825 East Third Street, San Bernardino, CA 92415-0835 | Phone: 909.387.8109 Fax: 909.387.7876

www.SBCounty.gov

SAN BERNARDINO COUNTY

Department of Public Works

- Environmental & Construction • Flood Control
- Operations • Solid Waste Management
- Surveyor • Transportation

Gerry Newcombe
Director

NOTICE OF AVAILABILITY / NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION

TO: INTERESTED AGENCIES, ORGANIZATIONS AND INDIVIDUALS

RE: NOTICE OF AVAILABILITY / NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION FOR THE SAN BERNARDINO COUNTY FLOOD CONTROL DISTRICT'S FIRST LINE OF DEFENSE FACILITIES MAINTENANCE PROJECT

Dear Interested Party:

In accordance with Article 6, Section 15072, of the California Environmental Quality Act (CEQA) Guidelines, this notice is to inform any responsible agencies, interested parties, and organizations that the San Bernardino County Flood Control District (District) has completed a Draft Initial Study/Mitigated Negative Declaration (IS/MND) for the **First Line of Defense (FLOD) Facilities Maintenance Project.**

Project Location: The project is located within San Bernardino County Flood Control District Zones 1, 2 and 3. Included in these zones are the incorporated cities of Chino, Chino Hills, Fontana, Montclair, Ontario, Rancho Cucamonga, Upland, Colton, Grand Terrace, Highland, Loma Linda, Redlands, Rialto, San Bernardino, and Yucaipa, Bernardino, and the unincorporated communities of Etiwanda, Bloomington, Del Rosa, Devore, Muscoy, and Mentone.

Project Description: The District is responsible for the routine maintenance of all District owned and operated flood control facilities. The District intends to perform maintenance in its FLOD priority flood control facilities in advance of the 2015-2016 rain season, and continue the maintenance as-needed annually for five years, ending in the 2019-2020 rain season. The purpose of the FLOD Maintenance Project (Project) is to conduct routine maintenance at 33 District flood control facilities (dams, basins, and spreading grounds). Permitted maintenance of the Project facilities would provide flood protection for the next five years to public and private property as well as other District facilities. The Project includes the following maintenance activities: vegetation removal, land clearing/excavation, herbicide application, stockpiling, and ingress/egress road maintenance. The sites are not located on any list of hazardous waste facilities, properties, or disposal sites as enumerated under Section 65962.5 of the Government Code.

BOARD OF SUPERVISORS

Robert A. Lovingood, Vice Chairman, First District | Janice Rutherford, Second District | James Ramos, Chairman, Third District | Curt Hagman, Fourth District | Josie Gonzales, Fifth District

Gregory C. Devereaux, Chief Executive Officer

Public Review Period: In compliance with CEQA Section 15105, the District has established a 30-day public review period beginning June 30, 2015, to solicit comments and input on the Draft IS/MND. To ensure that all environmental issues are fully identified and adequately addressed, written comments are invited from all interested parties. Written comments regarding the scope and content in the Draft IS/MND should be submitted no later than 5:00 p.m. on July 30, 2015 to:

Erma Hurse, Senior Planner
County of San Bernardino Flood Control District
Environmental Management Division
825 E. Third Street, Room 123
San Bernardino, CA 92415-0835
E-mail: Erma.Hurse@dpw.sbcounty.gov
Phone: 909-387-1864
Fax: 909-387-7876

The Initial Study and Mitigated Negative Declaration can also be viewed online at http://www.sbcounty.gov/dpw/public_notices/public_notices.asp or you may request a copy by calling (909) 387-8109.

Sincerely,

Harold Zamora

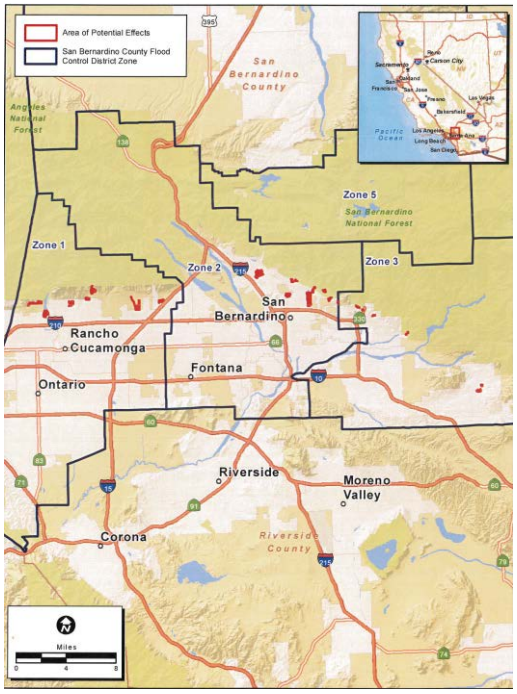
HAROLD ZAMORA, P.E., Chief
Environmental Management Division

San Bernardino County

MITIGATED NEGATIVE DECLARATION

Project Description

APPLICANT: San Bernardino County/Flood Control District



PROPOSAL: The San Bernardino County Flood Control District (District) is responsible for the annual routine maintenance of all County owned and operated flood control facilities. The District intends to provide maintenance in its First Line of Defense (FLOD) priority flood control facilities in advance of the 2015-2016 rain season, and continue the maintenance as-needed annually for five years, ending in the 2019-2020 rain season. The purpose of the FLOD Maintenance Project (Proposed Project) is to conduct maintenance at 33 flood control facilities (dams, basins, and spreading grounds). The Proposed Project would provide flood protection through maintenance to prevent damage to public and private property, and to protect other District facilities. The Proposed Project includes the following maintenance activities:

- Vegetation Removal
- Land Clearing/Excavation
- Herbicide Application
- Stockpiling
- Bank Repair
- Ingress/Egress Road Maintenance

COMMUNITY: County of San Bernardino

LOCATION: Within Zones 1, 2, and 3 of the six San Bernardino County Flood Control District Zones. Included in these zones are the incorporated cities of Chino, Chino Hills, Fontana, Montclair, Ontario, Rancho Cucamonga, Upland, Colton, , Grand Terrace, Highland, Loma Linda, Redlands, Rialto, San Bernardino, and Yucaipa, Bernardino, and the unincorporated communities of Etiwanda, Bloomington, Del Rosa, Devore, Muscoy, and Mentone.

Mitigated Negative Declaration June 30, 2015

Plans and specifications for the referenced project are available for public inspection at the Public Works Department, 825 E. Third Street, San Bernardino, CA 92415-0835.

Pursuant to provisions of the California Environmental Quality Act (CEQA) and the San Bernardino County Environmental Review Guidelines, it has been determined the above referenced project will not have a significant effect upon the environment after the implementation of mitigation measures listed in the Initial Study. An Environmental Impact Report will not be required.

Reasons to support this finding are included in the written Initial Study prepared under the supervision of the San Bernardino County/Flood Control District.

James Ramos, Chair
Board of Supervisors of the County of San Bernardino

Date of Determination

Attachments: Final Initial Study

Neg Dec form
Rev. 4/08

SAN BERNARDINO COUNTY
INITIAL STUDY ENVIRONMENTAL CHECKLIST FORM

This form and the descriptive information in the application package constitute the contents of Initial Study pursuant to County Guidelines under Ordinance 3040 and Section 15063 of the State California Environmental Quality Act (CEQA) Guidelines.

PROJECT LABEL:

APN:	Multiple. See Appendix A		
Applicant:	San Bernardino County Flood Control District 825 E. Third Street San Bernardino, CA 92415-0835	***USGS Quad:***	Multiple, See Appendix A
Community:	San Bernardino County	***T, R, Section:***	Multiple. See Appendix A
Location:	San Bernardino County, Flood Control Zones 1, 2, and 3; generally from the Los Angeles/San Bernardino County line to the City of Yucaipa.	**Thomas Bros.:**	Multiple, See Appendix A
		Planning Area:	Multiple, See Appendix A
		LUSD:	Multiple, See Appendix A
		Overlays:	Multiple, see Appendix A
Project No:	Not applicable		
District Rep.:	Erma Hurse		
Rep:	Erma Hurse		
Proposal:	First Line of Defense (FLOD) Maintenance Project		

PROJECT CONTACT INFORMATION:

Lead agency: San Bernardino County Flood Control District
825 E. Third Street
San Bernardino, CA 92415-0835

Contact person: Erma Hurse

Phone No: (909) 387-7897 ***Fax No:*** (909) 387-7876

E-mail: Erma.Hurse@dpw.sbcounty.gov

Project Sponsor: San Bernardino County Flood Control District

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INTRODUCTION

The San Bernardino County Flood Control District (District) is responsible for the routine maintenance of all District owned and operated flood control facilities. The District intends to perform maintenance in its First Line of Defense (FLOD) priority flood control facilities in advance of the 2015-2016 rain season, and continue the maintenance as-needed annually for five years, ending in the 2019-2020 rain season. These maintenance activities require Clean Water Act (CWA, Section 404 Permit) permits from the U.S. Army Corps of Engineers (USACE) and Regional Water Quality Control Board (RWQCB) (CWA Section 401 Permit) from the Santa Ana Regional Quality Control Board (SARWQCB). Additionally, a California Department of Fish and Wildlife (CDFW) 1602 Streambed Alteration Agreement is also required. A U.S. Fish and Wildlife Service (USFWS) Endangered Species Section 7 Consultation shall be conducted by USACE as part of the project permitting process. This Initial Study/Mitigated Negative Declaration (IS/MND) is for the short-term, five-year maintenance for the FLOD facilities.

Project Objectives

The purpose of the FLOD Maintenance Project (Project) is to conduct maintenance within 33 District flood control facilities (including dams, basins, and spreading grounds). These facilities provide protection to the residents of the surrounding areas that the facilities are located in during storm events, by containing flows and collecting large amounts of debris that flush down out of the mountains. Permitted maintenance of the Project facilities would provide flood protection for the next five years to adjacent and downstream public and private properties as well as other District facilities connected to the Flood Control system downstream. An additional long-term Permit to conduct maintenance in a majority of the District's flood control facilities, which would also include the FLOD facilities, is being considered in a separate project by the District.

Project Location

The District is divided into six zones. The Project is located in Zones 1, 2, and 3 of these six zones, as described in this section (Figure 1). Zone 1 is a 275-square-mile area in the western portion of the San Bernardino valley extending from Beech Avenue in Fontana west to the Los Angeles/San Bernardino County boundary, south of the San Gabriel Mountains; major drainage areas include San Antonio, Cucamonga, Deer, Day and Etiwanda-San Sevaine Creeks, as well as a portion of the Middle Santa Ana River watershed. Included in the zone are the incorporated cities of Chino, Chino Hills, Fontana, Montclair, Ontario, Rancho Cucamonga, and Upland and the unincorporated community of Etiwanda. Thirteen Project facilities are located in Zone 1 (Figure 2).

Zone 2 is located in the central area of the San Bernardino valley, directly east of Zone 1. It is a 318-square-mile area including the drainage areas of Lytle-Cajon, Twin-Warm and City Creeks, and a portion of the Upper Santa Ana River watershed. Zone 2 includes portions of the cities of Colton, Fontana, Grand Terrace, Highland, Loma Linda, Redlands, Rialto, and San Bernardino and the unincorporated communities of Bloomington, Del Rosa, Devore, and Muscoy. Twelve Project facilities are located in Zone 2 (Figure 3).

Zone 3 is a 366-square-mile area located at the east end of the San Bernardino valley, east and south of Zone 2; major drainages include Mill, Mission Zanja, Wildwood-Wilson and San Timoteo Creeks, as well as large portions of the Upper Santa Ana River watershed. Zone 3 includes portions of the cities of Highland, Loma Linda, Redlands, San Bernardino, and Yucaipa and the unincorporated community of Mentone. Eight Project facilities are located in Zone 3 (Figure 4).

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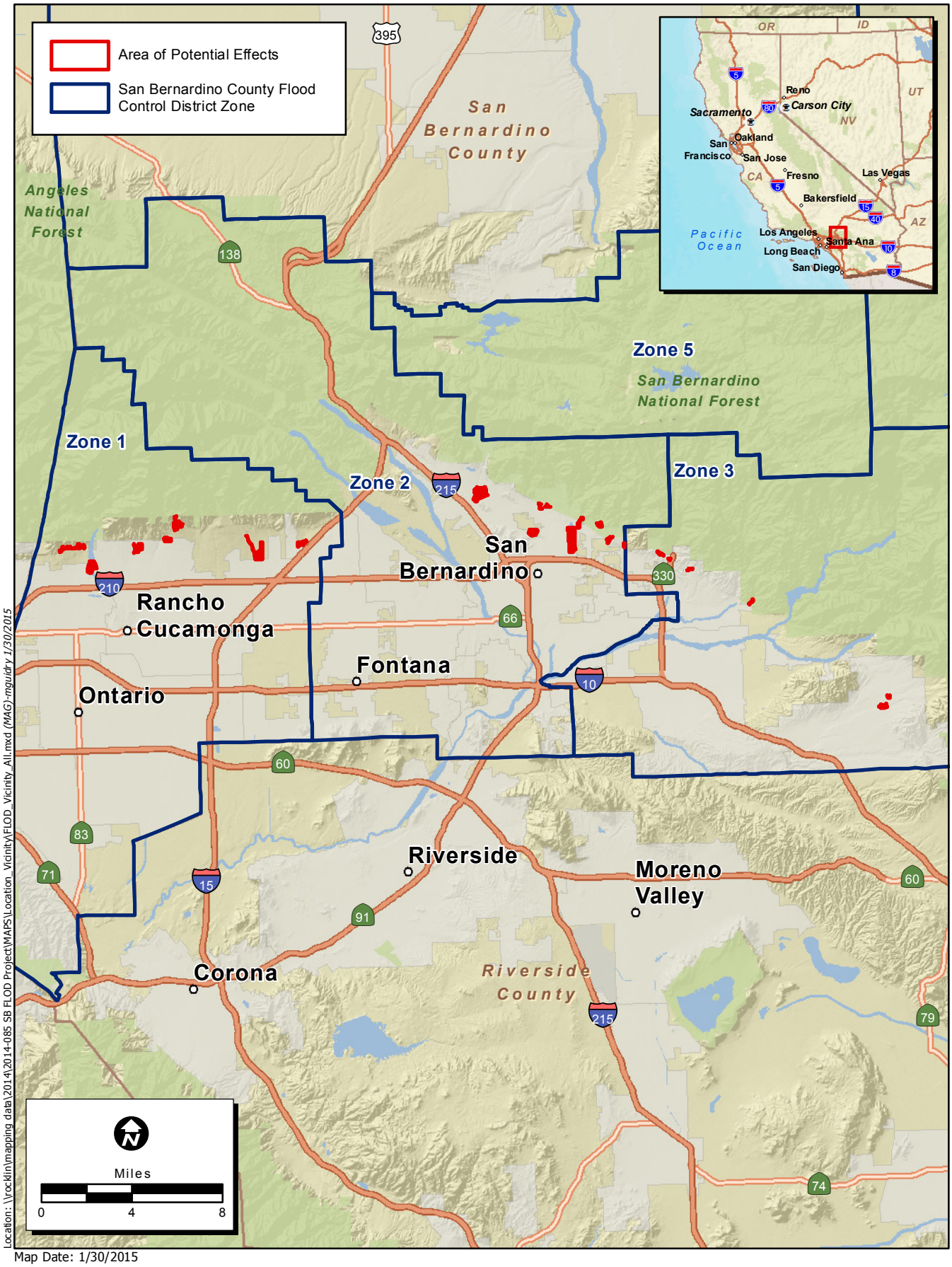

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Map Date: 1/30/2015

Service Layer Credits: Sources: USGS, ESRI, TANA, AND

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Figure 1. Regional Map

2014-085 San Bernardino County FLOD Project

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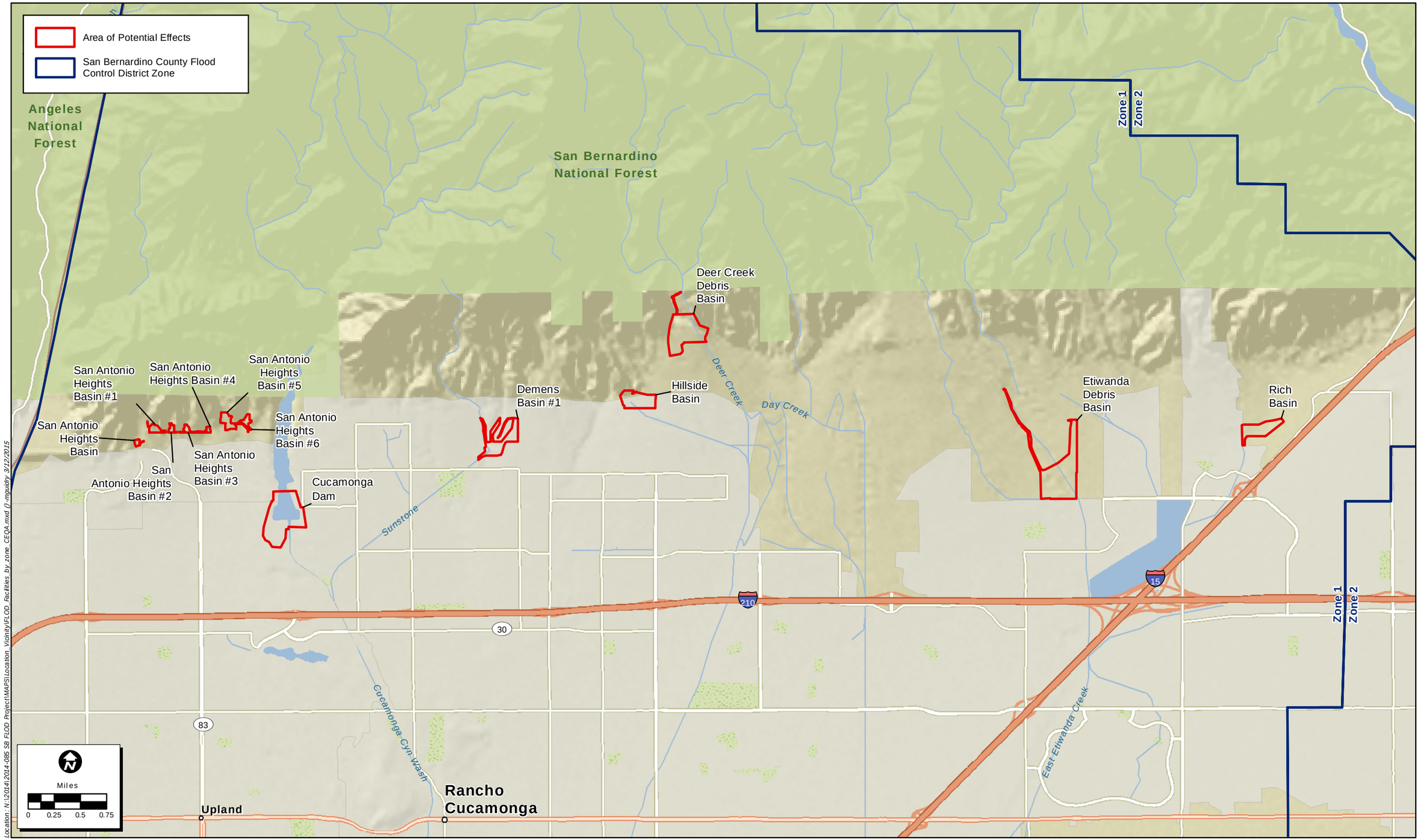

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Figure. 2
Project Facilities in Zone 1

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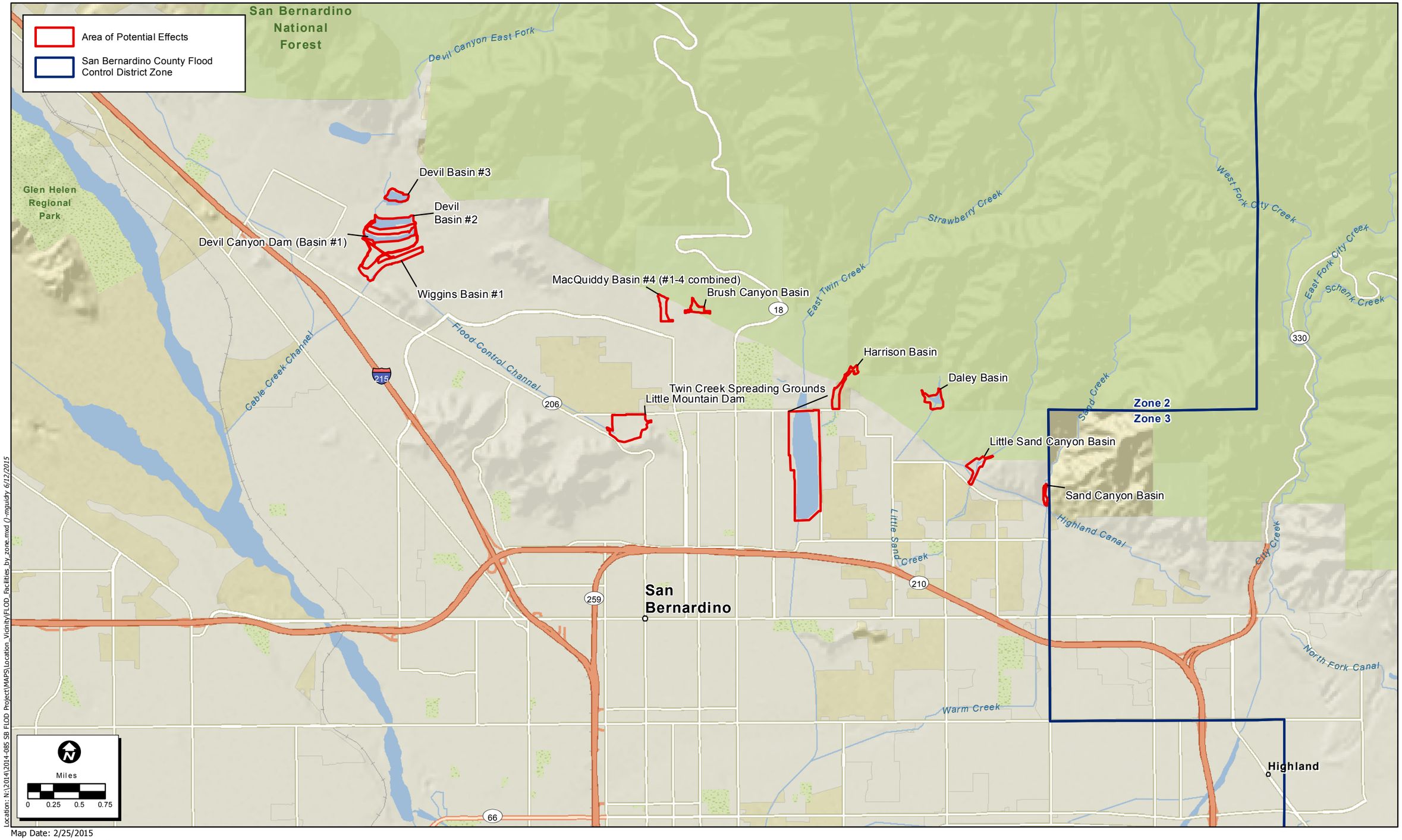

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Figure 3
Project Facilities in Zone 2

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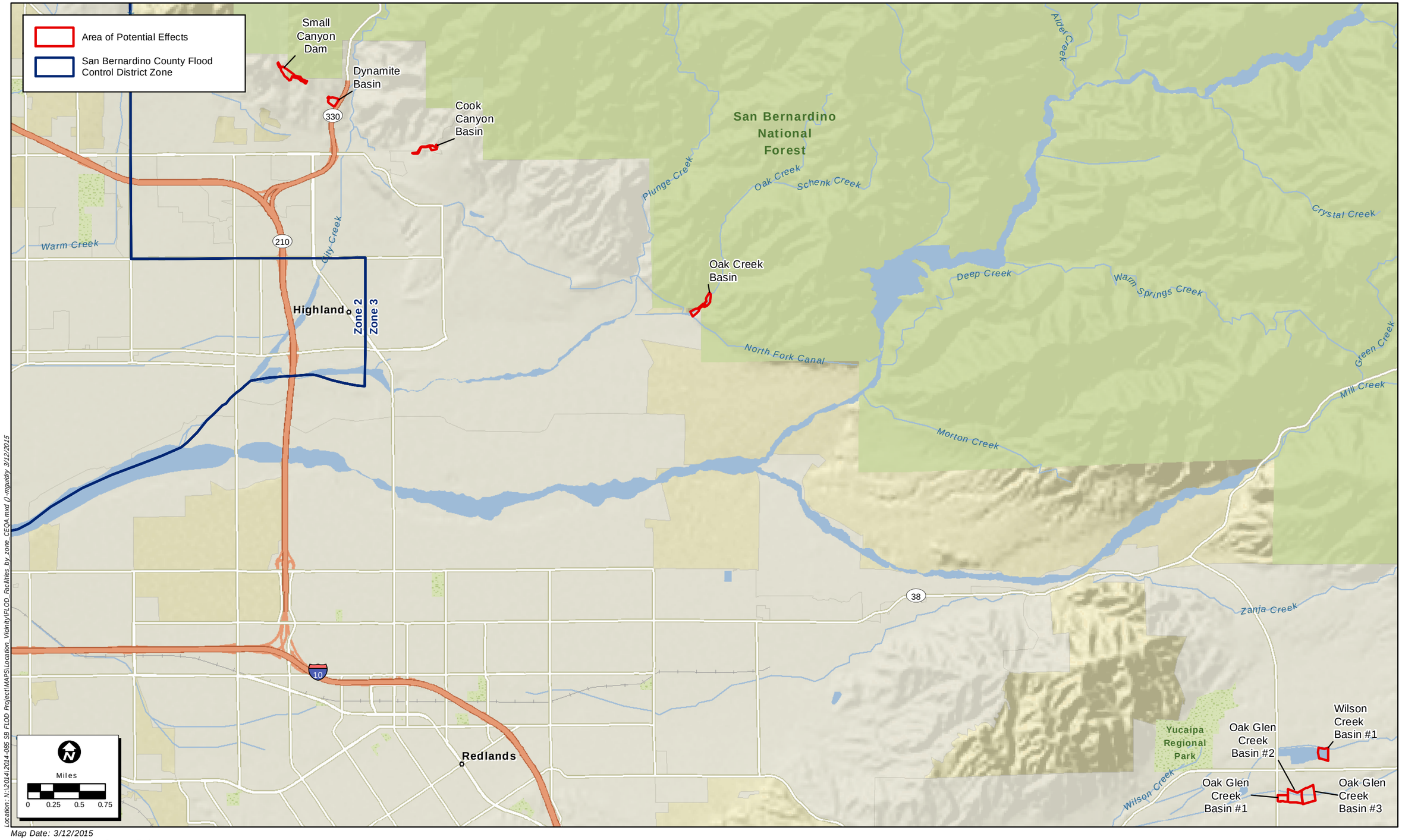

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Figure.4
Project Facilities in Zone 3

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PROJECT DESCRIPTION

Routine Maintenance Activities

The maintenance activities for the Project include vegetation removal, land clearing/excavation, herbicide/rodenticide application, stockpiling, bank repair, and ingress/egress road maintenance. The combined footprint for these maintenance activities may be smaller than the total footprint for the Project, because the areas for some maintenance activities overlap. The total maintenance footprint for the project is 586.74 acres. Tables 1, 2, and 3 provide a summary of the maintenance activities for each zone and their respective acreages. The locations of these activities at each flood control facility are shown in Figures 5 through 37 in Appendix B. Table 4 and 5 describe the typical maintenance activities that would occur in each category in all zones.

Table 1
Summary of Project Maintenance Activities Zone 1

Facility Name and Number	Activity Category (size in acres)[1]						
	Vegetation Management	Land Clearance/ Excavation	Herbicide/ Rodenticide	Stockpile	Bank Repair	Ingres/ Egress	Footprint[2]
San Antonio Heights Basin (1-313-4D)	0.72	0.23	0.27	0.00	0.00	0.27	0.87
San Antonio Heights Basin #1 (1-313-4A)	0.00	0.49	0.62	0.00	0.00	0.46	1.12
San Antonio Heights Basin #2 (1-313-4F)	1.22	0.32	0.14	0.00	0.00	0.14	1.42
San Antonio Heights Basin #3 (1-313-4E)	1.72	0.47	0.21	0.00	0.00	0.22	1.95
San Antonio Heights Basin #4 (1-313-4G)	1.26	0.33	0.15	0.00	0.00	0.17	1.39
San Antonio Heights Basin #5 (1-313-4B)	3.37	1.29	1.48	2.18	0.00	0.79	6.93
San Antonio Heights Basin #6 (1-313-4H)	2.45	0.43	1.38	0.00	0.00	0.32	2.77
Cucamonga Dam (1-352-3A)	16.64	26.44	5.74	20.14	7.90	4.63	69.27
Demens Basin #1 (1-402-3A)	28.13	6.48	4.47	4.48	0.00	3.65	31.54
Hillside Basin (1-552-4A)	18.77	3.88	10.80	5.50	0.00	2.75	21.15
Deer Creek Debris Basin (1-506-3A)	11.79	7.68	9.17	14.23	0.00	5.67	42.14
Etiwanda Debris Dam (1-707-9A)	23.82	20.59	16.65	0.00	0.00	9.96	50.67
Rich Basin (1-807-4A)	10.64	7.78	5.61	0.00	0.00	3.30	23.49
Total	**120.53**	**76.41**	**56.69**	**46.53**	**7.90**	**32.33**	**254.71**

Note: [1] All impacts are temporary impacts.
[2] Areas of maintenance activities overlap, therefore the footprint for maintenance activities may be smaller than the total footprint.

Table 2
Summary of Project Maintenance Activities Zone 2

Facility Name and Number	Activity Category (size in acres)[1]						
	Vegetation Management	**Land Clearance/ Excavation**	**Herbicide/ Rodenticide**	**Stockpile**	**Bank Repair**	**Ingress/ Egress**	**Footprint[2]**
Devil Canyon Dam (Basin #1) (2-303-3A)	5.47	10.61	8.20	0.00	1.05	2.38	18.81
Devil Basin #2 (2-304-4A)	16.93	13.78	3.32	0.00	0.00	2.47	20.30
Devil Basin #3 (2-304-4B)	9.17	9.17	11.7	0.00	0.00	0.55	11.7
Wiggins Basin #1 (2-305-4A)	24.64	24.26	4.6	0.00	0.00	4.40	29.34
Little Mountain Dam (2-365-3A)	41.65	40.41	16.06	6.10	0.00	3.77	47.66
MacQuiddy Basin #4 (2-368-4D)	6.11	5.68	3.53	0.00	0.00	1.43	9.57
Twin Creek Spreading Grounds (2-406-2A)	29.49	77.88	28.54	6.52	5.08	22.53	135.70
Brush Canyon Basin (2-412-4A)	2.81	2.34	2.00	0.00	0.00	0.97	4.78
Harrison Basin (2-414-4A)	7.19	5.54	4.46	0.00	3.00	1.49	11.95
Sand Canyon Basin (2-503-4A)	0.73	1.55	1.05	0.00	0.00	0.45	2.61
Daley Basin (2-506-4A)	0.85	5.99	3.16	0.00	1.00	1.68	10.40
Little Sand Canyon Basin (2-510-4A)	1.82	4.63	3.37	2.08	0.00	1.65	10.03
Total	**146.86**	**201.84**	**89.99**	**14.70**	**10.13**	**43.77**	**312.85**

Note: [1] All impacts are temporary impacts.
[2] Areas of maintenance activities overlap, therefore the footprint for maintenance activities may be smaller than the total footprint.

Table 3
Summary of Project Maintenance Activities Zone 3

Facility Name and Number	Activity Category (size in acres)						
	Vegetation Management	Land Clearance/ Excavation	Herbicide/ Rodenticide	Stockpile	Bank Repair	Ingress/ Egress	Footprint[2]
Oak Creek Basin (3-204-4A)	1.53	1.58	2.55	1.47	0.85	0.77	4.52
Small Canyon Dam (3-302-3A)	1.24	1.75	2.88	0.00	2.19	1.75	5.64
Dynamite Basin (3-304-4A)	0.99	1.18	1.13	0.00	0.00	0.53	3.30
Cook Canyon Basin (3-305-4A)	0.60	0.38	0.99	0.00	0.00	0.71	1.59
Wilson Creek Basin #1 (3-602-4A)	1.23	2.22	1.72	0.00	0.00	0.81	5.19
Oak Glen Creek Basin #1 (3-603-4A)	0.00	0.91	0.67	0.00	0.00	0.63	1.58
Oak Glen Creek Basin #2 (3-603-4B)	0.00	1.63	1.39	0.00	0.00	1.38	2.99
Oak Glen Creek Basin #3 (3-603-4C)	0.00	2.25	0.77	1.49	1.79	0.79	6.07
Total	**5.59**	**11.90**	**12.10**	**2.96**	**4.83**	**7.37**	**30.88**

Note: [1] All impacts are temporary impacts.
[2] Areas of maintenance activities overlap, therefore the footprint for maintenance activities may be smaller than the total footprint.

Table 4
Descriptions of Typical Maintenance Activities

Activity	Description
Vegetation Management	Vegetation management will consist of thinning of vegetation only, with no permanent losses of vegetation. Methods of the thinning and pruning maintenance activities would include both manual (hand tools) and mechanical (mowing) means. Vegetation management would be conducted for the purpose of maintaining functionality of the basin facilities, removal of non-native vegetation, for fuel modification purposes per State and local fire codes, and for improvement of water quality. Most vegetation management (95%) would be conducted by use of hand tools only. Mechanical vegetation management activities (5%) would include mowing primarily and primarily would occur on the face of dams, berms and/or abutments. Mechanical vegetation clearing is needed on regulated facilities that are certified/inspected by the U.S. Federal Emergency Management Agency, U.S. Army Corps of Engineers (USACE), and California Department of Water Resources - Division of Safety of Dams. Vegetation can be uprooted in heavy storms and damage downstream facilities, trapping sediment rather than transporting the material downstream. Mowing and vegetation management activities such as disking and manual removal result in thinning and involve shallow soil disturbance, which encourages seed germination, soil

Activity	Description
	aeration, and wildlife populations. Manual removal includes using power trimmers, weed eaters and manual tools such as pruning loppers, saws, and clippers. Equipment used for mechanical management includes, but is not limited to, tractor mowers, tractor and disc trailer, and boom mowers to trim and thin vegetation. This activity would coincide with the Mechanized Land Clearing/Excavation activities.
Land Clearance/ Excavation	Mechanized land clearing is conducted primarily to clear out sediment and maintain the functionality of each basin facility. It includes clearing of a channel centerflow (the establishment and maintenance of a smaller center channel within a channel) to convey low volume flows within the center of an earthen channel to keep flows away from the slopes, and for guiding first-storm flows. A center flow channel is established by clearing sediment within the center of the channel. The centerflow channel generally represents a width of up to 20-50% of the channel, and approximately 2 -3 feet deep. Mechanized land clearing also includes grading the channel inverts or basin bottoms to properly convey flows downstream. Mechanized land clearing includes debris removal for flood control, water quality control, and groundwater recharge. Debris removal includes removal of sediment, dead vegetation such as fallen boughs and leaves, and illegally dumped trash. Material is removed to maintain conveyance capacity of each facility as necessary. High priority facilities must be maintained at 100% capacity at all times. Sand and gravel operators often contract with the District to remove sediment and pay the District per cubic yards, which in turn supports District flood control efforts. Basin bottom silt and clays are removed and soil is typically broken up and kept free of vegetation to enhance groundwater recharge. Illegally dumped trash, vehicles and homeless camps are removed from District facilities, and material is taken to a landfill or appropriate recycling facility for disposal. Mechanized slope repair would also occur as needed, where slopes within the basin have failed due to erosion. The minimal action needed to repair the slopes would be undertaken.
Herbicide/ Rodenticide	Herbicide application, sometimes referred to as chemical vegetation clearing, is accomplished by trained applicators to manage vegetation. Herbicides are used for fuel modification purposes, to allow for proper conveyance of flows, and to prevent the spread of invasive species and aquatic weeds, such as algae and grasses considered detrimental to public recreational facilities. Aquatic herbicides applied include glyphosate, copper, triclopyr and diquat. Equipment used includes sprayers pulled by a service truck, or backpack sprayers. Rodenticide is applied by a licensed applicator to control burrowing rodents from destabilizing banks and levees. California ground squirrels (*Spermophilus beecheyi*) are generally the targeted species. BMP 13 provides requirements for rodenticide application to protect

Activity	Description
	sensitive small mammals (San Bernardino Kangaroo Rat (SBKR)) and raptors.
Stockpile	Maintenance of stockpile locations includes placement of material (i.e. debris and sediment from District facilities) at specific locations for use in repairs and temporary storage. Stockpiles are often treated to avoid the spread of invasive plants. The stockpiling activities would overlap with the Mechanized Land Clearing/Excavation activities.
Bank Repair	Bank repairs include, but are not limited to: removal of excess sediment and sand from the bottom (invert) of the channel or basin or onsite/offsite stockpile location and placing it onto the side slopes. Sometimes, additional and incidental rip-rap rock or gabion placement may be required for banks that experience frequent erosion resulting in high frequency of maintenance. Rip-Rap repair includes repositioning, replacement or placement of incidental rip-rap to stabilize the slopes. It also includes the repair of grouted and ungrouted sections of rock. Bank repair can also include the repair or replacement of steel revetment with more revetment, or rip-rap rock.
Ingress/Egress	Maintenance of access roads also includes fencing and gate repairs, road grading and pavement repair.

Table 5
Non-Ground Disturbing Activities

Concrete Structure Repair	Existing flood control structure repair or in-kind replacement include, but are not limited to, those appurtenant structures such as inlets, outlets, spillways, bottom controls and channel invert improvements.
Graffiti Removal	Graffiti is removed by spraying paint on the concrete facility. Graffiti removal also includes cleanup of discarded spray paint cans.
Vector Control	Vector Control primarily involves mosquito control to reduce the spread of disease, including West Nile Virus. Vector control is conducted by the County Environmental Health Department-Mosquito/Vector Control office.

Routine Maintenance Equipment

Maintenance equipment that would be used for the Project ranges from hand weed removal tools to large construction equipment such as dozers and excavators. The types of equipment and how they would be used are summarized in Table 6. Please note: not all equipment listed would be used within every FLOD facility.

Table 6
Summary of Routine Maintenance Equipment

Equipment	Description
Hand Sprayers/Hand Tools and Other Non-Mechanized Equipment	Hand-sprayers are used to apply herbicide, insecticide, and rodenticide. Hand tools are used by hand crews to remove vegetation from areas that are not accessible or efficient for mechanized equipment and to minimize impacts to sensitive biological resources.
Dozer	The Dozer is a track- type tractor used to move earthen materials. This machine efficiently moves, clears and grades large amounts of earthen materials in muddy and sandy conditions where other rubber tire equipment would be ineffective. Dozers are used to clear material and debris from the bottoms of facilities; or push material onto the slopes of a facility to stabilize eroded slopes. Dozers are also used for center flowing and grading activities. Dozers can also be used to push rubber-tire maintenance equipment within facilities which require the additional traction and support to prevent getting stuck in facilities. One dozer would be used during maintenance activities.
Dump Truck	Dump trucks are used to move materials from one location to another within a facility. Dump trucks can also be utilized to export materials from a facility or import materials from an off-site location. Up to eight dump trucks would be used during maintenance activities.
Hydraulic Excavator (Excavator)	Excavators are track-type machines that consist of a dual hydraulic arm and a material bucket mounted on a rotating platform. Excavators have the ability to work around waterways and muddy soil by using its long arm and bucket to work at an adequate distance preventing the machine from becoming entrenched in mud or water. Excavators are used to excavate and clear material and debris from facilities. The dual function allows the machine to excavate and load material onto dump trucks if needed. Excavators are also used to backfill erosions and voids on high vertical slopes using material from the bottom of facilities or having material imported with dump trucks. This machine has the ability to station itself over an area and reach down and place materials. This practice is utilized on vertical slopes. The Excavator also is utilized to compact the material with its powerful hydraulic arm or compaction attachment. One excavator would be used during maintenance activities.
Motor Grader (Grader)	The Motor Grader is a rubber tired machine with a wide blade attached used to create a flat surface. The Grader is used to finish grade basins and construction sites. The Grader is used to maintain and repair earthen facility roads. The Grader is also an efficient method of removing vegetation from levee roads and large areas that involve flat surfaces. This machine is also utilized to improve the drainage along levee roads and parcels decreasing the rate of erosions forming. One grader would be used during maintenance activities.
Wheel Loader (Loader)	The Wheel Loader is a rubber tired tractor with a hydraulic arm and material bucket attached to the front of the machine. The Loader is used to excavate, load and carry material within facilities. The Loader has the ability to move material cleanly from one area to another and

Equipment	Description
	also to stockpile excess material so that the excavation process executes more efficiently. The Loader is used to load Dump Trucks with materials and also for grading and vegetation removal within a facility. One Loader would be used during maintenance activities.
Tractor Mower/Boom Mower	The Tractor Mower is a tractor with a fixed mower head attached to the rear or an attached hydraulic boom arm with mower head. Mowing equipment is used to remove / trim vegetation from facilities without removing the root system of the plant. This enables the soil to retain its structure and prevent erosion of the surface. The Boom Mower is utilized on areas that have vertical slopes or areas that have obstructions. The Mowers have an all-wheel drive system that allows it to function in sandy and soft floors of facilities. One Tractor Mower/Boom Mower would be used during maintenance activities.
Wheel Tractor Scrapers (Scrapers)	Wheel Tractor Scrapers are earthmoving machines that have the ability to self-load, carry and spread material in a sequence. These machines are used to excavate areas and then transport that same material to an area that needs material or an area for storage. These machines can also be used to raise levee roads and fill low lying areas. Scrapers are also used to cut flow lines or areas of high material deposits. Up to two scrapers would be utilized during maintenance activities.
Service Truck	Service trucks allow manpower to travel within a facility and serve as a means of transportation of hand tools, power tools, hand sprayers, and construction tools. Service trucks are used as support to heavy equipment. Up to two service trucks would be utilized during maintenance activities.
Sprayer Trucks/Equipment	Vehicles used to spray herbicides within a facility. These vehicles range from Heavy Spray Trucks to pick-up trucks and all-terrain vehicles. Up to two sprayer trucks would be used during maintenance activities.
Water Truck	All-wheel drive tanker trucks are used to control dust during construction projects. Water Trucks are also used for compaction purposes such as levee road repair and backfill operations. One water truck would be used during maintenance activities.
Gradall	The Gradall is a highway speed hydraulic excavator. This specialized excavator is versatile in its ability to travel on highways and also function in construction sites. The Gradall is used to excavate, load, place, and compact materials. The Gradall is also used to excavate material from facilities that have asphalt levees and roads that steel tracked equipment would damage. The Gradall is also used to remove vegetation from facility slopes and grade and compact slopes. One Gradall would be used during maintenance activities.
Speed Loader	The Speed Loader is a commercial truck with a mobile crane mounted above an extended dump bed. The Speed Loader is an all-wheel drive, self-loading truck that is used to transport vegetation piles to the landfill. The Speed Loader is also used for storm

Equipment	Description
	operations to remove debris from areas that have accumulated debris and drains and inlets that are plugged. One Speed Loader would be used during maintenance activities.
Tractor and Disc (Disc)	The Disc is a combination of a Tractor and Disc; the Tractor tows the Disc trailer and in combination they are used for vegetation removal and management. Disking removes or manages vegetation by metal discs attached to the trailer turning the vegetation and root structures into the soil. Disking also forms straight grooves in the soil enabling the facility to percolate water more efficiently, aerates the soil, and increases insect abundance. One tractor and disc would be used during maintenance activities.

Best Management Practices

The District has prepared Best Management Practices (BMPs) that establish precautions and procedures that are used when planning and implementing maintenance activities that could affect sensitive environmental resources. These resources include wetlands, riparian habitat, aquatic habitat, threatened and endangered species and their habitats, state species of special concern, and water quality and hydraulic conditions of concern within the maintenance activity area and adjacent watershed. These BMPs have been designed to be practicable, using available procedures that are feasible after taking into consideration cost, existing technology, and logistics of the overall purpose of the proposed activities (routine maintenance of existing flood control facilities). District operations staff would implement these BMPs prior to and during activities conducted in facilities for the Project. The District uses Caltrans Division of Construction: Construction Site BMP Fact Sheets in determining appropriate BMPs to used based on conditions. Currently per the County MS4 Permit, at least 80% of basins are inspected at least once each year, with 100% of facilities inspected in a two year period (XIII.C, D). The MS4 Permit includes a provision that allows the county to annually evaluate and determine the priority and frequency of drainage facility inspections and clean-outs (XIII.E) Local Implementation Plan (LIP Section 6.4).

BMP A: Avoid Channel Work During the Rainy Season to Greatest Extent

Routine maintenance and repair activities in earthen channels and in channels with soft bottoms and bank protection will be avoided during the rainy season to the greatest extent feasible. The rainy season is typically from October through April in the valley areas. Weather prediction by District staff involves checking the National Oceanic and Atmospheric Administration (NOAA) website hourly forecast and determining if there is a 50 percent or greater chance of rain. Routine maintenance and repair activities may occur during this period if water is absent from the drainage because of low runoff conditions, or activities can be performed without working in flowing water. Work in flowing water during the rainy season may proceed if there are no feasible alternatives and completion of emergency repairs during this time period is critical, as was experienced during the 2010-11 storm season when several bridges within City Creek, including Boulder Bridge and Alabama Bridge sustained heavy damage and heavy erosion of levees were posing an imminent threat to life and property. Work in flowing water shall be conducted according to the BMPs established in the attached Water Diversion Methods and BMPs document.

BMP B: Avoid Spills and Leaks

The District will ensure that all equipment operating in and near the facility is in good working condition and free of leaks. No equipment maintenance and/or refueling will occur within the basin or channel bottoms. Further, equipment used during routine maintenance activities will be parked outside of channels and/or washes on the road tops and/or adjacent roadway. All operations' staff working with heavy equipment has

been trained in the use of the equipment, and in spill containment and response for any unforeseeable accidents that may occur; further, a small spill kit is included in each vehicle, and a larger spill kit will be kept on site at all times. Special care will be taken to prevent liquid paint from entering aquatic resources while painting associated with graffiti removal is conducted. Any significant spills that occur shall be reported to California State Warning Center of the California Governor's Office of Emergency Services (Cal OES) at (800) 852-7550. Additionally, a copy of the Cal OES California Hazardous Materials Spill/Release Notification Guidance will be kept on-site while all maintenance activities take place. Further, if necessary, operations staff will need to follow up with the appropriate agencies as outlined in the Cal OES guidelines, which can be located on the Cal OES website at www.calema.ca.gov.

BMP C: Avoid Road Base Discharge

The District will implement measures to prevent the discharge of road base, fill, sediment, concrete, and/or asphalt beyond the previously established roadbed when maintaining existing driveways and dirt access roads within the maintenance activity area.

BMP D: Concrete Washout Protocols

The District will implement the appropriate waste management practices during on-site concrete repair operations. Waste management practices shall be applied to the stockpiling of concrete, curing, and finishing of concrete as well as concrete washout operations. Waste management practices shall be adequate to ensure that all fluids associated with the curing, finishing, and washout of concrete shall not be discharged into any area with the potential to enter an aquatic resource. Further, all concrete waste will be stockpiled separately from sediment and protected with erosion control measures to ensure that concrete dust and/or debris is not discharged into an aquatic resource. The District will determine the appropriate waste management practices based on considerations of flow velocities, site conditions, availability of stockpile locations, availability of erosion control materials, construction costs, and other requirements that may be outlined within the District's MS4 permits.

BMP E: Location of Stockpiles and Staging Areas

All temporary stockpiles (14 days or less) will be identified in coordination with District biologists' recommendations. Any temporary stockpile locations, and staging areas, will be located within the disturbed/graded areas outside of the facility bottom and the tops of the levees/banks, so that potential pollutants will not enter an aquatic resource. Additionally, heavy equipment may be staged on the access roads within the maintenance activity area, but will be confined to those locations where potential pollutants will not enter an aquatic resource; this will be conducted in combination with BMP 2.

Silt fences, berms, or other methods of erosion control may be used if stockpiles are to remain in designated areas for greater than 14 days. No temporary or long term stockpiles will be located/placed where materials have the potential to enter an aquatic resource.

BMP F: Construction Noise BMPs

Noise-generating maintenance activities will be restricted to the daytime (i.e., 7:00 a.m. to 7:00 p.m. Monday through Saturday pursuant to the County of San Bernardino Development Code); unless there are damages that pose an imminent threat to life and property that must be repaired immediately. Sustained maintenance activity noise adjacent to sensitive wildlife nesting areas will be minimized during the nesting season and, if feasible, will be scheduled outside of the nesting season (as defined under BMP 8 below). If sensitive wildlife should be determined to be located adjacent to areas requiring maintenance, District biologists will consult with the appropriate regulatory agencies regarding avoidance and minimization measures prior to the start of maintenance activities.

BMP G: Application of Weed Abatement and Vector Control Pesticides

All aquatic pesticide applications for the control of weeds and for the control of vectors will be consistent with the two NPDES Aquatic Pesticide General Permits (CAG99005 and CAG99004).. All aquatic pesticide weed applications conducted at district facilities will be carried out by the Agriculture/Weights and Measures Department (Ag) at the request of District Public Works Operations Supervisor. All aquatic pesticide vector applications conducted at district facilities will be conducted by the Environmental Health, Vector Control. Vector control applications will be determined based on input by the District Public Works Operations Supervisor. Aquatic pesticide application rates are determined by licensed applicators and are made in a manner consistent with all product label instructions and Material Safety Data Sheets (MSDS). Applications will be made only when and where suitable, based on presence and location of undesired weeds, and in consideration of meteorological conditions favorable to efficacious product use (not windy, raining, temperate). Applications will be made during maintenance periods when and where needed. District staff will complete records of pesticide application. The San Bernardino County Agriculture Commissioner reports all pesticide applications at District facilities to the SARWQCB per the State Department of Agriculture pesticide regulations, in addition to the aquatic pesticide Permit reporting regulations (LIP Section 10.7.3; Aquatic Pesticide Application Plan (APAP) Chapter 9)

All herbicide use will be consistent with the District NPDES permit, which outlines a schedule of monitoring requirements, BMPs, and conditions designed to promote the reduction of pollutants in stormwater discharges. The permit requires the District to implement the recommendations in the California Stormwater Quality Association Stormwater Best Management Practice Handbook for Municipal activities to ensure that public agency facilities and activities do not contribute pollutants to receiving waters. The District will apply pesticides and herbicides in accordance with California Department of Pesticide Regulation requirements. The District application of herbicide will be under the monitoring of the San Bernardino County Department of Agriculture/Weights and Measures, who will be dispensing the herbicide and conducting random monitoring inspections in the field. District staff will complete daily records of herbicide use by amount and location.

BMP H: Survey for Migratory and Nesting Birds Prior to Routine Maintenance Work

Most native bird species are protected by international treaty under the federal Migratory Bird Treaty Act (MBTA) of 1918 (50 CFR Section10.13). Sections 3503, 3503.5, and 3513 of the California Fish and Game Code (FGC) prohibit take of all native birds and their active nests including raptors and other migratory birds (as listed under the MBTA).

To avoid impacts to nesting birds, all work should occur outside the nesting season (typically February 1 through September 30). The exact time of year when individual bird begins nesting can vary greatly between species, geographic area; external factors, such as rainfall, temperature, and water levels. If maintenance activities are scheduled during nesting season, pre-construction nest survey(s) are required to ensure that impacts to any nesting birds are avoided. All bird and nesting surveys will be conducted three (3) days prior to start of maintenance activities. If work is not initiated within three (3) days of the nesting bird survey, a new nesting bird survey will be required prior to the start of work. If a nest is detected during the pre-construction nesting bird survey, the biologist will document the details of the nest, along with recommended minimization and avoidance measures such as buffers, partial work restrictions, or total work restrictions. Buffers will be applied to each nest site in order to avoid and minimize impacts to nesting birds. The standard buffer will be a minimum of 200 feet for most passerine birds and 500 feet for sensitive species and/or raptors. The buffers will be flagged in all directions of the nest site and will not be disturbed until after September 15 or until the nest becomes inactive. If no nests are observed within and surrounding the maintenance footprint during the nesting survey, then the proposed maintenance activities may proceed.

BMP I: Avoid Sensitive Habitat in the Activity Area

The District will minimize, to the greatest extent feasible, vegetation removal within the routine maintenance footprint. In maintenance areas occupied by sensitive habitats such as riparian, wetland, or alluvial fan sage scrub, native habitats will be avoided to the maximum extent feasible.

BMP J: Leave Wetland Vegetation in Channel Bottom

To the greatest extent feasible the District shall avoid and try to minimize the removal of wetland vegetation. Removal of wetland species may be necessary in association with the following objectives: (1) replacement of structures; (2) vector control; (3) to maintain flow conveyance; and/or (4) as a result of sediment removal (for conveyance and to maintain storm capacity).

BMP K: Biological Surveys in Sensitive Habitat Prior to Vegetation Maintenance

In maintenance areas occupied by sensitive habitats such as riparian, wetland, or alluvial fan sage scrub, native habitats will be avoided the maximum extent feasible. Prior to maintenance, the District shall conduct appropriate field investigations to search for nesting birds as well as sensitive, listed species and/or their habitats. If threatened or endangered species are observed within or around the maintenance area, no work shall occur to avoid impacts without consultation with United States Fish and Wildlife Service (USFWS) and/or California Department of Fish and Wildlife (CDFW). Due to the disturbed nature of the areas to be maintained, listed species are not anticipated to occur. Surveys have previously been conducted for sensitive species identified as having potential to occur, including San Bernardino kangaroo rat. No listed or sensitive species were found during the surveys. These species are therefore not anticipated to occur within the project area.

BMP L: Invasive Plant Removal Protocols

Invasive plant species shall be removed in a manner that prevents propagation of those species in the same location and/or in other locations throughout the facility and/or County. Where maintenance activities are required, Operations staff will spray and/or mow invasive plant species before seeds ripen. All cut/removed invasive vegetation will be taken to an approved refuse facility as a load designated for destruction. Operations staff will contain and remove cut stems and/or seed material to prevent it from being transported downstream and/or being left behind to allow the seed to propagate. In the case of giant reed (*Arundo donax*) removal, the District shall minimize ground disturbance and use foliar glyphosate treatment on smaller infestations. Stems shall be removed only when the plants are determined to be dead and unable to re-sprout and/or propagate.

BMP M: Rodent Control Program

Maintenance of channel slopes, banks, and levees shall require implementation of a selective rodent control program. The primary purpose of such maintenance is to control California ground squirrels (*Spermophilus beecheyi*), whose burrows compromise the structural integrity of such facility features.

In locations where critical habitat for San Bernardino Kangaroo Rat (SBKR) is present within project facilities, rodenticide would be applied using special elevated traps, and in accordance with applicable federal and state laws, regulations, and policies.

Rodenticides will not be used in areas within 1,000 feet of nesting raptors and burrowing owl burrows. As part of an ongoing monitoring program and in order to determine the effectiveness of the California ground squirrel control program, the District shall maintain uniform inspection records for the facility that include all control efforts. Further, the District shall conduct staff training programs that cover the rodent/pest-management program, which will include the inspection and monitoring requirements as well as treatment options. Upon request the District shall submit treatment records to the regulatory agencies, including those control methods used and any monitoring records.

BMP N: Fire Control

Due to the risk of fire, all maintenance activities when conditions are warranted will be accompanied by a water truck in case of incidental sparks caused by maintenance.

BMP O: Ingress/Egress

In order to prevent sediment from being transported onto public roadways by maintenance vehicles, the District will include entrance/outlet tire washes at each basin location per construction site BMP Fact Sheet TC-3. Examples include rock bed and wash racks.

Timing

The Project is a five year routine maintenance request, which would begin shortly after permit authorization, and is expected to continue for a period of 5 years, ending in 2020. Maintenance activities would take place between 7 a.m. and 7 p.m. Monday through Saturday, excluding federal holidays, in accordance with BMP F and the County's development code. The duration of maintenance at each facility would take between 1 day and 3 weeks, depending on the maintenance activity required and the size of the basin.

ENVIRONMENTAL/EXISTING SITE CONDITIONS:

All of the project sites are existing flood control facilities in the foothills of the San Bernardino valley. The sites are located in Flood Zones 1, 2, or 3 as described above. Detailed information on the existing and surrounding land uses for each facility is provided in Appendix A. Maps of each flood control facility are provided in Appendix B.

Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):

- U.S. Army Corps of Engineers (USACE) (Clean Water Act Section 404 Permit)
- Regional Water Quality Control Board (RWQCB), Santa Ana Region (Clean Water Act Section 401 Permit)
- California Department of Fish and Wildlife CDFW (Streambed Alteration Agreement)
- U.S. Fish and Wildlife Service (USFWS) (Endangered Species Section 7 Consultation) - to be conducted by USACE.

EVALUATION FORMAT

This Initial Study is prepared in compliance with the California Environmental Quality Act (CEQA) pursuant to Public Resources Code Section 21000, et seq. and the State CEQA Guidelines (California Code of Regulations Title 14 Section 15000, et seq.). Specifically, the preparation of an Initial Study is guided by Section 15063 of the State CEQA Guidelines. This format of the study is presented as follows. The project is evaluated based upon its effect on seventeen (17) major categories of environmental factors. Each factor is reviewed by responding to a series of questions regarding the impact of the project on each element of the overall factor. The Initial Study Checklist provides a formatted analysis that provides a determination of the effect of the project on the factor and its elements. The effect of the project is categorized into one of the following four categories of possible determinations:

Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant	No Impact

Substantiation is then provided to justify each determination. One of the four following conclusions is then provided as a summary of the analysis for each of the major environmental factors.

1. **No Impact**: No impacts are identified or anticipated. Therefore, no mitigation measures are required and analysis in an EIR is not required.
2. **Less than Significant Impact**: No significant adverse impacts are identified or anticipated. Therefore, no mitigation measures are required, and analysis in an EIR is not required.
3. **Less than Significant Impact with Mitigation Incorporated**: Possible significant adverse impacts have been identified or anticipated, but mitigation measures have been identified that will reduce these impacts to a level below significant. The required mitigation measures are: (List mitigation measures). Provided the mitigation is required as a condition of project approval, no further analysis in an EIR is required.
4. **Potentially Significant Impact**: Potentially significant adverse impacts have been identified or anticipated. An Environmental Impact Report (EIR) is required to evaluate these impacts, which are (Listing the impacts requiring analysis within the EIR).

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ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology / Soils
☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials	☐ Hydrology / Water Quality
☐ Land Use / Planning	☐ Mineral Resources	☐ Noise
☐ Population / Housing	☐ Public Services	☐ Recreation
☐ Transportation / Traffic	☐ Utilities / Service Systems	☐ Mandatory Findings of Significance

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation, the following finding is made:

☐ The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ The proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ Although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Harold Zamora — 6/26/2015
Signature (prepared by) **Harold Zamora** — Date

6/25/2015
Signature: — Date
Consultant to: Scott Taylor, ECORP Consulting, Inc.
County of San Bernardino

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
I.	**AESTHETICS** - Would the project				
a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b)	Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c)	Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☒
d)	Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

SUBSTANTIATION: *(Check ☒ if project is located within the view-shed of any Scenic Route listed in the General Plan):*

a) A scenic vista is defined as a location that provides a view of undisturbed natural areas; includes a unique or unusual feature which comprises an important or dominant portion of the viewshed; or offers a distant view which provides relief from less attractive views of nearby features (i.e., mountain backdrops behind urban area) (County of San Bernardino 2007a).

Zones 1, 2, and 3: **Less than Significant Impact.** The County of San Bernardino General Plan's Conservation and Open Space Element includes a goal to encourage the protection of natural features, scenic vistas, and County designated visually important roadways. The County of San Bernardino designates areas near these scenic vistas under the Special Development District/Zone overlay (County of San Bernardino 2007a). The San Antonio Heights Basin # 1 (1-313-4A), Hillside Basin (1-552-4A), and Deer Creek Debris Basin (1-506-3A) are located or partially located in areas that are designated under the Special Development overlay by the County of San Bernardino General Plan. None of the facilities in Zone 2 and Zone 3 are located in areas designated as Special Development by the County of San Bernardino General Plan. The Project consists of maintenance activities that would not have a substantial adverse effect on scenic vistas. These maintenance activities would not change the view shed in these areas. Therefore, impacts to scenic vistas would be less than significant.

b) ***Zones 1, 2, and 3:*** **No Impact.** The closest highway to Zone 1 and Zone 2 facilities is Foothill Freeway (State Route 210) and the closest highways to Zone 3 facilities are Interstate 10, State Route 18, and State Route 330. None of these highways have been designated as an official California scenic highway (Caltrans 2014).

The County of San Bernardino General Plan Open Space element designates roadways throughout the county that display scenic and aesthetic qualities that over time have been found to add beauty to the County as Scenic Routes (County of San Bernardino 2007a). State Route 18 from San Bernardino to northeast of the City of Big Bear Lake and State Route 330 from the San Bernardino National Forest boundary to State Route 18 have been designated as scenic routes in the County General Plan. According to the County of San Bernardino Open Space Overlay Map there are no facilities in Zone 1 located within 1 mile of a County designated scenic route. Brush Canyon Basin (2-412-4A) and MacQuiddy Basin (2-368-4D) of Zone 2, and Dynamite Basin (3-304-4A) and Small

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*

Canyon Dam (3-302-3A) of Zone 3 are located within 1 mile of State Route 18 and State Route 330, respectively. Both of these routes are County designated scenic routes (County of San Bernardino 2007b). Maintenance activities associated with the Project would not damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state or County designated scenic highway. No impact to state scenic highways or County designated scenic routes would occur.

c) ***Zones 1, 2, and 3:*** **No Impact.** The Project would not substantially degrade the existing visual character or quality of the site and its surroundings. Views of the San Bernardino Mountains are visible to the north, and no structures are being proposed that would change the existing visual character of the area or block views of the mountains. The changes that would result from the Project would maintain the visual character of the site. No impact would occur.

d) ***Zones 1, 2, and 3:*** **No Impact.** Maintenance activities proposed for the Project would not create new sources of light and glare including those due to permanent or temporary lighting. Maintenance activities would be limited to daylight hours as required in BMP F, and no new sources of light would be used. No impact would occur.

II.	**AGRICULTURE AND FORESTRY RESOURCES** - In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☒	☐

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e)	Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

SUBSTANTIATION: *(Check ☐ if project is located in the Important Farmlands Overlay):*

a) ***Zones 1, 2, and 3:*** **No Impact.** Facilities in Zones 1, 2, and 3 are not identified or designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance on the San Bernardino County Important Farmland maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency. The Project facilities within Zones 1, 2, and 3 are designated as grazing land, urban built-up land, and other land, with some areas located within the San Bernardino National Forest (CDC 2010a). None of the facilities are within the County's Important Farmlands Overlay. Therefore, the Project would not convert Farmland to other uses. No impact would occur.

b) ***Zones 1, 2, and 3:*** **Less than Significant Impact.** The Project facilities within Zone 1 and Zone 2 are not designated as an agricultural land use or Williamson act land (County of San Bernardino 2007a; CDC 2013). The Oak Creek Dam (3-204-4A) within Zone 3 is partially located in an Agricultural/Equestrian zone designated by the City of Highland, but is not under Williamson Act contract (CDC 2013). The remaining facilities in Zone 3 are not designated as agricultural land use or Williamson Act Land (County of San Bernardino 2007a; CDC 2013). The Project consists of maintenance to existing facilities, would not change the current land uses, and would remain consistent with existing on-site uses. A less than significant impact to agriculture would occur.

c-e) ***Zones 1, 2, and 3:*** **No Impact.** Zones 1, 2, and 3 include Project facilities partially located in the San Bernardino National Forest. The Proposed Project sites would remain consistent with existing land uses and would not result in the rezoning of forest land, loss of forest land, or conversion of forest land to non-forest use. The Project would not result in any changes to the existing environment that could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use. No impacts would occur.

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
III.	**AIR QUALITY -** Where available, the significance criteria established by the applicable air quality management or air pollution control district might be relied upon to make the following determinations. Would the project:				
a)	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☒	☐	☐
b)	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☒	☐	☐
d)	Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
e)	Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

SUBSTANTIATION: *(Discuss conformity with the South Coast Air Quality Management Plan, if applicable):*

a-b) ***Zones 1, 2, and 3:*** **Less than Significant Impact with Mitigation/Less than Significant.** Zones 1, 2, and 3 are located in the South Coast Air Basin (SCAB), a 6,745-square mile subregion within the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAQMD has jurisdiction over an approximately 10,473 square mile area consisting of the four-county SCAB and the Los Angeles County and Riverside County portions of what use to be referred to as the Southeast Desert Air Basin. In these areas the SCAQMD is responsible for air pollution control, and works directly with Southern California Association of Governments, county transportation commissions, local governments, as well as state and federal agencies to reduce emissions from stationary, mobile, and indirect sources to meet state and federal ambient air quality standards (Urban Crossroads 2015a).

SCAQMD has developed regional and localized significance thresholds for other regulated pollutants, as summarized in Table 6 below. The SCAQMD's CEQA Air Quality Significance Thresholds indicate that any projects in the SCAB with daily emissions that exceed any of the indicated thresholds should be considered as having an individually and cumulatively significant air quality impact.

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*

TABLE 6: MAXIMUM DAILY EMISSIONS REGIONAL THRESHOLDS

Pollutant	Construction
NOx	100 lbs/day
VOC	75 lbs/day
PM_{10}	150 lbs/day
$PM_{2.5}$	55 lbs/day
SO_x	150 lbs/day
CO	550 lbs/day
Lead	3 lbs/day

Notes: NOx = oxides of nitrogen, VOC = volatile organic compounds, PM_{10} = particulate matter less than 10 microns in size, $PM_{2.5}$ particulate matter less than 2.5 microns in size, SOx = oxides of sulfur, CO = carbon monoxide

Source: Urban Crossroads 2015a

An air quality impact analysis was prepared, which addresses the maintenance activity emissions and potential for significant impacts associated with the Project. The air quality impact analysis evaluated the potential for adverse impacts to the ambient air quality due to maintenance (construction) activity emissions which include mechanized land clearing/excavation, stockpiling, ingress/egress, concrete structure repair, and graffiti removal. The analysis assumed that dust control and vehicle maintenance rules required by the California Air Resources Board (CARB) and SCAQMD would be implemented by the Project. The District is required to comply with all applicable CARB and SCAQMD rules and regulations. To facilitate monitoring and compliance, applicable SCAQMD and CARB regulatory requirements are summarized below.

Implementation of SCAQMD Rule 403(3) requires the following:

- All clearing, grading, earth-moving, or excavation activities shall cease when winds exceed 25 mph per SCAQMD guidelines in order to limit fugitive dust emissions.

- The contractor shall ensure that all disturbed unpaved roads and disturbed areas within the Project site areas are watered at least three (3) times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the midmorning, afternoon, and after work is done for the day.

- The contractor shall ensure that traffic speeds on unpaved roads and Project site areas are reduced to 15 miles per hour or less.

CARB, in Title 13, Chapter 10, Section 2485, Division 3 of the of the California Code of Regulations, imposes a requirement that heavy duty trucks accessing the site shall not idle for greater than five minutes at any location. This measure is intended to apply to construction traffic. A sign shall be

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*

posted on-site stating that construction workers need to shut off engines at or before five (5) minutes of idling.

The air quality impact analysis found that emissions associated with maintenance activities required for this Project would not exceed significance thresholds with incorporation of Mitigation Measure AQ-1. As shown in Table 7, emissions associated with maintenance (construction) activities, with incorporation of mitigation measures, would be less than the SCAQMD's significance thresholds, and therefore would not result in a significant air quality impact (Urban Crossroads 2015a).

Mitigation Measure

AQ-1: During construction activity, all construction equipment (≥ 150 horsepower) shall be California Air Resources Board (CARB) Tier 2 Certified or better.

TABLE 7: CONSTRUCTION EMISSIONS SUMMARY WITH INCORPORATION OF MITIGATION MEASURE AQ-1

	Emissions (pounds per day)					
	VOC	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
Each maintenance year (2015/16-2019/20)	5.62	84.73	58.02	0.11	6.97	4.44
Maximum Daily Emissions	**5.62**	**84.73**	**58.02**	**0.11**	**6.97**	**4.44**
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

Source: Urban Crossroads 2015a

The Project is not a development project, but rather proposes maintenance activities in various flood control zones. Emissions from maintenance (construction) activities would be short-term and finite, and are less than all applicable thresholds. Criteria for determining consistency with the Air Quality Management Plan (AQMP) are defined in Chapter 12, Section 12.2 and Section 12.3 of the SCAQMD's CEQA Air Quality Handbook (1993). These indicators are discussed below:

- Consistency Criterion No. 1: The Project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.

- Consistency Criterion No. 2: The Project will not exceed the assumptions in the AQMP based on the years of Project build-out phase.

The Project would not result in or cause National Ambient Air Quality Standards or California Ambient Air Quality Standards violations. The Project is therefore considered to be consistent with the AQMP. Impacts would be less than significant with incorporation of Mitigation Measure AQ-1.

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*

c) ***Zones 1, 2, and 3:*** **Less Than Significant Impact with Mitigation.** The project area is designated as an extreme non-attainment area for ozone and a non-attainment area for PM_{10} and $PM_{2.5}$. With incorporation of Mitigation Measure AQ-1, maintenance activities that would take place under the Project are not expected to exceed the SCAQMD's recommended daily thresholds for project specific impacts and would not cause a considerable increase in emissions for those pollutants for which the Basin is in nonattainment. Therefore, the Project would have a less than significant impact. However, individual project-related impacts would be considered cumulatively considerable if they would exceed SCAQMD thresholds. As previously noted, the Project would not exceed the applicable SCAQMD regional threshold for construction source emissions (Urban Crossroads 2015a). A less than significant impact would occur with incorporation of Mitigation Measure AQ-1.

d) ***Zones 1, 2, and 3:*** **Less Than Significant Impact with Mitigation.** Air quality regulators typically define sensitive receptors as long term health care facilities, rehabilitation centers, retirement homes, residences, schools, playgrounds, child care centers, and athletic facilities. The Air Quality impact analysis considered the potential impact of project generated air pollutant emissions at sensitive receptors like these. The nearest potentially affected sensitive receptors to any of the FLOD flood control facilities are the existing single-family residential dwellings located west of and immediately adjacent to the San Antonio Heights Basin #1 (1-313-4A). The analysis used methodology from the SCAQMD *Final Localized Significance Threshold Methodology*. The SCAQMD has established that impacts to air quality are significant if there is a potential to contribute or cause localized exceedances of the federal and/or state ambient air quality standards (Urban Crossroads 2015a). The Localized Significant Threshold (LSTs) analysis for San Antonio Heights Basin #1 (1-313-4A) found that the Project would not exceed the SCAQMD localized significant thresholds during construction with incorporation of Mitigation Measure AQ-1. The closest sensitive receptors to all of the other facilities are farther away and would be less likely to exceed LSTs than San Antonio Heights Basin #1 (1-313-4A). Therefore, sensitive receptors near all FLOD facilities would experience a less than significant air quality impact.

e) ***Zones 1, 2, and 3:*** **Less Than Significant Impact.** The Project does not contain land uses typically associated with emitting objectionable odors. However, potential odor sources may result from construction equipment exhaust and other activities associated with the Project. Construction odor emissions would be temporary, and short-term and standard construction requirements would minimize the odor emissions impacts. Any project generated refuse would be stored in covered containers and removed at regular intervals in compliance with the County's solid waste regulations. The Proposed Project would also be required to comply with SCAQMD Rule 402 to prevent occurrences of public nuisance (Urban Crossroads 2015a). Therefore, odors associated with the Project would be less than significant.

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
IV.	**BIOLOGICAL RESOURCES -** Would the project:				
a)	Have substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☒	☐
c)	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc…) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?	☐	☐	☐	☒

SUBSTANTIATION: *(Check if project is located in the Biological Resources Overlay or contains habitat for any species listed in the California Natural Diversity Database ☒):*

a) ***Zones 1, 2, and 3:*** **Less Than Significant Impact with Mitigation.** A literature search was conducted for the Project for previously documented special-status vegetation communities, plant, and wildlife species. The literature search evaluated 100 special status plant species and 54 special status wildlife species for their potential to occur at the facilities in Zones 1, 2, and 3. This literature search was accompanied by a field survey (ECORP 2015a).

Special Status Plants. Based on the literature search and reconnaissance survey, the Project has

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*

potential to impact the federal- or state-listed Nevin's barberry, thread-leaved brodiaea, slender-horned spineflower, and Santa Ana River woollystar plant species in Zones 1, 2, and 3. Additionally Zone 3 has the potential to impact the Mojave tarplant. Suitable habitats for other species ranked by the CNPS Inventory, including CNPS List 1B species (those that are considered rare and endangered in California) occur in Zones 1, 2, and 3. None of these plants have been previously recorded in the facilities; however a focused rare plant survey conducted during appropriate blooming periods has not been completed. An oak tree within the San Antonio Heights Basin #3 in Zone 1 is not within the maintenance footprint. A Southern California black walnut tree is on the eastern edge of the maintenance footprint at the Sand Canyon Basin (2-503-4A) in Zone 2. Implementation of BMPs E, G, I, J, K, and L would avoid Project impacts to any special-status plant species that may occur within the project sites (ECORP 2015a).

Amphibians and Reptiles. The amphibians and reptiles with potential to occur within Zone 1, 2, and 3 facilities are all of lower levels of sensitivity and abundant habitat remains within areas adjacent to the facilities. Due to these factors, the Project is expected to only entail a temporal loss of habitat for localized populations (ECORP 2015a). The removal of habitat for these species would be minimized to the extent possible with BMPs A, E, G, I, J, K, and L. It is unlikely that the loss of habitat for these species related to the Project would lead to listing, and impacts would be less than significant.

Birds. Most of the bird species with potential to occur within Zone 1, 2, and 3 facilities are of lower levels of sensitivity and abundant habitat remains in areas adjacent to the facilities. The exceptions include the coastal California gnatcatcher (CAGN) for Zone 1, the southwester willow flycatcher and least Bell's vireo for Zone 2, and Swainson's hawk and burrowing owl for Zones 1, 2, and 3. Impacts to these species are discussed below. General impacts to other nesting bird species protected under the MBTA and FGC are also discussed.

<u>Coastal California Gnatcatcher (CAGN)</u>

Focused surveys for this species have been conducted in all of the Zone 1 facilities except Rich Basin (1-807-4A) (ECORP 2015a) and no CAGN were detected in the survey areas except in an area adjacent to Hillside Basin (1-552-4A). Adult CAGN pairs were not detected in the area of Hillside Basin (1-552-4A) during the focused surveys. Rich Basin (1-807-4A) was found to contain habitat that was suitable for CAGN, but the habitat was not of sufficient acreage and was too isolated from other suitable patches to be able to support CAGN. Additionally, focused surveys for this species were conducted in four of the facilities in Zone 2 (ECORP 2015a) and no breeding CAGN were detected in the survey areas. One unpaired bird was observed once during the 12 survey days. Direct and indirect impacts to this species and its habitat are not anticipated at the Basins where focused surveys were negative. None of the remaining facilities in Zone 2 were determined to contain suitable habitat for this species. Implementation of BMPs H and K would avoid Project impacts to this species. No habitat for CAGN occurs in Zone 3.

<u>Swainson's Hawk</u>

Swainson's hawks are known to fly over or within the vicinity of all of the facilities in Zones 1, 2 and

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*

3 during their migration period to the Central Valley or western Mojave Desert. They are not known to breed or nest in any of the Zone 1, 2, or 3 facilities. During the focused CAGN surveys at three Zone 2 facilities, an adult Swainson's hawk was observed on two separate days gradually moving north towards the mountains (ECORP 2015a). The biologists determined that the birds were exhibiting the typical behavior of a northbound spring migrant. Although it is likely that this species will fly over all of the facilities in Zones 1, 2, and 3 during its migration period, it is unlikely that this species will nest at any of them. Direct and indirect impacts to this species are not anticipated from the Project. Implementation of BMPs H and K would avoid potential Project impacts to this species.

Burrowing owl

Six of the Zone 1 facilities support suitable habitat for burrowing owl. Seven of the Zone 2 and five of the Zone 3 facilities support suitable habitat for burrowing owl (ECORP 2015a). Although no suitable burrows were observed during the biological reconnaissance survey at the remaining facilities, suitable burrows may be created by small mammals prior to the initiation of Project activities at any of the FLOD facilities. Implementation of BMPs H, I, K, and Mitigation Measure B-1 would reduce potential impacts to burrowing owls to a less than significant level.

Southwestern Willow Flycatcher and Least Bell's Vireo

The only FLOD facility with potential to support these species was the Little Sand Canyon Basin (2-510-4A) within Zone 2. Because only a very small amount (0.26 acre) of the habitat type these species prefers (riparian) is located within the basin, and Project timing would avoid these species breeding season, direct impacts to these species are not anticipated (ECORP 2015a). Implementation of BMPs A, E, H, I, J, and K would avoid any potential Project impacts to these species and its habitat.

Nesting Birds

Suitable habitat for migratory birds and raptors protected under the MBTA and FGC within and immediately adjacent to all FLOD facilities in all three zones is present (ECORP 2015a). The Project would occur outside of the nesting season for nesting bird species. In addition, implementation of BMPs H, I, and K would avoid Project impacts to nesting and migratory birds. CDFW has noted that some species of raptors and passerines may nest outside of the typical breeding bird season specified in BMP H (February 1 through September 30). Therefore, Mitigation Measure B-2 has been added to ensure impacts to nesting birds are less than significant.

Mammals

San Bernardino Kangaroo Rat (SBKR)

Zone 1. Suitable habitat for SBKR is found in the Hillside Basin (1-552-4A), Deer Creek Debris Basin (1-506-3A), and Etiwanda Debris Basin (1-707-9A). Deer Creek Debris Basin and Etiwanda Debris Basin are located within USFWS-designated critical habitat for SBKR, and the critical habitat ends at the northeast corner of the Hillside Basin. There are no records of SBKR near Deer Creek or Hillside Basin; however there are records adjacent to the northwest corner of the Etiwanda Basin.

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*

SBKR were determined to be unlikely at the other Zone 1 facilities based on lack of suitable habitat.

Approximately 63.5 acres of a 4,820-acre USFWS-designated Critical Habitat Unit for SBKR, Unit #4 Etiwanda Fan and Wash, is within the Project footprints of Deer Creek Debris Basin and Etiwanda Debris Basin and would be affected by Project activities. Project impacts from disturbance of this Critical Habitat are discussed in Section IV. b), below. Although most of the SBKR suitable habitat (including habitat within designated Critical Habitat) in the Project footprint is disturbed, portions of these facilities may still support individual SBKR. Direct impacts to individual SBKR from Project activities within its habitat (including Critical Habitat) would include stockpiling of excavated spoils in areas within Hillside Basin, Deer Creek Debris Basin, and Etiwanda Debris Basin that are already disturbed. Because the stockpile area is considered to not support SBKR, impacts to SBKR from this activity would not be expected.

Project activities would also include vegetation management within areas in Hillside Basin, Deer Creek Debris Basin, and Etiwanda Debris Basin that are mapped as native Riversidean alluvial fan sage scrub (RAFSS) and Riversidean sage scrub (RSS), which can support SBKR (ECORP 2015a). Vegetation management within suitable habitat (including Critical Habitat) includes some hand-clearing of vegetation to meet maintenance goals. No mechanical clearing or removal of plant species by the roots is proposed in the areas that contain suitable habitat for the species. Because of the low-impact nature of hand clearing, the loss of SBKR habitat is expected to be temporal and minimal. BMPs E, F, I, K, and M would be applicable to further avoiding and minimizing impacts to individual SBKR. Restricting construction activities to the daytime (BMP F) would avoid direct (mortalities) and indirect (noise) impacts to SBKR, a nocturnal species.

Zone 2. Protocol, focused trapping surveys for SBKR were conducted at Devil Canyon Dam (2-303-3A), Devil Basin #2 (2-304-4A) and 3 (2-304-4B), and Wiggins Basin (2-305-4A). The remaining facilities were determined to not support suitable habitat. Based on the negative trapping results, the SBKR is considered absent from these facilities in spite of the presence of critical habitat for SBKR. The SBKR are considered unlikely at the remaining Zone 2 facilities. No impact to individual SBKR would occur.

Approximately 67.15 acres of a 787-acre USFWS-designated Critical Habitat Unit for SBKR, Unit #2B Lytle Creek/Cajon Wash, is within the Project footprint and would be affected by Project activities. Project impacts from disturbance of this Critical Habitat are discussed in Section IV. b), below.

Zone 3. Habitat for SBKR does not occur within FLOD facilities in Zone 3.

<u>Other Small Mammals</u>
Small mammal species with potential to occur are all of lower levels of sensitivity and abundant habitat remains within areas adjacent to the FLOD facilities. Due to these factors, the Project is expected to only entail a temporal loss of habitat for localized populations. In addition, noise from construction equipment (tractors, dump trucks, mowers, vehicles) and human presence could momentarily prevent wildlife movement. The removal of habitat for these species and the temporary increase in noise would be minimized to the extent possible with BMPs A, E, G, I, J, K, and L. It is

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*

unlikely that the loss of habitat for these species related to the Project would lead to listing, and impacts would be less than significant.

Mitigation Measures:

B-1: To avoid the potential for project impacts to burrowing owls, a pre-construction survey shall be conducted no less than 14 days prior to the initiation of project-related ground disturbing activities using the methods described in CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012). Any active burrowing owl burrows or nests identified during the survey shall be protected from disturbance by establishing a buffer that would remain free from project activities. The distance of the buffer shall be determined through monitoring the behavior of the owls, and referring to CDFW guidelines (2012), which provide recommended buffer distances based on the time of year and level of disturbance associated with construction activities.

Implementation Timing: No less than 14 days prior to the initiation of Project-related ground disturbing activities.

Enforcement Responsibility: San Bernardino County Flood Control District.

B-2: A pre-construction nesting bird survey shall be conducted no more than 30 days prior to the start of construction. On-going biological monitoring for nesting birds, if found, during maintenance activities shall be conducted by a qualified biologist. The nest survey and monitoring shall include the Project site and areas immediately adjacent to the site that could potentially be affected by Project activities such as noise, human activity, dust, etc. If active bird nests are found on or immediately adjacent to the Project site, then the qualified biologist will establish an appropriate buffer zone around the active nests, typically a 300-foot radius for songbirds and a 500-foot radius for raptors. Project activities shall be avoided within the buffer zone until the nest is deemed no longer active by the biologist. Weekly nesting surveys and biological monitoring may be necessary if nesting birds are found on the Project site. All Project personnel must be educated regarding the wildlife species issues for the Project area prior to onset of construction activities.

Implementation Timing: No more than 30 days prior to the initiation of Project-related activities.

Enforcement Responsibility: San Bernardino County Flood Control District

b) ***Zones 1, 2, and 3:*** **Less Than Significant Impact.** Potential Project impacts to biological resources include ground and vegetation disturbances that would occur during implementation of the various maintenance activities within each facility. Vegetation disturbance would include 79.37 acres in Zone 1, 70.33 acres in Zone 2, and 7.62 acres in Zone 3. Impacts to SBKR Critical Habitat would include 63.5 acres in Zone 1 and 78.85 acres in Zone 2. The tables below summarize impacts to general vegetation communities and Critical Habitat by zone. BMPs A, E, I, and J provide the methods to avoid and minimize unnecessary impacts to these vegetation communities. Implementation of one Project activity, BMP L, which includes protocols for removing invasive plants and methods to prevent them from spreading, would be beneficial to these natural vegetation communities.

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*

Zone 1. Disturbance of RAFSS, mulefat scrub, riparian, and RSS areas would be considered to be adverse impacts to sensitive vegetation communities (Table 8). Although impacts to these communities are calculated at close to 80 acres for the Zone 1 facilities, nearly 50 percent of the impacts would consist of thinning with hand tools for the purposes of maintaining functionality of the facilities and removal of non-native vegetation for fuel modification purposes per state and local fire codes, and for improvement of water quality. In addition, nearly 70 percent of the maintenance areas for the Zone 1 facilities have been previously disturbed or developed (ECORP 2015a). Most of the vegetation, even within the area designated for maintenance, would remain intact because there would be no uprooting of vegetation and all maintenance activities would consist of the minimal removal necessary for maintenance. Maintenance within these areas would also be similar to that conducted during previous years, which has resulted in the maintenance of plant cover and composition of the communities in their current state. For these reasons, the impacts to the RAFSS, mulefat scrub, riparian, and RSS vegetation communities would be considered adverse but not significant.

Table 8 – Zone 1 Vegetation Impact Acreages

Redbook	Facility	Mulefat Scrub	RAFSS	Riparian	RSS	Orna-mental	Disturbed	Grand Total
1-313-4A	San Antonio Heights Basin (SAHB) #1	0.00	0.00	0.00	0.33	0.00	0.79	**1.12**
1-313-4B	SAHB #5	0.00	0.19	0.00	1.60	0.00	5.94	**7.73**
1-313-4D	SAHB (West Frankish)	0.00	0.00	0.00	0.42	0.00	0.45	**0.87**
1-313-4E	SAHB #3	0.02	0.00	0.00	1.16	0.00	0.77	**1.95**
1-313-4F	SAHB #2	0.00	0.00	0.00	0.93	0.00	0.49	**1.42**
1-313-4G	SAHB #4	0.00	0.00	0.00	0.93	0.00	0.46	**1.39**
1-313-4H	SAHB #6	0.00	0.01	0.00	1.15	0.00	1.61	**2.77**
1-352-3A	Cucamonga Dam	0.00	18.39	0.30	0.10	0.00	50.48	**69.27**
1-402-3A	Demens Basin #1	0.00	1.05	0.00	8.21	2.80	19.48	**31.54**
1-506-3A	Deer Creek Debris Basin	0.00	16.92	0.00	0.24	0.00	24.97	**42.14**
1-552-4A	Hillside Basin	0.00	0.00	0.68	9.34	0.00	11.13	**21.15**
1-707-3A	Etiwanda Debris Basin	0.00	12.24	0.00	0.00	0.00	38.43	**50.67**
1-807-4A	Rich Basin	0.00	0.00	0.21	4.95	0.00	18.33	**23.49**
Grand Total		**0.02**	**48.80**	**1.19**	**29.36**	**2.80**	**173.34**	**255.50**

Source: ECORP 2015a

Approximately 63.5 acres of a 4,820-acre USFWS-designated Critical Habitat Unit for San Bernardino kangaroo rat, Unit #4 Etiwanda Fan and Wash, is within the proposed Project footprint and would be affected by Project activities (Table 9) (ECORP 2015a). However, most (44.88 acres) of this designated Critical Habitat within the southern portions of the Deer Creek (1-506-3A) and

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*

Etiwanda Debris Basin (1-707-3A) facilities had previously been disturbed by a combination of authorized gravel extraction activities and prior maintenance of the facility. The amount of affected critical habitat that supports native vegetation, therefore, is 18.66 acres, which totals approximately 0.39 percent of the overall Critical Habitat Unit. The disturbance of 18.66 acres of undisturbed critical habitat is not expected to be significant due to the presence of marginal habitat in the Project footprint.

Table 9 - Zone 1 Impacts to SBKR Critical Habitat

Redbook	Facility	SBKR Critical Habitat
1-506-3A	Deer Creek Debris Basin	29.01
1-707-3A	Etiwanda Debris Basin	34.48
Total		**63.50**

Source: ECORP 2015a

Zone 2. Disturbance of RAFSS, riparian, RSS, Rumex marsh, and California walnut woodland areas would be considered to be adverse impacts to sensitive vegetation communities (Table 10). Although impacts to these communities are calculated at over 70 acres for the Zone 2 facilities, nearly 40 percent of the impacts would consist of thinning with hand tools for the purposes of maintaining functionality of the facilities and removal of non-native vegetation for fuel modification purposes per State and local fire codes and for improvement of water quality. In addition, nearly 80 percent of the maintenance areas for the Zone 2 facilities have been previously disturbed or developed (ECORP 2015a). Most of the vegetation, even within the area designated for maintenance would remain intact. Further, there would be no uprooting of vegetation and all maintenance activities would consist of the minimal removal necessary for maintenance. Maintenance within these areas would also be similar to that conducted during previous years, which has resulted in the maintenance of plant cover and composition of the communities in their current state. For these reasons, the impacts to the RAFSS, Riparian, RSS, Rumex marsh, and walnut woodland vegetation communities would be considered adverse but not significant.

Protocol, SBKR focused trapping surveys were conducted at Devil Canyon Dam (2-303-3A), Devil Basin #2 (2-304-4A) and 3 (2-304-4B), and Wiggins Basin (2-305-4A). The remaining facilities were determined to not support suitable habitat for SBKR. Approximately 78.85 acres of a 787-acre USFWS-designated Critical Habitat Unit for SBKR, Unit #2B Lytle Creek/Cajon Wash is within the proposed Project footprint and would be affected by Project activities (Table 11) (ECORP 2015a). However, 31.25 acres of this designated critical habitat within these facilities had previously been disturbed by prior maintenance of the facilities. The amount of affected critical habitat that supports native vegetation, therefore, is 47.60 acres, which totals approximately 6.04 percent of the overall Critical Habitat Unit. The disturbance of 47.60 acres of undisturbed critical habitat is not expected to be significant due to the absence of the species within the Project footprints. Direct and indirect impacts to SBKR are not anticipated.

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*

Table 10 – Zone 2 Vegetation Impact Acreages

Redbook	Facility	RAFSS	Riparian	RSS	Rumex Marsh	California Walnut Woodland	Disturbed	Grand Total
2-303-3A	Devil Canyon Dam #1	8.35	0.66	0.00	1.38	0.00	8.42	**18.81**
2-304-4A	Devil Basin #2	4.72	3.47	0.00	0.00	0.00	12.11	**20.30**
2-304-4B	Devil Basin #3	3.46	1.35	0.12	0.00	0.00	6.47	**11.70**
2-305-4A	Wiggins Basin #1	24.21	0.88	0.00	0.00	0.00	4.25	**29.34**
2-365-3A	Little Mountain Dam	0.00	0.30	0.00	0.00	0.00	47.36	**47.66**
2-368-4D	MacQuiddy Basin #1-4	0.00	0.27	0.00	0.00	0.00	9.31	**9.57**
2-406-4A	Twin Creek Spreading Grounds	1.28	1.11	0.00	0.00	0.00	133.31	**135.70**
2-412-4A	Brush Canyon Basin	0.00	1.58	0.12	0.00	0.00	3.08	**4.78**
2-414-4A	Harrison Basin	2.81	4.66	0.00	0.00	0.00	4.48	**11.95**
2-503-4A	Sand Canyon Basin	0.00	0.40	0.00	0.00	0.0002	2.21	**2.61**
2-506-4A	Daley Basin	1.02	0.00	0.90	0.00	0.00	8.47	**10.40**
2-510-4A	Little Sand Canyon Basin	0.00	0.26	0.26	0.00	0.00	9.52	**10.03**
	Grand Total	**45.85**	**14.94**	**1.28**	**1.38**	**0.0002**	**249.00**	**312.45**

Source: ECORP 2015a

Table 11 - Zone 2 Impacts to SBKR Critical Habitat

Redbook	Facility	SBKR Critical Habitat
2-303-3A	Devil Canyon Dam #1	18.80
2-304-4A	Devil Basin #2	20.30
2-304-4B	Devil Basin #3	11.70
2-305-4A	Wiggins Basin #1	28.07
Total		**78.87**

Source: ECORP 2015a

Zone 3. Impacts to RAFSS, Riparian, RSS, open water, and Southern Cottonwood Willow Riparian Forest would be considered to be adverse impacts to sensitive vegetation communities (Table 12). Although impacts to these communities are calculated at close to eight acres for the Zone 3 facilities, nearly 18 percent of the impacts would consist of thinning with hand tools for the purposes of maintaining functionality of the facilities and removal of non-native vegetation for fuel

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*

modification purposes per State and local fire codes and for improvement of water quality. In addition, nearly 75 percent of the maintenance areas for the Zone 3 facilities have been previously disturbed or developed (ECORP 2015a). Most of the vegetation, even within the area designated for maintenance would remain intact. Further, there would be no uprooting of vegetation and all maintenance activities would consist of the minimal removal necessary for maintenance. Maintenance within these areas would also be similar to that conducted during previous years, which has resulted in the maintenance of plant cover and composition of the communities in their current state. For these reasons, the impacts to the RAFSS, Riparian, RSS, open water, and Southern Cottonwood Willow Riparian Forest vegetation communities would be considered adverse but not significant.

Critical Habitat for SBKR or any other species does not exist within any of the facilities in Zone 3.

Table 12 – Zone 3 Vegetation Impact Acreages

Redbook	Facility	Open Water	RAFSS	Riparian	RSS	Sycamore Woodland	SCWRF *	Disturbed	Grand Total
3-204-4A	Oak Creek Basin	0.00	0.00	0.71	0.93	0.15	0.00	2.72	**4.52**
3-302-3A	Small Canyon Dam	0.00	0.00	0.38	0.71	0.00	0.00	4.55	**5.64**
3-304-4A	Dynamite Basin	1.36	0.00	0.26	0.34	0.00	0.00	1.34	**3.30**
3-305-4A	Cook Canyon Basin	0.00	0.00	0.34	0.07	0.00	0.00	1.18	**1.59**
3-602-4A	Wilson Creek Basin #1	0.00	0.00	0.00	0.00	0.00	0.00	5.19	**5.19**
3-603-4A	Oak Glen Creek Basin #1	0.00	0.02	0.00	0.00	0.00	0.00	1.56	**1.58**
3-603-4B	Oak Glen Creek Basin #2	0.00	0.07	0.00	0.02	0.00	0.003	2.90	**2.99**
3-603-4C	Oak Glen Creek Basin #3	0.00	2.25	0.00	0.00	0.00	0.00	3.82	**6.07**
Grand Total		**1.36**	**2.33**	**1.70**	**2.08**	**0.15**	**0.003**	**23.26**	**30.88**

Source: ECORP 2015a
*SCWRF: Southern Cottonwood Willow Riparian Forest

c) ***Zones 1, 2, and 3:*** **Less Than Significant Impact.** A Delineation of Jurisdictional Waters and Wetlands was conducted for the Project. There are 57 features that fall under the jurisdiction of the USACE and RWQCB pursuant to Sections 404 and 401 of the CWA, respectively. The total acreage and linear feet of these features is 118.13 acres and 45,556 linear feet of ephemeral stream; 0.43 and 5,294 linear feet of intermittent stream; and 1.12 acres and 6,123 linear feet of perennial stream. USACE jurisdictional wetlands were found within seven of the basin facility survey areas,

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*

totaling 3.23 acres and 1,801 linear feet. The impacts to USACE and RWQCB jurisdiction, in terms of total acreage and linear feet, of these features is 112.60 acres and 39,273 linear feet of ephemeral stream; 0.41 and 5,007 linear feet of intermittent stream; and 0.28 acres and 2,962 linear feet of perennial stream. Impacts to USACE wetlands total 3.23 acres and 1,801 linear feet (ECORP 2015b).

CDFW 1602 jurisdiction and RQWCB jurisdiction pursuant to Section 401 of the CWA includes the entirety of the jurisdictional USACE jurisdictional features described above, plus riparian habitat features associated with the basin facilities. The total acreage of these features is 175.62 acres of streambed and 21.78 acres of combined riparian habitat. Impacts to CDFW features would total 150.34 acres of streambed and 19.37 acres of combined riparian habitats.

Prior to routine maintenance activities of the basin facilities, the District will be required to obtain a CWA Section 404(b) (1) permit for the project. USACE approval of the Section 404 permit would be contingent on receipt of a CWA Section 401 Water Quality Certification from the Santa Ana RWQCB. In addition, portions of the project impact area that affect areas jurisdictional to CDFW would require application for and approval of a Streambed Alteration Agreement under the FGC (Section 1600).

As a part of any permit application and subsequent agreement with the regulatory agencies, mitigation for impacts to jurisdictional resources will be reviewed. Currently, the impacts to jurisdictional features are considered to be temporary impacts. Impacts to resources would be reduced by implementation of the BMPs. During the permit process, additional mitigation needs may be developed in response to agency comments. These measures could include land conservation and management in perpetuity, on-site habitat enhancement and restoration, payment of in-lieu fees to authorized conservation organizations, or a combination of these measures.

d) ***Zones 1, 2, and 3:*** **Less Than Significant Impact with Mitigation.** The FLOD facilities could provide opportunities for wildlife movement. Wildlife movement would be temporarily interrupted during maintenance activities due to human presence and equipment use within the facilities. However, because the small mammal species with potential to occur are all of lower levels of sensitivity and abundant habitat remains within areas adjacent to the facilities, it is likely that wildlife would find ample opportunities for movement outside of the FLOD facilities. Disturbance to wildlife movement would be minimized to the extent possible with BMPs A, E, G, I, J, K, and L. Additionally, Zones 1, 2, and 3 could provide suitable habitat for birds and raptors protected under the MBTA and FGC within and immediately adjacent to the FLOD facilities. The Project would occur outside of the nesting season for nesting bird species. In addition, implementation of BMPs H, I, and K would avoid Project impacts to nesting and migratory birds. CDFW has noted that some species of raptors and passerines may nest outside of the typical breeding bird season specified in BMP H (February 1 through September 30). Therefore, Mitigation Measure B-2 has been added to ensure impacts to nesting birds are less than significant.

e) ***Zones 1, 2, and 3:*** **Less Than Significant Impact.** The County of San Bernardino Development Code Chapter 88.01 Plant Protection Management (section 88.01.080) exempts Flood Control District Operations from County guidelines regarding riparian plant conservation (County of San

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*

Bernardino 2007c). There are 2 tree species located within facilities in Zones 1 and 2, an oak tree within San Antonio Heights Basin #3 and a Southern California black walnut tree at Sand Canyon Basin. These resources are on the edge of or outside of the maintenance footprint for each facility and would not be disturbed. Implementation of BMPs I and K would avoid Proposed Project impacts to these resources. Therefore, maintenance activities associated with the Project would not conflict with local policies or ordinances protecting such resources. A less than significant impact would occur.

f) ***Zones 1, 2, and 3:*** **No Impact.** Although the North Etiwanda Preserve within Zone 1, the Cajon Creek Conservation Banks within Zone 2, and the Upper Santa Ana Wash Land Management and Habitat Conservation Plan in Zone 3 are in the vicinity of the Project facilities, none of the facilities lie within an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional or State habitat conservation plan areas. Therefore maintenance activities associated with the Project would not conflict with the provisions of an adopted plan. No Impacts would occur.

V. CULTURAL RESOURCES - Would the project

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

SUBSTANTIATION: *(Check if the project is located in the Cultural ☐ or Paleontologic ☐ Resources overlays or cite results of cultural resource review):*

a,b) ***Zones 1, 2, and 3:*** **Less Than Significant Impact with Mitigation.** A cultural resources investigation was conducted for the FLOD Maintenance Project. This investigation consisted of a cultural resources records search at the San Bernardino County Archaeological Information Center (SBAIC) and a field survey to identify historic properties that may be in the Area of Potential Effect (APE) for the maintenance activities. As a result of the cultural resources records search and field survey, a total of 10 newly recorded archaeological sites were identified. In addition, 3 newly-recorded historic-period isolated finds were identified, 10 previously recorded resources were field checked and updated, and 16 historic built environmental flood control facilities were recorded (ECORP 2015c).

Five sites were identified during the survey but could not be evaluated because they are partially on private property. Because the portions of the sites on private property could not be recorded, there

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*

is insufficient information with which to evaluate them. However, these sites are not in the APE and they would not be affected by Project maintenance activities. No impact to these sites would occur.

Except for the Boulder Transmission Lines 1, 2, and 3 (in Zone 1) none of the other 22 resources in the APE were evaluated as eligible for the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR). Because none of these resources are eligible, they are not Historical Resources as defined by CEQA and are not historic properties for the purposes of Section 106 of the National Historic Preservation Act (NHPA) (ECORP 2015c). Although these sites would be disturbed by Project activities, impacts would be less than significant because only impacts to Historical Resources are potentially significant under CEQA.

The Boulder Transmission Lines 1, 2, and 3 (CA-SBR-07694H/NRHP-E-94-001) in Zone 1 comprise a single resource from the historical period that was determined eligible for the NRHP in 1994 for its contributions to the industrial development of the Los Angeles area. Because this resource has been determined eligible for the NRHP, it is automatically eligible for the CRHR. CA-SBR-07694H is a Historical Resource as defined by CEQA and is a historic property for the purposes of Section 106 of the NHPA. Overhead lines that are part of this resource cross the San Antonio Heights Basin (1-313-4D) and the Hillside Basin (1-414-4A). No towers that are part of this resource are in the APE (ECORP 2015c). Thus, there would be no direct, physical effect to the lines or towers as a result of the Project. The Project would not result in impacts to CA-SBR-07694H.

The majority of the Project APE is located in disturbed sediments and drainage channels. The potential of the Project APE to contain significant subsurface prehistoric or historic archaeological material is therefore believed to be low. However, if archaeological materials are encountered during construction, and these materials are evaluated as eligible for the NRHP and/or the CRHR, impacts would be significant. In the event of the discovery of buried archaeological materials during construction, implementation of Mitigation Measure CR-1 would reduce impacts to less than significant. Therefore, with mitigation, the maintenance activities associated with the Project would not cause a substantial adverse change in the significance of a historical resource.

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*

Mitigation Measure

CR-1: If subsurface deposits believed to be cultural or human in origin are discovered during construction, then all work must halt within a 100-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment. Work shall continue within the no-work radius until the archaeologist conducts sufficient research and data collection to make a determination that the resource is either 1) not cultural in origin; or 2) not potentially significant or eligible for listing on the NRHP or CRHR. If a potentially-eligible resource is encountered, then the archaeologist and the District shall arrange for either 1) total avoidance of the resource, if possible; or 2) test excavations to evaluate eligibility and, if eligible, total data recovery as mitigation. The determination shall be formally documented in writing and retained at the District as verification that the provisions in CEQA for managing unanticipated discoveries have been met.

Implementation Timing: During any earth-moving activities in native soils for the project.

Enforcement Responsibility: San Bernardino County Flood Control District

c) ***Zones 1, 2, and 3:*** **Less Than Significant with Mitigation.** No significant paleontological resources are expected to occur in the accumulated sediment. It is always possible that unidentified paleontological materials exist in native soils below the accumulated sediment. If sediment removal or reservoir management activities exceed the depth of the historic flood deposits and encounter native soils, unidentified paleontological materials have potential to be significantly affected. Implementation of Mitigation Measure CR-2 would reduce impacts to less than significant.

Mitigation Measure

CR-2: If sediment removal or reservoir management activities exceed the depth of the historic flood deposits and encounter native soils, these activities will be monitored by a qualified paleontologist. In the event that this occurs and paleontological materials are observed, the excavation in the proximity of the discovery shall be diverted until a qualified paleontologist evaluates the discovery.

Implementation Timing: During any earth-moving activities in native soils for the project.

Enforcement Responsibility: San Bernardino County Flood Control District

d) **Zones 1, 2, and 3: Less Than Significant with Mitigation.** Based on the records search from the SBAIC, no formal cemetery sites are located within or in the vicinity (<0.5 mile) of facilities in Zones 1, 2, and 3 and no human remains have been reported in the Proposed Project vicinity. Most Native American human remains are found in prehistoric archaeological sites. Four prehistoric archaeological sites have previously been recorded wholly or partially within the Project APE. All four of these sites where field investigated by ECORP archaeologists and determined to be removed or destroyed by construction and or previous maintenance to existing basins. No new prehistoric archaeological sites have been recorded within the Proposed Project APE. A search of the Sacred

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*

Lands File was conducted by the Native American Heritage Commission (NAHC) in Sacramento, California. The NAHC Sacred Lands File search failed to indicate the presence of Native American cultural resources in the immediate area of the Project APE. Additionally, most of the Project's ground-disturbing activities would be in accumulated sediment, not native soils. Therefore, the Project has little potential to disturb human remains. Mitigation Measure CR-3 would reduce potential impacts to unknown resources to a less than significant level.

Mitigation Measure

CR-3: In the event that evidence of human remains is discovered, construction activities within 200 feet of the discovery will be halted or diverted and the provisions of Section 7050.5 of the California Health and Safety Code, Section 5097.98 of the California Public Resources Code, and Assembly Bill 2641 will be implemented. State law requires that the discovery be reported to the County Coroner (Section 7050.5 of the Health and Safety Code) and that reasonable protection measures be taken during construction to protect the discovery from disturbance (Assembly Bill 2641). If the Coroner determines the remains are Native American, the Coroner notifies the Native American Heritage Commission which then designates a Native American Most Likely Descendant (MLD) for the project (Section 5097.98 of the Public Resources Code). The District will consult with the MLD regarding appropriate treatment for the Native American human remains.

Implementation Timing: During any earth-moving activities for the project.

Enforcement Responsibility: San Bernardino County Flood Control District

VI. GEOLOGY AND SOILS - Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map Issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii. Strong seismic ground shaking?	☐	☐	☐	☒
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv. Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
c)	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d)	Be located on expansive soil, as defined in Table 181-B of the California Building Code (2001) creating substantial risks to life or property?	☐	☐	☒	☐
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

SUBSTANTIATION: *(Check ☒ if project is located in the Geologic Hazards Overlay District):*

a) **(i, ii, and iii)** ***Zones 1, 2, and 3:*** **No Impact.** According to the Department of Conservation Alquist-Priolo Earthquake Fault Zone maps, multiple facilities in Zones 1, 2, and 3 of the Proposed Project are located along an Alquist-Priolo Earthquake Fault Zone, within an earthquake fault zone boundary, or County designated fault zone (CDC 2010b). Maintenance activities associated with the Project would not include the construction of habitable structures or changes to existing facilities that would result in the risk of loss, injury or death from seismic activity. No impacts would occur.

(iv) ***Zones 1, 2, and 3:*** **Less Than Significant Impact.** Facilities in Zones 1, 2, and 3 of the Proposed Project have low to moderate susceptibility to landslides with the exception of Deer Creek Debris Basin (1-506-3A) and Hillside Basin (1-552-4A), which are located and partially located in areas that have moderate to high susceptibility to landslides (County of San Bernardino 2010). The Project would maintain existing flood control facilities; no new habitable structures would be constructed, and a less than significant impact would occur.

b) ***Zones 1, 2, and 3:*** **Less Than Significant Impact.** Erosion and loss of topsoil would be minimal. Maintenance activities would include land clearing and vegetation removal, the incorporation of BMPs A, C, E, and J would minimize soil erosion hazards. A less than significant impact would occur.

c) ***Zones 1, 2, and 3*****: Less Than Significant Impact**. According to the County Hazard Overlay Map, only Hillside Basin (1-552-4A), Deer Creek Basin (1-506-3A), Devil's Basin 1, 2, and 3 (2-303-3A, 2-304-4A, 2-304-4B), Twin Creek Spreading Grounds (2-406-4A), and Harrison Basin (2-414-4A) are located on a geologic unit or soil that has been identified as being unstable or having the potential to result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse (County of San Bernardino 2010). The Project would maintain existing flood control facilities and no new habitable structures are proposed. Therefore, a less than significant impact is expected.

d) ***Zones 1, 2, and 3:*** **Less Than Significant Impact.** Facilities within Zones 1 and 2 are underlain by soils with low shrink-swell potential. All facilities in Zone 3 with the exception of Oak Glen Basin # 2 (3-603-4B) are partially located in areas underlain by Saugus Sandy Loam, 30-50 percent slopes,

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*

which has a moderate shrink-swell potential (USDA 2014; 1980). Due to the nature of the Project, no habitable structures being constructed, and the low to moderate shrink-swell potential of the soils at facility locations, impacts from expansive soils would be less than significant.]

e) ***Zones 1, 2, and 3:*** **No Impact.** Facilities within Zones 1, 2, and 3 of the Project would not incorporate septic tanks and/or alternative water supply systems. No impact would occur.

VII.	**GREENHOUSE GAS EMISSIONS -** Would the project:				
a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b)	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

SUBSTANTIATION:

a) **Zones 1, 2, and 3: Less Than Significant Impact.** In September 2006, Governor Schwarzenegger signed the Global Warming Solutions Act (Assembly Bill 32), which was created to address the global warming situation in California. The Act requires that the greenhouse gas (GHG) emissions in California be reduced to 1990 levels by 2020. This is part of a larger plan in which California hopes to reduce its emissions to 80 percent below 1990 levels by 2050. This reduction shall be accomplished through an enforceable statewide cap on GHG emissions that was phased in starting in 2012 and regulated by CARB. CARB is in charge of setting specific standards for different source emissions, as well as monitoring whether they are being met. As discussed in Section III, Air Quality, of this document, the Project's primary contribution to air emissions is attributable to construction equipment use during maintenance activities.

In addition the County of San Bernardino has adopted a threshold of significance of 3,000 metric tons of carbon dioxide equivalents ($MTCO_2e$) per year for GHG emissions. This threshold is based on the SCAQMD's staff proposed GHG screening threshold for stationary source emissions for non-industrial projects, as described in the SCAQMD's *Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans*. Based on guidance from the County of San Bernardino Performance Standards, projects that do not exceed 3,000 metric tons of CO_2e per year would be considered to be consistent with the Plan and determined to have a less than significant individual and cumulative impact for GHG emissions.

The main source of GHG emissions associated with the Project would be combustion of fossil fuels from the use of heavy construction equipment and construction related vehicle trips during maintenance activities. Annual GHG emissions were estimated based on the CalEEMod Model. Total GHG emissions associated with facility maintenance activities are summarized in Table 13 (Urban Crossroads 2015b).

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*

TABLE 13: PROJECT GHG EMISSIONS (ANNUAL)

	Emissions (metric tons per year)*			
	CO_2	CH_4	N_2O	Total CO_2e
Annual Emissions	130.31	0.04	None	131.06
Total CO_2e (Total Project)	**131.06**			
Threshold	**3,000 metric tons CO_2e**			
Significant?	**NO**			

Source: Urban Crossroads 2015b
Note: CO_2 = carbon monoxide, CH_4 = methane, N_2O = nitrous oxide

The Project would result in approximately 131.06 $MTCO_2e$ per year; therefore, the Project would not exceed the County of San Bernardino's threshold of 3,000 $MTCO_2e$ per year. Project related emissions would have a less than significant direct or indirect impact on GHG and climate change.

b) **Zones 1, 2, and 3: Less Than Significant Impact.** Emissions of GHGs for maintenance activities were calculated. The total annual emissions of 131.06 $MTCO_2e$ would be below the County's threshold of 3,000 $MTCO_2e$ per year (Urban Crossroads 2015b). The Project would be consistent with the goals of the County's requirements and Assembly Bill 32. A less than significant impact would occur.

VIII.	**HAZARDS AND HAZARDOUS MATERIALS -** Would the project:			
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f)	For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h)	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☒	☐

SUBSTANTIATION:

a, b) ***Zones 1, 2, and 3:*** **Less Than Significant Impact.** Implementation of the Project for Zone 1, 2, and 3 facilities would not entail the routine transport, use or disposal of hazardous materials, with the potential exception of substances related to the use of heavy equipment. Maintenance activities would require the use of heavy equipment and associated hazardous materials such as diesel fuel, hydraulic fluid, and oils. Inadvertent release of large quantities of these materials into the environment could adversely affect soil, surface waters, or groundwater quality. On-site storage and/or use of large quantities of materials capable of affecting soil and groundwater are not proposed. The potential risk associated with the accidental discharge during use and storage of such equipment-related hazardous materials during maintenance activities is considered low because the handling of any such materials would be addressed through the implementation of BMP B. Operation of the Project would not require the use or storage of significant quantities of hazardous substances; therefore, no substantial potential for accidental explosion or major releases of hazardous substances is expected. A less than significant impact would occur.

c) ***Zones 1, 2, and 3:*** **Less Than Significant Impact.** During maintenance activities, hazardous materials associated with heavy equipment would be used. Rich Basin (1-807-4A), Wiggins Basin # 1 (2-305-4A), and MacQuiddy Basin #4 (2-368-4D) are all located within one-quarter mile of an existing school facility. The potential risk associated with emitting of hazardous emissions or handling hazardous or acutely hazardous material, substances, or waste within one-quarter mile of an existing or proposed school during maintenance activities is considered low because the handling of any such materials would be addressed through the implementation of BMP B. A less than significant impact would occur.

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*

d) ***Zones 1, 2, and 3:*** **No Impact.** The Proposed Project's Zones 1, 2, and 3 facilities are not on a list of known hazardous materials sites (DTSC 2014). No impact would occur.

e, f) ***Zones 1, 2, and 3:*** **No Impact.** As shown in the San Bernardino County General Plan, Hazards Overlay Maps, none of the facilities of the Project occur within an airport influence area (County of San Bernardino 2010). The Project facilities are not within the vicinity or approach/departure path of a private airstrip. Therefore, the Project would not result in impacts related to aircraft uses or private airstrips.

g) ***Zones 1, 2, and 3:*** **No Impact.** Maintenance activities proposed for facilities in Zones 1, 2, and 3 would not interfere with existing emergency response plans and/or other land uses in the Project vicinity. No impact would occur.

h) ***Zones 1, 2, and 3:*** **Less than significant Impact.** The Fire Safety (FS) Overlay established by Sections 82.01.020 (Land Use Plan and Land Use Zoning Districts) and 82.01.030 (Overlays) in the County of San Bernardino Development Code was created to provide greater public safety in areas prone to wildland brush fires, by establishing additional development standards for these areas (County of San Bernardino 2007c).

The FS Overlay is divided into three fire safety areas to correspond to distinct geographic areas and the associated wildland fire hazard. The requirements applicable to each fire safety area are found in Section 82.13.050 (General Development Standards), Section 82.13.060 (FS1, FS2, and FS3 Development Standards), and 82.13.070 (FS1 Additional Development Standards).

(a) Fire Safety Area 1 (FS1). Fire Safety Area 1 (FS1) includes areas within the mountains and valley foothills. It includes all the land generally within the San Bernardino National Forest boundary and is characterized by areas with moderate and steep terrain and moderate to heavy fuel loading contributing to high fire hazard conditions.

(b) Fire Safety Area 2 (FS2). Fire Safety Area 2 (FS2) includes those lands just to the north and east of the mountain FS1 area in the mountain-desert interface. These areas have gentle to moderate sloping terrain and contain light to moderate fuel loading. These areas are periodically subject to high wind conditions that have the potential of dramatically spreading wildland fires.

(c) Fire Safety Area 3 (FS3). Fire Safety Area 3 (FS3) includes lands just to the south of the mountain FS1 area. These lands are primarily within the wildland-urban interface of the Valley Region and consist of varying terrain from relatively flat to steeply sloping hillside areas. Present and future development within FS3 is exposed to the impacts of wildland fires and other natural hazards primarily due to its proximity to FS1. These areas are subject to Santa Ana wind conditions that have the potential of dramatically spreading wildland fires during extreme fire behavior conditions (County of San Bernardino 2007c).

Facilities within Zones 1, 2, and 3 are in areas designated as FS1 and FS3. Although these areas have the potential for wildland fires, maintenance activities proposed for the Project would not include the construction of habitable structures. BMP N would reduce any risk of loss, injury, or

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
	death due to wildland fires to a less than significant level.				
IX.	**HYDROLOGY AND WATER QUALITY -** Would the project:				
a)	Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b)	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level, which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?	☐	☐	☐	☒
d)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☐	☒
e)	Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f)	Otherwise substantially degrade water quality?	☐	☐	☒	☐
g)	Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h)	Place within a 100-year flood hazard area structure which would impede or redirect flood flows?	☐	☐	☐	☒
i)	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
j)	Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

SUBSTANTIATION:

a,e,f) ***Zones 1, 2, and 3:*** **Less than Significant Impact.** Maintenance activities associated with facilities in Zones 1, 2, and 3 of the Project would include 272.98 acres of vegetation management, 290.15 acres of land clearance and excavation, 158.78 acres of herbicide and rodenticide application, 64.19 acres of stockpile, 22.86 acres of bank repair, 83.47 acres of ingress and egress maintenance. Potential sources of water pollution resulting from grading activities would be avoided through the implementation of BMP's A, B, C, D and G. As a result, water quality impacts would be considered less than significant.

b) ***Zones 1, 2, and 3:*** **No Impact.** The Project would not deplete groundwater supplies. The purpose of the Project is to conduct maintenance at 33 flood control facilities (dams, basins, and spreading grounds). The Project would improve flood protection at these facilities through maintenance to prevent damage to public and private property and to protect other District facilities. The Project would increase the effectiveness of these facilities resulting in a beneficial impact to groundwater supply in all zones. No adverse impacts to groundwater supplies are anticipated.

c-d) ***Zones 1, 2, and 3: No Impact.*** The purpose of the Project is to conduct routine maintenance at the project site in order to provide flood protection. All zones would incorporate maintenance activities as part of the Project. The Project would improve existing facilities which would not alter the existing drainage patterns at the Project sites. Therefore, the impacts of the Project would be beneficial.

g, h) ***Zones 1, 2, and 3:*** **No Impact.** Maintenance activities proposed for facilities in Zones 1, 2, and 3 of the Project would not include the construction of housing or structures that could impede flows. The purpose of the project is to prevent damage to public and private property by improving flood control facilities. No impacts would result from structures places in a 100 year flood hazard area. Therefore, the Project would be beneficial to the flood zones.

I, j) ***Zones 1, 2, and 3:*** **No Impact.** Facilities in Zones 1, 2, and 3 of the Project are not located near a body of water that would be impacted by a seiche, tsunami, or mudflow. The Project would improve the flood protection facilities, resulting in a reduction of risk of inundation and mudflow to the surrounding community during a storm event. This Project would be beneficial. No adverse impacts would occur.

X. LAND USE AND PLANNING - Would the project:

a)	Physically divide an established community?	☐	☐	☐	☒
b)	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☒	☐

SUBSTANTIATION:

a) ***Zones 1, 2, and 3*: No Impact.** The Project would be compatible with the existing land use designations (County of San Bernardino 2007a; see Appendix A). The purpose of the Project is to reduce flooding, which would be beneficial to nearby developed areas. The Project would not divide a community. No impact would occur.

b) ***Zones 1, 2, and 3*: No Impact.** The Project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project area adopted for the purpose of avoiding or mitigating an environmental effect. The Project is a flood basin maintenance project and is consistent with the policies of the San Bernardino County General Plan. A portion of the project site is located on land managed by the San Bernardino National Forest. The continued flood control use would not conflict with the Forest Plan. No impact would occur.

c) ***Zones 1, 2, and 3*: Less than Significant Impact.** No FLOD facilities are within an adopted habitat conservation plan or natural community conservation plan. However, the North Etiwanda Preserve within Zone 1 (County of San Bernardino 2014), the Cajon Creek Conservation Banks within Zone 2, and the Upper Santa Ana Wash Land Management and Habitat Conservation Plan in Zone 3 are in the vicinity of the Project facilities. The Project would not conflict with these conservation plans and a less than significant impact would occur.

XI. MINERAL RESOURCES - Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

SUBSTANTIATION: *(Check ☒ if project is located within the Mineral Resource Zone Overlay): MRZ-3a*

The State of California Department of Conservation has mapped mineral land classifications using Mineral Resource Zones (MRZs). The MRZs are divided into six categories (County of San Bernardino 2007a):

- **MRZ-1:** Adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence. This designation will be

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*

applied where well-developed lines of reasoning, based upon economic geologic principles and adequate data, demonstrate that the likelihood for occurrence of significant mineral deposits is nil or slight.

- **MRZ-2:** Adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists. This designation will be applied to known mineral deposits or where well-developed lines of reasoning, based upon economic geologic principles and adequate data, demonstrate that the likelihood for occurrence of significant mineral deposits is high.
- **MRZ-3**: Contains deposits whose significance cannot be evaluated from available data.
- **MRZ-4:** Available information is inadequate for assignment to any other MRZ zone.
- **SZ:** Areas containing unique or rare occurrences of rocks, minerals, or fossils that are of outstanding scientific significance will be classified in this zone.
- **RA**: San Bernardino County or State Division of Mines and Geology Identified Areas where adequate production and information indicates that significant minerals are present.

Zone 1 has facilities mapped in both MRZ-2 and MRZ-3. Zone 2 has facilities mapped as MRZ-1, MRZ-2, and MRZ-3. Zone 3 has facilities mapped as MRZ-3 (CDC 1995).

a) **Zones 1, 2, and 3: No Impact.** The Project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. The Project includes maintenance activities such as vegetation management, land clearance, herbicide, stockpile, and bank repair. The Project would not involve mineral extraction and would not change the existing land use of the property. The Project sites are already developed with existing flood control infrastructure. As such, there is no potential to affect mineral resources and no impacts would occur.

b) **Zones 1, 2, and 3: No Impact.** The Project would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan, because no mining operations exist on or in the vicinity of the project site. No impact would occur.

XII. NOISE - Would the project result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
c)	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
d)	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f)	For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

SUBSTANTIATION: *(Check if the project is located in the Noise Hazard Overlay District ☐ or is subject to severe noise levels according to the General Plan Noise Element ☐):*

a, d) ***Zones 1, 2, 3:*** **Less Than Significant Impact.** A noise impact analysis was completed for the Project (Urban Crossroads 2015c). Ambient noise measurements were taken at nearby sensitive receptors in order to determine the average day and nighttime noise levels (Table 14). Nine long-term 24-hour noise level measurements were taken at noise-sensitive receiver locations in the Project area. These locations were selected in order to describe and document the existing ambient noise environment in Zones 1, 2, and 3. The noise measurement results are presented in Table 14 below. The closest sensitive receptors were existing residential dwellings (Urban Crossroads 2015c).

The background ambient noise levels in the Project area during the daytime hours range from 47.1 dBA to 69.2 dBA and are dominated by the transportation related noise associated with the arterial roadway network. This includes the auto and heavy truck activities near the noise level measurement locations. Secondary background ambient noise is also included in the noise level measurements, however, this noise is generally overshadowed by the nearby vehicular traffic noise levels. The long-term noise level measurements shown in Table 14 presents the existing unmitigated ambient noise conditions and does not account for any of the existing noise barriers in the Project area (Urban Crossroads 2015c).

Project-related noise impacts would result from the operation of heavy construction equipment during maintenance activities. Noise levels generated by heavy construction equipment can range from approximately 70 dBA to in excess of 100 dBA when measured at 50 feet. However, these noise levels diminish with distance from the construction site at a rate of 6 dBA per doubling of

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*

distance. For example, a noise level of 78 dBA measured at 50 feet from the noise source to the receiver would be reduced to 72 dBA at 100 feet from the source to the receiver, and would be further reduced to 66 dBA at 200 feet from the source to the receiver. Modeling of the predicted heavy equipment noise found that the highest noise level impacts would occur during bank repair / stockpiling maintenance activities. Peak construction noise levels are expected to range from 85.0 to 89.1 dBA Leq at a distance of 50 feet from the maintenance activity areas (Urban Crossroads 2015c).

TABLE 14. LONG-TERM AMBIENT NOISE LEVEL MEASUREMENTS

Location	Date	District Zone	Description	Hourly Noise Level (Leq dBA)*		CNEL
				Daytime (7am to 10pm)	Nighttime (10pm to 7am)	
L1	8/13/14	1	Located at the access ramp to San Antonio Heights Basin #1, adjacent to an existing single-family dwelling.	50.3	47.0	54.9
L2	8/6/14		Located south of the Deer Creek Debris Basin and east of the Hillside Basin near existing residential dwellings.	57.2	57.4	64.0
L3	8/6/14		Located south of the Day Creek Spreading Grounds Basin on Wilson Avenue near existing residential dwellings.	64.7	61.1	68.6
L4	8/6/14		Located south of the Day Creek Spreading Grounds Basin on Milliken Avenue north of Los Osos High School.	65.4	59.8	68.1
L5	8/13/14		Located at the gate to the Rich Basin near existing residential dwellings along Roadrunner Road.	53.6	50.7	58.6

Issues				*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
L6	8/13/14	2	Located northwest of the Devil Canyon Dam and Devil Basins (#2-3) near an existing single-family residential dwelling.	54.4	52.9	59.9	
L7	8/13/14		Located east of the Twin Creek Spreading Grounds and south of the Harrison Basin near existing residential dwellings.	60.7	55.0	63.4	
L8	8/13/14	3	Located east of the Oak Glen Creek Basins (#1-3) in a vacant lot adjacent to existing single-family residential dwellings.	47.1	54.5	60.4	
L9	8/13/14		Located near the Oak Glen Creek Basins (#1-3) at the entrance to a horse trail east of Bryant Street.	69.2	63.8	71.9	

Source: Urban Crossroads 2015c
Note: *Energy (logarithmic) average hourly levels.

Construction and maintenance activities would take place between the hours of 7:00 a.m. and 7:00 p.m. to comply with the County of San Bernardino's Development Code, which indicates that maintenance/ construction activities are considered exempt if limited to the hours of 7:00 a.m. and 7:00 p.m. Receiver locations within the 65 dBA Leq noise contour boundaries could perceive increased noise levels during maintenance activities that occur near the property line. However, the 65 dBA Leq noise contour boundaries presented in the noise impact analysis did not take into account any additional attenuation due to the existing topography and barriers in the Project area. Residences adjacent to the noise measurement locations have existing six-foot high barriers which would reduce the noise levels during nearby maintenance activities. Furthermore, the Project sites are usually at lower elevations than the adjacent residences which would allow for additional attenuation due to topographic conditions. The Project would have a less than significant noise impact with incorporation of BMP F (Urban Crossroads 2015c).

b) ***Zones 1, 2, 3:*** **Less Than Significant Impact.** The Project's maintenance activities could introduce temporary ground-borne vibrations from construction equipment. However, the construction equipment is not expected to generate vibration levels that would exceed the County of San Bernardino's maximum acceptable vibration standard of 0.2 in/sec (Urban Crossroads 2015c).
Maintenance activities would be restricted to day time hours consistent with County requirements thereby eliminating potential vibration impacts during the sensitive nighttime hours. The vibration

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*

from the use of heavy equipment would end at the completion of the maintenance activities. A less than significant impact would occur.

c) ***Zones 1, 2, 3:*** **No Impact.** After maintenance activities are completed, there would be no permanent noise sources at the Project site. No Impact would occur.

e, f) ***Zones 1, 2, 3:*** **No Impact.** The closest airports to Project facilities are Cable Airport located approximately 3.5 miles south of San Antonio Heights Basin (1-313-4D) and Redlands Municipal Airport located approximately 2 miles south of Oak Creek Basin (3-204-4A). The Project is not located within an airport land use plan area or within two miles of a public/public use airport or private airstrip (County of San Bernardino 2010). No impacts would occur.

XIII. POPULATION AND HOUSING - Would the project:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

SUBSTANTIATION:

a-c) ***Zones 1, 2, and 3:*** **No Impact.** The Project would conduct routine maintenance at the flood control basins, providing improved flood protection. These maintenance activities would not create new residential or employment opportunities that would result in substantial direct or indirect population growth. The Project does not involve the extension or construction of new infrastructure or service facilities; or the displacement of any housing or people. All zones would incorporate maintenance activities as part of the Project. No impacts would occur.

XIV. PUBLIC SERVICES

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
Fire Protection?	☐	☐	☐	☒
Police Protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other Public Facilities?	☐	☐	☐	☒

SUBSTANTIATION:

a) ***Zones 1, 2, and 3:*** **No Impact.** Maintenance activities associated with facilities in Zones 1, 2, and 3 of the Proposed Project would include 272.98 acres of vegetation management, 290.15 acres of land clearance and excavation, 158.78 acres of herbicide and rodenticide, 64.19 acres of stockpile, 22.86 acres of bank repair, 83.47 acres of ingress and egress. The Project would not cause an increase in population or new housing that would result in the need for new or additional governmental services. Although the Project is located in FS1 and FS3 as defined by the County of San Bernardino General Plan Hazards Overlay Map (County of San Bernardino 2010), maintenance activities would not add to the threat of wildland fire threat and thus would not require additional fire services. With the implementation of BMP N, impacts from wildland fires would be avoided. The Project would not result in substantial impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities. No impacts would occur.

XV. RECREATION

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

SUBSTANTIATION:

a-b) ***Zones 1, 2, 3:*** **No Impact.** Recreation facilities and trails of regional importance near the Project facilities include Glen Helen Regional Park, Yucaipa Regional Park and the Santa Ana River Trail. However, none of these recreation facilities cross the areas that would be disturbed by the Project. No new residences or recreational facilities would be constructed. The Project would not induce

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*

population growth in adjacent areas or increase the use of recreational facilities in surrounding neighborhoods. Therefore, the Project would not result in an increase in park use or expansion of recreational facilities. No impacts would occur.

XVI. TRANSPORTATION/TRAFFIC - Would the project:

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety facilities?	☐	☐	☐	☒

SUBSTANTIATION:

a-b) ***Zones 1, 2, and 3:*** **Less Than Significant Impact.** The Project would not conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit. The Project would result in a temporary minor increase in traffic during the construction phase from worker vehicles and the delivery of the heavy equipment, but the increase is not expected to be

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*

significant due to the size and timing of the Project. Stockpiling would occur on each site, and hauling of stockpiled soil to other locations within the County is not proposed. Less than significant impacts would occur.

c) ***Zones 1, 2, and 3:*** **No Impact.** The Project does not include any tall buildings or operations that would change air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks. The closest airports to project facilities are Cable airport located approximately 3.5 miles south of San Antonio Heights Basin (1-313-4D) and Redlands Airport located approximately 2 miles south of Oak Creek Basin (3-204-4A). Due to the nature of the Project no impacts to this airport would result from maintenance activities. No impacts would occur.

d) ***Zones 1, 2, and 3:*** **No Impact.** The Project would conduct maintenance at 33 flood control facilities (dams, basins, and spreading grounds). The Project would not include design features that would affect traffic safety, nor would it cause incompatible uses (such as farm equipment) on local roads. No Impacts would occur.

e) ***Zones 1, 2, and 3:*** **No Impact.** The Project includes repair of roads related to certain facilities. These activities would not affect emergency access conditions to the site or surrounding land uses. No impacts to emergency access would occur.

f) ***Zones 1, 2, and 3:*** **No Impact.** The Project would not conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks), create a demand for parking areas, or result in any inadequacies in parking capacities. Equipment and worker parking would be accommodated on site. No additional or off-site parking facilities are required. No impacts would occur.

XVII. UTILITIES AND SERVICE SYSTEMS - Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded, entitlements needed?	☐	☐	☒	☐

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
e)	Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f)	Be served by a landfill(s) with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g)	Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

SUBSTANTIATION:

a, b) c, e) ***Zones 1, 2, and 3:*** **No Impact.** The Project would conduct maintenance at 33 flood control facilities (dams, basins, and spreading grounds). The proposed maintenance activities would not generate any new wastewater that would require or result in the construction of additional new stormwater drainage facilities or expansion of existing facilities. . Therefore, the Project would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board. No impact would occur.

d) ***Zones 1, 2, and 3:*** **Less Than Significant Impact.** The maintenance activities associated with the Project would require water for dust control, but would not result in significant impacts to water supplies. A less than significant impact would occur.

f, g) **Zones 1, 2, and 3: Less Than Significant Impact.** The Project is expected to generate vegetation clearing related debris. However, the amount of solid waste generated from these activities is anticipated to be minimal and would not impact the existing capacity at the landfill. The impact would be less than significant.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE:

a)	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current	☐	☒	☐	☐

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
projects, and the effects of probable future projects)?				
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

SUBSTANTIATION:

a) **Zones 1, 2, and 3: Less Than Significant with Mitigation.** Mitigation measures have been included for air quality, biological resources, and cultural resources. Implementation of the Project with the mitigation measures would not degrade the quality of the environment, substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife populations to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory.

b) **Zones 1, 2, and 3: Less Than Significant with Mitigation.** Impacts associated with the Project would not be considered cumulatively adverse or unfavorable. The Project is not anticipated to generate significant amounts of air pollutants, traffic, or noise. Cumulative impacts are not anticipated to be significant. In addition, mitigation measures are incorporated that would reduce impacts to less than significant. No significant cumulative adverse impacts are anticipated.

c) **Zones 1, 2, and 3: Less Than Significant with Mitigation.** The Project would not be used for storing any toxic or hazardous materials nor do the maintenance activities associated with the Project involve such a use. Impacts due to biological resources, cultural resources, and noise would be mitigated to a less than significant level. Any direct or indirect impacts to human beings would therefore be mitigated.

GENERAL REFERENCES

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2013 City of Yucaipa Official Land Use Districts Map

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http://www.envirostor.dtsc.ca.gov/public/mapfull.asp?global_id=36010011 . Accessed August 28, 2014.

[ECORP] ECORP Consulting, Inc.
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2015b Jurisdictional Delineation Report-FLOD Maintenance Project, March 2015.

2015c Cultural Resources Inventory- FLOD Maintenance Project, February 2015.

[LIP] Local Implementation Plan
2011 San Bernardino County Local Implementation Plan, July 2011.

Urban Crossroads
2015a Air Quality Impact Analysis for the San Bernardino County FLOD Maintenance Project, February 2015.

2015b Greenhouse Gas Analysis for the San Bernardino County FLOD Maintenance Project, February 2015.

2015c Noise Impact Analysis for the San Bernardino County FLOD Maintenance Project, February 2015.

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1980 Soil Survey of San Bernardino County Southwestern Part, California

2014 Natural Resources Conservation Service. Web Soil Survey.
http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed on July 17, 2014.

ACRONYMS AND ABBREVIATIONS

APAP	Aquatic Pesticide Application Plan
APE	Area of Potential Effects
AQMP	Air Quality Management Plan
BMPs	Best Management Practices
CAGN	California Gnatcatcher
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
Cal OES	California Governor's Office of Emergency Services
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CNPS	California Native Plant Society
CRHR	California Register of Historic Resources
CWA	Clean Water Act
DTSC	Department of Toxic Substance Control
EIR	Environmental Impact Report
FGC	Fish and Game Code
FLOD	First Line of Defense
GHG	Greenhouse gas
IS/MND	Initial Study/Mitigated Negative Declaration
LIP	Local Implementation Plan
LST	Localized Significant Threshold
MBTA	Migratory Bird Treaty Act
MRZ	Mineral Resource Zone
MLD	Most Likely Descendant
MS4	Municipal Stormwater Permit
NAHC	Native American Heritage Comission
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
RAFSS	Riversidean Alluvial Fan Sage Scrub
RSS	Riversidean Sage Scrub
RWQCB	Regional Water Quality Control Board
SARWQCB	Santa Ana Regional Water Quality Control Board
SBAIC	San Bernardino Archaeological Information Center
SBKR	San Bernardino Kangaroo Rat
SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SCWRF	Southern Cottonwood Willow Riparian Forest
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service

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APPENDIX A – Summary of Basin Land Use Information

Appendix A – Summary of Basin Land Use Information

Basin Name (Redbook Number)	Land Use District and Overlay (if applicable)*	Adjacent Land Use District* - North	Adjacent Land Use District* - South	Adjacent Land Use District* - East	Adjacent Land Use District* - West	Assessor's Parcel Number(s)	Thomas Guide	USGS Quadrangle	Township, Range and Section	Caltrans or County Designated Scenic Highway <1 Mile
San Antonio Heights Basin (1-313-4D)	Single Residential - 14,000 square feet Minimum	Single Residential - 14,000 square feet Minimum	Single Residential - 14,000 square feet Minimum	Single Residential - 14,000 square feet Minimum	Single Residential - 14,000 square feet Minimum	100336104 100343102 100336102	Page 572 A1, A2	Mount Baldy	Cucamonga Land Grant	None
San Antonio Heights Basin #1 (1-313-4A)	Rural Living-5 Acre Minimum, Special Development-Residential	Special Development-Residential, Rural Living-5 Acre Minimum	Single Residential - 14,000 square feet Minimum	Rural Living-5 Acre Minimum, Special Development-Residential	Rural Living-5 Acre Minimum, Special Development-Residential	100328103 100335110 100335107 100335108 100328109	Page 572 A1, B1	Mount Baldy	Cucamonga Land Grant	None
San Antonio Heights Basin #2 (1-313-4F)	Rural Living-5 Acre Minimum	Resource Conservation	Single Residential - 14,000 square feet Minimum	Rural Living-5 Acre Minimum	Rural Living-5 Acre Minimum	100328111 100328106	Page 572 B1	Mount Baldy	Cucamonga Land Grant	None
San Antonio Heights Basin #3 (1-313-4E)	Rural Living-5 Acre Minimum	Rural Living-5 Acre Minimum	Single Residential - 14,000 square feet Minimum	Rural Living-5 Acre Minimum	Rural Living-5 Acre Minimum	100327115 100327117 100328106 100327113	Page 572 B1	Mount Baldy	Cucamonga Land Grant	None
San Antonio Heights Basin #4 (1-313-4G)	Rural Living-5 Acre Minimum	Rural Living-5 Acre Minimum	Single Residential - 14,000 square feet Minimum	Rural Living-5 Acre Minimum	Rural Living-5 Acre Minimum	100320109 100327117	Page 572 B1	Mount Baldy	Cucamonga Land Grant	None
San Antonio Heights Basin #5 (1-313-4B)	Rural Living-5 Acre Minimum, Resource Conservation	Resource Conservation, Rural Living-5 Acre Minimum	Single Residential - 14,000 square feet Minimum, Rural Living-5 Acre Minimum	Rural Living-5 Acre Minimum, Resource Conservation	Rural Living-5 Acre Minimum, Resource Conservation	020007145 020007140 020007138 100313102 100320111 100320108 100320110 100313101	Page 572 C1	Mount Baldy	Cucamonga Land Grant, S.9 T.01N R.07W	None
San Antonio Heights Basin #6 (1-313-4H)	Rural Living-5 Acre Minimum, Resource Conservation	Resource Conservation, Rural Living-5 Acre Minimum	Single Residential - 14,000 square feet Minimum, Rural Living-5 Acre Minimum	Rural Living-5 Acre Minimum, Resource Conservation	Rural Living-5 Acre Minimum, Resource Conservation	020005152 100313101	Page 572 C1	Mount Baldy	Cucamonga Land Grant, S.20 T.01N R.07W	None
Cucamonga Dam (1-352-3A)	Single Residential - 14,000 square feet Minimum, City of Rancho Cucamonga, City of Upland	Single Residential - 14,000 square feet Minimum, City of	City of Upland Agricultural (AG-40), Open Space (OS), Residential (RS-20)	City of Rancho Cucamonga Very Low Residential (VL), Flood	City of Upland Agricultural (AG-40), Open Space (OS),	100301109 100301108 100301103 100301102 100301110 104312105	Page 572 C2, C3, C4, D2, D3, D4	Mount Baldy	Cucamonga Land Grant	None

		Rancho Cucamonga	City of Rancho Cucamonga Very Low Residential (VL), Flood Control (FC)	Control (FC)	Residential (RS-20) Single Residential - 14,000 square feet Minimum	104312104 104311105 104313112 104314428 104311101 104309103 104309102 104309104 104357115 104314426 104317103 104313110 104313109 104313111 104314427 104311109 104311101 104313108 104318101 106175101 106175107 106175104				
Demens Basin #1 (1-402-3A)	City of Rancho Cucamonga Flood Control (FC), Very Low Residential (VL)	City of Rancho Cucamonga Flood Control (FC), Very Low Residential (VL), Open Space (OS)	City of Rancho Cucamonga Very Low Residential (VL)	City of Rancho Cucamonga Very Low Residential (VL)	City of Rancho Cucamonga Very Low Residential (VL)	106140107 106140123 106140102 106138102 106138101 106138129 106138112 106139140 106139142 106139144 106138115 106178128 106141112 106141111 106141104 106141102 106177120 106138128 106178109 106178110 106141109 106141108 106141105 106177101	Page 572 G1, G2, H1, H2	Cucamonga Peak	Cucamonga Land Grant	None
Hillside Basin (1-552-4A)	Floodway/ Rural Living- 5 acre minimum, Special Development Residential City of Rancho Cucamonga Flood Control (FC), Very	Rural Living 5-acre minimum, Special Development Residential, Single Residential 1-	City of Rancho Cucamonga Very Low Residential	City of Rancho Cucamonga Very Low Residential Special Development Residential	City of Rancho Cucamonga Very Low Residential Special Development Residential	020104332 020104334 107408117 107401104 107401103 107401102 020104335	Page 513 A7, B7 Page 573 A1, B1	Cucamonga Peak	S.14 T.01N R.07W	None

Appendix A – Summary of Basin Land Use Information

	Low Residential (VL)	acre minimum								
Deer Creek Debris Basin (1-506-3A)	Floodway, Special Development Residential, Single Residential- 1 acre minimum	Resource Conservation	Floodway, Single Residential – 1 acre	Special Development Residential, Floodway	Special Development Residential, Single Residential – 1 acre	020128119 020103339 020103337 020103343 020103332 020103335 020103336 020103338	Page 513 C6, B6, B7	Cucamonga Peak	S.13 T.01N R.07W	None
Etiwanda Debris Dam (1-707-9A)	Rural Living – 10 Acre Minimum, City of Rancho Cucamonga Flood Control	Rural Living – 10 Acre Minimum, Open Space City of Rancho Cucamonga Flood Control	City of Rancho Cucamonga-Open Space: Recreation/ Parks, Vacant	City of Rancho Cucamonga Vacant, Low Residential	City of Rancho Cucamonga Flood Control, Vacant, Low Residential	108708128 108708130 108708132 108708109 108708114 108708129 108706116 108708115 108708105 022608112 022608111	Page 573 J1, J2 Page 574 A1, A2	Cucamonga Peak	S.21 T.01N R.06W	None
Rich Basin (1-807-4A)	City of Fontana Open Space (OS), Public Utility Corridor (P-UC)	City of Fontana Residential Planned Community (R-PC)	City of Fontana Residential Planned Community (R-PC), Public Utility Corridor (P-UC)	City of Fontana Residential Planned Community (R-PC)	City of Fontana Residential Planned Community (R-PC)	110728160 110726143 110712120 110726113 110726116 110725108 110726158 110726157 110711155 110736130 110736152 110736153 110726119 110712133 110712132 110712122 110726107 110712121 110711154 110726112	Page 574 D1, E1	Devore	S.23 T.01N R.06W	None
Devil Canyon Dam Basin #1 (2-303-3A)	City of San Bernardino Publicly Owned Flood Control (PFC)	City of San Bernardino Residential Suburban (RS), Residential Low (RL), Publicly Owned Flood Control (PFC)	City of San Bernardino Residential Low (RL), Publicly Owned Flood Control (PFC)	City of San Bernardino Publicly Owned Flood Control (PFC)	City of San Bernardino Residential Suburban (RS), Residential Low (RL),	015124116	Page 546 B3	San Bernardino North	Muscupiabe Land Grant	None

Appendix A – Summary of Basin Land Use Information

Devil Basin # 2 (2-304-4A)	City of San Bernardino Publicly Owned Flood Control (PFC)	City of San Bernardino Publicly Owned Flood Control (PFC)	City of San Bernardino Publicly Owned Flood Control (PFC)	City of San Bernardino Publicly Owned Flood Control (PFC)	City of San Bernardino Residential Suburban (RS), Residential Low (RL),	015124116	Page 546 B3	San Bernardino North	Muscupiabe Land Grant	None
Devil Basin #3 (2-304-4B)	City of San Bernardino Publicly Owned Flood Control (PFC)	City of San Bernardino Residential Suburban (RS), Residential Low (RL), Publicly Owned Flood Control (PFC)	City of San Bernardino Residential Low (RL), Publicly Owned Flood Control (PFC)	City of San Bernardino Publicly Owned Flood Control (PFC)	City of San Bernardino Residential Suburban (RS), Residential Low (RL),	015124116	Page 546 B3	San Bernardino North	Muscupiabe Land Grant	None
Wiggins Basin #1 (2-305-4A)	City of San Bernardino Publicly Owned Flood Control (PFC)	City of San Bernardino Publicly Owned Flood Control (PFC)	City of San Bernardino Residential Urban (RU), Commercial General – 2, Public Facilities (PF)	City of San Bernardino Residential Low (RL), Public Facilities (PF)	City of San Bernardino Residential Suburban	015124116 015124115 026503113	Page 546 A4, B4	San Bernardino North	Muscupiabe Land Grant	None
Little Mountain Dam (2-365-3A)	City of San Bernardino Publicly Owned Flood Control (PFC)	City of San Bernardino Commercial General – 1 (CG-1)	City of San Bernardino Commercial General – 1 (CG-1)	City of San Bernardino Residential Suburban (RS)	City of San Bernardino Residential Medium (RM)	015118103 015118115 015118119 015118102 015118114 015118113 026528108 026528101 026528118 026528117 027104106 027107174 027107114 027104101 027107171 027104105 027104109 027104111 027104110 027104107 027104101 027104201 027107173 027107176	Page 546 G7	San Bernardino North	Muscupiabe Land Grant	None
MacQuiddy Basin #4 (#1-4 combined) (2-368-4D)	City of San Bernardino Residential	City of San Bernardino Residential	City of San Bernardino Residential	City of San Bernardino Residential	City of San Bernardino Residential	015436161	Page 546 G4, G5	San Bernardino North	Muscupiabe Land Grant	State Route 18 from San Bernardino

Appendix A – Summary of Basin Land Use Information

	Suburban (RS)	Suburban (RS)	Suburban (RS)	Suburban (RS)	Suburban (RS)					northeast to the City of Big Bear Lake
Brush Canyon Basin (2-412-4A)	City of San Bernardino Residential Suburban (RS)	City of San Bernardino Residential Low (RL)	City of San Bernardino Residential Suburban (RS)	City of San Bernardino Residential Low (RL)	City of San Bernardino Residential Suburban (RS)	015403145 015403110 015403107 015401127 015403113 015458405	Page 546 H4, H5	San Bernardino North	Muscupiabe Land Grant, S.10 T.01N R.04W, S.15 T.01N R.04W	State Route 18 from San Bernardino northeast to the City of Big Bear Lake
Harrison Basin (2-414-4A)	Resource Conservation, Single Residential, Multiple Residential	Resource Conservation	City of San Bernardino Residential Suburban (RS)	Single Residential, Resource Conservation	City of San Bernardino Residential Suburban (RS)	027014301 027015156 027015160 027015131 027015130 027015143 027015144 027015145 027016118 027016118 027014301 027015150 027015159 027014309 027014309 027015165 027015164 027015163 027014301 027014302 027014301 027014302	Page 547 B6	San Bernardino North	Muscupiabe Land Grant	None
Twin Creek Spreading Grounds (2-406-2A)	City of San Bernardino Publicly Owned Flood Control (PFC)	City of San Bernardino Publicly Owned Flood Control (PFC)	City of San Bernardino Publicly Owned Flood Control (PFC), Residential Suburban (RS)	Single Residential, City of San Bernardino Residential Suburban (RS)	City of San Bernardino Residential Suburban (RS), Residential Estate (RE)	015435108 015337105 015435108 015316107 015435108 015337203 015435108 015504401	Page 547 A6, A7 Page 577 D1, E1	San Bernardino North	Muscupiabe Land Grant	None
Daley Basin (2-506-4A)	City of San Bernardino Residential Low (RL)	City of San Bernardino Residential Low (RL)	City of San Bernardino Residential Low (RL)	Resource Conservation	City of San Bernardino Residential Low (RL)	015528104 015528103 015528101 015528109 015528108 015528106 015528105 015537258 015537258 015537233 015528107	Page 547 D6	Harrison Mountain	S.13 T.01N R.04W	None

Appendix A – Summary of Basin Land Use Information

						015528117 015528115 015528114 015528113 015528118 015528116				
Little Sand Canyon Basin (2-510-4A)	City of San Bernardino Residential Low (RL)	City of San Bernardino Residential Low (RL)	City of San Bernardino Residential Suburban (RS), Single Residential	City of San Bernardino Residential Low (RL)	City of San Bernardino Residential Suburban (RS), Single Residential	015538145 015538140 015538141 015536120 015538115 015538116 015538117 015538142	Page 577 D1, E1 Page 547 D7, E7	Harrison Mountain	Muscupiabe Land Grant, S.19 T.01N R.03W	None
Sand Canyon Basin (2-503-4A)	City of San Bernardino Residential Low (RL)	City of San Bernardino Residential Low (RL)	City of San Bernardino Residential Suburban (RS)	Resource Conservation	Residential Low (RL)	028512133 028512130 028512104	Page 577 F1	Harrison Mountain	S.19 T.01N R.03W	None
Small Canyon Dam (3-302-3A)	Resource Conservation City of San Bernardino Residential Low (RL), Residential Urban (RU)	Resource Conservation City of San Bernardino Residential Low (RL)	City of San Bernardino Residential Low (RL), Residential Urban (RU), Residential Suburban (RS)	Resource Conservation	City of San Bernardino Residential Low (RL)	119927102 119919106 119919107 119927101 119917101 119909101	Page 577 J1, J2	Harrison Mountain	S.28 T.01N R.03W	State Route 330 from the San Bernardino National Forest Boundary northeast to State Route 18
Dynamite Basin (3-304-4A)	City of San Bernardino Residential Urban (RU)	City of San Bernardino Residential Urban (RU)	City of San Bernardino Residential Urban (RU)	City of San Bernardino Residential Suburban (RS)	City of San Bernardino Residential Suburban (RS)	119927102 119927103 119929105 119927102 119929105 119933110	Page 578 A2	Harrison Mountain	S.28 T.01N R.03W	State Route 330 from the San Bernardino National Forest Boundary northeast to State Route 18
Cook Canyon Basin (3-305-4A)	City of San Bernardino Residential Low (RL)	City of San Bernardino Residential Low (RL)	City of Highland Low Density Residential	City of San Bernardino Residential Low (RL)	City of San Bernardino Residential Low (RL)	120016107 120016107 119934115 119934125	Page 578 B3, C3	Harrison Mountain	S.27 T.01N R.03W, S.34 T.01N R.03W	None
Oak Creek Dam/Basin (3-204-4A)	Resource Conservation City of Highland Agriculture/ Equestrian, Low Density Residential, Open Space	City of Highland Agricultural/ Equestrian, Open Space	Agriculture/ Equestrian/Low Density Residential	Agriculture/ Equestrian	Open Space, Agricultural/ Equestrian	029701110 029701128 029701129 029730104 029702126 029702111 029701111 029701115 029701129	Page 578 H6	Redlands	S.6 T.01S R.02W	None

Appendix A – Summary of Basin Land Use Information

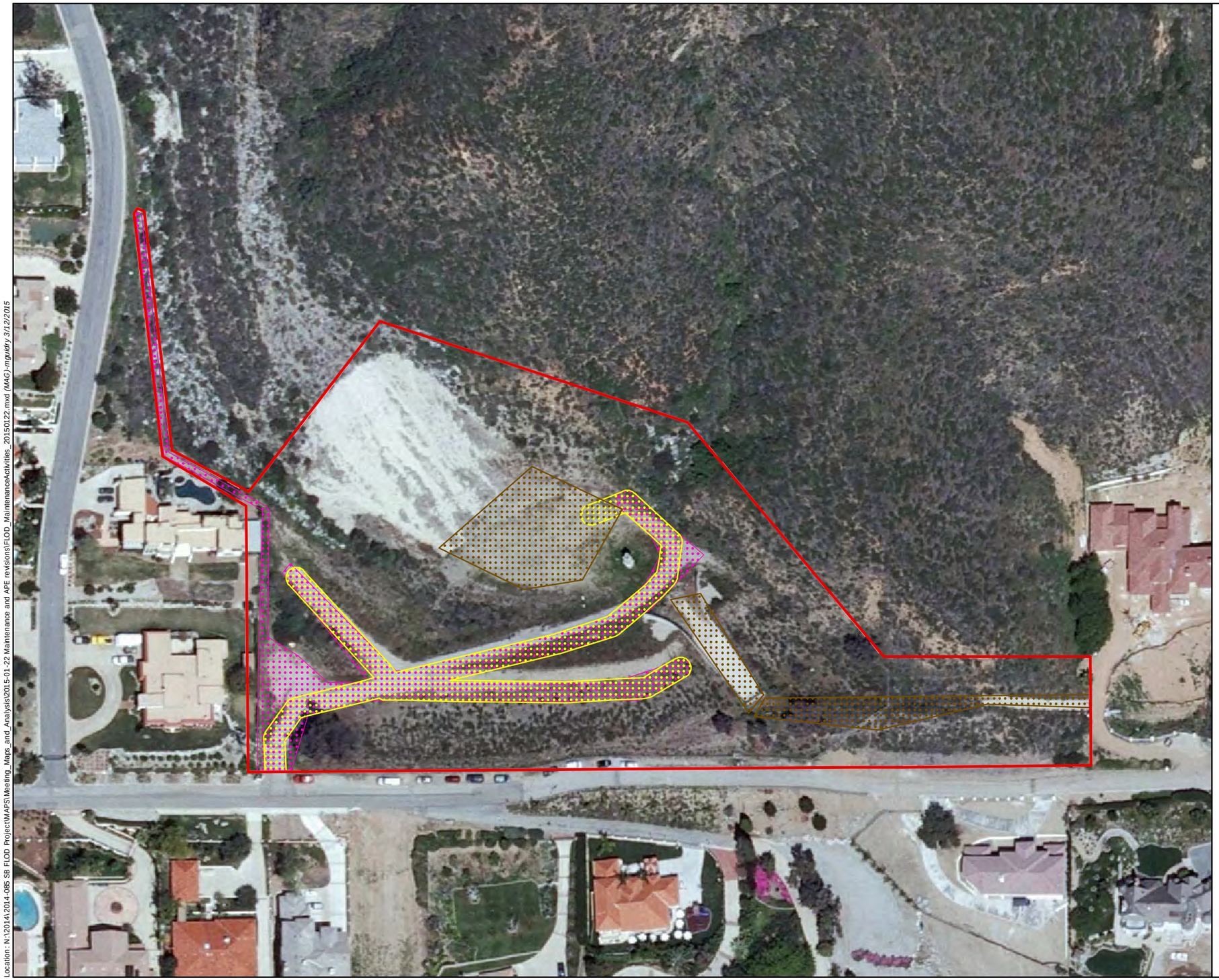
Wilson Creek Basin #1 (3-602-4A)	City of Yucaipa Institutional - Public (IN)	City of Yucaipa Single Residential– 20M (RS)	City of Yucaipa Single Residential– 20M (RS)	City of Yucaipa Single Residential– 20M (RS)	City of Yucaipa Institutional - Public (IN)	032106167 032106114 032106166 032106107 032106117 032106106	Page 610 B7	Yucaipa	S.30 T.01S R.01W	None
Oak Glen Basin #1 (3-603-4A)	City of Yucaipa Institutional - Public (IN), Rural Living – (RL-1)	City of Yucaipa Single Residential– 20M (RS)	City of Yucaipa Single Residential– 20M (RS)	City of Yucaipa Institutional - Public (IN)	City of Yucaipa Rural Living (RL-1)	032113108 032131126 032131127	Page 650 A1, B1	Yucaipa	S.31 T.01S R.01W, S.36 T.01S R.02W	None
Oak Glen Basin #2 (3-603-4B)	City of Yucaipa Institutional - Public (IN), Rural Living – (RL-1)	City of Yucaipa Rural Living – 20M	City of Yucaipa Single Residential– 20M (RS)	City of Yucaipa Institutional - Public (IN)	City of Yucaipa Institutional - Public (IN)	032113125 032113126 032131123 032131125 032131124 032131105 032131121 032131119 032131118 032131112 032131127	Page 650 B1	Yucaipa	S.31 T.01S R.01W	
Oak Glen Basin #3 (3-603-4C)	City of Yucaipa Institutional - Public (IN), Rural Living – (RL-1)	City of Yucaipa Rural Living – 20M	City of Yucaipa Single Residential– 20M (RS)	City of Yucaipa Rural Living (RL-1)	City of Yucaipa Institutional - Public (IN)	032113125 032113126 032115226 032131122 032115220 032115221 032115222 032115230 032115223 032115225 032131121	Page 650 B1	Yucaipa	S.31 T.01S R.01W	None

Sources: County of San Bernardino 2007a, City of Upland 2004, City of Rancho Cucamonga 2012, City of Fontana 2015, City of San Bernardino 2015, City of Highland 2006, City of Yucaipa 2013, Thomas Guide 2010.

*Note: *Land Use Districts and Overlays are San Bernardino County, unless otherwise noted*

APPENDIX B – FLOD Facility Maps

Figure 5
Maintenance Activities
San Antonio Heights Basin #1
1-313-4A



- Area of Potential Effects
- Adjacent Area of Potential Effects
- Vegetation Management
- Stock Pile Location
- Mechanized Land Clearing
- Herbicide Vector Control
- Ingress/Egress
- Bank Repair

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Location: N:\2014\2014-085 SB FLOD Project\MAPS\Meeting_Maps_and_Analysis\2015-01-22 Maintenance and APE revisions\FLOD_MaintenanceActivities_20150122.mxd (MAG)-mguidry 3/12/2015

2014-085 San Bernardino County FLOD Project

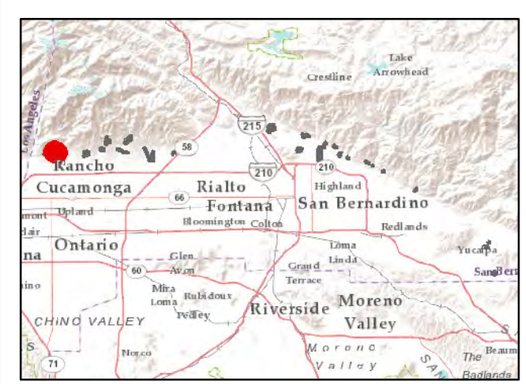
Scale in Feet
0 175

Photo Source: San Bernardino County 2009

Map Date: 3/4/2015

Figure 6
Maintenance Activities
San Antonio Heights Basin #5
1-313-4B

- Area of Potential Effects
- Adjacent Area of Potential Effects
- Vegetation Management
- Stock Pile Location
- Mechanized Land Clearing
- Herbicide Vector Control
- Ingress/Egress
- Bank Repair



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2014-085 San Bernardino County FLOD Project

Scale in Feet
0 200

Photo Source: San Bernardino County 2009

Map Date: 3/4/2015

Figure 7
Maintenance Activities
San Antonio Heights Basin
1-313-4D

- Area of Potential Effects
- Adjacent Area of Potential Effects
- Vegetation Management
- Stock Pile Location
- Mechanized Land Clearing
- Herbicide Vector Control
- Ingress/Egress
- Bank Repair

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2014-085 San Bernardino County FLOD Project

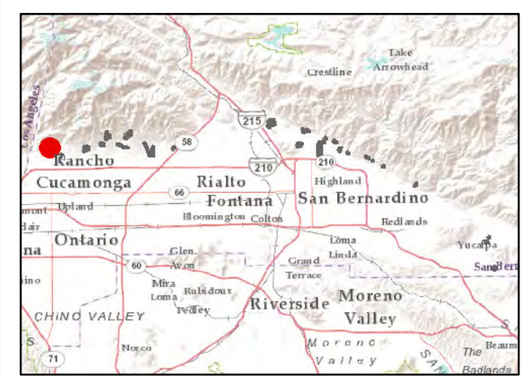
Scale in Feet
0 90

Photo Source: San Bernardino County 2009

Map Date: 3/4/2015

Figure 8
Maintenance Activities
San Antonio Heights Basin #3
1-313-4E

- Area of Potential Effects
- Adjacent Area of Potential Effects
- Vegetation Management
- Stock Pile Location
- Mechanized Land Clearing
- Herbicide Vector Control
- Ingress/Egress
- Bank Repair



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2014-085 San Bernardino County FLOD Project

Scale in Feet
0 150

Photo Source: San Bernardino County 2009

Map Date: 3/4/2015

Figure 9
Maintenance Activities
San Antonio Heights Basin #2
1-313-4F

- Area of Potential Effects
- Adjacent Area of Potential Effects
- Vegetation Management
- Stock Pile Location
- Mechanized Land Clearing
- Herbicide Vector Control
- Ingress/Egress
- Bank Repair

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2014-085 San Bernardino County FLOD Project

Scale in Feet
0 110

Photo Source: San Bernardino County 2009

Map Date: 3/4/2015

Figure 10
Maintenance Activities
San Antonio Heights Basin #4
1-313-4G

- Area of Potential Effects
- Adjacent Area of Potential Effects
- Vegetation Management
- Stock Pile Location
- Mechanized Land Clearing
- Herbicide Vector Control
- Ingress/Egress
- Bank Repair

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2014-085 San Bernardino County FLOD Project

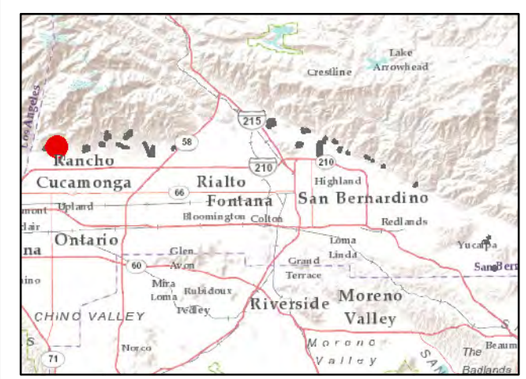
Scale in Feet
0 150

Photo Source: San Bernardino County 2009

Map Date: 3/4/2015

Figure 11
Maintenance Activities
San Antonio Heights Basin #6
1-313-4H

- Area of Potential Effects
- Adjacent Area of Potential Effects
- Vegetation Management
- Stock Pile Location
- Mechanized Land Clearing
- Herbicide Vector Control
- Ingress/Egress
- Bank Repair



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2014-085 San Bernardino County FLOD Project

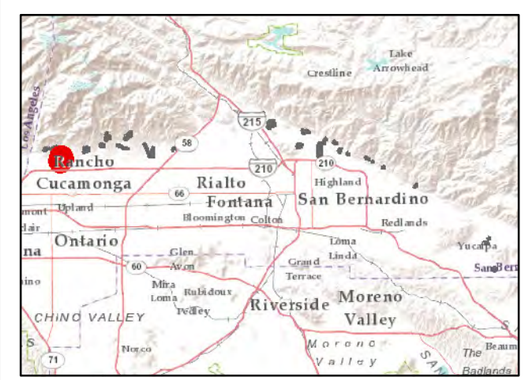
Scale in Feet
0 190

Photo Source: San Bernardino County 2009

Map Date: 3/4/2015

Figure 12
Maintenance Activities
Cucamonga Dam
1-352-3A

- Area of Potential Effects
- Adjacent Area of Potential Effects
- Vegetation Management
- Stock Pile Location
- Mechanized Land Clearing
- Herbicide Vector Control
- Ingress/Egress
- Bank Repair



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ENVIRONMENTAL CONSULTANTS

Location: N:\2014\2014-085 SB FLOD Project\MAPS\Meeting_Maps_and_Analysis\2015-01-22 Maintenance and APE revisions\FLOD_MaintenanceActivities_20150122.mxd (MAG)-mguidry 3/12/2015

2014-085 San Bernardino County FLOD Project

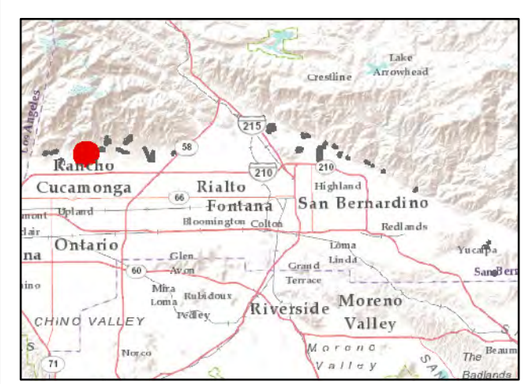
Scale in Feet
0 200 400 600

Photo Source: San Bernardino County 2009

Map Date: 3/4/2015

Figure 13
Maintenance Activities
Demens Basin #1
1-402-3A

- Area of Potential Effects
- Adjacent Area of Potential Effects
- Vegetation Management
- Stock Pile Location
- Mechanized Land Clearing
- Herbicide Vector Control
- Ingress/Egress
- Bank Repair



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2014-085 San Bernardino County FLOD Project

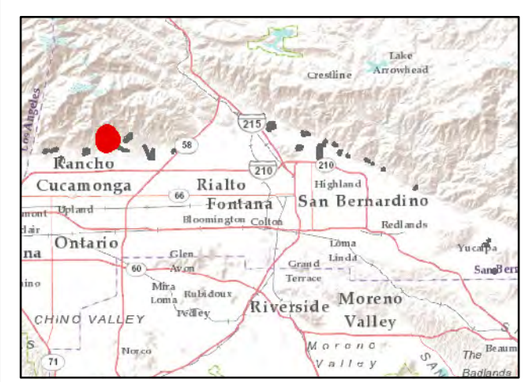
Scale in Feet
0 200 400

Photo Source: San Bernardino County 2009

Map Date: 3/4/2015

Figure 14
Maintenance Activities
Deer Creek Debris Basin
1-506-3A

- Area of Potential Effects
- Adjacent Area of Potential Effects
- Vegetation Management
- Stock Pile Location
- Mechanized Land Clearing
- Herbicide Vector Control
- Ingress/Egress
- Bank Repair



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2014-085 San Bernardino County FLOD Project

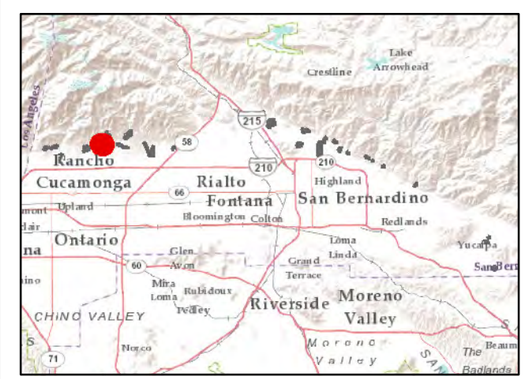
Scale in Feet
0 200 400 600

Photo Source: San Bernardino County 2009

Map Date: 3/4/2015

Figure 15
Maintenance Activities
Hillside Basin
1-552-4A

- Area of Potential Effects
- Adjacent Area of Potential Effects
- Vegetation Management
- Stock Pile Location
- Mechanized Land Clearing
- Herbicide Vector Control
- Ingress/Egress
- Bank Repair



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2014-085 San Bernardino County FLOD Project

Scale in Feet
0 200

Photo Source: San Bernardino County 2009

Map Date: 3/4/2015

Figure 16
Maintenance Activities
Etiwanda Debris Basin
1-707-9A

- Area of Potential Effects
- Adjacent Area of Potential Effects
- Vegetation Management
- Stock Pile Location
- Mechanized Land Clearing
- Herbicide Vector Control
- Ingress/Egress
- Bank Repair

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2014-085 San Bernardino County FLOD Project

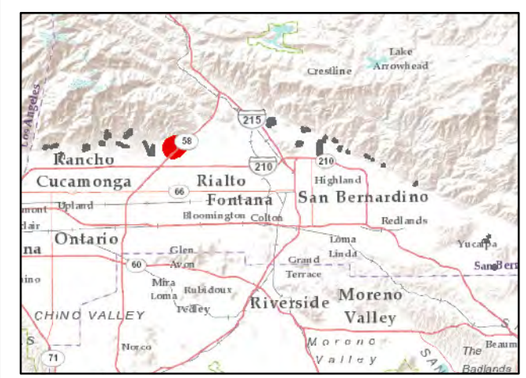
Scale in Feet
0 200 400 600 800

Photo Source: San Bernardino County 2009

Map Date: 3/4/2015

Figure 17
Maintenance Activities
Rich Basin
1-807-4A

- Area of Potential Effects
- Adjacent Area of Potential Effects
- Vegetation Management
- Stock Pile Location
- Mechanized Land Clearing
- Herbicide Vector Control
- Ingress/Egress
- Bank Repair



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2014-085 San Bernardino County FLOD Project

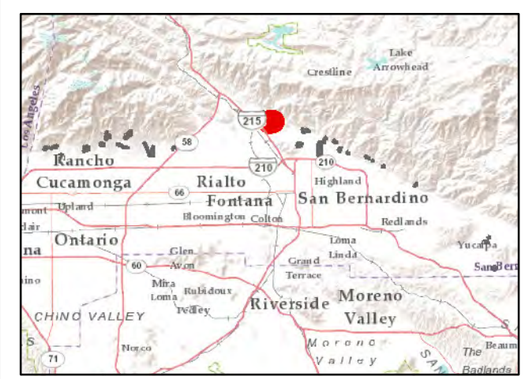
Scale in Feet
0 200 400

Photo Source: San Bernardino County 2009

Map Date: 3/4/2015

Figure 18
Maintenance Activities
Devil Canyon Dam (Basin #1)
2-303-3A

- Area of Potential Effects
- Adjacent Area of Potential Effects
- Vegetation Management
- Stock Pile Location
- Mechanized Land Clearing
- Herbicide Vector Control
- Ingress/Egress
- Bank Repair



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2014-085 San Bernardino County FLOD Project

Scale in Feet
0 200 400

Photo Source: San Bernardino County 2009

Map Date: 3/4/2015

Figure 19
Maintenance Activities
Devil Basin #2
2-304-4A

- Area of Potential Effects
- Adjacent Area of Potential Effects
- Vegetation Management
- Stock Pile Location
- Mechanized Land Clearing
- Herbicide Vector Control
- Ingress/Egress
- Bank Repair

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2014-085 San Bernardino County FLOD Project

Scale in Feet
0 200 400

Photo Source: San Bernardino County 2009

Map Date: 6/4/2015

Figure 20
Maintenance Activities
Devil Basin #3
2-304-4B

- Area of Potential Effects
- Adjacent Area of Potential Effects
- Vegetation Management
- Stock Pile Location
- Mechanized Land Clearing
- Herbicide Vector Control
- Ingress/Egress
- Bank Repair

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2014-085 San Bernardino County FLOD Project

Scale in Feet
0 200

Photo Source: San Bernardino County 2009

Map Date: 6/4/2015

Figure 21
Maintenance Activities
Wiggins Basin #1
2-305-4A

- Area of Potential Effects
- Adjacent Area of Potential Effects
- Vegetation Management
- Stock Pile Location
- Mechanized Land Clearing
- Herbicide Vector Control
- Ingress/Egress
- Bank Repair

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2014-085 San Bernardino County FLOD Project

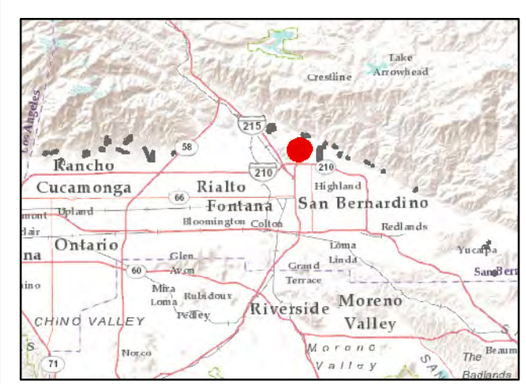
Scale in Feet
0 200 400 600

Photo Source: San Bernardino County 2009

Map Date: 3/4/2015

Figure 22
Maintenance Activities
Little Mountain Dam
2-365-3A

- Area of Potential Effects
- Adjacent Area of Potential Effects
- Vegetation Management
- Stock Pile Location
- Mechanized Land Clearing
- Herbicide Vector Control
- Ingress/Egress
- Bank Repair



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2014-085 San Bernardino County FLOD Project

Scale in Feet
0 200 400

Photo Source: San Bernardino County 2009

Map Date: 3/4/2015

Figure 23
Maintenance Activities
MacQuiddy Basin #4 (#1-4 combined)
2-368-4D

- Area of Potential Effects
- Adjacent Area of Potential Effects
- Vegetation Management
- Stock Pile Location
- Mechanized Land Clearing
- Herbicide Vector Control
- Ingress/Egress
- Bank Repair

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2014-085 San Bernardino County FLOD Project

Scale in Feet
0 200

Photo Source: San Bernardino County 2009

Map Date: 3/4/2015

Figure 24
Maintenance Activities
Twin Creek Spreading Grounds
2-406-2A

- Area of Potential Effects
- Adjacent Area of Potential Effects
- Vegetation Management
- Stock Pile Location
- Mechanized Land Clearing
- Herbicide Vector Control
- Ingress/Egress
- Bank Repair

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2014-085 San Bernardino County FLOD Project

Scale in Feet
0 200 400 600 800

Photo Source: San Bernardino County 2009

Map Date: 3/4/2015

Figure 25
Maintenance Activities
Brush Canyon Basin
2-412-4A

- Area of Potential Effects
- Adjacent Area of Potential Effects
- Vegetation Management
- Stock Pile Location
- Mechanized Land Clearing
- Herbicide Vector Control
- Ingress/Egress
- Bank Repair

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2014-085 San Bernardino County FLOD Project

Scale in Feet
0 200

Photo Source: San Bernardino County 2009

Map Date: 3/4/2015

Figure 26
Maintenance Activities
Harrison Basin
2-414-4A

- Area of Potential Effects
- Adjacent Area of Potential Effects
- Vegetation Management
- Stock Pile Location
- Mechanized Land Clearing
- Herbicide Vector Control
- Ingress/Egress
- Bank Repair

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2014-085 San Bernardino County FLOD Project

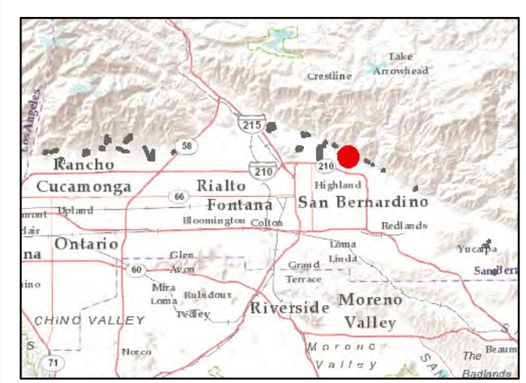
Scale in Feet
0 200 400

Photo Source: San Bernardino County 2009

Map Date: 3/4/2015

Figure 27
Maintenance Activities
Sand Canyon Basin
2-503-4A

- Area of Potential Effects
- Adjacent Area of Potential Effects
- Vegetation Management
- Stock Pile Location
- Mechanized Land Clearing
- Herbicide Vector Control
- Ingress/Egress
- Bank Repair



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2014-085 San Bernardino County FLOD Project

Scale in Feet
0 200

Photo Source: San Bernardino County 2009

Map Date: 3/4/2015

Figure 28
Maintenance Activities
Daley Basin
2-506-4A

- Area of Potential Effects
- Adjacent Area of Potential Effects
- Vegetation Management
- Stock Pile Location
- Mechanized Land Clearing
- Herbicide Vector Control
- Ingress/Egress
- Bank Repair

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2014-085 San Bernardino County FLOD Project

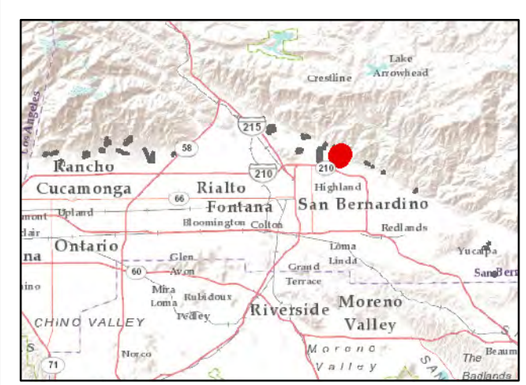
Scale in Feet
0 200

Photo Source: San Bernardino County 2009

Map Date: 3/4/2015

Figure 29
Maintenance Activities
Little Sand Canyon Basin
2-510-4A

- Area of Potential Effects
- Adjacent Area of Potential Effects
- Vegetation Management
- Stock Pile Location
- Mechanized Land Clearing
- Herbicide Vector Control
- Ingress/Egress
- Bank Repair



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2014-085 San Bernardino County FLOD Project

Scale in Feet
0 200

Photo Source: San Bernardino County 2009

Map Date: 3/4/2015

Figure 30
Maintenance Activities
Oak Creek Basin
3-204-4A

- Area of Potential Effects
- Adjacent Area of Potential Effects
- Vegetation Management
- Stock Pile Location
- Mechanized Land Clearing
- Herbicide Vector Control
- Ingress/Egress
- Bank Repair

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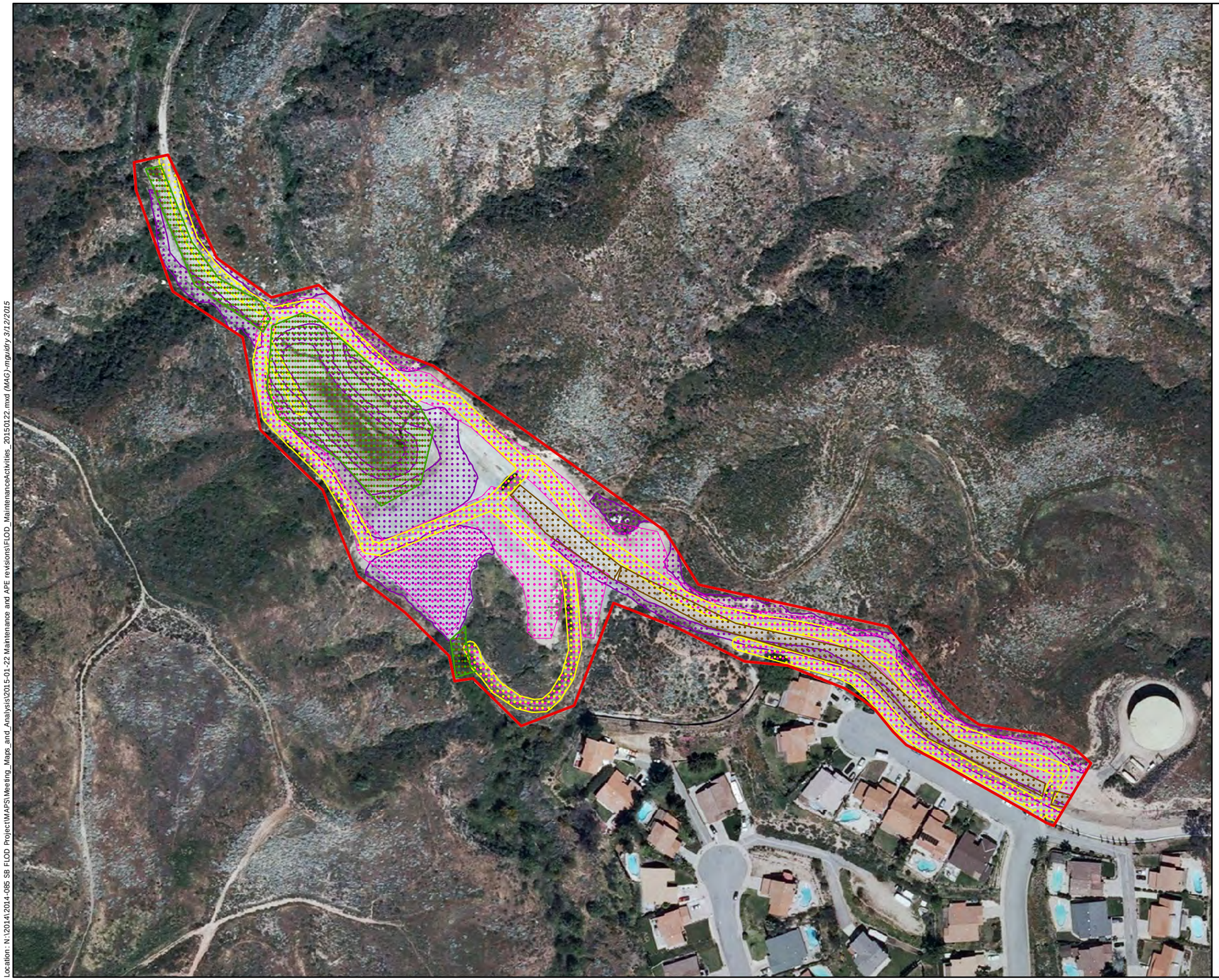
2014-085 San Bernardino County FLOD Project

Scale in Feet
0 200

Photo Source: San Bernardino County 2009

Map Date: 3/4/2015

Figure 31
Maintenance Activities
Small Canyon Dam
3-302-3A



- Area of Potential Effects
- Adjacent Area of Potential Effects
- Vegetation Management
- Stock Pile Location
- Mechanized Land Clearing
- Herbicide Vector Control
- Ingress/Egress
- Bank Repair

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2014-085 San Bernardino County FLOD Project

Scale in Feet
0 200

Photo Source: San Bernardino County 2009

Map Date: 3/4/2015

Figure 32
Maintenance Activities
Dynamite Basin
3-304-4A

- Area of Potential Effects
- Adjacent Area of Potential Effects
- Vegetation Management
- Stock Pile Location
- Mechanized Land Clearing
- Herbicide Vector Control
- Ingress/Egress
- Bank Repair

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2014-085 San Bernardino County FLOD Project

Scale in Feet
0 110

Photo Source: San Bernardino County 2009

Map Date: 3/4/2015

Figure 33
Maintenance Activities
Cook Canyon Basin
3-305-4A

- Area of Potential Effects
- Adjacent Area of Potential Effects
- Vegetation Management
- Stock Pile Location
- Mechanized Land Clearing
- Herbicide Vector Control
- Ingress/Egress
- Bank Repair

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2014-085 San Bernardino County FLOD Project

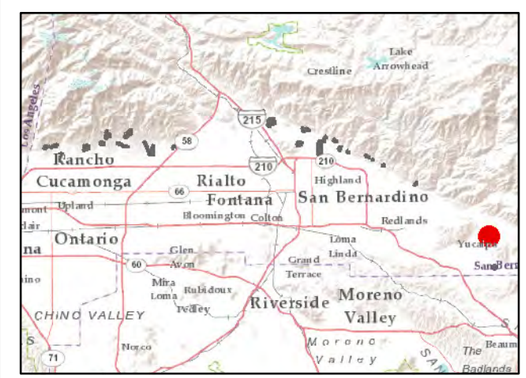
Scale in Feet
0 200

Photo Source: San Bernardino County 2009

Map Date: 3/4/2015

Figure 34
Maintenance Activities
Wilson Creek Basin #1
3-602-4A

- Area of Potential Effects
- Adjacent Area of Potential Effects
- Vegetation Management
- Stock Pile Location
- Mechanized Land Clearing
- Herbicide Vector Control
- Ingress/Egress
- Bank Repair



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2014-085 San Bernardino County FLOD Project

Scale in Feet
0 160

Photo Source: San Bernardino County 2009

Map Date: 3/4/2015

Figure 35
Maintenance Activities
Oak Glen Creek Basin #1
3-603-4A

- Area of Potential Effects
- Adjacent Area of Potential Effects
- Vegetation Management
- Stock Pile Location
- Mechanized Land Clearing
- Herbicide Vector Control
- Ingress/Egress
- Bank Repair

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2014-085 San Bernardino County FLOD Project

Scale in Feet
0 100

Photo Source: San Bernardino County 2009

Map Date: 3/4/2015

Figure 36
Maintenance Activities
Oak Glen Creek Basin #2
3-603-4B

- Area of Potential Effects
- Adjacent Area of Potential Effects
- Vegetation Management
- Stock Pile Location
- Mechanized Land Clearing
- Herbicide Vector Control
- Ingress/Egress
- Bank Repair

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2014-085 San Bernardino County FLOD Project

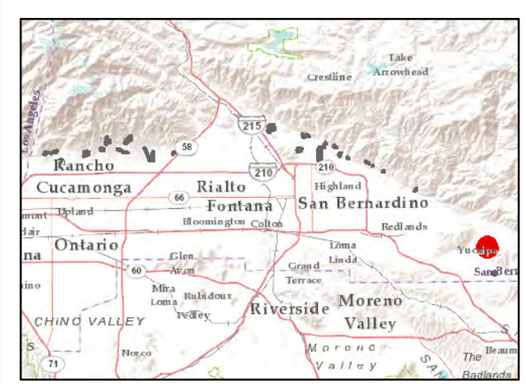
Scale in Feet
0 175

Photo Source: San Bernardino County 2009

Map Date: 3/4/2015

Figure 37
Maintenance Activities
Oak Glen Creek Basin #3
3-603-4C

- Area of Potential Effects
- Adjacent Area of Potential Effects
- Vegetation Management
- Stock Pile Location
- Mechanized Land Clearing
- Herbicide Vector Control
- Ingress/Egress
- Bank Repair



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2014-085 San Bernardino County FLOD Project

Scale in Feet
0 200

Photo Source: San Bernardino County 2009

Map Date: 3/4/2015