered under this MS4 Permit that are operated by the Permittees on Municipal and Tribal Lands. As described in USEPA's Tribal Policy, regulation of any potential MS4 operating under Tribal jurisdiction would take the form of a permit from the federal agency (USEPA) to the Tribe, in accordance with Tribal sovereignty. On May 24, 2011, USEPA issued a letter to the Agua Caliente Band of Cahuilla Indians (Tribe) clarifying that the Tribe is not the operator of an MS4 required to maintain coverage under a NPDES Permit. USEPA determined, based on an assessment of the unique pattern of State and Tribal jurisdiction in the area, and the provisions of existing land use contracts between the Tribe and state and municipal authorities, that the Tribe is not presently the owner or operator of a regulated MS4 within an urbanized area. USEPA determined that under the existing structure of land-use agreements with local government entities including the Permittees, areas currently under direct tribal jurisdiction meet the criteria specified in CFR section 122.32(d), and have a sufficiently low total population to qualify for a waiver from MS4 permit requirements.

3. AFFECTED ENVIRONMENT

3.1 Introduction

The project lies on top of the levee along the Chino Canyon Creek, Whitewater River, Tahquitz Creek Channel and Tahquitz Creek. The Project will pass through Palm Springs, Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, La Quinta, Indio and Coachella. At localized points along the pathway, the alignment encroaches into the conveyance area of the affected channels.

3.2 General Setting

The project is located in the Coachella Valley which is considered an arid region. The geology of the project area consist of alluvium, lake, playa and terrace deposits; unconsolidated and semi-consolidated. Mostly non-marine, but includes marine deposits near the coast. The project area lies on elevations from 680 feet to 120 feet above mean seal level (msl). The receiving waters of the project are Chino Canyon Creek, Tahquitz Creek Channel, Tahquitz Creek, Palm Canyon Channel, Cathedral Canyon Channel West, San Pasqual Channel, Whitewater River Channel (Coachella Valley Stormwater Channel), which ultimately discharges to the Salton Sea.

The Coachella Valley Water District and Desert Water Agency are responsible for managing the Coachella Valley Groundwater Basin (Aquifer), which supplies water to 9 cities. With only 3 to 4 inches of rain annually and a large demand of water supply in the Coachella Valley, the Groundwater Basin is in overdraft. There are four protected recharge facilities for the Groundwater Basin: Whitewater River Spreading Area, Thomas E. Levy Groundwater Replenishment Facility, La Quinta Facility and Martinez Canyon Facility.

3.2.1 Population and Land Use

The project site lies on top of the levee of the Whitewater River, which is considered a watercourse zone; and runs through Palm Springs, Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, Indio and Coachella. Adjacent to the project area are single family residential, multi-family residential, commercial, industrial buildings and urban landscape.

3.2.2 Topography

The project area lies on elevations from 680 feet to 120 feet above mean seal level (msl).

3.2.3 Hydrology

3.2.3.1 Regional Hydrology

The Coachella Valley lies within the Colorado River Basin Region (Region 7). Regional drainage waters resulting from Colorado River diversions and use, and which do not return

The Coachella Valley lies within the Colorado River Basin Region (Region 7). Regional drainage waters resulting from Colorado River diversions and use, and which do not return to the Colorado River, drain into the Salton Sea. That portion of the Region that does not drain into the Colorado River is referred to as the Colorado River Basin (West) or West Basin.

Much of the northern portion of the West basin drains to several individual internal sinks or playas, while the southern portion generally drains to the Salton Sea. The Imperial and Coachella Valleys contain numerous drains that transport irrigation return flows and stormwater, as well as canals for importation and distribution of Colorado River water.

The Salton Sea, which is replenished principally by irrigation drainage and stormwater, is the largest body of water in the West Basin. The Sea serves as a reservoir to receive and store agricultural drainage and seepage waters, but also provides important wildlife habitat and is used for recreational purposes which include boating and fishing. Several smaller constructed recreational lakes are located in the Imperial Valley. In addition, Lake Cahuilla in Coachella Valley is used to store Colorado River water for irrigation and recreational purposes.

3.2.3.2 Local Hydrology

The proposed project lies in the Whitewater Hydrologic Unit, specifically the Indio Hydrologic Subarea. Any drainage runoff from the project site will eventually drain into the Chino Canyon Creek, Tahquitz Creek Channel, Tahquitz Creek, Palm Canyon Channel, Cathedral Canyon Channel West, San Pasqual Channel, Whitewater River Channel/Coachella Valley Stormwater Channel and ultimately make its way down to the Salton Sea.

3.2.3.2.1 Precipitation and Climate

The Colorado River Basin Region has the driest climate in California. The winters are mild and summers are hot. Temperatures range from below freezing to over 120°F. In the Colorado River valleys and the Salton Trough frost is a rare occurrence, and crops are grown all year round.

Snow falls in the Region's higher elevations, with mean seasonal precipitation in the upper San Jacinto and San Bernardino Mountains ranging from 30 to 40 inches. The lower elevations receive relatively little rainfall. An average of about four inches of precipitation occurs along the Colorado River, with much of this coming from late summer thunderstorms moving north from Mexico.

Typical mean season precipitation in the desert valleys is 3.6 inches at Indio and 3.2 inches at El Centro. Precipitation over the entire area occurs mostly from November through April, and August through September, but its distribution and intensity are often sporadic. Local thunderstorms may contribute all the average seasonal precipitation at

one time or only a trace of precipitation may be recorded at any locale for the entire season.

3.2.3.2.2 Surface Streams

The surface streams that are adjacent to the project site are Chino Canyon Creek, Tahquitz Creek Channel, Tahquitz Creek, Palm Canyon Channel, Cathedral Canyon Channel West, San Pasqual Channel and Whitewater River Channel/Coachella Valley Stormwater Channel. Chino Canyon Creek, Tahquitz Creek Channel, Tahquitz Creek and Palm Canyon Channel runs through Palm Springs. Cathedral Canyon Channel West runs through Cathedral City. San Pasqual Channel runs through Palm Desert. Whitewater River Channel runs through Palm Springs, Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, La Quinta, Indio and Coachella. Coachella Valley Stormwater Channel runs through La Quinta, Indio and Coachella.

3.2.3.2.3 Flood Plains

FEMA provides information on flood hazards and frequency on its FIRMs for cities and counties, and identifies designated zones of flood hazard potential. The proposed project site is within various FEMA flood zones, including A (areas inundated by 100-year flooding, for which no Base Flood Elevations [BFE] have been established), AE (areas inundated by 100-year flooding, for which BFEs have been determined), AO (areas where flood depths of 1 to 3 feet [usually sheet flow on sloping terrain]), X500 (areas inundated by the 500-year flood), and X (areas determined to be outside of the 100- and 500-year floodplains), as defined by FEMA geographic information systems (GIS) data. See FIRM maps in Appendix A.

3.2.3.2.4 Municipal Supply

In 1973, Coachella Valley Water District (CVWD) and Desert Water Agency (DWA) began importing Colorado River water to the Whitewater recharge facility. The imported water was obtained from Metropolitan Water District of Southern California via the Colorado River Aqueduct in exchange for State Water Project water, for the purpose of increasing ground water recharge in the upper portion of the Whitewater River Subbasin. In 2002, CVWD and DWA completed construction of the Mission Creek recharge facility and began recharging the Mission Creek Subbasin with imported Colorado River water via the Colorado River Aqueduct. Colorado River water transported by the Coachella Canal is used by CVWD to recharge the lower portion of the Whitewater River Subbasin at two sites in the Eastern Coachella Valley. Recharge at the pilot Dike 4 recharge facility located in La Quinta began in 1997 and in 2009, recharge began at the full-scale Thomas E. Levy Groundwater Replenishment facility at this location. Recharge at the pilot Martinez Canyon recharge facility located near the community of Oasis began in 2005. Ground water producers throughout the Coachella Valley are cooperating partners in these ground water recharge projects, which are funded by the replenishment assessment programs.

3.2.3.3 Groundwater Hydrology

Ground water is stored principally in the unconsolidated Pliestocene sediments. Wells yield up to 4,000 gpm. Maximum thickness of the water-bearing sediments is not known; however, it exceeds 1,000 ft in Coachella Valley.

Ground water is generally unconfined except in the lower areas of the Coachella Valley. A clay aquitard, a result of past sedimentation in the old lake bed, extends from the Salton Sea to some distance west of Indio, overlying the domestic-use aquifers. The clay layer underlies lenses of permeable sediments and perched ground waters which are replenished by percolating irrigation water.

The planning area is faulted extensively, altering ground water movement. The Mission Creek, Banning, and San Andreas Faults form effective barriers to ground water movement. The Indio Hills, Garnet Hills, and Mecca Faults form partial barriers.

The Indio and Mecca Hills have been uplifted along the northwest-trending San Andreas Fault system. The alignment of oases on the flanks of those hills results from faults that impede the movement of ground water. The most prominent of these oases is the Thousand Palms Oasis on the Mission Creek Fault.

3.2.4 Geology/Soils

3.2.4.1 Soil Erosion Potential

Soil Erosion Potential will be discussed as soon as the geotechnical report has been completed, it is currently in progress.

3.2.5 Biological Communities

3.2.5.1 Aquatic Habitat

According to the National Wetlands Inventory for U.S. Fish & Wildlife Service, there are several riverines, freshwater ponds, freshwater emergent wetlands and freshwater forested/shrub wetlands adjacent to the project site and are a part of Chino Canyon Creek, Tahquitz Creek Channel, Tahquitz Creek, Palm Canyon Channel, Cathedral Canyon Channel West, San Pasqual Channel and Whitewater River Channel/Coachella Valley Stormwater Channel.

3.2.5.1.1 Special Status Species

According to The Wildlands Conservancy, “Rich riparian habitat hosts the endangered Southwest willow flycatcher and Bell’s vireo, and provides opportunity to see migrating summer tanagers and vermilion flycatchers.”

The Coachella Valley National Wildlife Refuge, which isn’t affected by the proposed project, serves as a sanctuary for the rare Coachella Valley fringe-toed lizard and many other desert dwelling species.

3.2.5.1.2 Stream/Riparian Habitats

According to The Wildlands Conservancy, "the Whitewater Preserve is 2,851 acres surrounded by the Bureau of Land Management's San Gorgonio Wilderness, and includes the year-round Whitewater River. Rich riparian habitat hosts the endangered Southwest willow flycatcher and Bell's vireo, and provides opportunity to see migrating summer tanagers and vermilion flycatchers. The canyon has a robust population of bighorn sheep, deer and bear, and is an important wildlife corridor between the San Bernardino and San Jacinto Mountains. The Conservancy purchased an additional 3,200 acres in the Whitewater corridor that was donated to the Bureau of Land Management. These donated lands include sand dunes that are home to the endangered fringe-toes lizard at Windy Point, which lies at the confluence of the Whitewater and San Gorgonio Rivers."

3.2.5.1.3 Wetlands

According to the National Wetlands Inventory for U.S. Fish & Wildlife Service, there are several riverines, freshwater ponds, freshwater emergent wetlands and freshwater forested/shrub wetlands adjacent to the project site.

3.2.5.1.4 Fish Passage

As the Whitewater River would not be impacted by the proposed project, the potential for fish passage would also not be impacted.

3.3 Water Quality Objectives/standards and Beneficial Uses

3.3.1 Surface Water Quality Objectives/standards and Beneficial Uses

General surface water quality objectives for the Colorado River Basin Region include aesthetic qualities, tainting substances, toxicity, temperature, pH, dissolved oxygen, suspended solids and settleable solids, total dissolved solids, bacteria, biostimulatory substances, sediment, turbidity, radioactivity, chemical constituents and pesticide wastes.

Aesthetic Qualities
Waters shall be free from substances attributable to wastewater of domestic or industrial origin or other discharges which adversely affect beneficial uses not limited to :

- Settling to form objectionable deposits;
- Floating as debris, scum, grease, oil, wax, or other matter that may cause nuisances; and
- Producing objectionable color, odor, taste, or turbidity.

Tainting Substances
Water shall be free of unnatural materials which individually or in combination produce undesirable flavors in the edible portions of aquatic organisms.

Toxicity
All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in human, plant, animal, or indigenous aquatic life. The survival of aquatic life in surface waters subjected to a waste discharge or other controllable water quality factors, shall not be less than that for the same water body in areas unaffected by the waste discharge, or other control water which is consistent with the requirements for "experimental water" as described in Standards Methods for the Examination of Water and Wastewater, 18th Edition. As a minimum, compliance with this objective as stated in the previous sentence shall be evaluated with a 96-hour bioassay.

Temperature
The natural receiving water temperature of surface wasters shall not be altered by discharges of wastewater unless it can be demonstrated to the satisfaction of the Regional Board that such alteration in temperature does not adversely affect beneficial uses.

pH
Since the regional waters are somewhat alkaline, pH shall range from 6.0-9.0. Discharges shall not cause any changes in pH detrimental to beneficial water uses.

Dissolved Oxygen
The dissolved oxygen concentration shall not be reduced below the following minimum levels at any time:

Water designated:
WARM……...5.0 mg/l
COLD…….8.0 mg/l
WARM and COLD……8.0 mg/l

Suspended Solids and Settleable Solids
Discharges of wastes or wastewater shall not contain suspended or settleable solids in concentrations which increase the turbidity of receiving waters, unless it can be demonstrated to the satisfaction of the Regional Board that such alteration in turbidity does not adversely affect beneficial uses.

Total Dissolved Solids
Discharges of wastes or wastewater shall not increase the total dissolved content of receiving waters, unless it can be demonstrated to the satisfaction of the Regional Board that such increase in total dissolved solids (TDS) does not adversely affect beneficial uses of receiving waters. Any discharges shall not cause concentration of TDS in surface water to exceed the following limits:

	Annual Average (mg/l)	Maximum (mg/l)
Coachella Valley Drains	2000	2500

Bacteria

Based on statistically sufficient number of samples (generally not less than five samples equally spaced over a 30-day period), the geometric mean of the indicated bacterial densities should not exceed one or the other of the following:

	REC I	RECII
E. Coli	126 per 100 ml	630 per 100 ml
Enterococci	33 per 100 ml	165 per 100 ml

Nor shall any sample exceed the following maximum allowables:

	REC I	RECII
E. Coli	400 per 100 ml	2000 per 100 ml
Enterococci	100 per 100 ml	500 per 100 ml

In addition, in waters designated for water contact recreation (REC I), the fecal coliform concentration based on a minimum of not less than five samples for any 30-day period, shall not exceed a long mean of 200 MPN per 100 ml, nor shall more than ten percent of total samples during any 30-day period exceed 400 MPN per 100 ml.

Biostimulatory Substances
Waters shall not contain biostimulatory substance in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses. Nitrate and phosphate limitations will be placed on industrial discharges to New and Alamo Rivers and irrigation basins on a case-by-case basis, taking into consideration the beneficial uses of these streams.

Sediment
The suspended sediment load and suspended sediment discharge rate to surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses.

Turbidity
Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses.

Radioactivity
Waters designated for use as domestic or municipal supply (MUN) shall not contain concentrations of radionuclides in excess of the limits specified in Tables 64442 and 64443 of Sections 64442 and 64443, respectively, of Title 22 of the California Code of Regulations, which are incorporated by reference into this plan. This incorporation by reference is prospective, including future revisions to the incorporated provisions as the revisions take effect.

Constituent	Maximum Contaminant Level, pCi/L
Combined Radium-226 and Radium-228	5
Gross Alpha Particle activity (excluding Radon and Uranium)	15
Tritium	20,000*
Strontium-90	8**
Beta / photon emitters	4 MREM***

Uranium……..20

* Equivalent to 4 millirem / year dose to total body
** Equivalent to 4 millirem / year dose to bone marrow
*** 4 millirem / year annual dose equivalent to the total body or any internal organ

Chemical Constituents

Maximum Contaminant Levels (MCLs) for Organic and Inorganic Chemicals

Inorganic Chemical Constituents	MCL, mg/L
Arsenic	0.01
Barium	1.0
Cadmium	0.005
Chromium	0.05
Floride	2.0
Lead	0.015
Mercury	0.002
Nitrate (as NO3)	45.0
Nitrate +Nitrite (sum of nitrogen)	10.0
Selenium	0.05
Silver	0.10

Organic Chemical Constituents	MCL, mg/L
a) Chlorinated Hydrocarbons	
Endrin	0.002
Lindane	0.0002
Methoxychlor	0.03
Toxaphene	0.003
b) Chlorophenoxys	
2,4-D	0.07
2,4,5-TP Silvex	0.05

Pesticide Wastes

The discharge of pesticidal wastes from pesticide manufacturing processing or cleaning operations to any surface water is prohibited.

The affected surface waters are the Chino Canyon Creek, Tahquitz Creek, Whitewater River/Coachella Valley Stormwater Channel and Salton Sea.

Chino Canyon Creek has the following beneficial uses:

- Ground Water Recharge (GWR)
- Municipal and Domestic Supply (MUN)
- Water Contact Recreation (REC1)
- Non-Contact Water Recreation (REC2)
- Warm Freshwater Habitat (WARM)

- Wildlife Habitat (WILD)

Tahquitz Creek the following beneficial uses:

- Cold Freshwater Habitats (COLD)
- GWR
- MUN
- REC1
- REC2
- WILD

Whitewater River 10 has the following beneficial uses:

- Agriculture Supply (AGR)
- COLD
- GWR
- MUN
- Hydropower Generation (POW)
- REC1
- REC2
- WARM
- WILD

Coachella Valley Storm Water Channel 4 has the following beneficial uses:

- Freshwater Replenishment (FRSH)
- Preservation of Rare, Threatened, or Endangered Species (RARE)
- REC1
- REC2
- WARM
- WILD

Salton Sea has the following beneficial uses:

- Aquaculture (AQUA)
- Industrial Service Supply (IND)
- RARE
- REC1
- REC2
- WARM
- WILD

3.3.2 Groundwater Quality Objectives/standards and Beneficial Uses

The Colorado River Basin Region's goal is to maintain the existing water quality of all nondegraded ground water basins. In most cases, ground water that is pumped generally returns to the basin after use with an increase in mineral concentrations such as total dissolved solids (TDS), nitrate etc., that are picked up by water during its use. Under these circumstances, the Colorado River Basin Region's objective is to minimize the quantities of

contaminants reaching any ground water basin. General ground water quality objectives for the Colorado River Basin Region include taste and odors, bacteriological quality, chemical and physical quality, brines, radioactivity and ground water overdraft.

Taste and Odors
Ground waters for use as domestic or municipal supply shall not contain taste or odor-producing substances in concentrations that adversely affect beneficial uses as a result of human activity.

Bacteriological Quality
In ground waters designated for use as domestic or municipal supply (MUN), the concentration of coliform organisms shall not exceed the limits specified in Section 64426.1 of Title 22 of the California Code of Regulations.

Chemical and Physical Quality
Ground waters designated for use as domestic or municipal supply (MUN) shall not contain concentrations of chemical constituents in excess of the maximum contaminant levels (MCLs) specified in the following provisions of Title 22 of the California Code of Regulations, which are incorporated by reference into this plan: Table 64431-A of Section 64431 (Inorganic Chemical), Table 64444-A of Section 64444 (Organic Chemicals), and Table 64678-A of Section 64678 (Determination of Exceedances of Lead and Copper Action Levels).

Brines
Discharges of water softener regeneration brines, other mineralized wastes, and toxic wastes to disposal facilities which ultimately discharge in areas where such wastes can percolate to ground waters usable for domestic and municipal purposes are prohibited.

Radioactivity
Ground waters designated for use as domestic or municipal supply (MUN) shall not contain radioactive material in excess of the maximum contaminant levels (MCLs) specified in Tables 64442 and 64443 of Sections 64442 and 64443, respectively, of Title 22 of the California Code of Regulations (CCR), which are incorporated by reference into this plan.

Ground Water Overdraft
Investigative studies will be conducted to develop water objectives and implementation plans for the Indio Subarea of the Whitewater Hydrologic Unit.

The Indio Hydrologic Subunit does not have any beneficial uses of ground waters.

3.4 Existing Water Quality

3.4.1 Regional Water Quality

The Colorado River Basin Region currently is involved in a Surface Water Ambient Monitoring Program (SWAMP) to ensure surface waters within that region are being protected.

According to the Regional Fact Sheet for Region 7, "Since 2003, the Colorado River Basin SWAMP program has monitored water quality at over 100 monitoring stations located along the Colorado, New, Alamo and Whitewater Rivers, their tributaries, and even the country of Mexico. Water samples are collected bi-annually (spring and fall) by SWAMP field crews. In addition to collecting a multitude of water samples, the field crews also collect and record various field measurements at each site. Analyses performed on the water samples include, but are not limited to: Toxicity, trace metals, organo-chlorine and organo-phosphate pesticides, nutrients, bacteria, and volatile organic compounds."

Pesticides are still being detected in the region so studies are being performed to determine the extent to which these pesticides are accumulating in the tissues of fish and what actions are necessary to mitigate the impacts of pesticides to the water quality and wildlife.

3.4.2 List of Impaired Waters

Coachella Valley Stormwater Channel is listed as being impaired for DDT (Dichlorodiphenyltrichloroethane), Dieldrin, Nitrogen, ammonia (Total Ammonia), PCBs (Polychlorinated biphenyls), Toxaphene, Toxicity and Indicator Bacteria under Section 303(d) of the Clean Water Act (CWA). Total Maximum Daily Loads (TMDLs) for those pollutants listed above are in place for the Coachella Valley Stormwater Channel.

Salton Sea is listed as being impaired for Arsenic, Chloride, Chlorpyrifos, DDT (Dichlorodiphenyltrichloroethane), Enterococcus, Low Dissolved Oxygen, Nitrogen, ammonia (Total Ammonia), Nutrients, Salinity and Toxicity under Section 303(d) of the Clean Water Act (CWA). Total Maximum Daily Loads (TMDLs) for those pollutants listed above are in place for the Salton Sea.

As per Attachment IV of Caltrans Statewide NPDES Permit, Order No. 2012-0011-DWQ, NPDES No. CAS000003, Caltrans has been named a "stakeholder" to the "bacterial TMDL" for the Coachella Valley Storm Water Channel by the Colorado River RWQCB. Caltrans is obligated to comply with all applicable allocations and provisions.

3.4.3 Areas of Special Biological Significance (ASBS)

According to the Caltrans Water Quality Planning Tool, there are no Areas of Special Biological Significance in the vicinity of the project area.

4. ENVIRONMENTAL CONSEQUENCES

4.1 Introduction

The Project is divided into two types of improvements: pathway and access/staging points.

In accordance with the Colorado River Basin Region NPDES Permit (NPDES No. CAS617002), the pathway is not a Priority Development project. Therefore, no post-construction Best Management Practices (BMPs) is required.

The access/staging points, in some instances, consist of parking areas that exceed 5,000 sf in size or have more than 25 parking spaces. For these locations, it is considered to be Priority Development project in accordance with the NPDES Permit. Therefore, water quality mitigation measures will be developed, and a Water Quality Management Plan (WQMP) that specifies Best Management Practices (BMPs)will be prepared.

Since the Coachella Valley Storm Water Channel is 303(d) listed for DDT (Dichlorodiphenyltrichloroethane), Dieldrin, Nitrogen, ammonia (Total Ammonia), PCBs (Polychlorinated biphenyls), Toxaphene, Toxicity and Indicator Bacteria, the treatment BMPs will target those pollutants as the design constituents.

4.2 Potential Impacts to Water Quality

4.2.1 Anticipated changes to the Physical/Chemical Characteristics of the Aquatic Environment

4.2.1.1 Substrate

The Whitewater River is an earthen channel until it reaches the Coachella Valley Storm Water Channel which is concrete lined. Tahquitz Creek Channel is concrete lined which becomes an earthen channel, also known as Tahquitz Creek.

4.2.1.2 Currents, Circulation or Drainage Patterns

Chino Canyon Creek, Tahquitz Creek Channel, Tahquitz Creek, Palm Canyon Channel, Cathedral Canyon Channel West and San Pasqual Channel confluence with the Whitewater River. The Whitewater River Channel flows southerly and confluences with the Salton Sea. The proposed project will drain to these existing channels by way of existing storm drain systems.

4.2.1.3 Suspended Particulates (Turbidity)

Since the project is a pathway for pedestrians, bikers and low-speed electric vehicles, suspended particulates could be a pollutant of concern for the aquatic environment. However, the anticipated volume for these activities is low that these pollutants will be minimal and likely insignificant.

4.2.1.4 Oil, Grease and Chemical Pollutants

Since the project is a pathway for pedestrians, bikers and low-speed electric vehicles, oil & grease and heavy metals are not expected to be pollutants of concern for the aquatic environment.

4.2.1.5 Temperature, Oxygen, Depletion and Other Parameters

Since the project is a pathway for pedestrians, bikers and low-speed electric vehicles, it will not affect the temperature, oxygen nor deplete the aquatic environment. However, trash and debris is expected to be pollutants of concern for the aquatic environment from the proposed project.

4.2.1.6 Flood Control Functions

The project is within close proximity to the 100-year floodplain. It encroaches into the Whitewater River and Tahquitz Creek, at its levee and occasionally in the channel. However, the impact is insignificant and the project mitigates the impact by raising the elevation of the pathway to meet the CVWD's design criteria. Therefore, the flood control functions of these facilities are not impacted.

4.2.1.7 Storm, Wave and Erosion Buffers

Wetlands serve as buffer zones that shield upland areas from wave actions, storm damage and erosion. According to the National Wetlands Inventory for U.S. Fish & Wildlife Service, there are several riverines, freshwater ponds, freshwater emergent wetlands and freshwater forested/shrub wetlands adjacent to the project site. However, the Project does not encroach in these areas; therefore, have no impact to these areas.

4.2.1.8 Erosion and Accretion Patterns

The proposed project drains into the receiving waters such as Chino Canyon Creek, Tahquitz Creek Channel, Tahquitz Creek, Palm Canyon Channel, Cathedral Canyon Channel West, San Pasqual Channel, Whitewater River Channel (Coachella Valley Storm Water Channel), which ultimately discharges to the Salton Sea. Tahquitz Creek Channel is concrete lined which becomes an earthen channel, also known as Tahquitz Creek. A golf course lies in the Tahquitz Creek. Palm Canyon is an earthen channel that joins Tahquitz Creek. Whitewater River is mostly an earthen channel, with golf courses throughout, until it becomes Coachella Valley Storm Water Channel, which is concrete lined. Cathedral Canyon Channel West is an earthen channel that joins Whitewater River. San Pasqual Channel is a concrete lined channel that joins the golf course portion of the Whitewater River. In the areas that have earthen bottoms, if storm water volumes and velocities increase, there is potential for erosion and accretion to occur. However, the Project does not increase the storm water volume and velocities in the channels with earthen bottoms. Therefore, potential for erosion and accretion to occur due to the Project is not expected.

4.2.1.9 Aquifer Recharge/Groundwater

Groundwater dewatering is not expected for construction nor operational activities for the proposed project. There is no expected depletion of groundwater nor interference with groundwater recharge.

4.2.1.10 Baseflow

Baseflow, also referred to as groundwater flow or dry-weather flow, is the streamflow resulting from precipitation that infiltrates into the soil and eventually moves through the soil to the stream channel. Soils throughout the project are classified as Hydrologic Soil Group A or D. Hydrologic Soil Group A has low runoff potential and are known for having high infiltration rates. Hydrologic Soil Group D is opposite of Soil Group A which has high runoff potential and are known for having very slow infiltration rates. There is only approximately 3 to 4 inches of annual precipitation expected in the region, which would mean that there is little to no baseflow in the study area. In areas of low soil infiltration rates, there would be little to no potential for creating dry-weather flows in certain areas.

4.2.2 Anticipated Changes to the Biological Characteristics of the Aquatic Environment

4.2.2.1 Special aquatic sites

According to the National Wetlands Inventory of the U.S. Fish & Wildlife Services, there are no refuges adjacent to the project site; therefore, there are no anticipated changes to any special aquatic sites.

4.2.2.2 Habitat for Fish and Other Aquatic Organisms

4.2.2.2.1 Fish Passage (Beneficial Uses)

According to the University of California, Division of Agriculture and Natural Resources, California Fish Website, freshwater native fish species such as the Coastal Rainbow Trout can be found in the Whitewater River. Non-native fish species such as Black Bullhead, Bluegill, California Tilapia (hybrid), Flathead Catfish, Golden Shiner, Green Sunfish, Largemouth Bass, Sailfin Molly and Yellow Bullhead can be found in the Whitewater River.

The reach of the Whitewater River where the project is situated is typically dry or with very little flow. It is not likely to find any fish in this reach. The proposed project will not affect any fish passages if they do not exist. None of the receiving waters of the proposed project are listed Fish Passage as a beneficial use.

4.2.2.3 Wildlife Habitat

4.2.2.3.1 Wildlife Passage (Beneficial Uses)

According to the Colorado River Region Basin Plan, Chino Canyon Creek, Tahquitz Creek, Whitewater River, Coachella Valley Storm Water Channel and the Salton Sea have been designated as wildlife habitats (WILD) as their beneficial use.

According to The Wildlands Conservancy, "the Whitewater Preserve is 2,851 acres surrounded by the Bureau of Land Management's San Gorgonio Wilderness, and includes the year-round Whitewater River. Rich riparian habitat hosts the endangered Southwest willow flycatcher and Bell's vireo, and provides opportunity to see migrating summer tanagers and vermilion flycatchers. The canyon has a robust population of bighorn sheep, deer and bear, and is an important wildlife corridor between the San Bernardino and San Jacinto Mountains. The Conservancy purchased an additional 3,200 acres in the Whitewater corridor that was donated to the Bureau of Land Management. These donated lands include sand dunes that are home to the endangered fringe-toes lizard at Windy Point, which lies at the confluence of the Whitewater and San Gorgonio Rivers." The Project builds on existing top of levee or existing roadway. Therefore, it is not expected to have any impact to the wildlife passage.

4.2.2.4 Endangered or Threatened Species

According to the Colorado River Region Basin Plan, the Salton Sea has been designated as a preservation of Rare, Threatened or Endangered Species (RARE) as a beneficial use. The nearest receiving waters of the proposed project are not listed as having RARE beneficial use; therefore, the project will not affect any endangered or threatened species.

The Coachella Valley National Wildlife Refuge, which isn't affected by the proposed project, serves as a sanctuary for the rare Coachella Valley fringe-toed lizard and many other desert dwelling species.

According to the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP), the Coachella Valley Milkvetch, Triple-ribbed Milkvetch, Coachella Valley Giant Sand-treader Cricket, Coachella Valley Jerusalem Cricket, Coachella Valley Fringe-toed Lizard, Desert Tortoise, Flat-tailed Horned Lizard, Burrowing Owl, Le Conte's Thrasher, Coachella Valley round-tailed Ground Squirrel and the Palm Springs Pocket Mouse are endangered species that are to be conserved within the Whitewater Floodplain.

4.2.2.5 Invasive Species

According to the CVMSHCP, Saharan Mustard and Russian Thistle are invasive species that can affect the wildlife habitat in Coachella Valley.

4.2.3 Anticipated Changes to the Human Use Characteristics of the Aquatic Environment

4.2.3.1 Existing and Potential Water Supplies; Water Conservation

Water within the project limits is provided by the Desert Water Agency in the Cities of Palm Springs and Cathedral City, Coachella Valley Water District in the Cities of Rancho Mirage, Palm Desert, Indian Wells and La Quinta, Indio Water Authority in the City of Indio, and Coachella Water Authority in the City of Coachella. Each of these cities would provide connections for irrigation for landscaping within each of their respective jurisdictions. Landscaped areas would be vegetated with drought-tolerant plants to minimize the demand for additional irrigation water.

4.2.3.2 Recreational or Commercial Fisheries

The project area is not adjacent to any recreational or commercial fisheries.

4.2.3.3 Other Water Related Recreation

The project area is not adjacent to any other water related recreation.

4.2.3.4 Aesthetics of the Aquatic Ecosystem

The proposed project will have traffic among pedestrians, bikers and low-speed electric vehicles. Trash and debris, nutrients and sediment from humans can detract from the aesthetics of a water body. Since the channels adjacent to the project are either earthen or concrete lined, there is little aesthetic value to them. Areas such as golf courses that are a part of the creek will be maintained more frequently than earthen channels and must be aesthetically pleasing.

4.2.3.5 Parks, National and Historic Monuments, National Seashores, Wild and Scenic Rivers, Wilderness Areas, etc.

There are no national or historic monuments, national seashores, or wild or scenic rivers in the vicinity of the project area. However, downstream of the project site is the Salton Sea. The proposed access/staging points will implement BMPs as required by the NPDES Permit to reduce pollutants of concern that will travel downstream to the Salton Sea.

4.2.3.6 Traffic/Transportation Patterns

The proposed project will increase traffic adjacent to the aquatic environment since it is a pathway for pedestrians, bikers and low-speed electric vehicles. However, these increases are anticipated to be insignificant.

BMPs will be implemented at access/staging points as required by the NPDES Permit to treat pollutants of concern, prior to discharge into receiving waters.

The channels adjacent to the project are not used for aquatic transportation; therefore, there will be minimal effect on aquatic traffic/transportation patterns.

4.2.3.7 Energy Consumption of Generation

Receiving waters adjacent to the project are not used for energy generation.

4.2.3.8 Navigation

Receiving waters adjacent to the project are not used for navigation.

4.2.3.9 Safety

The proposed project promotes safety for pedestrians, bikers and low-speed electric vehicles, whom currently have busy roadways to utilize for transportation. Some areas of the proposed project will encroach into the floodplain but safety precautions will be implemented throughout the course of the project, from construction to operation.

4.2.4 Short Term Impacts During Construction

4.2.4.1 Physical/Chemical Characteristics of the Aquatic Environment

Sediments, trash & debris, oil & grease, fuels, lubricants, concrete waste, sanitary waste and chemicals are pollutants of concern during construction activities. Construction activities such as grading and excavation could expose soil and increase the chances of soil erosion and sediments traveling downstream. Sediments in receiving waters can increase turbidity, overwhelm bottom dwelling organisms and suppress aquatic vegetation growth. Concrete and/or asphalt applications could be a source of fine sediment, metals and chemicals that could change the pH levels in water bodies. Oil, grease, fuels and lubricants from construction equipment that may be leaking could affect receiving waters during construction activities. Temporary or portable sanitary facilities provided for construction workers could be a source of sanitary waste. Construction BMPs shall be implemented during construction activities to reduce any pollutants of concern that may enter nearby receiving waters, which would help reduce short term water quality impacts caused by the construction of the proposed project.

4.2.4.2 Biological Characteristics of the Aquatic Environment

The receiving waters of the proposed project have beneficial uses of water contact and non-contact water recreation which rely on the biological characteristics of the aquatic environment in order to sustain a functioning aquatic ecosystem that supports a biological and human use environment. Sediments in receiving waters can increase turbidity, overwhelm bottom dwelling organisms and suppress aquatic vegetation growth. Construction BMPs shall be implemented during construction activities to reduce any pollutants of concern that may enter nearby receiving waters and affect biological characteristics of the downstream aquatic environment.

4.2.4.3 Human Use Characteristics of the Aquatic Environment

The receiving waters of the proposed project have beneficial uses of water contact and non-contact water recreation which rely on the biological characteristics of the aquatic environment in order to sustain a functioning aquatic ecosystem that supports a biological and human use environment. Temporary or portable sanitary facilities provided for construction workers could be a source of sanitary waste that could affect the human use environment. Trash and debris contributed by construction workers could also affect the human use environment. Construction BMPs shall be implemented during construction activities to reduce any pollutants of concern that may enter nearby receiving waters and affect biological characteristics of the downstream aquatic environment.

4.2.5 Long-Term Impacts During Operation and Maintenance

4.2.5.1 Physical/Chemical Characteristics of the Aquatic Environment

The proposed project is a common pathway for pedestrians, bikers and low-speed electric vehicles. Trash & debris from humans, nutrients from fertilizers for landscaped areas, pesticides for landscaped areas and bacteria from pavement runoff are pollutants of concern for receiving waters of the proposed project. However, maintenance activities are intended to minimize or eliminate the impacts from these pollutants.

4.2.5.2 Biological Characteristics of the Aquatic Environment

There are no biological resources on the proposed project; however, biological resources are dependent on aquatic resources downstream of the project site since the receiving waters have beneficial uses of water contact and non-contact water recreation.

4.2.5.3 Human Use Characteristics of the Aquatic Environment

The receiving waters of the proposed project have beneficial uses of water contact and non-contact water recreation. Bacteria indicators, which are found in pavement runoff, are another pollutant of concern that enters the receiving waters adjacent to the project site. Trash and debris contributed by pedestrians, bikers and riders of low-speed electric vehicles could also affect the human use characteristics of the aquatic environment. Pesticides and nutrients from fertilizers for landscaped areas can also pollute the receiving waters of the proposed project and affect the human use characteristics of the aquatic environment.

4.3 Impact Assessment Methodology

This WQAR analyzes the differences between the existing condition and the various Build Alternative conditions with respect to water quality impacts, the WQAR takes the following into consideration:

- Pollutant sources (changes in land uses)
- Changes in the amount of impervious areas and the relationship to the amount of runoff (increase or decrease)
- Application of BMPs (number of BMPs, new technologies, effectiveness)
- Discharges into impaired waters (listed pursuant to Section 303(d) of the Clean Water Act [CWA])

4.4 Alternative-Specific Impact Analysis

4.4.1 No Build Alternative

Under the No Build Alternative, the proposed project improvements would not be incorporated at the project site. The 58 mile long safe common pathway for bikers, pedestrians and low-speed electric vehicles would not be implemented throughout the Coachella Valley, and the project objective of alleviating congestion along Highway 111 would not be achieved under this alternative. Approximately 279 acres of area will remain undisturbed.

Although the No Build Alternative would avoid temporary operational impacts associated with construction of the proposed project, the No Build Alternative would not achieve its objective to create a safe, continuous route throughout the Coachella Valley, as well as improve air quality. The No Build Alternative will also prevent the community from uniting at a common location that is easily accessible.

4.4.2 Build Alternative 1

Build Alternative 1 would provide a 58 mile long safe route for pedestrians, bikers and low-speed electric vehicles along the levee of the Chino Canyon Creek, Tahquitz Creek Channel, Palm Canyon Channel, Cathedral Canyon Channel West, San Pasqual Channel and Whitewater River Channel/Coachella Valley Stormwater Channel. The Project will run through Palm Springs, Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, La Quinta, Indio and Coachella. Access points, rest areas, benches, restrooms, bridges and under crossings would be placed sporadically throughout the route.

The estimated total disturbed soil area (DSA) for Build Alternative 1 is approximately 234 acres. Approximately 68% of the disturbed area will be impervious area which would be the pathway for bikes and low-speed electric vehicles. The pathway for bikers and low-speed vehicles will range from 12 to 20 feet wide. The remaining 32% of the disturbed area will be pervious area consisting of decomposed granite walkway for pedestrians and landscape buffer for beautification. The pedestrian decomposed granite walkway will range from 6 to 8 feet except for transition areas where it would be less. Landscape buffer areas will range from 2 to 10 feet in some areas.

Build Alternative 1 would achieve its objective of alleviating congestion along Highway 111 and improve air quality, if implemented. It will also unite the cities within the Coachella Valley and provide easily accessible amenities for the community and tourists.

Build Alternative 1 will cause no significant impacts to the water surface elevations in Whitewater River and Tahquitz Creek. Construction, operational and maintenance activities will cause pollutants of concern such as sediments, nutrients, bacterial indicators, pesticides, oil & grease and trash & debris to enter the receiving waters adjacent to the proposed project. Construction BMPs will be implemented during the construction phase of the project to help prevent pollutants from entering the receiving waters. Maintenance activities will minimize pollutants along the pathway in post-construction conditions. BMPs will be implemented for the access/staging points as required for compliance with the NPDES Permit.

4.4.3 Build Alternative 2

Build Alternative 2 would provide a 58 mile long safe route for pedestrians, bikers and low-speed electric vehicles similar to Build Alternative 1 with the exception of including alignment CL 6-2a to 7-2a instead of CL 4-3 to 7-2. CL 6-2a to 7-2a is 4,872 feet long and is located on the channel side of the levee adjacent to Four Seasons.

The estimated total disturbed soil area (DSA) for Build Alternative 2 is approximately 312 acres. Approximately 72% of the disturbed area will be impervious area which would be the pathway for bikes and low-speed electric vehicles. The pathway for bikers and low-speed vehicles will range from 12 to 20 feet wide. The remaining 28% of the disturbed area will be pervious area consisting of decomposed granite walkway for pedestrians and landscape buffer for beautification. The pedestrian decomposed granite walkway will range from 6 to 8 feet except for transition areas where it would be less. Landscape buffer areas will range from 2 to 10 feet in some areas.

Build Alternative 2 would achieve its objective of alleviating congestion along Highway 111 and improve air quality, if implemented. It will also unite the cities within the Coachella Valley and provide easily accessible amenities for the community and tourists.

Although Build Alternative 2 is in the channel side of the levee in Whitewater River, it will cause no significant impacts to the water surface elevations in Whitewater River. Build Alternative 2 will have the same results as Build Alternative 1 so construction BMPs will be implemented during the construction phase of the project to help prevent pollutants from entering the receiving waters. Maintenance activities will minimize pollutants along the pathway in post-construction conditions. BMPs will be implemented for the access/staging points as required for compliance with the NPDES Permit.

4.4.4 Build Alternative 3

Build Alternative 3 would provide a 58 mile long safe route for pedestrians, bikers and low-speed electric vehicles similar to Build Alternative 1 with the exception of including alignment CL 6-2b to 7-2b instead of CL 4-3 to 7-2. CL 6-2b to 7-2b is 4,647 feet long and is located on the residential side of the levee adjacent to Four Seasons.

The estimated total disturbed soil area (DSA) for Build Alternative 3 is approximately 279 acres. Approximately 71% of the disturbed area will be impervious area which would be the pathway for bikes and low-speed electric vehicles. The pathway for bikers and low-speed vehicles will range from 12 to 20 feet wide. The remaining 29% of the disturbed area will be pervious area consisting of decomposed granite walkway for pedestrians and landscape buffer for beautification. The pedestrian decomposed granite walkway will range from 6 to 8 feet except for transition areas where it would be less. Landscape buffer areas will range from 2 to 10 feet in some areas.

Build Alternative 3 would achieve its objective of alleviating congestion along Highway 111 and improve air quality, if implemented. It will also unite the cities within the Coachella Valley and provide easily accessible amenities for the community and tourists.

Build Alternative 3 is in the residential side of the levee along Whitewater River and will cause no significant impacts to the water surface elevations in Whitewater River. Build Alternative 3 will have the same results as Build Alternative 1 and 2 so construction BMPs will be implemented during the construction phase of the project to help prevent pollutants from entering the receiving waters. Maintenance activities will minimize pollutants along the pathway in post-construction conditions. BMPs will be implemented for the access/staging points as required for compliance with the NPDES Permit.

4.5 Cumulative Impacts

Construction, operational and maintenance activities will cause pollutants of concern such as sediments, nutrients, bacterial indicators, pesticides, oil & grease and trash & debris to enter the receiving waters adjacent to the proposed project where applicable. The project must

comply with NPDES permitting requirements and must include BMPs to avoid impacts to water quality and local hydrology in compliance with regional board requirements and local ordinances and plans adopted to comply with the MS4 Permit. The project will comply with the Construction General Permit (CGP). The Build Alternatives must consider impaired receiving waters and annual TMDL loads for its receiving waters. The TMDL program is designed to identify all constituents that adversely affect the beneficial uses of water bodies and then identify appropriate reductions in pollutant loads or concentrations from all sources so that the receiving waters can maintain/attain the beneficial uses in the Colorado River Region Basin Plan. Thus, by complying with TMDLs, as specified by the NPDES Permit, the project's contribution to overall water quality improvement in the watershed is designed to account for cumulative impacts.

The Build Alternatives are being proposed in areas that are adjacent to urbanized and developed. Majority of the proposed improvements would be located along the levee of the Chino Canyon Creek, Tahquitz Creek Channel, Tahquitz Creek, Palm Canyon Channel, Cathedral Canyon Channel West, San Pasqual Channel, and Whitewater River Channel/Coachella Valley Storm Water Channel. The Build Alternatives will also comply with the requirements of the NPDES Permit and the CGP.

Regional programs and BMPs such as TMDL programs and the MS4 Permit Program have been designed under an assumption that the Whitewater Hydrologic Unit would continue its pattern of urbanization. The Colorado River Basin Regional Water Quality Control Board considers the cumulative effects of proposed development. The Build Alternatives would be required to comply with the regulations in effect at the time the grading permits are issued. Compliance with these regional programs and the CGP constitute compliance with programs intended to address cumulative water quality impacts. Each cumulative project would be required to develop a SWPPP and would be evaluated individually to determine appropriate BMPs to avoid impacts to surface water quality. Since the project will include BMPs at access/staging points in accordance with the requirements of the NPDES Permit, post-construction pollutants of concern in runoff from these areas under all of the Build Alternatives will not be significant.

5. AVOIDANCE AND MINIMIZATION MEASURES

WQ-1 The project will comply with the provisions of the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) Order No. 2009-0009-DWQ, as amended by 2010-2014-DWQ and 2012-0006-DWQ, NPDES No. CAS000002, or any subsequent permit. The project shall comply with the Construction General Permit by preparing and implementing a Storm Water Pollution Prevention Plan (SWPPP) to address all construction-related activities, equipment, and materials that have the potential to impact water quality for the appropriate Risk Level. The SWPPP will identify the sources of pollutants that may affect the quality of storm water and include BMPs to control the pollutants, such as sediment control, catch basin inlet protection, temporary soil stabilization, construction materials management, and non-storm water BMPs.

WQ-2 The project will comply with the Colorado River Regional Board NPDES Permit, Order No. R7-2013-0011, NPDES No. CAS617002.

WQ-3 Treatment BMPs will be implemented as required for compliance with the NPDES Permit.

WQ-4 Within tribal lands, the project will comply with EPA's NPDES Permit No. CAR100001 and EPA's General Construction Permit.

WQ-5 Within lands under the jurisdiction of the Bureau of Land Management or any other Federal agency, water pollution control issues will be addressed as per the applicable Water Quality Management Plan.

6. REFERENCES

6.1 Works Cited

Caltrans Division of Design Stormwater homepage for guidance and tools (Project Risk Level, Estimating for CGP, Erosion Prediction software, etc.):
http://www.dot.ca.gov/hq/oppd/stormwtr/index.htm

Caltrans Division of Environmental Analysis Storm Water Homepage:
http://www.dot.ca.gov/hq/env/stormwater/

Caltrans Standard Environmental Reference (SER) Volume I

- For wetlands, hydromorphic method and water assessment information, see Chapter 15 - Waters of the U.S. and the State:
http://www.dot.ca.gov/ser/vol1/sec3/natural/ch15wetland/ch15wetland.htm

- For hydraulic studies and floodplain encroachment information, see Chapter 17 - Floodplains: http://www.dot.ca.gov/ser/vol1/sec3/special/ch17flood/chap17.htm

- For Coastal Zone permits information, see Chapter 18 - Coastal Zone:
http://www.dot.ca.gov/ser/vol1/sec3/special/ch18coastal/chap18.htm

- For Wild and Scenic Rivers information, see Chapter 19 - Wild and Scenic Rivers:
http://www.dot.ca.gov/ser/vol1/sec3/special/ch19wsrivers/chap19.htm

Caltrans Storm Water Quality Handbook Project Planning and Design Guide (PPDG):
http://www.dot.ca.gov/hq/oppd/stormwtr/swdr2010/PPDG%20July%202010%20r2.pdf

Caltrans Stormwater Quality Practice Guidelines:
http://pd.dot.ca.gov/env/stormwater/html/practice_guidelines.htm

Caltrans Water Quality Planning Tool: http://www.water-programs.com/wqpt.htm

State Water Resources Control Board Storm Water Program, 2009-0009-DWQ Construction General Permit:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml

United States (U.S.) Environmental Protection Agency Section 404(b)(1) guidelines:
http://www.epa.gov/owow/wetlands/pdf/40cfrPart230.pdf

U.S. Department of Agriculture, Natural Resources Conservation Service, Web Soil Survey:
http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm

Coachella Valley Link:

http://www.coachellavalleylink.com/

Coachella Valley Multiple Species Habitat Conservation Plan:
https://www.cvmshcp.org/index.htm

Coachella Valley Final Water Management Plan:
http://www.cvwd.org/DocumentCenter/View/1193

Colorado River Basin Regional Water Quality Control Board:
http://www.waterboards.ca.gov/coloradoriver/

Colorado River Region Basin Plan:
http://www.waterboards.ca.gov/coloradoriver/water_issues/programs/basin_planning/

U.S. Fish & Wildlife Service, National Wetlands Inventory:
https://www.fws.gov/wetlands/Data/Mapper.html

U.S. Fish & Wildlife Service, Geospatial Fisheries Information Network:
http://ecos.fws.gov/geofin/

U.S. Fish & Wildlife Service, National Wildlife Refuge System:
https://www.fws.gov/refuges/whm/habitat.html

The Wildlands Conservancy: http://www.wildlandsconservancy.org/preserve_whitewater.html

6.2 Preparer(s) Qualifications

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Appendix A – FIRMs

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations tables in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations tables should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 11. The **horizontal datum** was NAD 83, GRS80 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

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

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242**, or visit its website at http://www.ngs.noaa.gov.

Base map information shown on this FIRM was derived from U.S. Geological Survey Digital Orthophoto Quadrangles produced at a scale of 1:12,000 from photography dated 1994 or later.

This map may reflect more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

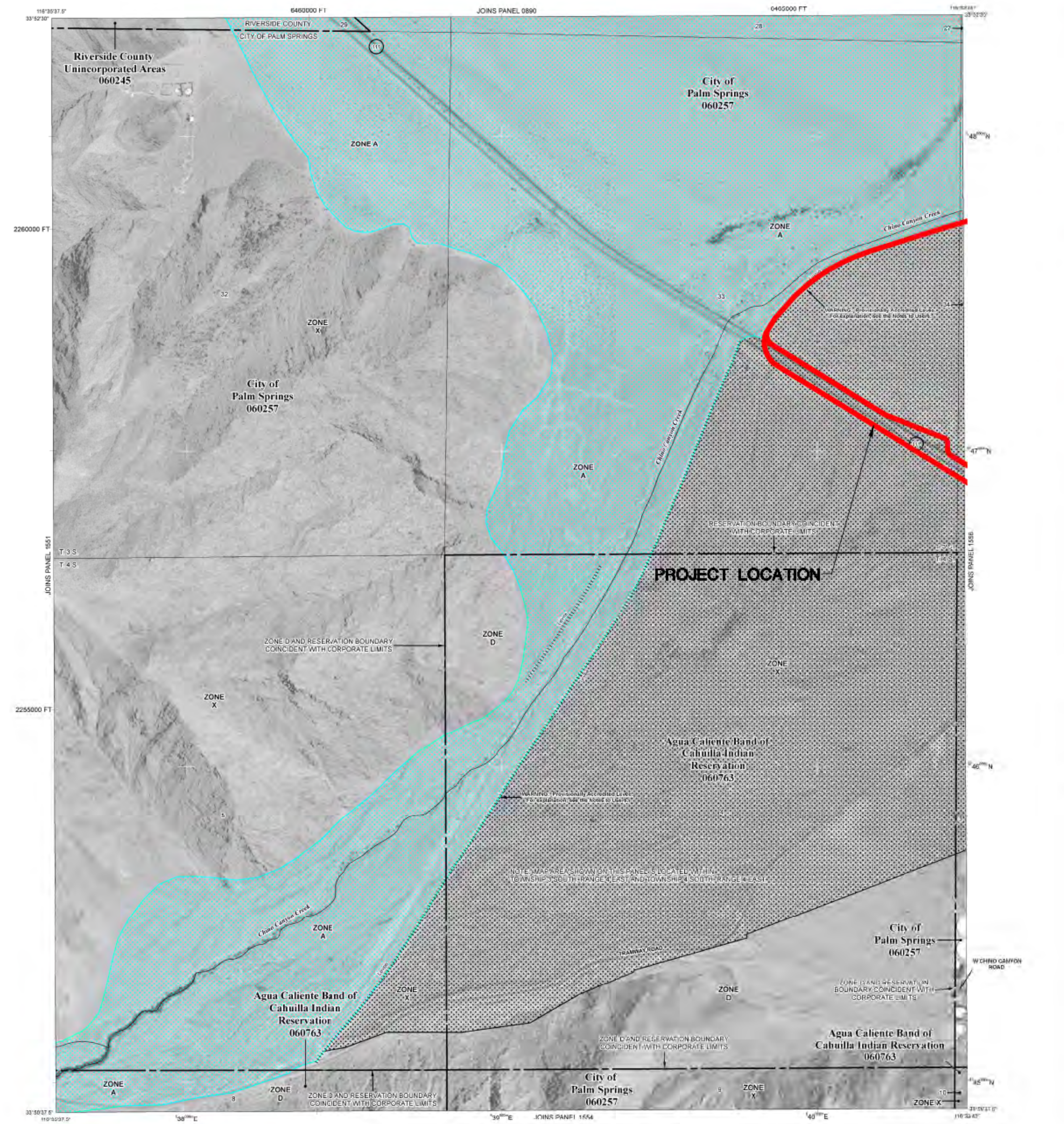
Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

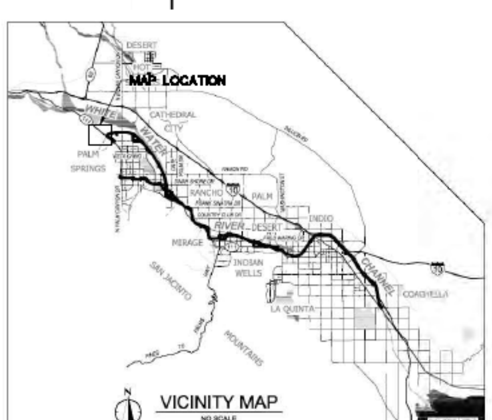
Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at http://msc.fema.gov.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov.

WARNING: This map contains levees, dikes, or other structures that have been provisionally accredited and mapped as providing protection from the 1-percent-annual-chance flood. To maintain accreditation, the levee owner or community is required to submit documentation necessary to comply with 44 CFR Section 65.10 by August 8, 2009. Because of the risk of overtopping or failure of the structure, communities should take proper precautions to protect lives and minimize damages in these areas, such as issuing an evacuation plan and encouraging property owners to purchase flood insurance.





LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X — Areas determined to be outside the 0.2% annual chance floodplain.

ZONE D — Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- ~~~ 513 ~~~ — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

(A)—(A)	Cross section line
(23)- - -(23)	Transect line
87°07'45", 32°22'30"	Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
[76]N	1000-meter Universal Transverse Mercator grid values, zone 11N
600000 FT	5000-foot grid ticks: California State Plane coordinate system, zone VI (FIPSZONE 0406), Lambert Conformal Conic projection
DX5510 ×	Bench mark (see explanation in Notes to Users section of this FIRM panel)
• M1.5	River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
August 28, 2008

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

250 0 500 1000 FEET
150 0 150 300 METERS

NFIP — NATIONAL FLOOD INSURANCE PROGRAM

PANEL 1552G

FIRM
FLOOD INSURANCE RATE MAP

RIVERSIDE COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 1552 OF 3805
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
AGUA CALIENTE BAND OF CAHUILLA INDIAN RESERVATION	060763	1552	G
PALM SPRINGS, CITY OF	060257	1552	G
RIVERSIDE COUNTY	060245	1552	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06065C1552G

EFFECTIVE DATE
AUGUST 28, 2008

Federal Emergency Management Agency

Stantec
46 DISCOVERY, STE. 250
IRVINE, CA 92618
(949) 474-1400 TEL
(949) 261-8482 FAX

LOCATION MAP

SCALE N.T.S.

07/26/16 03:54:51 PM V:\2065\active\...

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations tables in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations tables should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 11. The **horizontal datum** was NAD 83, GRS80 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

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

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242**, or visit its website at http://www.ngs.noaa.gov.

Base map information shown on this FIRM was derived from U.S. Geological Survey Digital Orthophoto Quadrangles produced at a scale of 1:12,000 from photography dated 1994 or later.

This map may reflect more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

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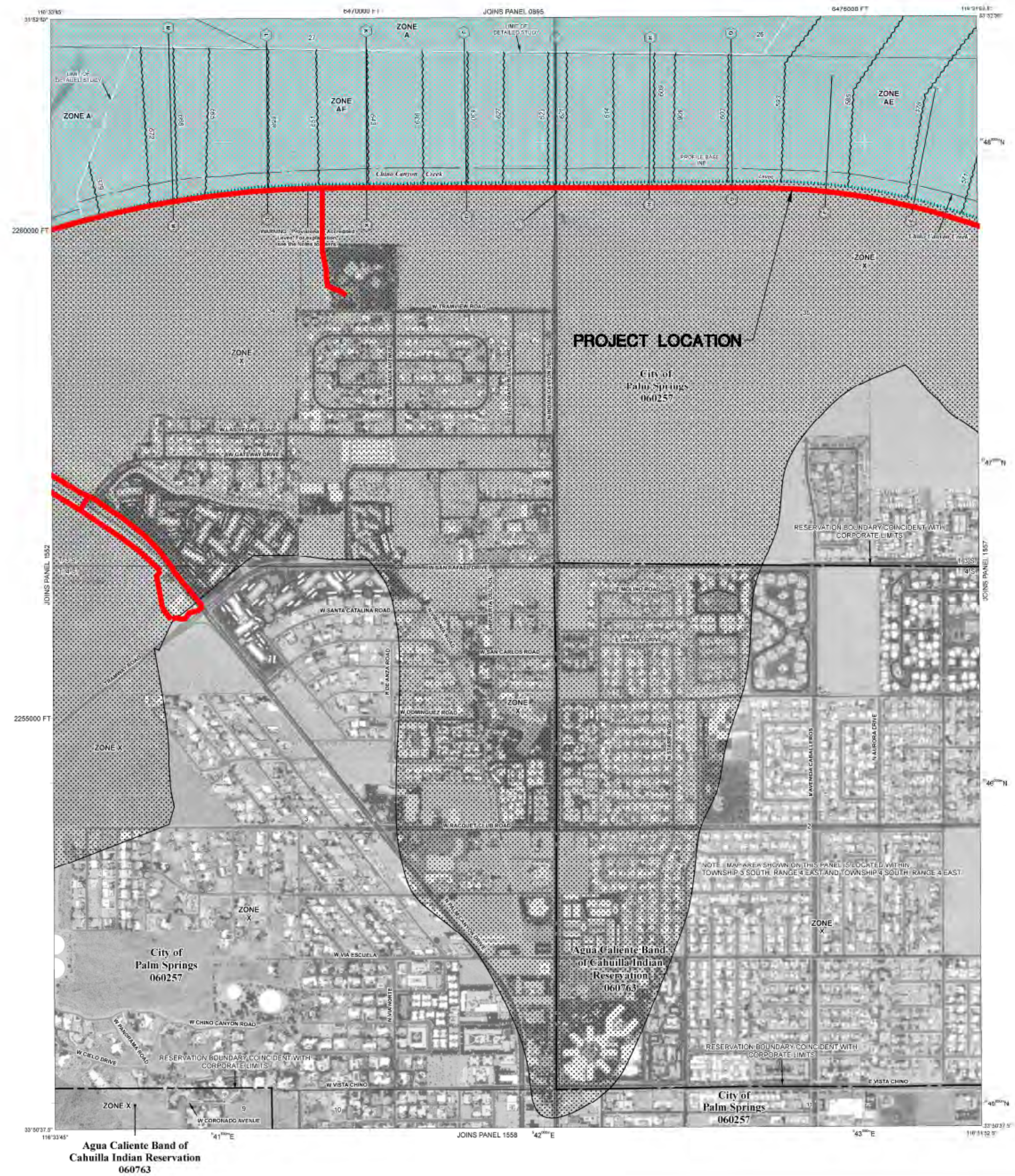
WARNING: This map contains levees, dikes, or other structures that have been provisionally accredited and mapped as providing protection from the 1-percent-annual-chance flood. To maintain accreditation, the levee owner or community is required to submit documentation necessary to comply with 44 CFR Section 65.10 by August 8, 2009. Because of the risk of overtopping or failure of the structure, communities should take proper precautions to protect lives and minimize damages in these areas, such as issuing an evacuation plan and encouraging property owners to purchase flood insurance.



LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X — Areas determined to be outside the 0.2% annual chance floodplain.

ZONE D — Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- ~~~ 513 ~~~ Base Flood Elevation line and value; elevation in feet*
- (EL 987) Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

- (A)—(A) Cross section line
- (23)- - -(23) Transect line
- 87°07'45", 32°22'30" Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
- [76]N 1000-meter Universal Transverse Mercator grid values, zone 11N
- 600000 FT 5000-foot grid ticks: California State Plane coordinate system, zone VI (FIPSZONE 0406), Lambert Conformal Conic projection
- DX5510 × Bench mark (see explanation in Notes to Users section of this FIRM panel)
- • M1.5 River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
August 28, 2008

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

250 0 500 1000 FEET
150 0 150 300 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 1556G

FIRM
FLOOD INSURANCE RATE MAP

RIVERSIDE COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 1556 OF 3805
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
AGUA CALIENTE BAND OF CAHUILLA INDIAN RESERVATION	060763	1556	G
PALM SPRINGS, CITY OF	060257	1556	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06065C1556G

EFFECTIVE DATE
AUGUST 28, 2008

Federal Emergency Management Agency

Stantec
46 DISCOVERY, STE 250
IRVINE, CA 92618
(949) 474-1400 TEL
(949) 261-8482 FAX

LOCATION MAP

SCALE N.T.S.

SHEET 2 OF 22

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

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Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

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The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 11. The **horizontal datum** was NAD 83, GRS80 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

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National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

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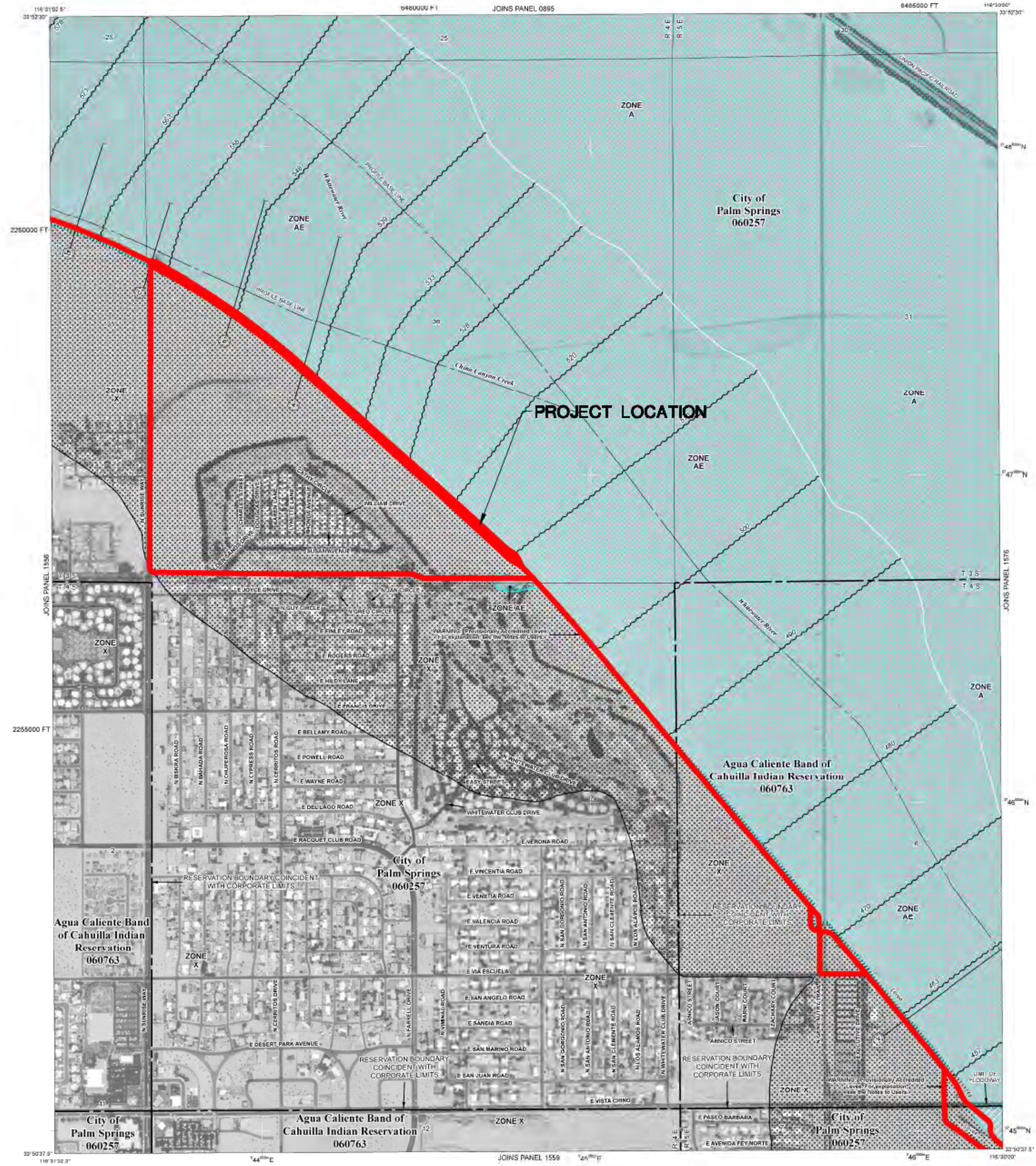

LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

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ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
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ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X — Areas determined to be outside the 0.2% annual chance floodplain.

ZONE D — Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

1% annual chance floodplain boundary

0.2% annual chance floodplain boundary

Floodway boundary

Zone D boundary

CBRS and OPA boundary

Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.

~~ 513 ~~~	Base Flood Elevation line and value; elevation in feet*
(EL 987)	Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

(A)——(A)	Cross section line
(23)- - - -(23)	Transect line
87°07'45", 32°22'30"	Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
⁷⁶⁰⁰⁰N	1000-meter Universal Transverse Mercator grid values, zone 11N
600000 FT	5000-foot grid ticks: California State Plane coordinate system, zone VI (FIPSZONE 0406), Lambert Conformal Conic projection
DX5510 ×	Bench mark (see explanation in Notes to Users section of this FIRM panel)
• M1.5	River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
August 28, 2008

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

250 0 500 1000 FEET
150 0 150 300 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 1557G

FIRM
FLOOD INSURANCE RATE MAP

RIVERSIDE COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 1557 OF 3805
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
AGUA CALIENTE BAND OF CAHUILLA INDIAN RESERVATION	060763	1557	G
PALM SPRINGS, CITY OF	060257	1557	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06065C1557G

EFFECTIVE DATE
AUGUST 28, 2008

Federal Emergency Management Agency

Stantec

46 DISCOVERY, STE 250
IRVINE, CA 92618
(949) 474-1400 TEL
(949) 261-8482 FAX

LOCATION MAP

SCALE
N.T.S.

SHEET
3 OF 22

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

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Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations tables in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations tables should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

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

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242**, or visit its website at http://www.ngs.noaa.gov.

Base map information shown on this FIRM was derived from U.S. Geological Survey Digital Orthophoto Quadrangles produced at a scale of 1:12,000 from photography dated 1994 or later.

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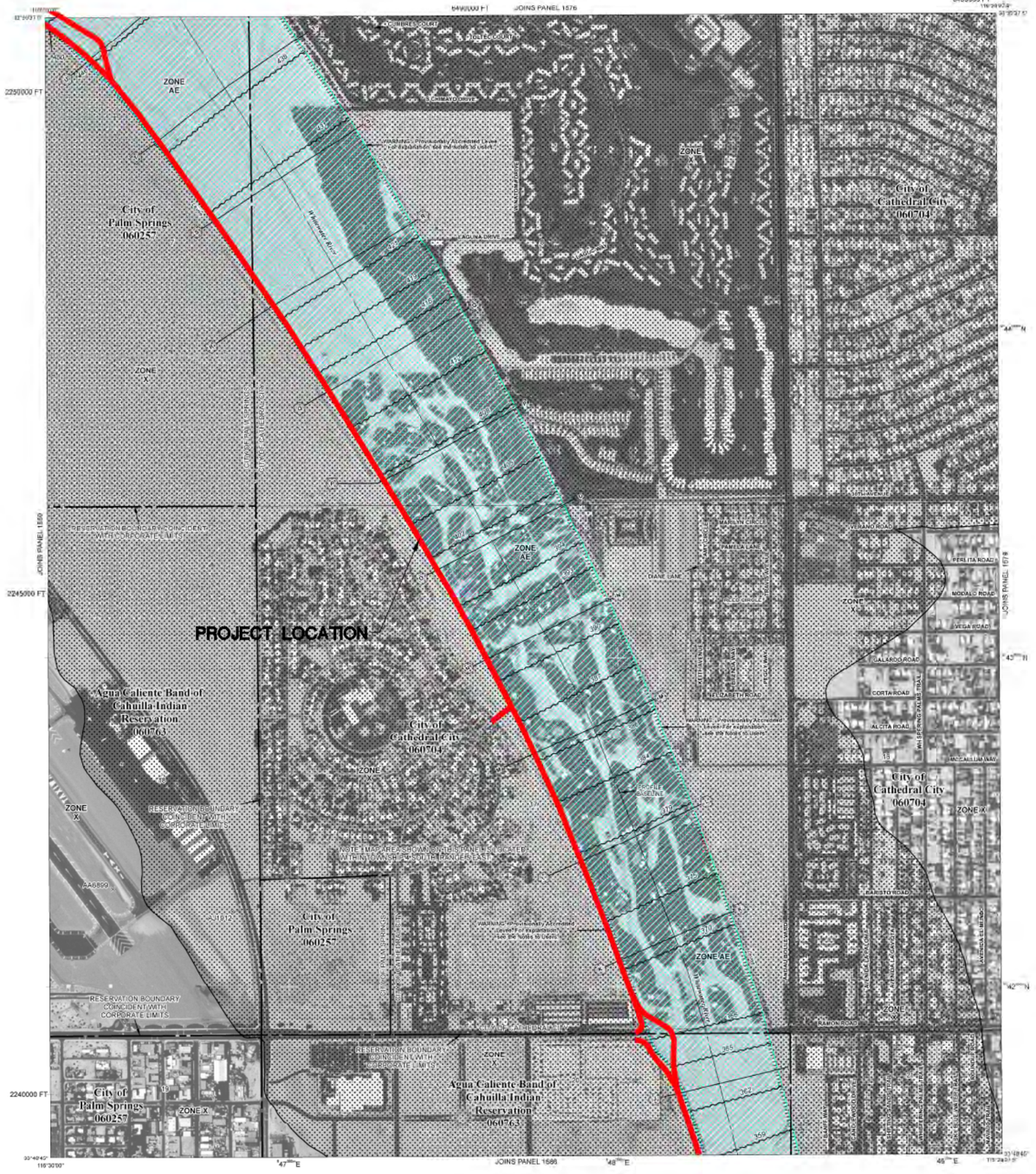
Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at http://msc.fema.gov.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov.

WARNING: This map contains levees, dikes, or other structures that have been provisionally accredited and mapped as providing protection from the 1-percent-annual-chance flood. To maintain accreditation, the levee owner or community is required to submit documentation necessary to comply with 44 CFR Section 65.10 by August 8, 2009. Because of the risk of overtopping or failure of the structure, communities should take proper precautions to protect lives and minimize damages in these areas, such as issuing an evacuation plan and encouraging property owners to purchase flood insurance.



LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A — No Base Flood Elevations determined.
- ZONE AE — Base Flood Elevations determined.
- ZONE AH — Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO — Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR — Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99 — Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V — Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE — Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

- ZONE X — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

- ZONE X — Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D — Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL. 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

- A — A — Cross section line
- 23 — 23 — Transect line
- 87°07'45", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
- 4278000 mN — 1000-meter Universal Transverse Mercator grid values, zone 11N
- 500000 FT — 5000-foot grid ticks: California State Plane coordinate system, zone VI (FIPSZONE 0406), Lambert Conformal Conic projection
- DX5510 — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 — River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
August 28, 2008

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 600'
200 0 500 1000 FEET
150 0 150 300 METERS

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 1578G

FIRM

FLOOD INSURANCE RATE MAP

RIVERSIDE COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 1578 OF 3805
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
AGUA CALIENTE BAND OF CAHUILLA INDIAN RESERVATION	060763	1578	G
CATHEDRAL CITY, CITY OF	060704	1578	G
PALM SPRINGS, CITY OF	060257	1578	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06065C1578G

EFFECTIVE DATE
AUGUST 28, 2008

Federal Emergency Management Agency

Stantec
46 DISCOVERY, STE. 230
IRVINE, CA. 92618
(949) 474-1300 TEL
(949) 261-8682 FAX

LOCATION MAP

SCALE N.T.S.

SHEET 4 OF 22

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations tables in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations tables should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 11. The **horizontal datum** was NAD 83, GRS80 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

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

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242**, or visit its website at http://www.ngs.noaa.gov.

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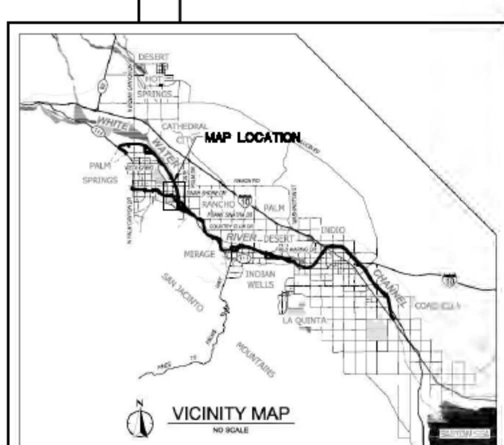

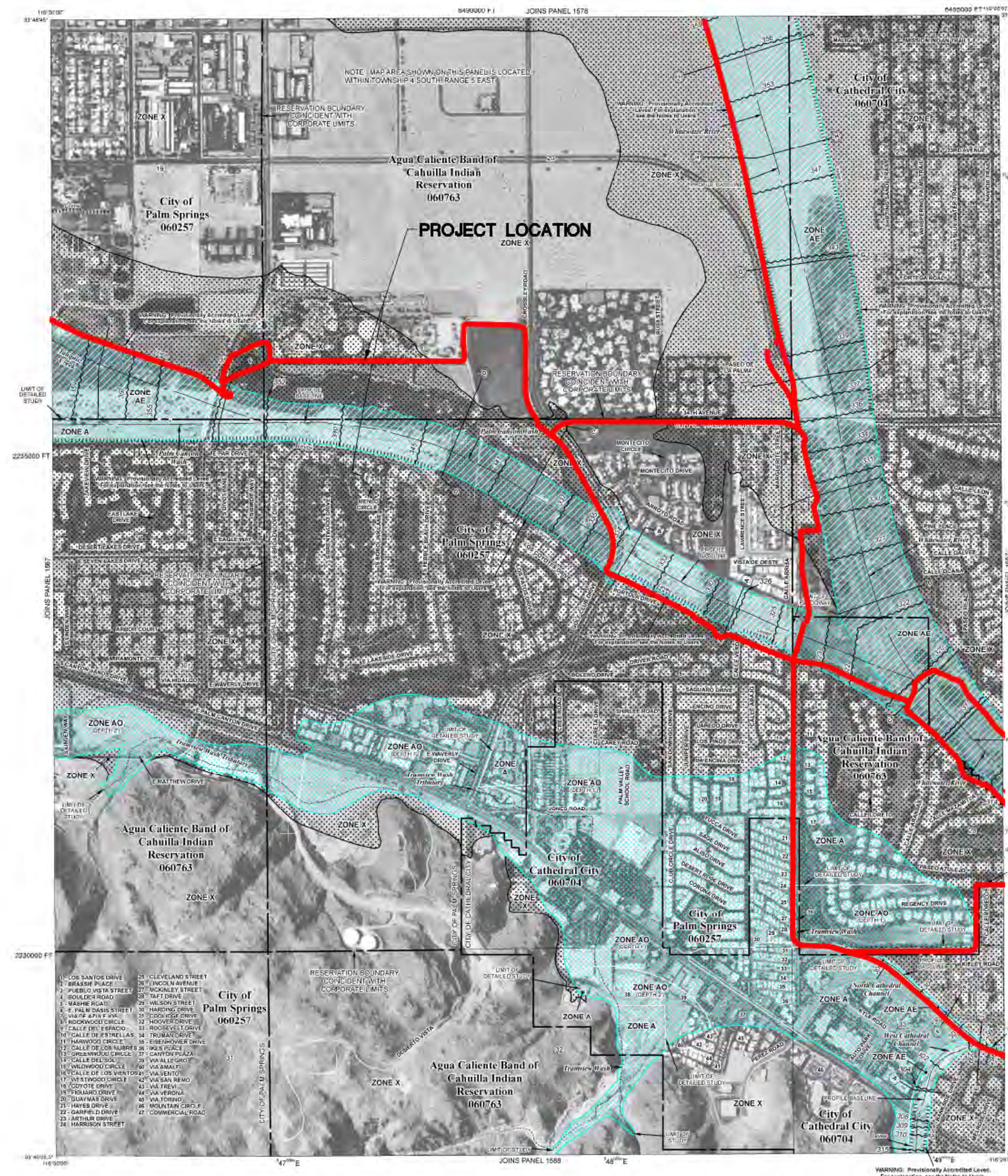

LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

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ZONE A	No Base Flood Elevations determined.
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ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X — Areas determined to be outside the 0.2% annual chance floodplain.

ZONE D — Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

1% annual chance floodplain boundary
0.2% annual chance floodplain boundary
Floodway boundary
Zone D boundary
CBRS and OPA boundary
Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
~~~ 513 ~~~ Base Flood Elevation line and value; elevation in feet*
(EL 987) Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

Cross section line
Transect line
87°07'45", 32°22'30" Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
^{76}N 1000-meter Universal Transverse Mercator grid values, zone 11N
600000 FT 5000-foot grid ticks: California State Plane coordinate system, zone VI (FIPSZONE 0406), Lambert Conformal Conic projection
DX5510 × Bench mark (see explanation in Notes to Users section of this FIRM panel)
• M1.5 River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
August 28, 2008

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

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MAP SCALE 1" = 500'
250 0 500 1000 FEET
150 0 150 300 METERS

NFIP
NATIONAL FLOOD INSURANCE PROGRAM

PANEL 1586G

FIRM
FLOOD INSURANCE RATE MAP

RIVERSIDE COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 1586 OF 3805
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
AGUA CALIENTE BAND OF CAHUILLA INDIAN RESERVATION	060763	1586	G
CATHEDRAL CITY, CITY OF	060704	1586	G
PALM SPRINGS, CITY OF	060257	1586	G

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MAP NUMBER
06065C1586G

EFFECTIVE DATE
AUGUST 28, 2008

Federal Emergency Management Agency

Stantec
46 DISCOVERY, STE. 250
IRVINE, CA 92618
(949) 474-1400 TEL
(949) 261-8482 FAX

LOCATION MAP

SCALE N.T.S.
SHEET 5 OF 22

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NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

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Silver Spring, Maryland 20910-3282
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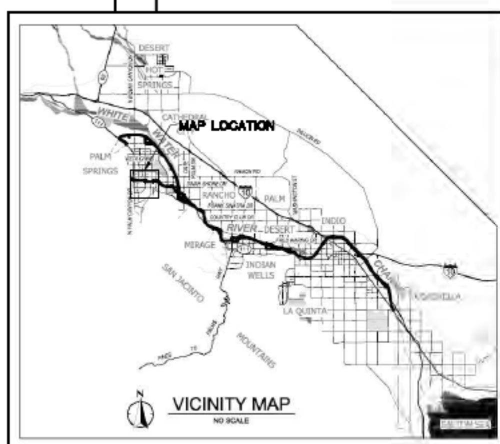

LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

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ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
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ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X — Areas determined to be outside the 0.2% annual chance floodplain.

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COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

	1% annual chance floodplain boundary
	0.2% annual chance floodplain boundary
	Floodway boundary
	Zone D boundary
	CBRS and OPA boundary
	Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
~~ 513 ~~~	Base Flood Elevation line and value; elevation in feet*
(EL 987)	Base Flood Elevation value where uniform within zone; elevation in feet*

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A—A	Cross section line
23- - -23	Transect line
87°07'45", 32°22'30"	Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
76000mN	1000-meter Universal Transverse Mercator grid values, zone 11N
300000 FT	5000-foot grid ticks: California State Plane coordinate system, zone VI (FIPSZONE 0406), Lambert Conformal Conic projection
DX5510 x	Bench mark (see explanation in Notes to Users section of this FIRM panel)
• M1.5	River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
August 28, 2008

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

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MAP SCALE 1" = 500'

250 0 500 1000 FEET
150 0 150 300 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 1567G

FIRM
FLOOD INSURANCE RATE MAP

RIVERSIDE COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 1567 OF 3805
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
AGUA CALIENTE BAND OF CAHUILLA INDIAN RESERVATION	060763	1567	G
PALM SPRINGS, CITY OF	060257	1567	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06065C1567G

EFFECTIVE DATE
AUGUST 28, 2008

Federal Emergency Management Agency

Stantec
46 DISCOVERY, STE 250
IRVINE, CA 92618
(949) 474-1400 TEL
(949) 261-8482 FAX

LOCATION MAP

SCALE	N.T.S.
SHEET	6 OF 22

NOTES TO USERS

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Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

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

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242**, or visit its website at http://www.ngs.noaa.gov.

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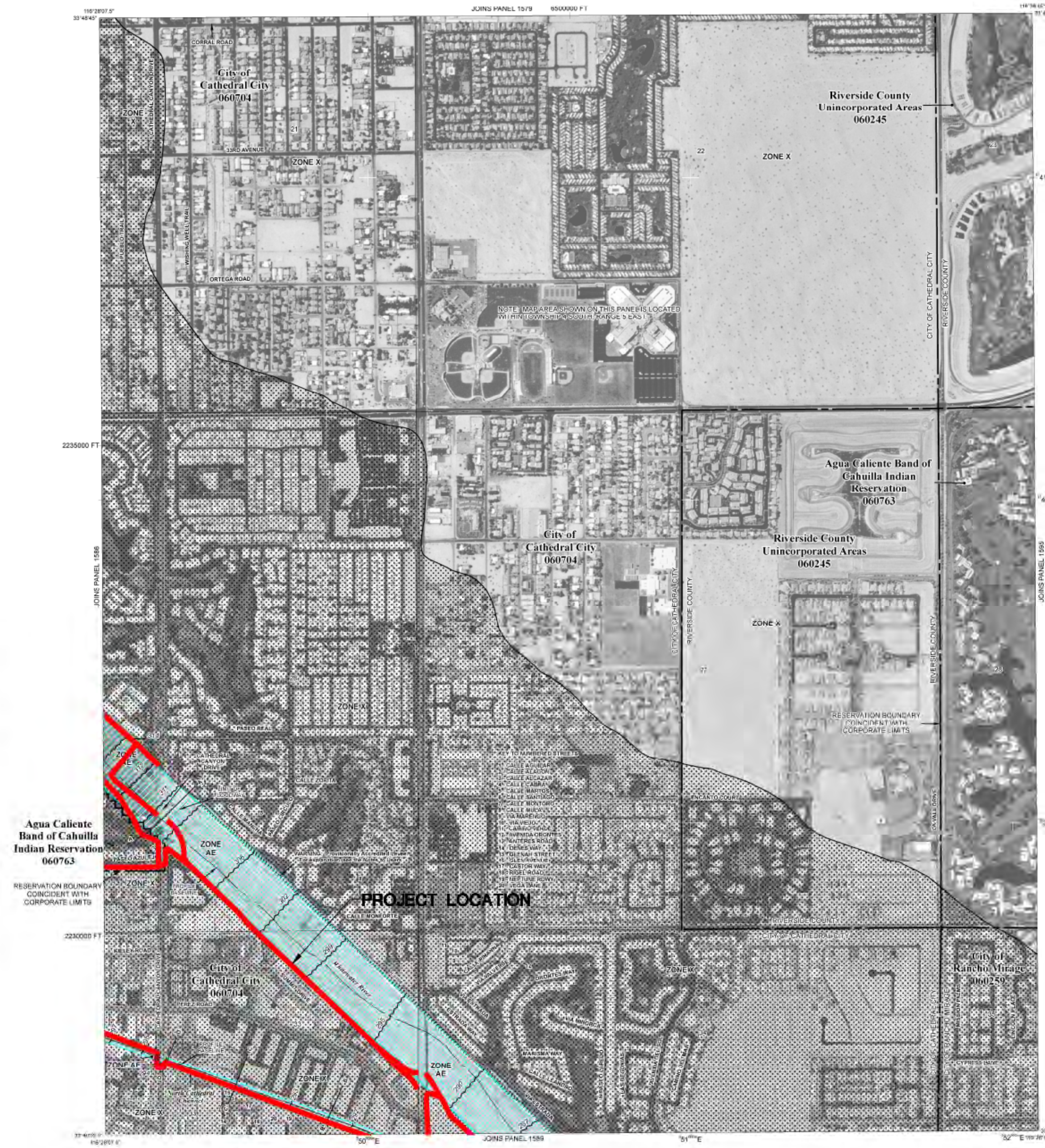
WARNING: This map contains levees, dikes, or other structures that have been provisionally accredited and mapped as providing protection from the 1-percent-annual-chance flood. To maintain accreditation, the levee owner or community is required to submit documentation necessary to comply with 44 CFR Section 65.10 by August 8, 2009. Because of the risk of overtopping or failure of the structure, communities should take proper precautions to protect lives and minimize damages in these areas, such as issuing an evacuation plan and encouraging property owners to purchase flood insurance.



LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X — Areas determined to be outside the 0.2% annual chance floodplain.

ZONE D — Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

- A — A: Cross section line
- 23 - - 23: Transect line
- 87°07'45", 32°22'30": Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
- 76 N: 1000-meter Universal Transverse Mercator grid values, zone 11N
- 600000 FT: 5000-foot grid ticks: California State Plane coordinate system, zone VI (FIPSZONE 0406), Lambert Conformal Conic projection
- DX5510 ×: Bench mark (see explanation in Notes to Users section of this FIRM panel)
- ● M1.5: River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
August 28, 2008

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

250 0 500 1000 FEET

150 0 150 300 METERS

NFIP — NATIONAL FLOOD INSURANCE PROGRAM

PANEL 1587G

FIRM

FLOOD INSURANCE RATE MAP

RIVERSIDE COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 1587 OF 3805

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
AGUA CALIENTE BAND OF CAHUILLA INDIAN RESERVATION	060763	1587	G
CATHEDRAL CITY, CITY OF	060704	1587	G
RANCHO MIRAGE, CITY OF	060259	1587	G
RIVERSIDE COUNTY	060245	1587	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06065C1587G

EFFECTIVE DATE
AUGUST 28, 2008

Federal Emergency Management Agency

Stantec
46 DISCOVERY, STE 230
IRVINE, CA 92618
(949) 474-1400 TEL
(949) 261-8482 FAX

LOCATION MAP

SCALE N.T.S.

SHEET 7 OF 22

NOTES TO USERS

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Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations tables in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations tables should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

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Silver Spring, Maryland 20910-3282
(301) 713-3242

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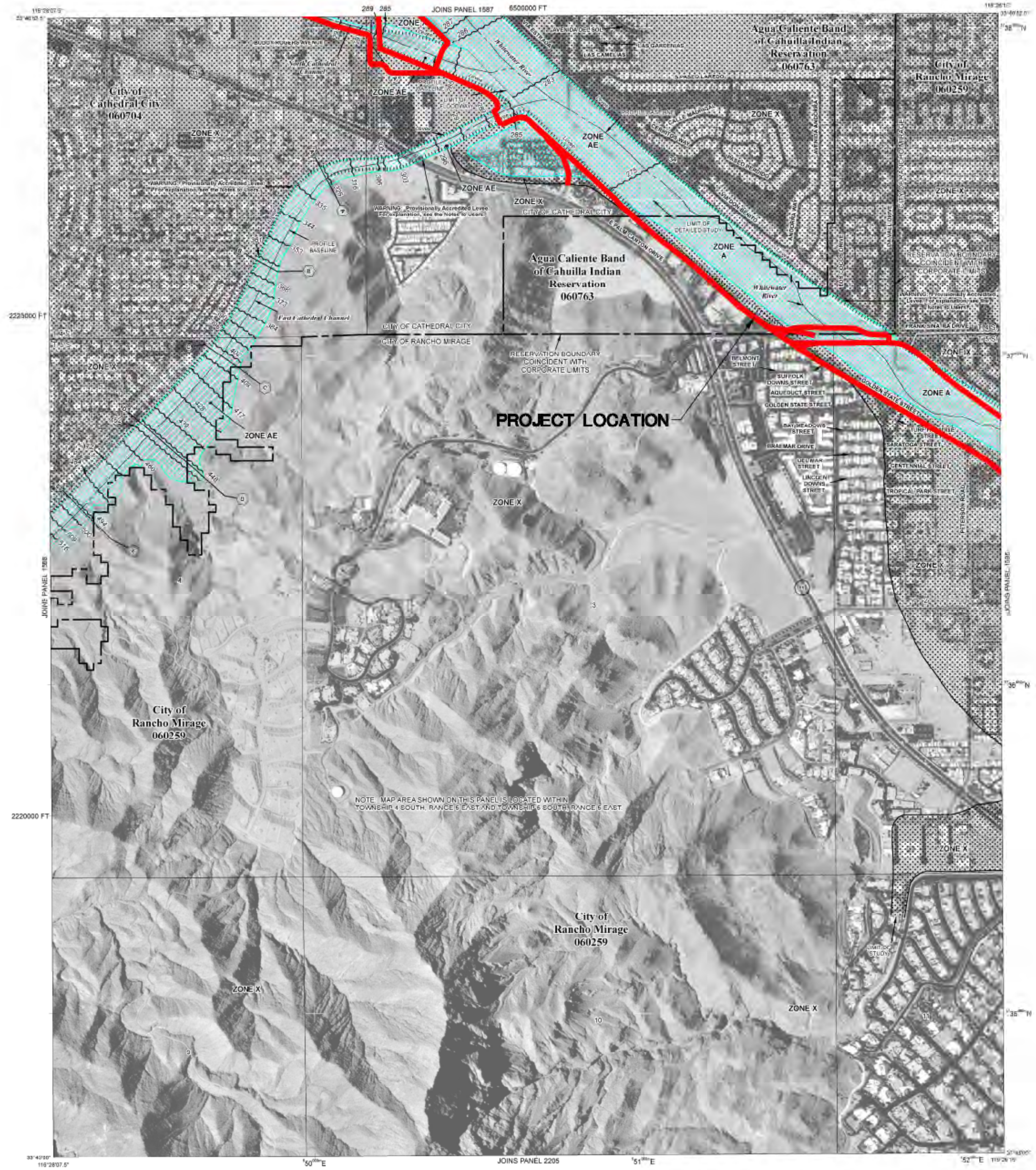

LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

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ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

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COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

- A—A — Cross section line
- 23—23 — Transect line
- 87°07'45", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
- 76 N — 1000-meter Universal Transverse Mercator grid values, zone 11N
- 600000 FT — 5000-foot grid ticks: California State Plane coordinate system, zone VI (FIPSZONE 0406), Lambert Conformal Conic projection
- DX5510 × — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- • M1.5 — River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
August 28, 2008

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

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MAP SCALE 1" = 500'

250 0 500 1000 FEET
150 0 150 300 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 1589G

FIRM
FLOOD INSURANCE RATE MAP

RIVERSIDE COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 1589 OF 3805
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
AGUA CALIENTE BAND OF CAHUILLA INDIAN RESERVATION	060763	1589	G
CATHEDRAL CITY, CITY OF	060704	1589	G
RANCHO MIRAGE, CITY OF	060259	1589	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06065C1589G

EFFECTIVE DATE
AUGUST 28, 2008

Federal Emergency Management Agency

Stantec
46 DISCOVERY, STE 250
IRVINE, CA 92618
(949) 474-1400 TEL
(949) 261-8462 FAX

LOCATION MAP

SCALE N.T.S.

NOTES TO USERS

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PROJECT LOCATION

LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

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ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

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COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

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MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
August 28, 2008

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MAP SCALE 1" = 1000'

500 0 1000 2000 FEET

300 0 300 600 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 1595G

FIRM

FLOOD INSURANCE RATE MAP

RIVERSIDE COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 1595 OF 3805
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
AGUA CALIENTE BAND OF CAHUILLA INDIAN RESERVATION	060763	1595	G
PALM DESERT, CITY OF	060629	1595	G
RANCHO MIRAGE, CITY OF	060259	1595	G
RIVERSIDE COUNTY	060245	1595	G

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MAP NUMBER
06065C1595G

EFFECTIVE DATE
AUGUST 28, 2008

Federal Emergency Management Agency

Stantec

46 DISCOVERY, STE 250
IRVINE, CA 92618
(949) 474-1400 TEL
(949) 261-8482 FAX

LOCATION MAP

SCALE N.T.S.

SHEET 9 OF 22

07/26/16 03:57:25 PM

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Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

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

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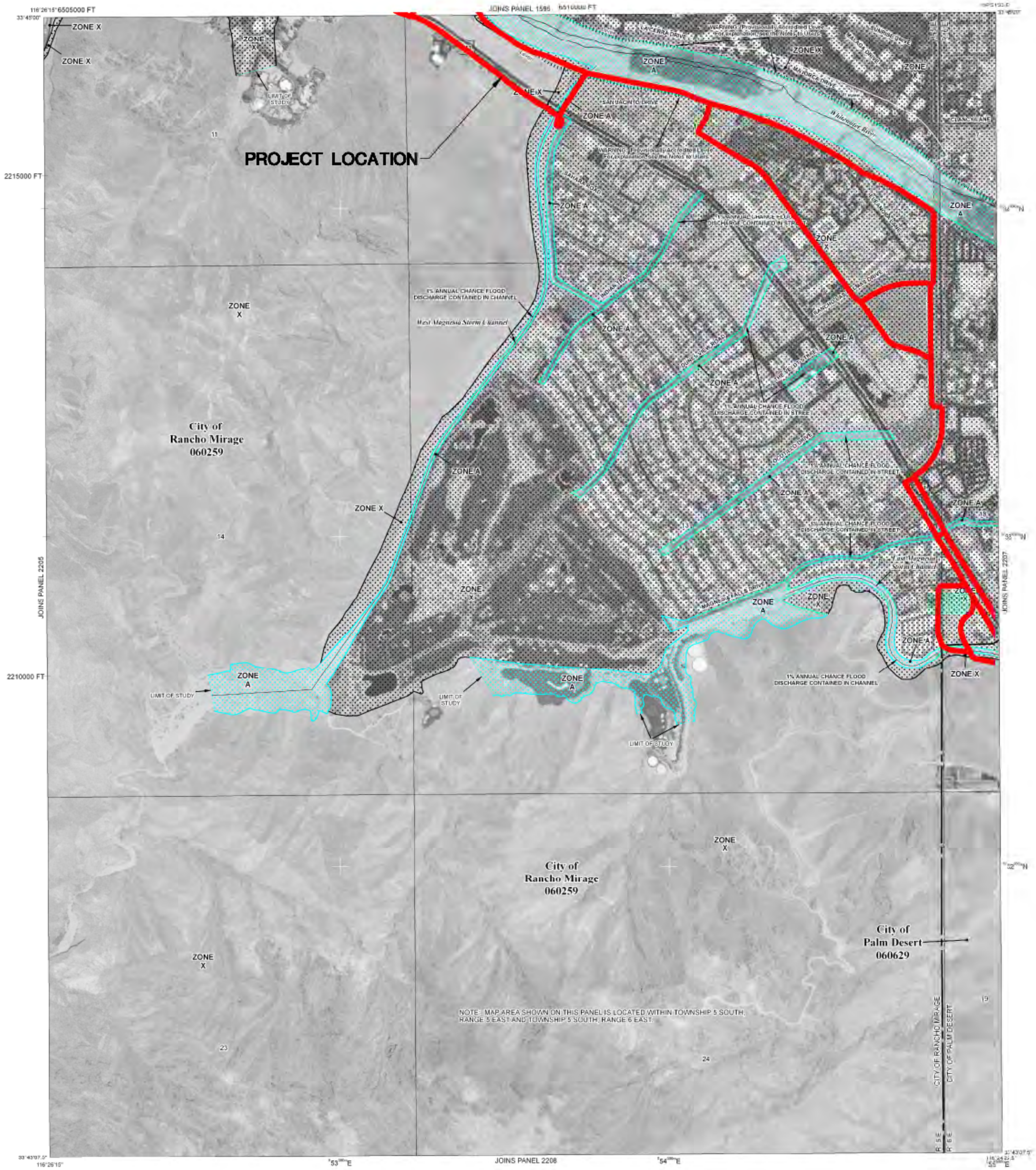

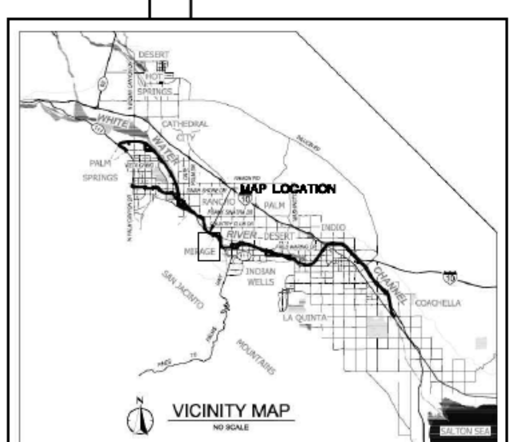

LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X — Areas determined to be outside the 0.2% annual chance floodplain.

ZONE D — Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- ~~~ 513 ~~~ Base Flood Elevation line and value; elevation in feet*
- (EL 987) Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

- (A)—(A) Cross section line
- (23)- - -(23) Transect line
- 87°07'45", 32°22'30" Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
- ^{76}^{000m}N 1000-meter Universal Transverse Mercator grid values, zone 11N
- 600000 FT 5000-foot grid ticks: California State Plane coordinate system, zone VI (FIPSZONE 0406), Lambert Conformal Conic projection
- DX5510 × Bench mark (see explanation in Notes to Users section of this FIRM panel)
- • M1.5 River Mile

MAP REPOSITORY
Refer to Listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
August 28, 2008

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

250 0 500 1000 FEET
150 0 150 300 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 2206G

FIRM

FLOOD INSURANCE RATE MAP

RIVERSIDE COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 2206 OF 3805
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
PALM DESERT, CITY OF	060629	2206	G
RANCHO MIRAGE, CITY OF	060259	2206	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06065C2206G

EFFECTIVE DATE
AUGUST 28, 2008

Federal Emergency Management Agency

Stantec
46 DISCOVERY, STE 250
IRVINE, CA 92618
(949) 474-1400 TEL
(949) 261-8482 FAX

LOCATION MAP

SCALE N.T.S.

NOTES TO USERS

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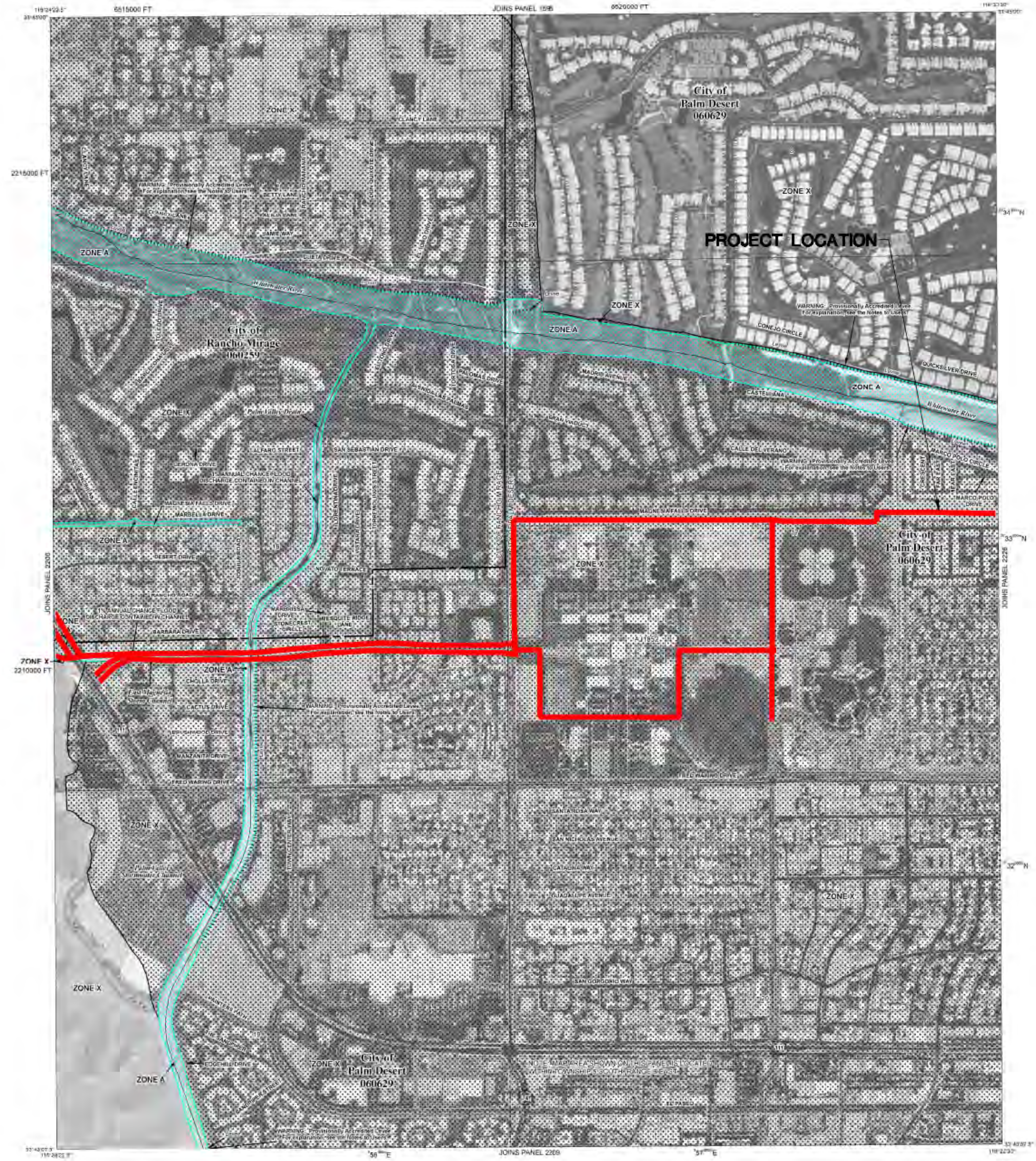

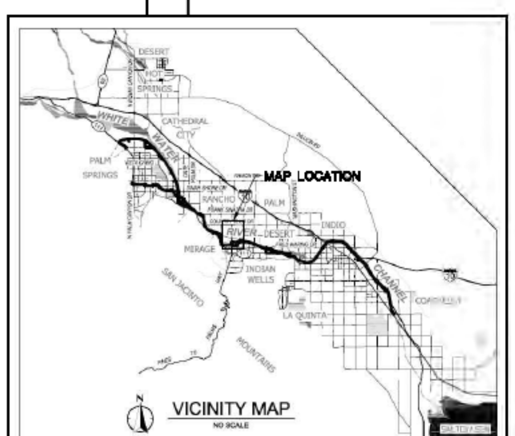

LEGEND

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FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X — Areas determined to be outside the 0.2% annual chance floodplain.

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COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

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- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- ~~~ 513 ~~~ — Base Flood Elevation line and value; elevation in feet*
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* Referenced to the North American Vertical Datum of 1988

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- 87°07'45", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
- 76 N — 1000-meter Universal Transverse Mercator grid values, zone 11N
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- DX5510 × — Bench mark (see explanation in Notes to Users section of this FIRM panel)
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MAP REPOSITORY
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EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
August 28, 2008

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

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250 0 500 1000 FEET

150 0 150 300 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 2207G

FIRM

FLOOD INSURANCE RATE MAP

RIVERSIDE COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 2207 OF 3805
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
PALM DESERT, CITY OF	060629	2207	G
RANCHO MIRAGE, CITY OF	060259	2207	G

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MAP NUMBER
06065C2207G

EFFECTIVE DATE
AUGUST 28, 2008

Federal Emergency Management Agency

Stantec
46 DISCOVERY, STE. 250
IRVINE, CA 92618
(949) 474-1400 TEL
(949) 261-8482 FAX

LOCATION MAP

SCALE N.T.S.

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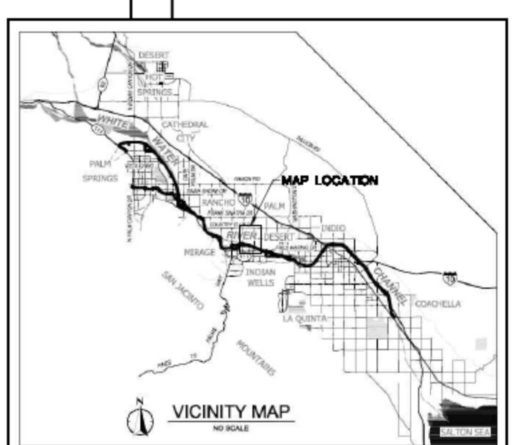

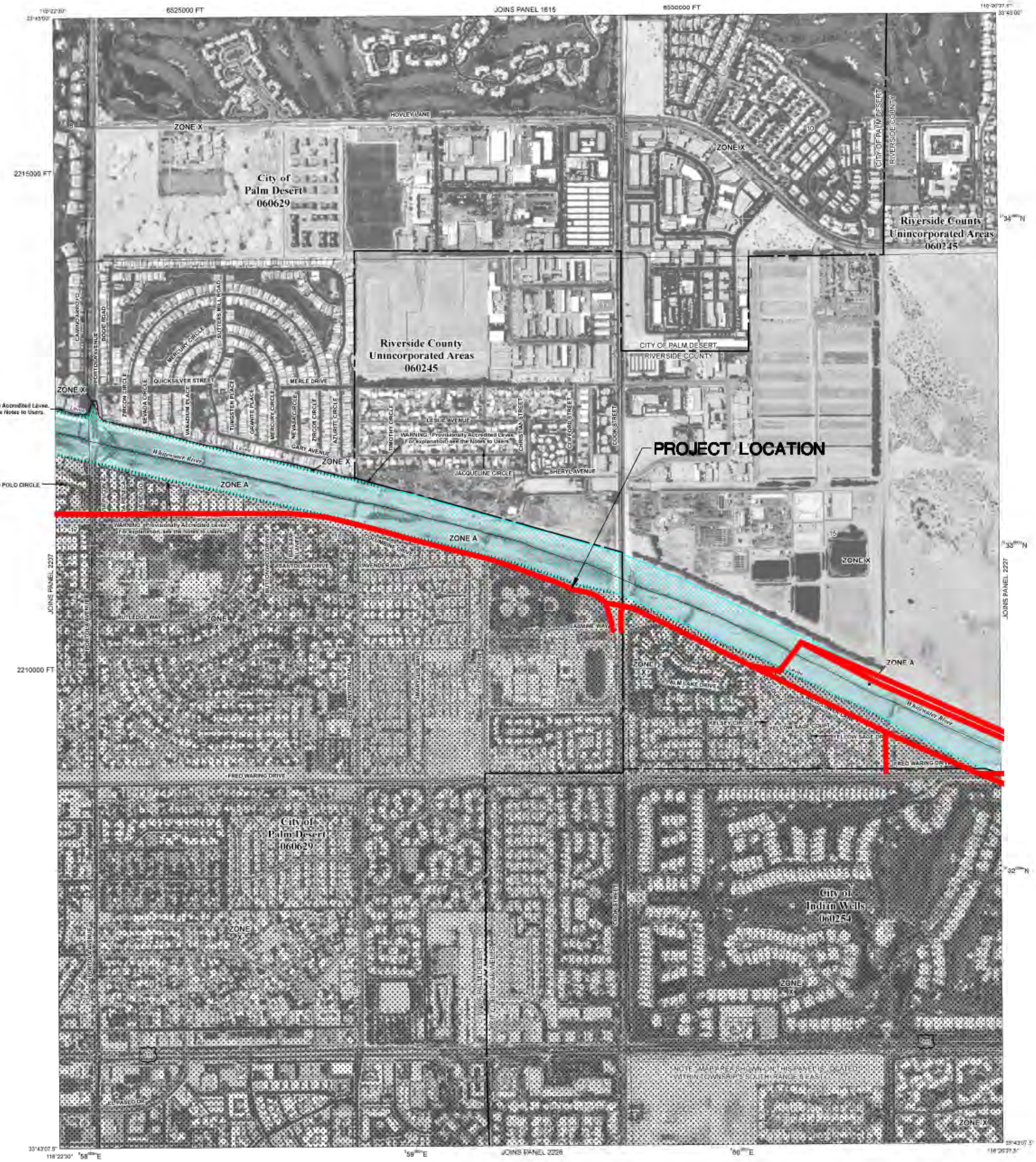

LEGEND

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• M1.5 River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
August 28, 2008

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MAP SCALE 1" = 500'
250 0 500 1000 FEET
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NFIP — NATIONAL FLOOD INSURANCE PROGRAM

PANEL 2226G

FIRM
FLOOD INSURANCE RATE MAP

RIVERSIDE COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 2226 OF 3805
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
INDIAN WELLS, CITY OF	060254	2226	G
PALM DESERT, CITY OF	060629	2226	G
RIVERSIDE COUNTY	060245	2226	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06065C2226G

EFFECTIVE DATE
AUGUST 28, 2008

Federal Emergency Management Agency

Stantec
46 DISCOVERY, STE 250
IRVINE, CA 92618
(949) 474-1400 TEL
(949) 261-8482 FAX

LOCATION MAP

SCALE N.T.S.

SHEET 12 OF 22

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NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations tables in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations tables should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 11. The **horizontal datum** was NAD 83, GRS80 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

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

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Base map information shown on this FIRM was derived from U.S. Geological Survey Digital Orthophoto Quadrangles produced at a scale of 1:12,000 from photography dated 1994 or later.

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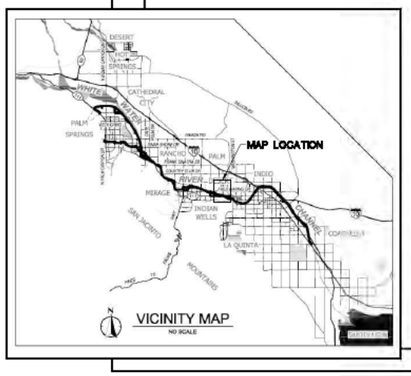

LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

- 23 — 23 — Cross section line
- A — A — Transect line
- 87°07'45", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
- 4276000mN — 1000-meter Universal Transverse Mercator grid values, zone 11N
- 600000 FT — 5000-foot grid ticks: California State Plane coordinate system, zone VI (FIPSZONE 0406), Lambert Conformal Conic projection
- DX5510 x — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 — River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
August 28, 2008

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'
250 0 500 1000 FEET
150 0 150 300 METERS

NFIP
NATIONAL FLOOD INSURANCE PROGRAM

PANEL 2227G

FIRM
FLOOD INSURANCE RATE MAP

RIVERSIDE COUNTY, CALIFORNIA AND INCORPORATED AREAS

PANEL 2227 OF 3805
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
INDIAN WELLS, CITY OF	060254	2227	G
RIVERSIDE COUNTY	060245	2227	G

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MAP NUMBER
06065C2227G

EFFECTIVE DATE
AUGUST 28, 2008

Federal Emergency Management Agency

Stantec
46 DISCOVERY, STE 250
IRVINE, CA 92618
(949) 474-1400 TEL
(949) 261-8482 FAX

LOCATION MAP

SCALE N.T.S.
SHEET 13 OF 22

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NOTES TO USERS

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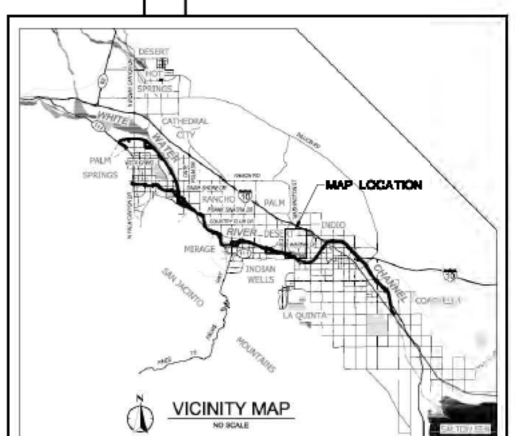

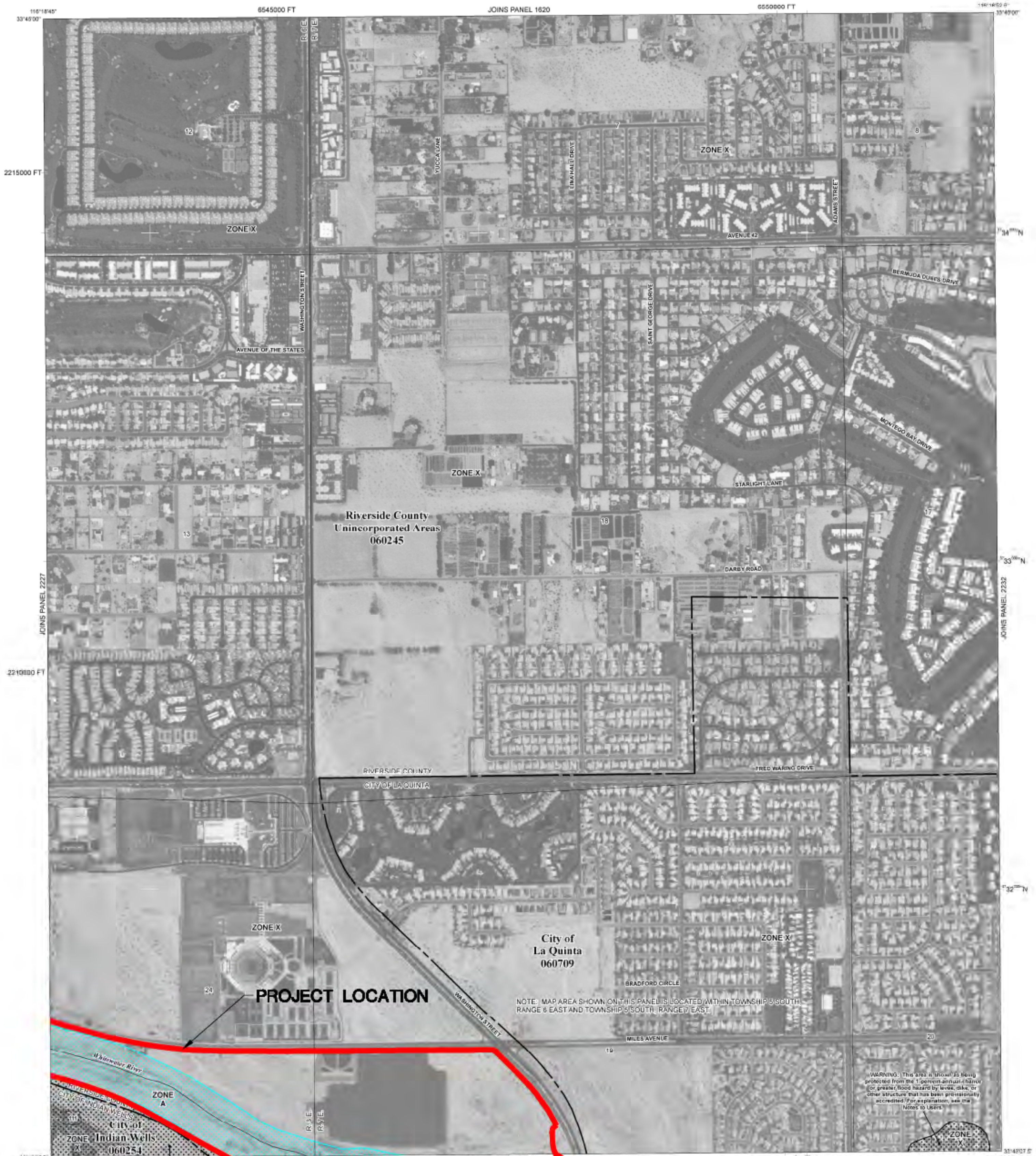

WARNING: This area is shown as being protected from the 1-percent-annual-chance or greater flood hazard by levee, dike, or other structure that has been provisionally accredited. For explanation, see the Notes to Users.

LEGEND

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FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

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	1% annual chance floodplain boundary
	0.2% annual chance floodplain boundary
	Floodway boundary
	Zone D boundary
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	Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
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• M1.5	River Mile

MAP REPOSITORY
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EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
August 28, 2008

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

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MAP SCALE 1" = 500'

250 0 500 1000 FEET
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NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 2231G

FIRM
FLOOD INSURANCE RATE MAP

RIVERSIDE COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 2231 OF 3805
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
INDIAN WELLS, CITY OF	060254	2231	G
LA QUINTA, CITY OF	060709	2231	G
RIVERSIDE COUNTY	060245	2231	G

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MAP NUMBER
06065C2231G

EFFECTIVE DATE
AUGUST 28, 2008

Federal Emergency Management Agency

Stantec
46 DISCOVERY, STE 250
IRVINE, CA 92618
(949) 474-1400 TEL
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LOCATION MAP

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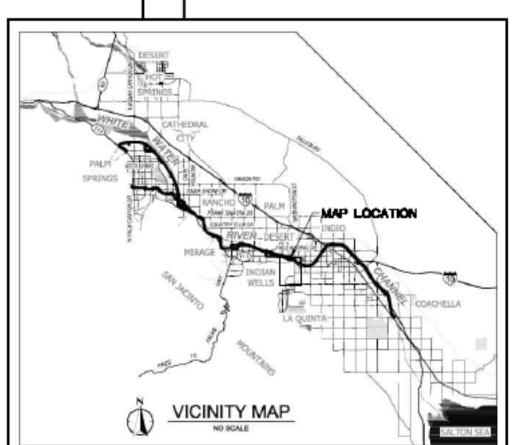

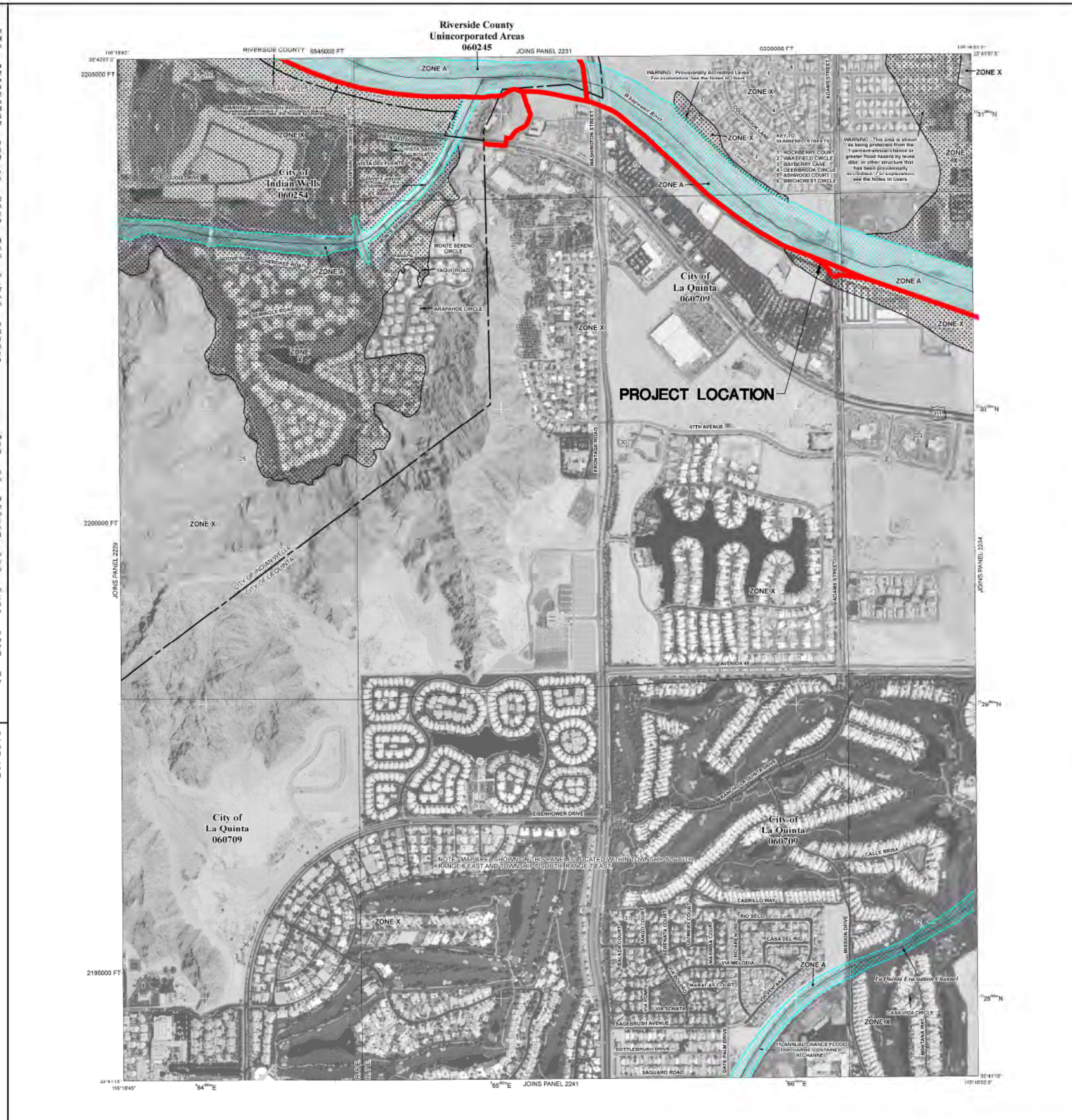

LEGEND

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- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.

~~ 513 ~~~	Base Flood Elevation line and value; elevation in feet*
(EL 987)	Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

(A)——(A)	Cross section line
(23)- - - -(23)	Transect line
87°07'45", 32°22'30"	Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
76 N	1000-meter Universal Transverse Mercator grid values, zone 11N
600000 FT	5000-foot grid ticks: California State Plane coordinate system, zone VI (FIPSZONE 0406), Lambert Conformal Conic projection
DX5510 ×	Bench mark (see explanation in Notes to Users section of this FIRM panel)
• M1.5	River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
August 28, 2008

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

250 0 500 1000 FEET

150 0 150 300 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 2233G

FIRM

FLOOD INSURANCE RATE MAP

RIVERSIDE COUNTY, CALIFORNIA AND INCORPORATED AREAS

PANEL 2233 OF 3805

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
INDIAN WELLS, CITY OF	060254	2233	G
LA QUINTA, CITY OF	060709	2233	G
RIVERSIDE COUNTY	060245	2233	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06065C2233G

EFFECTIVE DATE
AUGUST 28, 2008

Federal Emergency Management Agency

Stantec
46 DISCOVERY, STE 250
IRVINE, CA 92618
(949) 474-1400 TEL
(949) 261-8482 FAX

LOCATION MAP

SCALE	SHEET
N.T.S.	15 OF 22

07/26/16 03:59:35 PM

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations tables in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations tables should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 11. The **horizontal datum** was NAD 83, GRS80 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

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

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242**, or visit its website at http://www.ngs.noaa.gov.

Base map information shown on this FIRM was derived from U.S. Geological Survey Digital Orthophoto Quadrangles produced at a scale of 1:12,000 from photography dated 1994 or later.

This map may reflect more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

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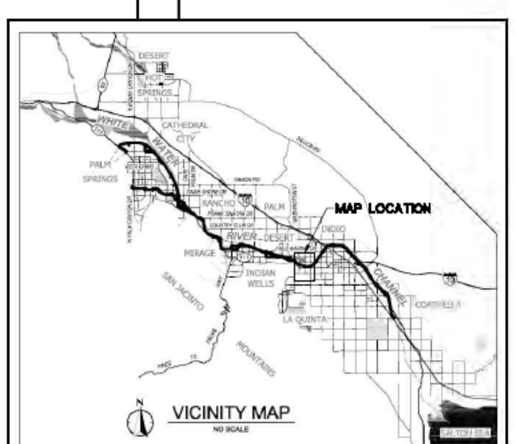
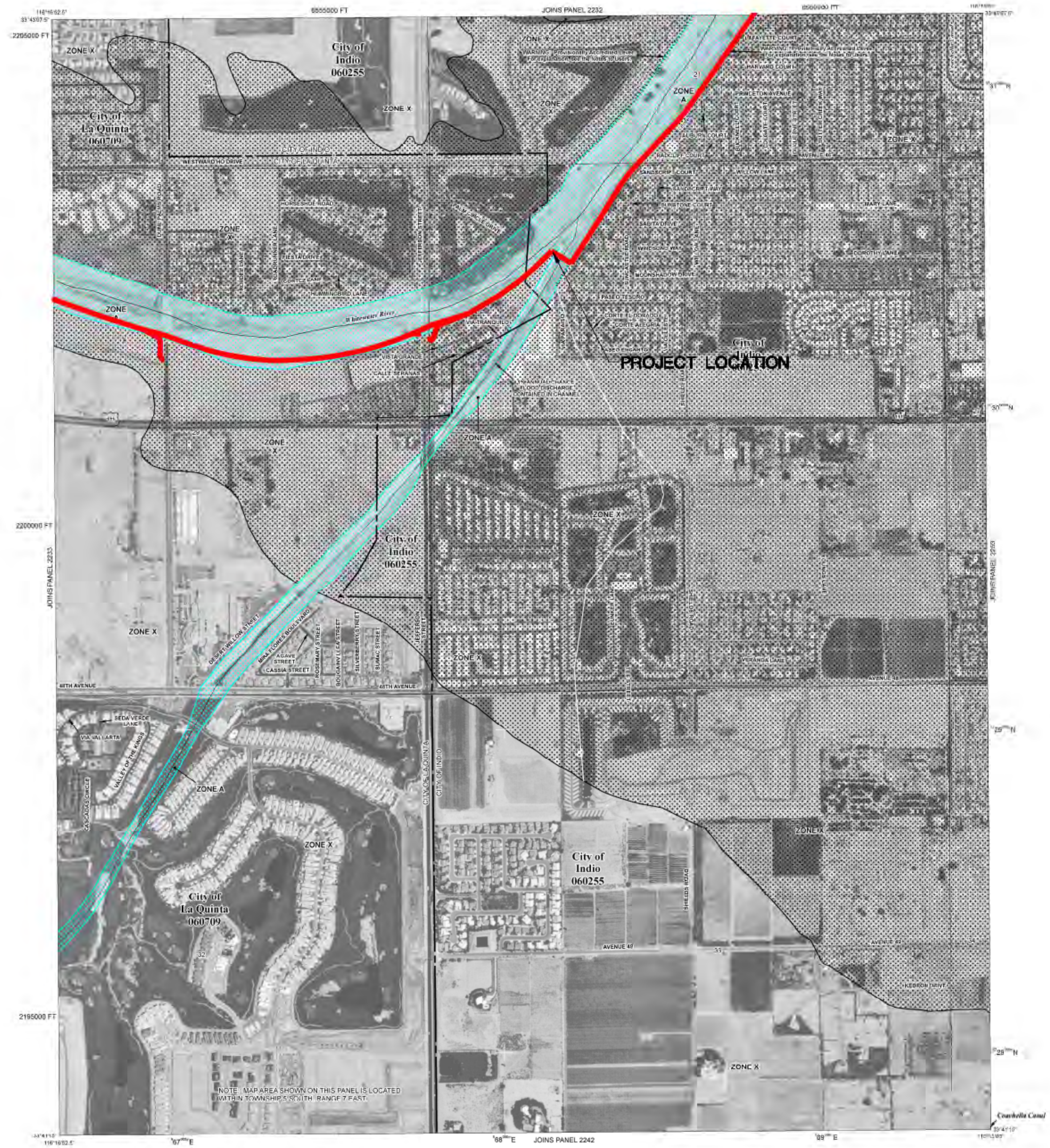
Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at http://msc.fema.gov.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov.

WARNING: This map contains levees, dikes, or other structures that have been provisionally accredited and mapped as providing protection from the 1-percent-annual-chance flood. To maintain accreditation, the levee owner or community is required to submit documentation necessary to comply with 44 CFR Section 65.10 by August 8, 2009. Because of the risk of overtopping or failure of the structure, communities should take proper precautions to protect lives and minimize damages in these areas, such as issuing an evacuation plan and encouraging property owners to purchase flood insurance.





LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

	1% annual chance floodplain boundary
	0.2% annual chance floodplain boundary
	Floodway boundary
	Zone D boundary
	CBRS and OPA boundary
	Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
~~ 513 ~~~	Base Flood Elevation line and value; elevation in feet*
(EL 987)	Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

(A)——(A)	Cross section line
(23)- - - -(23)	Transect line
87°07'45", 32°22'30"	Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
76 N	1000-meter Universal Transverse Mercator grid values, zone 11N
600000 FT	5000-foot grid ticks: California State Plane coordinate system, zone VI (FIPSZONE 0406), Lambert Conformal Conic projection
DX5510 ×	Bench mark (see explanation in Notes to Users section of this FIRM panel)
• M1.5	River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
August 28, 2008

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

250 0 500 1000 FEET

150 0 150 300 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 2234G

FIRM

FLOOD INSURANCE RATE MAP

RIVERSIDE COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 2234 OF 3805

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
INDIO, CITY OF	060255	2234	G
LA QUINTA, CITY OF	060709	2234	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06065C2234G

EFFECTIVE DATE
AUGUST 28, 2008

Federal Emergency Management Agency

Stantec
46 DISCOVERY, STE. 250
IRVINE, CA 92618
(949) 474-1400 TEL
(949) 261-8482 FAX

LOCATION MAP

SCALE N.T.S.

SHEET 16 OF 22

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NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

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Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 11. The **horizontal datum** was NAD 83, GRS80 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

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National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

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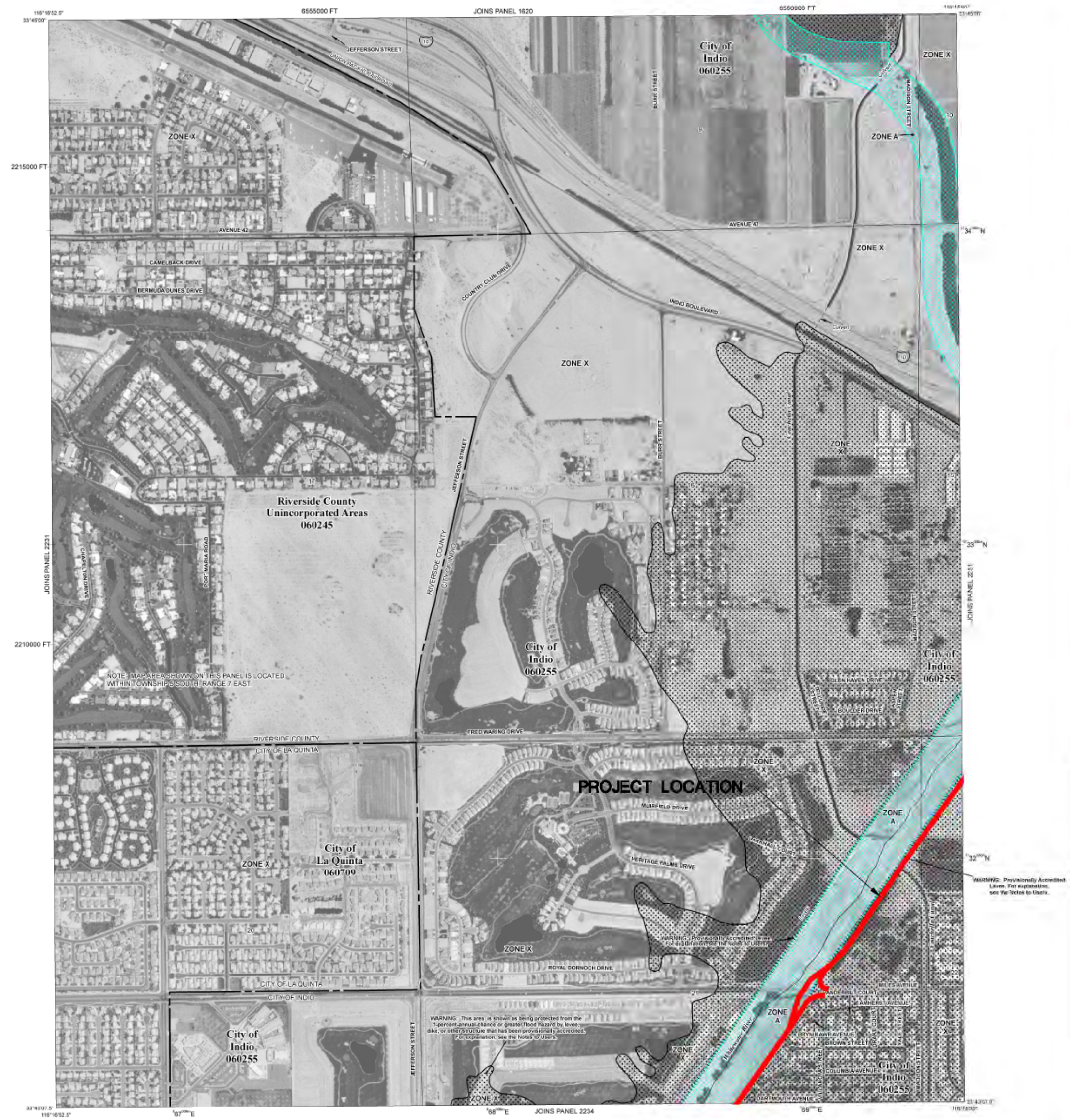

LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X — Areas determined to be outside the 0.2% annual chance floodplain.

ZONE D — Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

	1% annual chance floodplain boundary
	0.2% annual chance floodplain boundary
	Floodway boundary
	Zone D boundary
	CBRS and OPA boundary
	Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
513	Base Flood Elevation line and value; elevation in feet*
(EL 987)	Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

(A)——(A)	Cross section line
(23)- - -(23)	Transect line
87°07'45", 32°22'30"	Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
76 N	1000-meter Universal Transverse Mercator grid values, zone 11N
600000 FT	5000-foot grid ticks: California State Plane coordinate system, zone VI (FIPSZONE 0406), Lambert Conformal Conic projection
DX5510 x	Bench mark (see explanation in Notes to Users section of this FIRM panel)
• M1.5	River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
August 28, 2008

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

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MAP SCALE 1" = 500'

250 0 500 1000 FEET

150 0 150 300 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 2232G

FIRM
FLOOD INSURANCE RATE MAP

RIVERSIDE COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 2232 OF 3805
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
INDIO, CITY OF	060255	2232	G
LA QUINTA, CITY OF	060709	2232	G
RIVERSIDE COUNTY	060245	2232	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06065C2232G

EFFECTIVE DATE
AUGUST 28, 2008

Federal Emergency Management Agency

Stantec
46 DISCOVERY, STE 230
IRVINE, CA 92618
(949) 474-1400 TEL
(949) 261-8482 FAX

LOCATION MAP

SCALE N.T.S.

SHEET 17 OF 22

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

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

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LEGEND

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ZONE AE	Base Flood Elevations determined.
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ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X — Areas determined to be outside the 0.2% annual chance floodplain.

ZONE D — Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

1% annual chance floodplain boundary
0.2% annual chance floodplain boundary
Floodway boundary
Zone D boundary
CBRS and OPA boundary
Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.

513	Base Flood Elevation line and value; elevation in feet*
(EL 987)	Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

A — A	Cross section line
23 - - - 23	Transect line
87°07'45", 32°22'30"	Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
76 N	1000-meter Universal Transverse Mercator grid values, zone 11N
600000 FT	5000-foot grid ticks: California State Plane coordinate system, zone VI (FIPSZONE 0406), Lambert Conformal Conic projection
DX5510 ×	Bench mark (see explanation in Notes to Users section of this FIRM panel)
• M1.5	River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
August 28, 2008

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

250 0 500 1000 FEET

150 0 150 300 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 2251G

FIRM

FLOOD INSURANCE RATE MAP

RIVERSIDE COUNTY, CALIFORNIA AND INCORPORATED AREAS

PANEL 2251 OF 3805

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
INDIO, CITY OF	060255	2251	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER 06065C2251G

EFFECTIVE DATE AUGUST 28, 2008

Federal Emergency Management Agency

Stantec
46 DISCOVERY, STE. 250
IRVINE, CA 92618
(949) 474-1400 TEL
(949) 261-8482 FAX

LOCATION MAP

SCALE N.T.S.

07/26/16 04:00:24 PM

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations tables in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations tables should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 11. The **horizontal datum** was NAD 83, GRS80 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

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

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242**, or visit its website at http://www.ngs.noaa.gov.

Base map information shown on this FIRM was derived from U.S. Geological Survey Digital Orthophoto Quadrangles produced at a scale of 1:12,000 from photography dated 1994 or later.

This map may reflect more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

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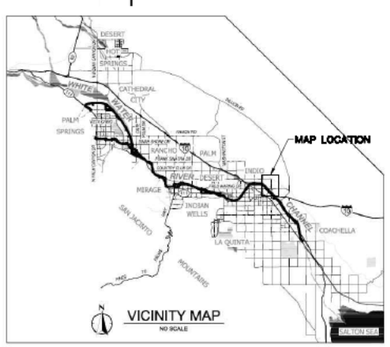
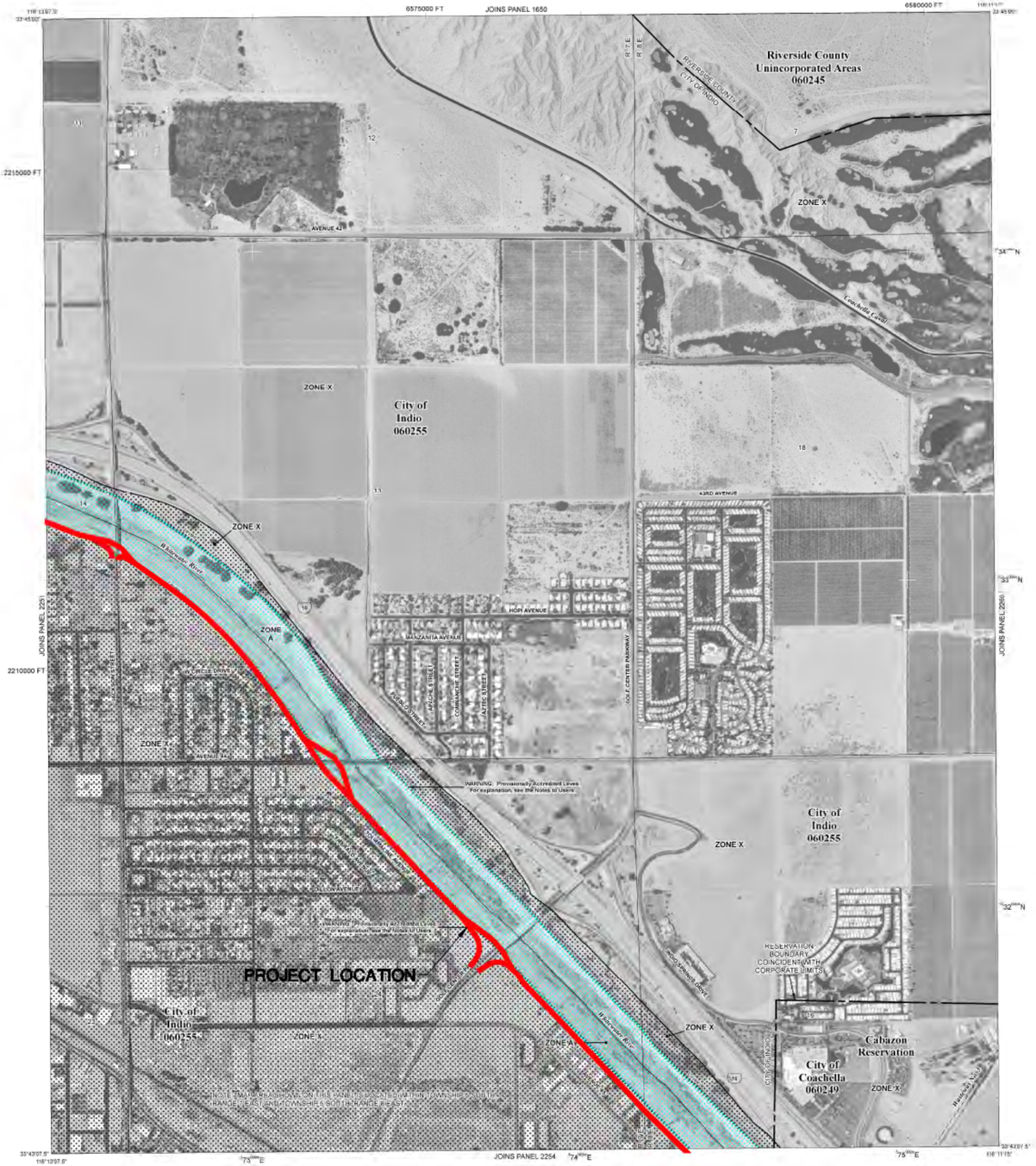
Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at http://msc.fema.gov.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov.

WARNING: This map contains levees, dikes, or other structures that have been provisionally accredited and mapped as providing protection from the 1-percent-annual-chance flood. To maintain accreditation, the levee owner or community is required to submit documentation necessary to comply with 44 CFR Section 65.10 by August 8, 2009. Because of the risk of overtopping or failure of the structure, communities should take proper precautions to protect lives and minimize damages in these areas, such as issuing an evacuation plan and encouraging property owners to purchase flood insurance.





LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equalled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A: No Base Flood Elevations determined.
- ZONE AE: Base Flood Elevations determined.
- ZONE AH: Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO: Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR: Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99: Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V: Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE: Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

- ZONE X: Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

- ZONE X: Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D: Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL. 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

- A — A — Cross section line
- 23 — 23 — Transect line
- 87°07'45", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
- 3759000mN — 1000-meter Universal Transverse Mercator grid values, zone 11N
- 600000 FT — 5000-foot grid ticks: California State Plane coordinate system, zone VI (FIPSZONE 0406), Lambert Conformal Conic projection
- DX5510 × — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 — River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
August 28, 2008

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

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To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 600'

250 0 500 1000 FEET

150 0 150 300 METERS

NFIP NATIONAL FLOOD INSURANCE PROGRAM

PANEL 2252G

FIRM

FLOOD INSURANCE RATE MAP

RIVERSIDE COUNTY, CALIFORNIA AND INCORPORATED AREAS

PANEL 2252 OF 3805

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
INDIO, CITY OF	060250	2252	G
RIVERSIDE COUNTY	060245	2252	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06065C2252G

EFFECTIVE DATE
AUGUST 28, 2008

Federal Emergency Management Agency

Stantec
46 DISCOVERY, STE 250
IRVINE, CA 92618
(949) 474-1400 TEL
(949) 261-8482 FAX

LOCATION MAP

SCALE N.T.S.

SHEET 19 OF 22

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

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Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 11. The **horizontal datum** was NAD 83, GRS80 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

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National Geodetic Survey
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1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

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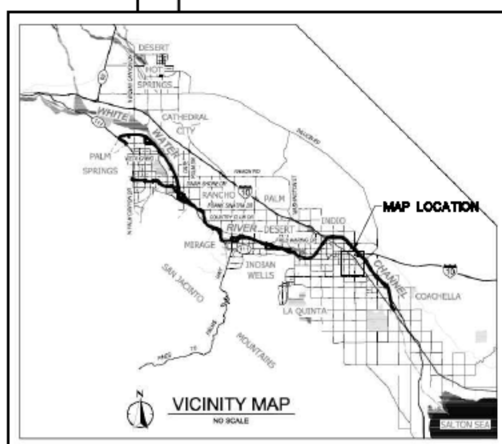

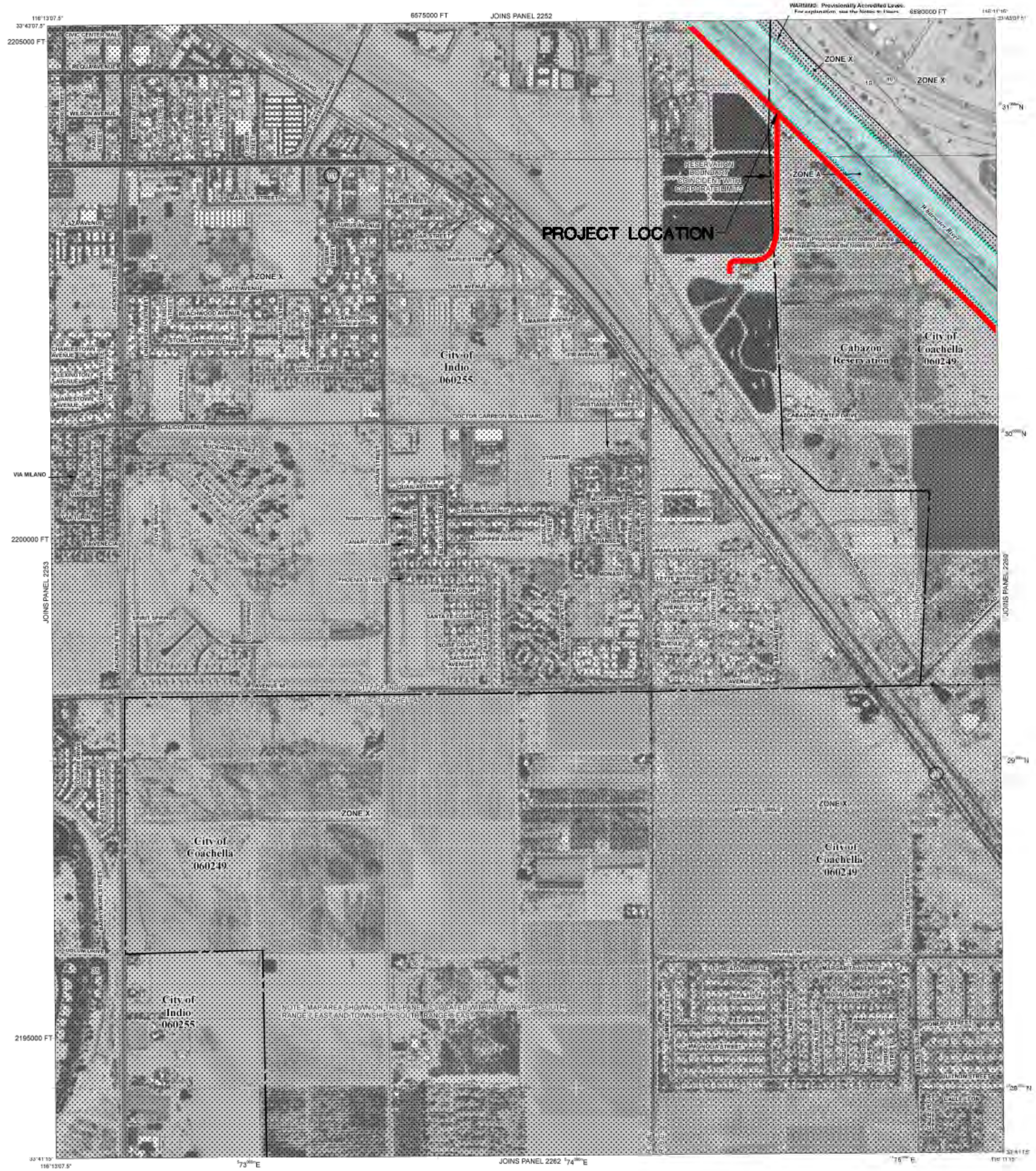

LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X — Areas determined to be outside the 0.2% annual chance floodplain.

ZONE D — Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

	1% annual chance floodplain boundary
	0.2% annual chance floodplain boundary
	Floodway boundary
	Zone D boundary
	CBRS and OPA boundary
	Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
~~ 513 ~~~	Base Flood Elevation line and value; elevation in feet*
(EL 987)	Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

(A)——(A)	Cross section line
(23)- - - -(23)	Transect line
87°07'45", 32°22'30"	Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
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DX5510 ×	Bench mark (see explanation in Notes to Users section of this FIRM panel)
• M1.5	River Mile

MAP REPOSITORY
Refer to Listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
August 28, 2008

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

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MAP SCALE 1" = 500'

250 0 500 1000 FEET
150 0 150 300 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 2254G

FIRM

FLOOD INSURANCE RATE MAP

RIVERSIDE COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 2254 OF 3805

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
COACHELLA, CITY OF	060249	2254	G
INDIO, CITY OF	060255	2254	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06065C2254G

EFFECTIVE DATE
AUGUST 28, 2008

Federal Emergency Management Agency

Stantec
46 DISCOVERY, STE. 250
IRVINE, CA 92618
(949) 474-1400 TEL
(949) 261-8482 FAX

LOCATION MAP

SCALE N.T.S.

07/26/16 04:01:08 PM V:\2065\active\2065000219\Eng\CAD\Exhibits\EXH07-Caltrans FIRMs\Segment9.dwg

NOTES TO USERS

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Silver Spring, Maryland 20910-3282
(301) 713-3242

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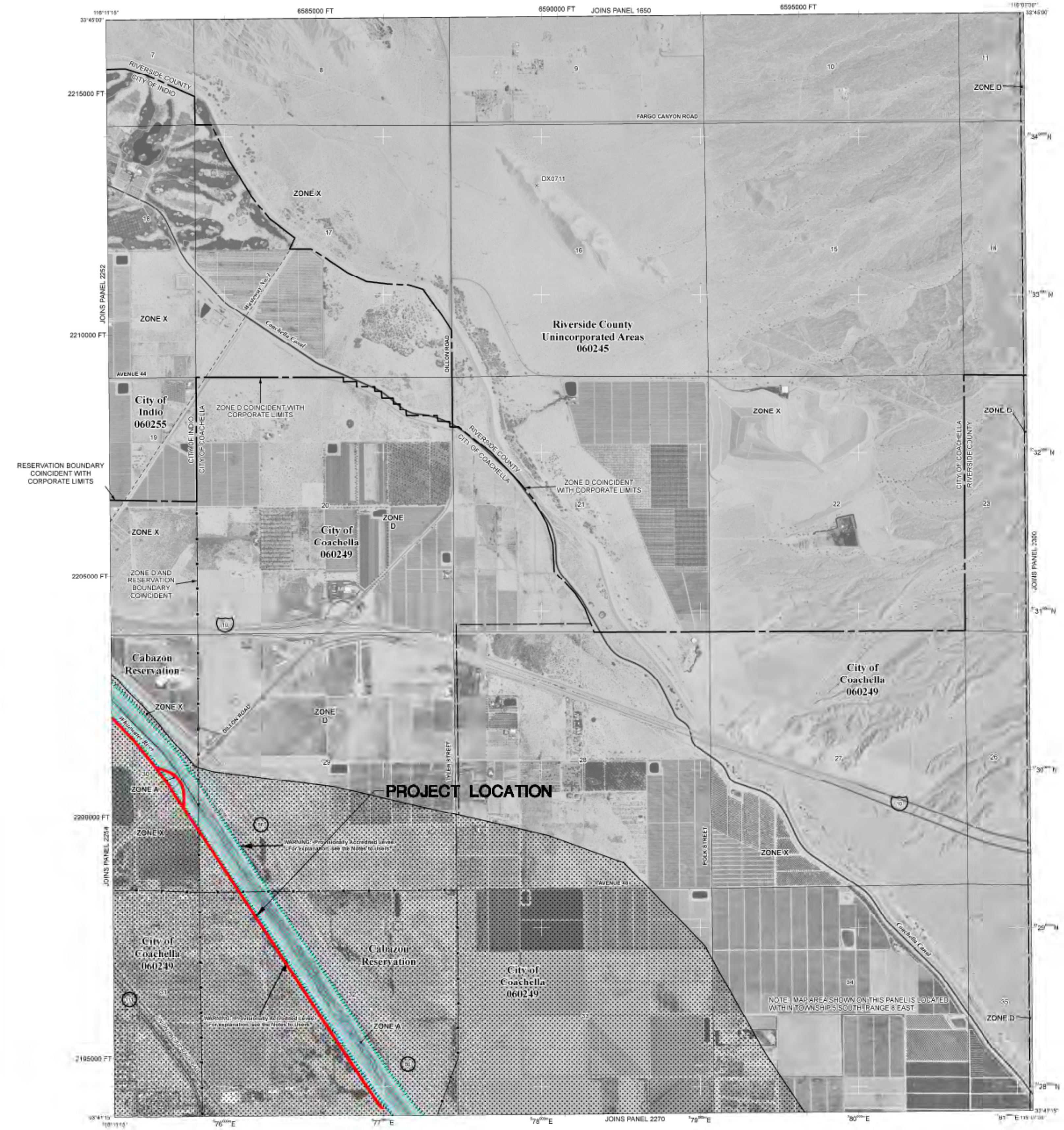

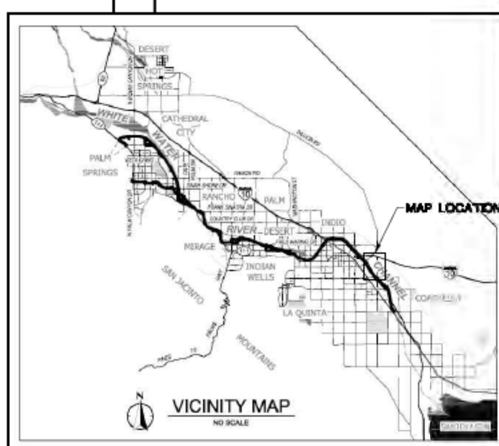

LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

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ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X — Areas determined to be outside the 0.2% annual chance floodplain.

ZONE D — Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.

~~ 513 ~~~	Base Flood Elevation line and value; elevation in feet*
(EL 987)	Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

(A)———(A)	Cross section line
(23)- - - -(23)	Transect line
87°07'45", 32°22'30"	Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
76 N	1000-meter Universal Transverse Mercator grid values, zone 11N
600000 FT	5000-foot grid ticks: California State Plane coordinate system, zone VI (FIPSZONE 0406), Lambert Conformal Conic projection
DX5510 ×	Bench mark (see explanation in Notes to Users section of this FIRM panel)
● M1.5	River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
August 28, 2008

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 1000'

500 0 1000 2000 FEET

300 0 300 600 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 2260G

FIRM

FLOOD INSURANCE RATE MAP

RIVERSIDE COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 2260 OF 3805
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
COACHELLA, CITY OF	060249	2260	G
INDIO, CITY OF	060255	2260	G
RIVERSIDE COUNTY	060245	2260	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06065C2260G

EFFECTIVE DATE
AUGUST 28, 2008

Federal Emergency Management Agency

Stantec
46 DISCOVERY, STE 250
IRVINE, CA 92618
(949) 474-1400 TEL
(949) 261-8482 FAX

LOCATION MAP

SCALE N.T.S.

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations tables in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations tables should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 11. The **horizontal datum** was NAD 83, GRS80 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

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

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242**, or visit its website at http://www.ngs.noaa.gov.

Base map information shown on this FIRM was derived from U.S. Geological Survey Digital Orthophoto Quadrangles produced at a scale of 1:12,000 from photography dated 1994 or later.

This map may reflect more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

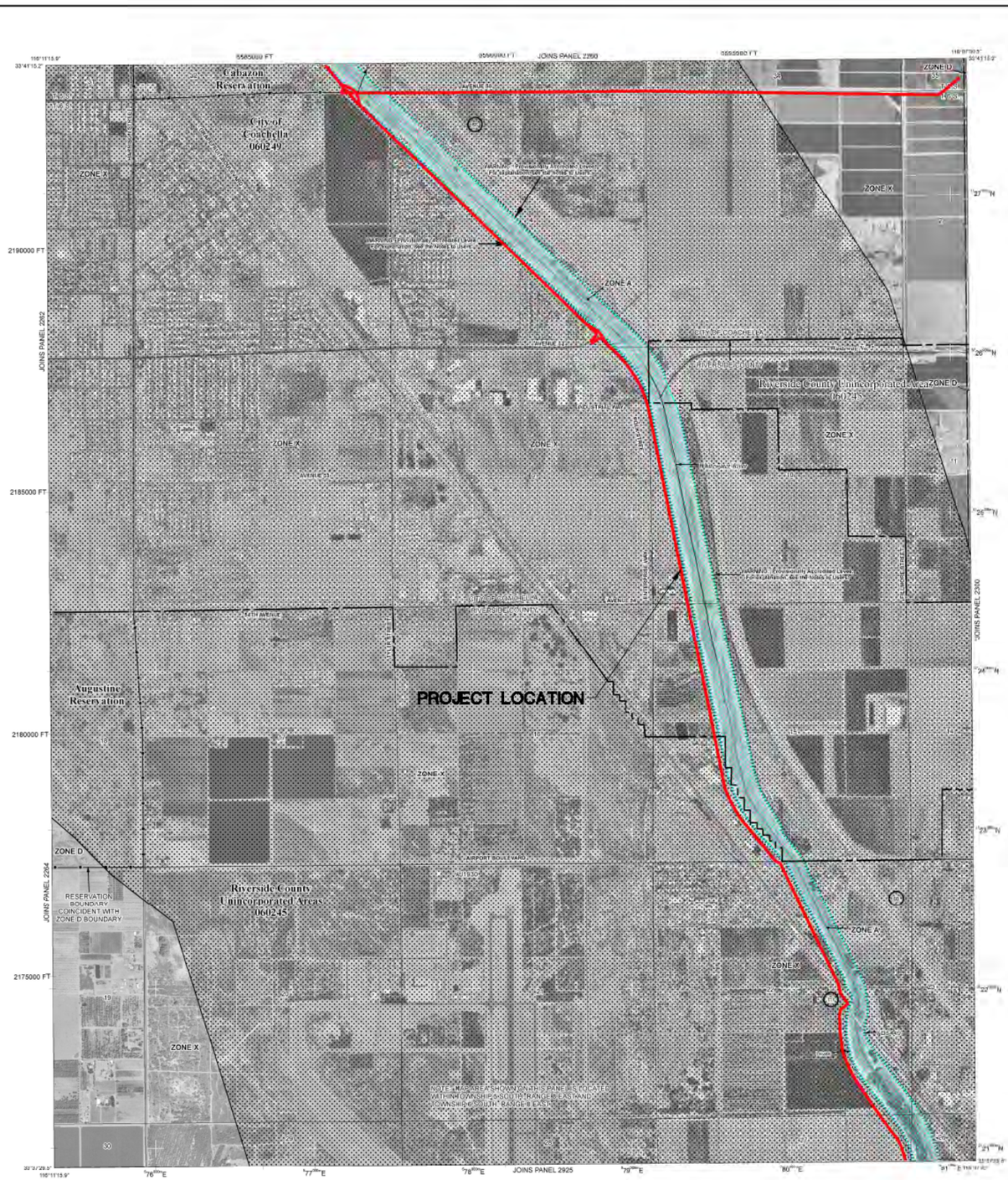
Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

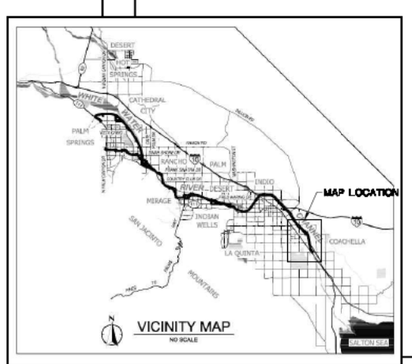
Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at http://msc.fema.gov.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov.

WARNING: This map contains levees, dikes, or other structures that have been provisionally accredited and mapped as providing protection from the 1-percent–annual-chance flood. To maintain accreditation, the levee owner or community is required to submit documentation necessary to comply with 44 CFR Section 65.10 by August 8, 2009. Because of the risk of overtopping or failure of the structure, communities should take proper precautions to protect lives and minimize damages in these areas, such as issuing an evacuation plan and encouraging property owners to purchase flood insurance.





LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A — No Base Flood Elevations determined.
- ZONE AE — Base Flood Elevations determined.
- ZONE AH — Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO — Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR — Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99 — Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V — Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE — Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

- ZONE X — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

- ZONE X — Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D — Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

- 97°07'45", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
- 3759000 mN — 1000-meter Universal Transverse Mercator grid values, zone 11S
- 600000 FT — 5000-foot grid ticks: California State Plane coordinate system, zone VI (FIPSZONE 0406), Lambert Conformal Conic projection
- DX5510 — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
August 28, 2008

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For communities/areas revised prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 1000'
500 0 1000 2000 FEET
150 0 300 600 METERS

NFIP

PANEL 2270G

FIRM

FLOOD INSURANCE RATE MAP

RIVERSIDE COUNTY, CALIFORNIA AND INCORPORATED AREAS

PANEL 2270 OF 3805

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
COACHELLA, CITY OF	060249	2270	G
RIVERSIDE COUNTY	060245	2270	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06065C2270G

EFFECTIVE DATE
AUGUST 28, 2008

Federal Emergency Management Agency

NATIONAL FLOOD INSURANCE PROGRAM

Stantec
46 DISCOVERY, STE 230
IRVINE, CA 92618
(949) 474-1400 TEL
(949) 261-8482 FAX

LOCATION MAP

SCALE N.T.S.

SHEET 22 OF 22

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