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Upper Santa Ana River Wash Land Management and Habitat Conservation Plan Document

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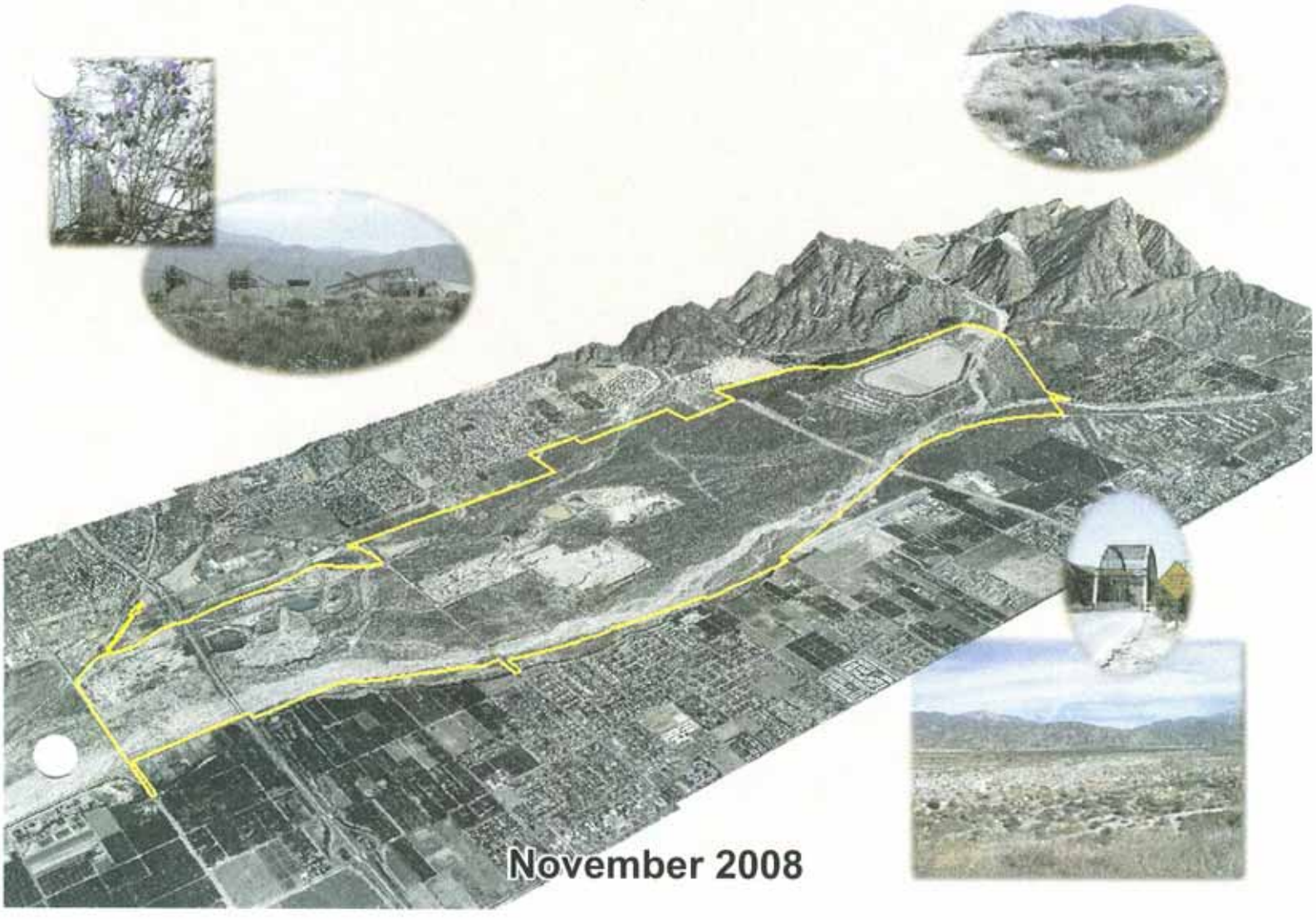

November 2008

TABLE OF CONTENTS

Section		Page
EXECUTIVE SUMMARY		1
1.0	INTRODUCTION	1
	1.1 Project Background	1
	1.2 Proposed Project	3
2.0	INTRODUCTION	7
	2.1 Background	7
	2.2 Project Goals and Objectives	9
	2.2.1 Project-Specific Components	10
3.0	PROJECT LOCATION AND SETTING	11
	3.1 Project Setting	11
	3.2 Existing and Proposed Land Uses	11
	3.3 Water Conservation	16
	3.4 Flood Control	16
	3.5 Habitat Conservation	16
	3.6 Undeveloped Natural Habitat	20
	3.7 Aggregate Mining and Processing	21
	3.8 Arterial Roads/Highways	24
	3.9 Trails	25
	3.10 Agricultural	25
	3.11 Area Not A Part	25
	3.12 Undesignated/Public Ownership	25
	3.13 Utility Easements	25
4.0	PROPPOSED PROJECT	29
	4.1 Water Conservation	29
	4.2 Flood Control	39
	4.3 Habitat Conservation	41
	4.4 Unmanaged, Undeveloped Natural Habitat	46
	4.5 Aggregate Mining and Processing	46
	4.6 Arterial Roads and Highways	59
	4.7 Trails	64
	4.8 Agriculture	69
	4.9 Area Not A Part	69
	4.10 Undesignated/Public Ownership	69
	4.11 Utility Easements	69

TABLE OF CONTENTS

Page

5.0 INTENTED USE OF THE WASH PLAN DOCUMENT 71
5.1 Agencies Expected to use the Wash Plan Document 71
5.2 Permits and Other Approvals 71
5.3 Wash Plan Components Requiring Federal and State Action 74

TABLES

A Land Uses for Proposed Project and Comparison with Existing Land Uses 6
B Existing and Proposed Land Uses 15
C Future Water Conservation Phases – Impacted Acreages 38
D Habitat Conservation Areas 43
E Federal Land Proposed for Exchange 46
F San Bernardino Valley Water Conservation District Land Proposed for Exchange 46
G Project Mining Areas 47
H Cemex Existing and Planned Quarries 52
I Robertson's Existing and Planned Quarries 55
J Actions Required to Implement the Wash Plan 72

FIGURES

1.1 Regional and Project Location 4

3.1 Regional and Project Location 12
3.2 Existing Land Uses 13
3.3 Existing Ownership 14
3.4 Known Occurrences of Some Sensitive Species 18
3.5 Existing Habitat Conservation Areas 19
3.6 Existing Mining/Quarries 22
3.7 Mining Lease Areas 23
3.8 Utility Easements and Services 26

4.1 Proposed Land Uses 30
4.2 Proposed Ownership 31
4.3 SBVWCD Existing Facilities 32
4.4 Conservation District Potential New Facilities 36
4.5 Wetted and Maintained Basin Areas 37
4.6 San Bernardino County Flood Control Areas 40
4.7 Proposed Habitat Conservation Areas 42
4.8 Proposed Land Exchange 45
4.9 Cemex Aggregate Mining Areas 48
4.10 Robertson's Aggregate Mining Areas 49
4.11 Proposed Mining Access and Haul Roads 60
4.12 Proposed Greenspot Roadway Alignment and New Bridge 61
4.13 Arterial Roads Ultimate Planned ROW 62
4.14 Planned Trails 65

EXECUTIVE SUMMARY

1.0. INTRODUCTION

This Executive Summary for the Upper Santa Ana River Wash Land Management and Habitat Conservation Plan has been prepared by the San Bernardino Valley Water Conservation District (Conservation District) to describe the comprehensive land management strategy necessary to maintain public services, to provide construction aggregate materials, and to preserve sensitive plant and wildlife habitats.

1.1 PROJECT BACKGROUND

In 1993, representatives of numerous public and private agencies including Cemex Construction Materials Limited Partnership [LP] (Cemex) and Robertson's Ready Mix, Ltd. (Robertson's) formed a Wash Committee to discuss and coordinate proposals for aggregate mining in the Santa Ana River Wash (Wash). As shown in Figure 1.1 (or 3.1) the Wash Area is generally that land area between Greenspot Road on the east, Alabama Street on the west, Greenspot Road and Plunge Creek on the north, and the Santa Ana River on the south. Subsequently, Robertson's and Cemex forged ahead and submitted applications to mine on Wash lands leased from the San Bernardino Valley Water Conservation District (District). Representatives from the California Department of Fish and Game (CDFG) and U.S. Fish and Wildlife Service (USFWS) had significant issues with the proposals, believing that the land to be mined would significantly disturb important wildlife habitat. Additionally, the land proposed for mining would eliminate virtually all of the District's existing groundwater recharge basins, and relocating those basins to other parts of the Wash would further affect important wildlife habitat. (It should be noted here that Seven Oaks Dam was not yet complete and the excavated borrow pit was still under control of the U.S. Army Corps of Engineers [ACOE].)

In January 1997, the Wash Committee, and any other agency that could influence how land was used in the Wash, began meeting to discuss the mining proposals. Within the first two meetings of this new group, it was apparent there was significant competition for use of the land. There were three primary uses causing that competition. First, the geology of the land provided superb percolation for recharging the groundwater basin with native Santa Ana River and Mill Creek water, the chartered function of the District. Second, those same geologic conditions provided sand and gravel deposits that were defined by the State as being regionally significant for economic sustainability. Thus, Robertson's and Cemex proposed to mine those aggregates. Third, the Wash was home to federally and State listed threatened and endangered species. Proposals for mining and excavation for water recharge basins could potentially affect the habitat for those species. The CDFG and USFWS were opposed to the loss of habitat.

In addition to those uses, the San Bernardino County Flood Control District (SBCFCD) noted that the Wash could be severely impacted by flooding waters, and there would need for continued maintenance of the stream channels. The two cities wanted to use the Wash for various forms of outdoor recreation, including having trails to view the wash resources. Furthermore, because the cities had received revenues from the mining companies for mining production, it would be economically favorable for mining to take place.

Using the former Wash Committee as a starting point, a Policy Action Committee (PAC) was established consisting of elected officials from the Cities of Highland and Redlands, County of San Bernardino (County), the District, and the Field Manager from the U.S. Bureau of Land Management (BLM), North Palm Springs Office. To carry out the work, a Technical Advisory Committee (TAC) was formed consisting of staff personnel from the PAC agencies, plus representatives from the mining companies, the SBCFCD, other water agencies, and the wildlife agencies.

The TAC concluded that the only way to address everyone's concerns was to treat the Wash as a single entity, ignoring political and land ownership lines. In other words, start over to determine how best to use the land to meet the goals of each of the agencies.

The TAC noted that the western part of the Wash was already disturbed by long-term mining activities; therefore, that area should be reserved for mining. Additionally, the land in the eastern part of the Wash was already configured with water spreading basins, and that should continue. The TAC conceded that some of the best wildlife habitat was in the land between the disturbed mining area and the water spreading basins, much of which was encumbered with long-standing mining leases between the District and the mining companies. The challenge was to develop a balance between the three primary uses while maintaining the existing flood control operations, accommodating future trails in the Wash for the Cities and County, and ensuring that the District and Cities received economic benefit from mining royalties.

After several meetings, the TAC concluded that planned mining expansion would be best addressed by consolidating future mining activity into one area, adjacent to existing operations within the western half of the Wash. This would focus extraction activities on lands currently in or near mining disturbance—lands with the least long-term wildlife habitat value. In addition, the TAC determined that portions of the BLM land designated as an Area of Critical Environmental Concern (ACEC) were previously disturbed or fragmented by adjacent mining activities and thus would be better suited for mining expansion. The TAC also determined that some of the most intact, viable wildlife habitat areas were contained within lands leased for future mining and currently used for water conservation. The TAC concluded that some of these lands were best suited for joint uses as water and habitat conservation, rather than mining. For example, the up-gradient side of a percolation basin dike could be wetted and periodically contain water for water-dependent species; whereas, the down-gradient side could generally remain undisturbed, except for maintenance and repair of the percolation basin dike and, therefore, could support other wildlife species common to the Wash.

To effect these conclusions, a trade of land between the District and BLM was proposed. BLM owned land in the western part of the Wash adjacent to existing mining, while the District owned land in the eastern and middle parts. Making this exchange would make existing BLM land designated as ACEC, but of lesser environmental importance and already disturbed in part by mining haul roads and adjacent to existing mining, available to expand the mining area. In return, the District land would remain habitat and be designated ACEC, providing protection of habitat for species, while simultaneously ensuring an adequate depth of soil for water spreading operations. The benefits that would be accrued to all the agencies were evident.

1. Ensure continued ability to conserve native water. Combining the exchanged land with BLM with some other owned land in the western part of the Wash, would allow the District to transfer leases with the mining companies to the new mining areas, thereby precluding the potential loss of all the spreading basins in the eastern half of the Wash, and preserving the ability to conserve native water.
2. Assure SBCFCD lands were not impacted. The proposed land exchange between Robertson's and the SBCFCD would enhance the Santa Ana River Woollystar Preserve Area and not affect existing SBCFCD land needed for flood control operations and maintenance.
3. Set aside and maintain habitat. While much of the Wash might appear to the causal observer to be simply "open space" or wildlife habitat, its use for groundwater recharge and proposed expansion of aggregate mining under the original plan was destined to cause the loss of much of the open habitat. The proposed plan achieved an acceptable balance between the mining and water conservation uses and established specific areas for wildlife habitat that will be managed as ACEC land or will be governed by a Habitat Conservation Plan.
4. Accommodate expansion of aggregate mining quarries. The original plan as proposed by the mining companies would have used most of the Wash for aggregate mining, a positive element in view of the significance of the aggregate resources. However, there was doubt that permits for mining would actually be approved. The proposed plan does not use as much land for aggregate mining, but does give greater assurance that mining permits would be approved. Hence, the mining companies reduced their risks with the proposed plan.

The plan, which became known as "Plan B," was presented to the PAC, then to the PAC governing boards. The proposed plan conformed neither to previously planned land use nor to current land ownership, and crossed both ownership and jurisdiction (two cities and the County) lines. But, in early 2000, the Plan was enthusiastically "endorsed to proceed" by all the participating agencies. Proceeding meant that environmental and implementing documents would need to be prepared.

To create the framework for joint funding and governance from all participants, the Wash Committee was re-constituted as the Upper Santa Ana River Wash Land Management and Habitat Conservation Plan Task Force (Task Force). Members of the Wash Committee (both PAC and TAC) remained in the Task Force, namely the County, County Flood, cities of Highland and Redlands, District, BLM, Cemex, Robertson's, East Valley Water District (EVWD), and City of Redlands Municipal Utilities Department (RMUD). In recognition of the important roles they play in the environmental planning process, the USFWS and CDFG were made advisory members. The ACOE, California Department of Water Resources (CDWR), County of Orange, and Inland Valley Development Agency (IVDA) have also participated in associate roles. The District was designated as lead agency for CEQA issues, while BLM was designated lead agency for NEPA issues, principally the exchange of land between the District and BLM. The Cities and County are responsible parties. The Agreement was signed November 20, 2002.

1.2 PROPOSED PROJECT

The Upper Santa Ana River Wash Plan (Wash Plan or proposed project) is a multifaceted, multi-agency, and multi-property owner project that provides for the coordination and accommodation of existing and anticipated future activities on the project site (Planning Area). The eastern border of the 4,467-acre[1] Planning Area is near the mouth of the Santa Ana Canyon in San Bernardino County, California, at Greenspot Road and extends westerly for approximately 6 miles to Alabama Street (Figure 1.1). At its widest part from north to south, the project site extends approximately 2 miles. The Planning Area is generally bounded by the following land uses:

- City of Highland, urban and public facility uses and vacant land on the north;
- City of Redlands, urban and agricultural uses and vacant land on the south;
- The San Bernardino International Airport on the west; and
- Agricultural and public uses and the San Bernardino Mountains to the east.

Other adjacent or nearby land uses include the Redlands Wastewater Treatment Facility and California Street Landfill, both of which are located to the southwest, and the Redlands Municipal Airport to the south. Two north-south paved roadways cross the Planning Area: Orange Street-Boulder Avenue and State Route 30 (SR-30). Greenspot Road wraps around the project site, forming a portion of the north and eastern boundaries, and Alabama Street is the western boundary.

The proposed project is the adoption of the Upper Santa Ana River Wash Land Management Plan. Full implementation of the Wash Plan will subsequently require preparation of a Habitat Conservation Plan (HCP) pursuant to the Federal Endangered Species Act (FESA) and the California Endangered Species Act (CESA) as well as exchanges of land between various participating entities. As such, it will not cause direct impacts to the physical environment; however, adoption of this plan by the responsible agencies involved is the initial step authorizing activities which will have environmental impacts. The associated actions required by the responsible agencies are discussed in Table A comprehensive description of the proposed project is provided in Section 3.0 of the EIR. The components of the plan are discussed below and analyzed in Section 4.0 of the EIR.

[1] The total Planning Area is 4,519 acres. Within the Planning Area, there are 52 acres that are not part of the proposed project, leaving a net of 4,467 acres.

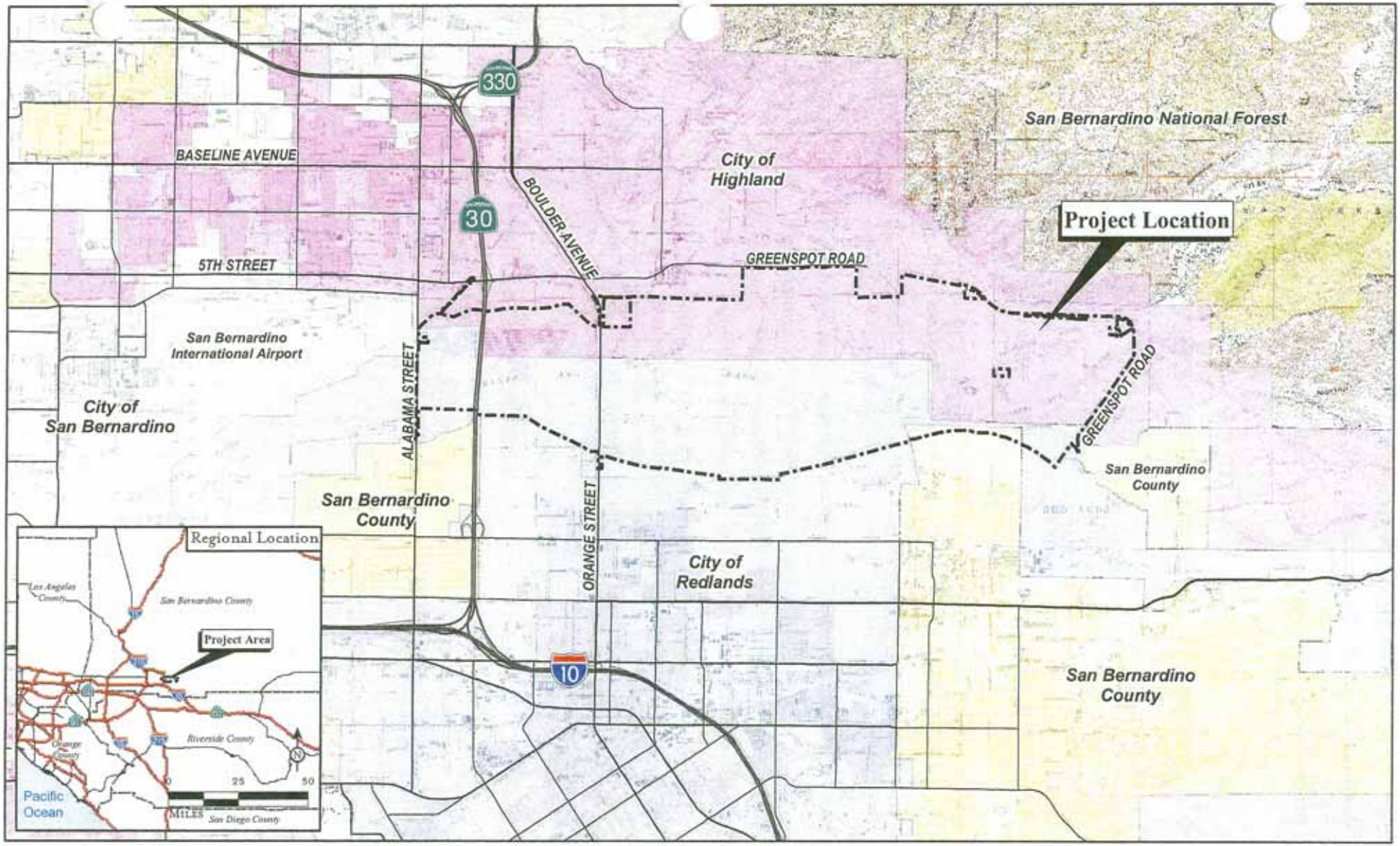

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FIGURE 1.1

0 3,000 6,000

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SOURCE: USGS 7.5' Quads: San Bernardino South (1980), San Bernardino North, Harrison Mtn., Redlands, Keller Peak, Yucaipa (1988), CA; Thomas Bros. (2006).

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Upper Santa Ana River Wash
Land Management Plan
Environmental Impact Report

Regional and Project Location

The purpose of the proposed project is to allow the continued use of land and mineral resources while maintaining the biological and hydrological resources of the Planning Area in an environmentally sensitive manner. The Wash Plan is intended to coordinate and manage the present and future activities in the Wash, which are under multiple jurisdictions, each with different needs. The goal of the proposed project is to balance the ground-disturbing activities of aggregate mining, water conservation, and other public services, including recreational activities; with quality, natural habitat for endangered, threatened, and sensitive species. Objectives of the proposed project are:

- Ensure the continued ability of the District to replenish the Bunker Hill Groundwater Basin with native Santa Ana River water using existing and potential future water recharge facilities in the Planning Area;
- Ensure the continued ability of the SBCFCD to protect land and property by managing the floodwaters of the Santa Ana River and its local tributaries (Mill Creek, Plunge Creek, and City Creek);
- Set aside and maintain habitat for sensitive, threatened, or endangered species populations on the project site, and prevent colonization by non-native plants and animals, as mitigation for impacts from other aspects of the project, such as mining, designation of areas for future roadways or water spreading facilities;
- Accommodate the relocation and expansion of aggregate mining quarries, to help ensure long-term availability of high quality aggregate reserves located within the Planning Area for local and regional use, consistent with the MRZ-2 designation or reserves in this area, and do so on land adjacent to existing quarries, that has mostly been disturbed;
- Accommodate arterial roads and highways to provide safe modes of travel; and
- Provide trails for public enjoyment of the existing environment.

To achieve the above-stated objectives, there are nine components of the Wash Plan:

1. Continued operation and maintenance activities of the District within the Planning Area, and designation of, and environmental mitigation for, potential future groundwater recharge facilities within the area designated for "Water Conservation" or on adjacent BLM ACEC land as a joint use under the Land Use Plan.
2. Continued SBCFCD operations and maintenance activities within the Planning Area, and streams adjacent to or leading into the Planning Area (Mill Creek, Plunge Creek, and City Creek).
3. Continued water production operations and maintenance activities of the EVWD and RMUD, within the Planning Area.
4. Aggregate mining activities of Robertson's and Cemex, on the areas designated in the Land Management Plan for mining, including construction of aggregate vehicle haul roads, an access road from the mining area to 5th Street in Highland, and reclamation of the mine pits at the end of mining operations.
5. Adoption of General Plan Amendments by the City of Highland for land use amendments and zone change and by the Cities of Highland and Redlands for trails and habitat conservation plans.
6. Designation of, and environmental mitigation for, expanded roadway rights-of-way on Alabama Street and Orange Street-Boulder Avenue; widening, straightening, and realignment of Greenspot Road, and designation of right-of-way for a new Greenspot Road Bridge.[1]

[1] The following items are not included in the project description of activities to be covered by this EIR, and would require their own, subsequent environmental evaluation:
(a) Construction of road improvements on Alabama Street, Orange Street-Boulder Avenue, and Greenspot Road within the Planning Area;
(b) Construction of the new Greenspot Road Bridge; and

7. Designation of rights-of-way for and management of recreational trails in the Planning Area.
8. A land exchange between the District and the BLM. This land exchange is the subject of an Environmental Impact Statement (EIS) being prepared under separate cover. The District's participation in such land exchange is covered by this EIR.
9. A land exchange between the SBCFCD and Robertson's, which is also the subject of this EIR.

The following is a description of the components of the Wash Plan. Table A provides a comparison of the existing and proposed land uses in the Planning Area.

Table A – Land Uses for Proposed Project and Comparison with Existing Land Uses

Land Use	Existing Land Uses (acres)	Proposed Project (acres)	Difference in Acreage	Main Reason(s) for Change in Acres
Water Conservation	1,260	740	-520	Water Conservation changes to Habitat Conservation.
Flood Control	414	406	-8	Portions are utilized as rights-of-way.
Habitat Conservation	1,215	1,947	732	Unmanaged Open Space and Water Conservation changes to Habitat Conservation.
Undeveloped Natural Habitat	604	0	-604	Existing open space that is unmanaged; with the proposed project, all open space would be managed.
Aggregate Mining and Processing	832	1,195	363	Aggregate Mining becomes consolidated area where mining haul roads exist, away from Habitat Conservation of better quality.
Arterial Roads/ Highways	66	113	47	Road rights-of-way are designated for future roadway projects (Alabama Street and Orange Street-Boulder Avenue widening, and Greenspot Road widening, realignment and bridge).
Agricultural	6	6	0	No change.
Undesignated Public Ownership	70	60	-10	Portions are utilized as rights-of-way.
Planning Area	**4,467**	**4,467**	**0**	No change.
Area Not a Part	52	52	0	No change.
Area within Project Boundary	**4,519**	**4,519**	**0**	**No change**

(c) Designation of, and roadway construction within rights-of-way for improvements outside the Planning Area on Alabama Street and Orange Street-Boulder Avenue.

2.0 INTRODUCTION

This section describes the proposed project, which is the Upper Santa Ana River Wash Land Management and Habitat Conservation Plan (Wash Plan). This section also describes the location, setting, existing land uses of the 4,467-acre Upper Santa Ana River Wash Planning Area (Planning Area), and the detailed characteristics of the proposed project.

2.1 BACKGROUND

In 1993, representatives of numerous public and private (mining companies) agencies formed a Wash Committee to discuss and coordinate proposals for aggregate mining in the Santa Ana River Wash (Wash). As shown in Figure 3.1, the Wash area is generally that land area between Greenspot Road on the east, Alabama Street on the west, Greenspot Road and Plunge Creek on the north, and the Santa Ana River on the south. Subsequently, Robertson's and Cemex submitted applications to mine on Wash lands leased from the San Bernardino Valley Water Conservation District (District). Representatives from the California Department of Fish and Game (CDFG) and U.S. Fish and Wildlife Service (USFWS) had significant issues with the proposals, believing that the land to be mined would significantly disturb important wildlife habitat. Additionally, the land proposed for mining would eliminate virtually all of the District's existing groundwater recharge basins, and relocating those basins to other parts of the Wash would further affect important wildlife habitat. (It should be noted here that Seven Oaks Dam was not yet complete and the excavated borrow pit was still under control of the U.S. Army Corps of Engineers [ACOE].)

In January 1997, the Wash Committee and other agencies that could influence how land was used in the Wash began meeting to discuss the mining proposals. Within the first two meetings of this new group, it was apparent there was significant competition for use of the land. There were three primary uses causing that competition. First, the geology of the land provided superb percolation for recharging the groundwater basin with native Santa Ana River and Mill Creek water, the chartered function of the District. Second, those same geologic conditions provided sand and gravel deposits that were defined by the State as being regionally significant for economic sustainability. Thus, Robertson's and Cemex proposed to mine those aggregates. Third, the Wash was home to federally and state listed threatened and endangered species. Proposals for mining and excavation for water recharge basins could potentially affect the habitat for those species. The CDFG and USFWS were opposed to the loss of habitat.

In addition to those uses, the San Bernardino County Flood Control District (SBCFCD) noted that the Wash could be severely impacted by flooding waters and there would need to be continued maintenance of the stream channels. The two cities wanted to use the Wash for various forms of outdoor recreation, including having trails to view the endangered plants. Furthermore, because the cities had agreements with the mining companies for a royalty on mining production, it would be economically favorable for mining to take place. More work would be needed.

Using the former Wash Committee as a starting point, a Policy Action Committee (PAC) was established consisting of elected officials from the Cities of Highland and Redlands, County of San Bernardino (County) and the District, and the Field Manager from the U.S. Bureau of Land Management (BLM), North Palm Springs Office. To carry out the work, a Technical Advisory Committee (TAC) was formed consisting of staff personnel from the PAC agencies, plus representatives from the mining companies, County Flood Control District, other water agencies and the wildlife agencies.

The TAC concluded that the only way to address everyone's concerns was to treat the Wash as a single entity, ignoring political and land ownership lines. In other words, start over to determine how best to use the land to meet the goals of each of the agencies.

The TAC noted that the western part of the Wash was already disturbed by long-term mining activities; therefore, that area should be reserved for mining. Additionally, the land in the eastern part of the Wash was already configured with water spreading basins, and that should continue. The TAC conceded that some of the best wildlife habitat was in the land between the disturbed mining area and the water spreading basins, much of which was encumbered with long-standing mining leases between the District and the mining companies. The challenge was to develop a balance between the three primary uses while maintaining the existing flood control operations, accommodating future trails in the Wash for the Cities and County, and ensuring that the District and Cities received economic benefit from mining royalties.

After several meetings, the TAC concluded that planned mining expansion would be best addressed by consolidating future mining activity into one area, adjacent to existing operations within the western half of the Wash. This would focus extraction activities on lands currently in or near mining disturbance; lands with the least long-term wildlife habitat value. In addition, the TAC determined that portions of the BLM land designated as an Area of Critical Environmental Concern (ACEC) were previously disturbed or fragmented by adjacent mining activities and thus would be better suited for mining expansion. The TAC also determined that some of the most intact, viable wildlife habitat areas were contained within lands leased for future mining and currently used for water conservation. The TAC concluded that some of these lands were best suited for joint uses as water and habitat conservation, rather than mining. For example, the up-gradient side of a percolation basin dike could be wetted and periodically contain water for water-dependent species; whereas, the down-gradient side could generally remain undisturbed, except for maintenance and repair of the percolation basin dike and, therefore, could support other wildlife species common to the Wash.

To effect these conclusions, a trade of land between the District and BLM was proposed. BLM owned land in the western part of the Wash adjacent to existing mining, while the District owned land in the eastern and middle parts. Making this exchange would make existing BLM land designated as ACEC, but of lesser environmental importance and already disturbed in part by mining haul roads and adjacent to existing mining, available to expand the mining area. In return, the District land would remain habitat and be designated ACEC, providing protection of habitat for species, while simultaneously ensuring an adequate depth of soil for water spreading operations. The benefits that would be accrued to all the agencies were evident.

1. Ensure continued ability to conserve native water. Combining the exchanged land between the BLM and some other owned land in the western part of the Wash would allow the District to transfer leases with the mining companies to the new mining areas, thereby precluding the potential loss of all the spreading basins in the eastern half of the Wash, and preserving the ability to conserve native water.
2. Ensure SBCFCD lands were not impacted. The proposed land exchange between Robertson's and the SBCFCD would enhance the Santa Ana River Woollystar Preservation Area and not affect existing SBCFCD land needed for flood control operations and maintenance.
3. Set aside and maintain habitat. While much of the Wash might appear to the causal observer to be simply "open space" or wildlife habitat, its use for groundwater recharge and proposed expansion of aggregate mining under the original plan was destined to cause the loss of much of the open habitat. The proposed plan achieved an acceptable balance between the mining and water conservation uses and established specific areas for wildlife habitat that will be managed as ACEC land or will be governed by a Habitat Conservation Plan.
4. Accommodate expansion of aggregate mining quarries. The original plan as proposed by the mining companies would have used most of the Wash for aggregate mining, a positive element in view of the significance of the aggregate resources. However, there was doubt that permits for mining would actually be approved. The proposed plan does not use as much land for aggregate mining, but does give greater assurance that mining permits would be approved. Hence, the mining companies reduced their risks with the proposed plan.

The plan, which became known as "Plan B," was presented to the PAC, then to the PAC governing boards. The proposed plan conformed neither to previously planned land use nor to current land ownership, and crossed both ownership and jurisdiction (two cities and the County) lines. But, in early 2000, the Plan was enthusiastically "endorsed to proceed" by all the participating agencies. Proceeding meant that environmental and implementing documents would need to be prepared.

To create the framework for joint funding and governance from all participants, the Wash Committee was re-constituted as the Upper Santa Ana River Wash Land Management and Habitat Conservation Plan Task Force (Task Force). Members of the Wash Committee (both PAC and TAC) remained in the Task Force, namely the County, the SBCFCD, Cities of Highland and Redlands, the District, BLM, Cemex, Robertson's, East Valley Water District (EVWD), and the City of Redlands Municipal Utilities Department (RMUD). In recognition of the important roles they play in the environmental planning process, the USFWS, CDFG were made advisory members. The ACOE, California Department of Water Resources (CDWR), County of Orange, and Inland Valley Development Agency (IVDA) have also participated in associate roles. The District was designated as lead agency for CEQA issues, while BLM was designated lead agency for NEPA issues, principally the exchange of land between the District and BLM. The Cities and County are responsible parties. The Agreement was signed November 20, 2002.

2.2 PROJECT GOALS AND OBJECTIVES

The purpose of the proposed project is to allow the continued use of land and mineral resources while maintaining the biological and hydrological resources of the Planning Area in an environmentally sensitive manner. The Wash Plan is intended to coordinate and manage the present and future activities in the Wash, which are part of multiple jurisdictions, each with different needs. The goal of the proposed project is to balance the ground-disturbing activities of aggregate mining, recreational activities, water conservation, and other public services with quality, natural habitat for endangered, threatened, and sensitive species. Objectives of the Wash Plan are:

- Ensure the continued ability of the District to replenish the Bunker Hill Groundwater Basin with native Santa Ana River water using existing and potential future water recharge facilities in the Planning Area;
- Ensure the continued ability of the SBCFCD to protect land and property by managing the floodwaters of the Santa Ana River and its local tributaries (Mill Creek, Plunge Creek, and City Creek);
- Set aside and maintain habitat for sensitive, threatened, or endangered species populations on the project site, and prevent colonization by non-native plants and animals, as mitigation for impacts from other aspects of the project, such as mining, designation of areas for future roadways or water spreading facilities;
- Accommodate the relocation and expansion of aggregate mining quarries, to help ensure long-term availability of high quality aggregate reserves located within the Planning Area for local and regional use, consistent with the MRZ-2 designation for reserves in this area, and do so on land adjacent to existing quarries, that have mostly been disturbed;
- Accommodate arterial roads and highways to provide safe modes of travel; and
- Provide trails for public enjoyment of the existing environment.

The proposed project is a multifaceted, multi-agency, and multi-property owner project. The proposed project is the adoption of the Wash Plan. Full implementation of the proposed project will require subsequent preparation of a Habitat Conservation Plan (HCP) pursuant to the Federal Endangered Species Act (FESA) and the California Endangered Species Act (CESA) as well as exchanges of land between various participating entities.

2.2.1 Project-Specific Components

To achieve the above-stated objectives, there are nine components of the Wash Plan:

1. Continued water conservation operations and maintenance activities of the District within the Planning Area, and designation of area for, and environmental mitigation for, potential future groundwater recharge facilities within the area designated for "Water Conservation" and accepted as a joint use by BLM in a portion of the Habitat Conservation area under the Wash Plan.
2. Continued SBCFCD operations and maintenance activities within the Planning Area, and streams adjacent to or leading into the Planning Area (Mill Creek, Plunge Creek, and City Creek).
3. Continued water production operations and maintenance activities of the EVWD and RMUD, within the Planning Area.
4. Aggregate mining activities of Robertson's Ready Mix (Robertson's) and Cemex, on the areas designated in the Land Management Plan for mining, including construction of aggregate vehicle haul roads, an access road from the mining area to 5th Street in Highland, and reclamation of the mine pits at the end of mining operations.
5. Adoption of General Plan Amendments by the City of Highland for land use amendments and zone change and by the Cities of Highland and Redlands for trails plan and habitat conservation plans and grant of a recreational trails right-of-way easement from the District to the Cities of Highland and Redlands.
6. Designation of, and environmental mitigation for, expanded roadway rights-of-way on Alabama Street and Orange Street-Boulder Avenue: widening, straightening, and realignment of Greenspot Road, and designation of right-of-way for a new Greenspot Road Bridge.[1]
7. Designation of rights-of-way for and management of recreational trails in the Planning Area.
8. A land exchange between the District and the BLM. This land exchange is the subject of an Environmental Impact Statement (EIS) being prepared under separate cover. The District's participation in such land exchange is covered by this EIR.
9. A land exchange between the SBCFCD and Robertson's, which is also the subject of this EIR.

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[1] The following items are not included in the project description of activities to be covered by this EIR, and would require their own, subsequent environmental evaluation:

(a) Construction of road improvements on Alabama Street, Orange Street/Boulder Avenue, and Greenspot Road within the Planning Area;

(b) Construction of the new Greenspot Road Bridge; and

(c) Designation of, and roadway construction within rights-of-way for improvements outside the Planning Area on Alabama Street and Orange Street-Boulder Avenue.

3.0 PROJECT LOCATION AND SETTING

The location of the proposed project in its regional setting is depicted in Figure 3.1. The Planning Area is located in the eastern valley portion of San Bernardino County, mostly within the Cities of Highland and Redlands, but also partially within County jurisdiction. Additionally, the BLM manages Federal land within the Planning Area. The Planning Area consists of a total of 4,467 acres bounded by Greenspot Road to the north and east, Alabama Street to the west, and the Santa Ana River Wash to the south.

3.1 PROJECT SETTING

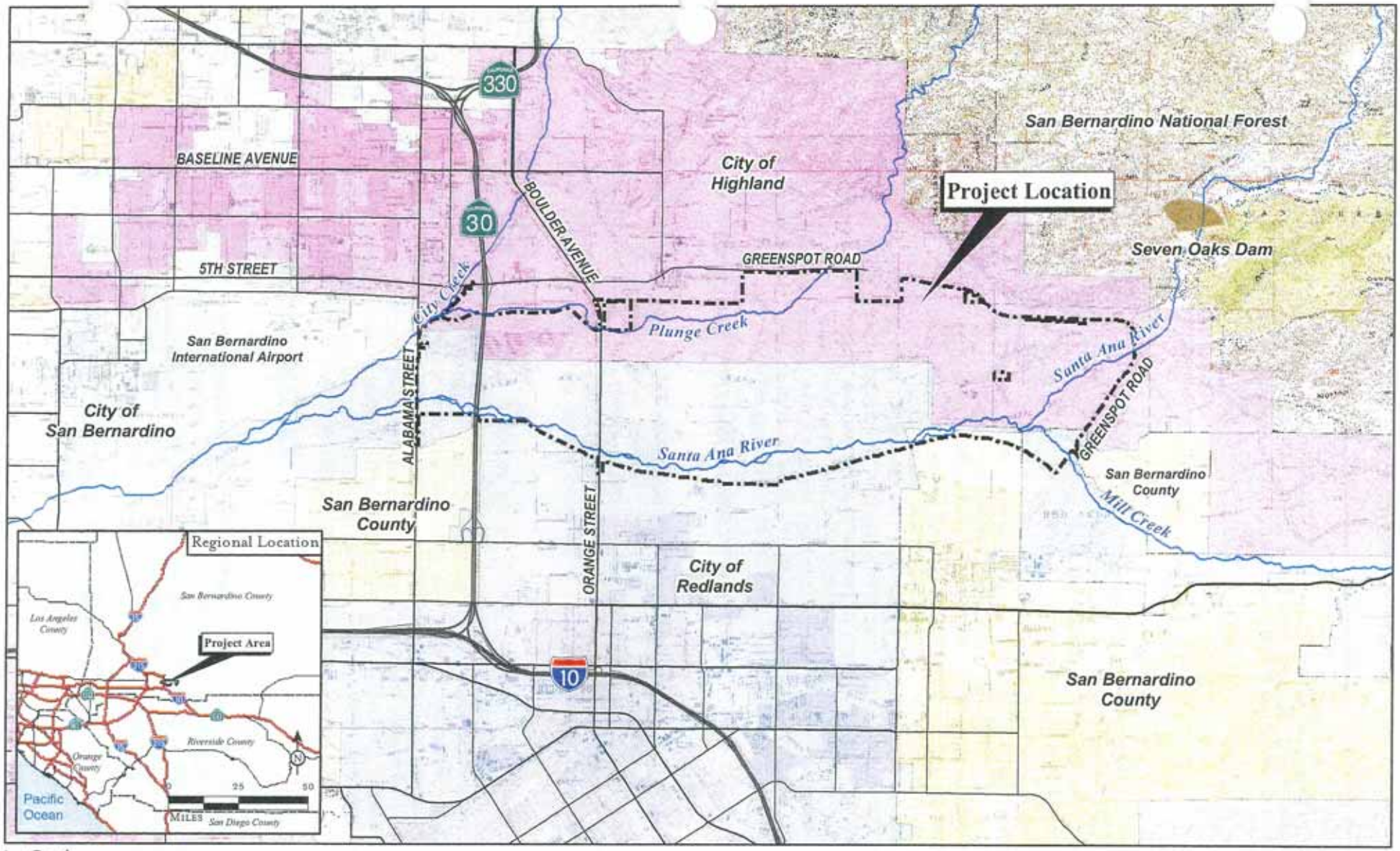
The Planning Area is approximately 6 miles long from east to west and, at its widest part, 2 miles wide from north to south. The eastern border of the 4,467-acre Planning Area is Greenspot Road. The southern border generally follows the southern embankment of the Santa Ana River. Across the river and south of the Planning Area are the City of Redlands Municipal Airport and other urban and agricultural uses, including the Redlands Wastewater Treatment Facility. The western border is Alabama Street, which is adjacent to the San Bernardino International Airport west of the Planning Area. The northern border has urban and public facility uses, along with some vacant land, and Greenspot Road within the City of Highland. Three paved roadways and a freeway cross the Planning Area from north to south: Alabama Street, Orange Street-Boulder Avenue, Greenspot Road, and State Route 30 (SR-30).

The Planning Area is an alluvial plain. As such, it provides excellent geological conditions for groundwater recharge. Those geological conditions also provide excellent aggregate resources for construction materials (e.g., gravel and sand). Additionally, the Planning Area provides habitat for 4 federally listed endangered species and 25 Federal and/or State listed sensitive species. The competition of space for these differing uses is what generated the need for a plan to balance land uses in the Wash.

3.2 EXISTING AND PROPOSED LAND USES

Existing land uses within the Planning Area are illustrated in Figure 3.2 and Figure 3.3 shows existing land ownership. These land uses represent the collective judgment of the Wash Plan participants of the present allocation of land within the Planning Area for different uses, based on existing land use activity and past mining activities that have altered the current status of property. They have been designated as a part of the collaborative process of the Wash Plan participants, with reference to existing actual activity on property, past mining activities, and ownership of property and its potential future use based on such ownership, (i.e., land owned by the District has been designated as Water Conservation, even though no active basins may presently exist on such land). The existing land uses are designed to show an existing profile of land use by type of activity, against which to understand the shifts of such designations with implementation of the proposed project. They are not always consistent with existing General Plan or zoning designations.[1] In addition, the acreage quantities shown in Table B have been calculated using the geographic information system (GIS) software ArcGIS, using parcel data from the San Bernardino County Information Services Department in the State Plane, Zone V, North American Datum (NAD) 83 coordinate system. Because the projection of data using GIS is based on a two-dimensional interpretation of the physical three-dimensional world, there will be minor differences in GIS-based acreage values and acreage quantities as determined from field surveys. The existing and past land uses within the Planning Area are summarized in Table B.

1. A General Plan is a fundamental policy document for a local government (i.e., county or city), usually including a plan establishing allowable land uses and intensity of use (e.g., residential, commercial, industrial, and open space) (Government Code § 65300 et seq.). General Plans applicable to the Planning Area are those for the Cities of Redlands and Highland.



LSA

FIGURE 3.1

0 3,000 6,000

FEET

SOURCE: USGS 7.5' Quads: San Bernardino South (1980), San Bernardino North, Harrison Mtn., Redlands, Keller Peak, Yucaipa (1988), CA; Thomas Bros. (2006).

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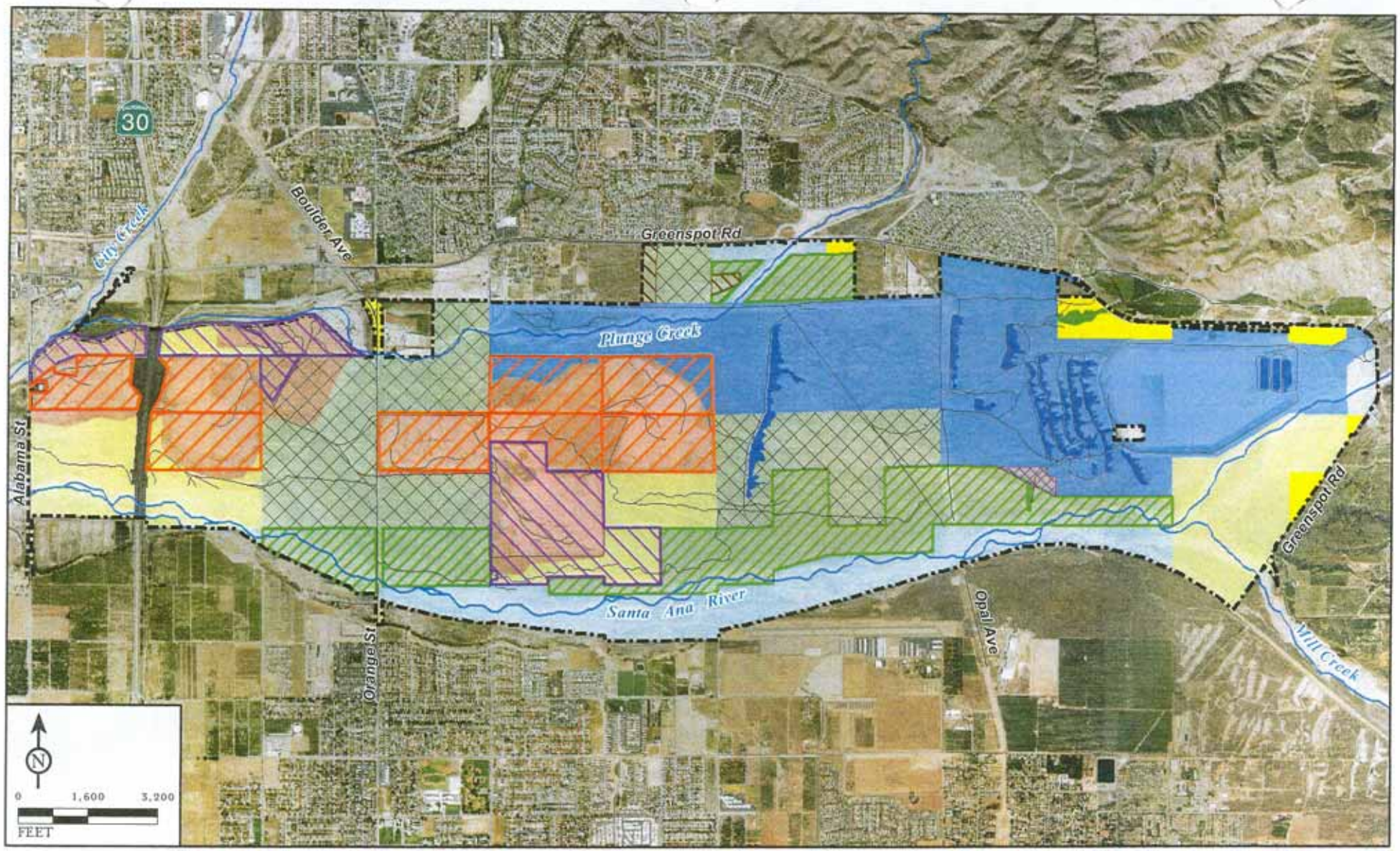
Upper Santa Ana River Wash
Land Management Plan
Environmental Impact Report

Regional and Project Location



LSA

PLAN BOUNDARY

PERMIT QUARRIES 10-25-07

CEMEX PERMITTED

ROBERTSON'S PERMITTED

WATER CONSERVATION

FLOOD CONTROL

HABITAT CONSERVATION

UNDEVELOPED NATURAL HABITAT

AGGREGATE MINING

ROADS

STATE ROUTE 30

AGRICULTURAL

UNDESIGNATED/PUBLIC OWNERSHIP

PERCOLATION BASIN

WOOLLYSTAR PRESERVATION AREA

BLM, ACEC AND RNA

CITY OF HIGHLAND MITIGATION AREA

DISTRICT CONSERVATION EASEMENT

ROADS*

RIVER OR CREEK*

*Road and stream locations digitized from 2006 aerial.

SOURCES: San Bernardino Valley Water Conservation District, San Bernardino County, AirPhotoUSA, 2007

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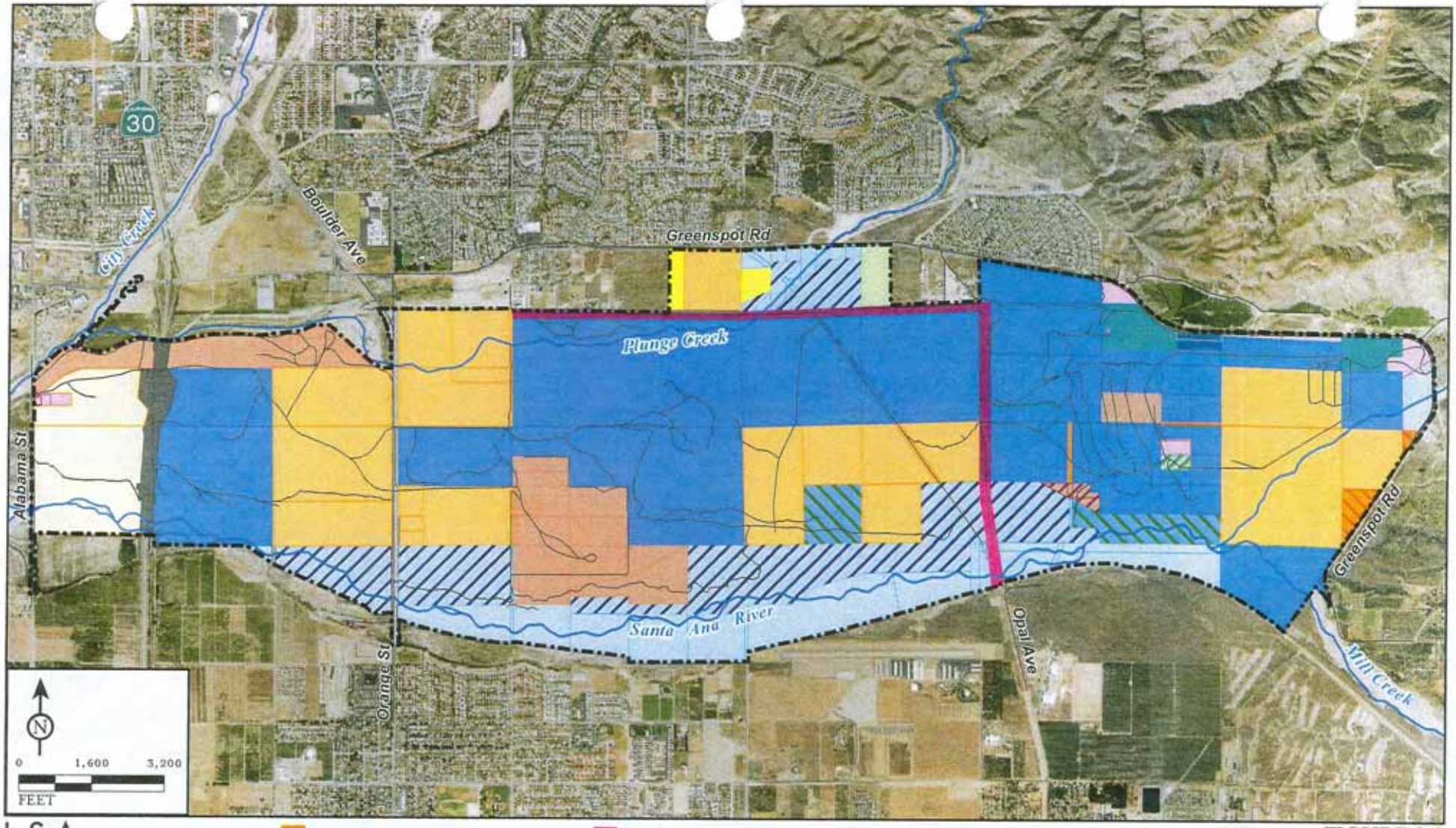
FIGURE 3.2

Upper Santa Ana River Wash Land Management Plan Environmental Impact Report

Existing Land Uses



LSA

- PLAN BOUNDARY
- PRIVATE
- CALTRANS
- CITY OF HIGHLAND
- CITY OF REDLANDS
- COUNTY OF SAN BERNARDINO
- EAST VALLEY WATER DISTRICT
- OTHER GOVERNMENT
- ROBERTSON'S READYMIX
- US GOVERNMENT (BLM)
- SBVWCD / SBCFCD
- SBCFCD - WSPA EASEMENT
- SBVWCD OWNED - WSPA EASEMENT
- ORANGE COUNTY
- FLOOD CONTROL - MWD EASEMENT
- SBVWCD - MWD EASEMENT
- SAN BERNARDINO VALLEY MUNICIPAL WATER DISTRICT
- SAN BERNARDINO COUNTY FLOOD CONTROL DISTRICT
- SAN BERNARDINO VALLEY WATER CONSERVATION DISTRICT
- MITIGATION LAND/ROBERTSON'S HAUL ROAD - (SBVWCD OWNED)
- STREET RIGHT-OF-WAY - REDLANDS, HIGHLAND
- ROADS*
- RIVER OR CREEK*

FIGURE 3.3

Upper Santa Ana River Wash
Land Management Plan
Environmental Impact Report

SOURCES: San Bernardino Valley Water Conservation District, San Bernardino County, AirPhotoUSA, 2007

*Road and stream locations digitized from 2006 aerial.

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Existing Ownership

Table B – Existing and Proposed Land Uses

Land Use	Existing Land Uses (acres)	Proposed Project Land Uses (acres)	Difference in Acreage	Main Reason(s) for Change in Acres
Water Conservation	1,260	740	-520	Water Conservation changes to Habitat Conservation, and Joint Water/Habitat Conservation.
Flood Control	414	406	-8	Portions are utilized as rights-of-way
Habitat Conservation[1]	1,215	1,947	732	Unmanaged Open Space and Water Conservation changes to Habitat Conservation.
Undeveloped Natural Habitat	604	0	-604	Existing open space that is unmanaged; with the proposed project, all open space would be managed and Joint Water/Habitat Conservation.
Aggregate Mining and Processing	832	1,195	363	Aggregate Mining becomes consolidated area where mining haul roads exist, away from Habitat Conservation of better quality.
Arterial Roads/ Highways	66	113	47	Road rights-of-way are designated for future roadway projects (Alabama Street and Orange Street-Boulder Avenue widening, and Greenspot Road widening, realignment and bridge).
Agricultural	6	6	0	No change.
Undesignated Public Ownership	70	60	-10	Portions are utilized as rights-of-way
Planning Area[2]	**4,467**	**4,467**	**0**	No change.

[1] Habitat Conservation acreages indicated includes 165 acres of Phase 3 of the future water conservation facilities for joint habitat conservation and water conservation use.

[2] There are an additional approximately 52 acres of land encompassed within the boundaries of the Wash Plan that are not a part of the project.

As indicated in Table B and depicted in Figure 3.2, existing land uses include the following:

- Water conservation (1,260 acres or 28% of land area);
- Flood control (414 acres or 9% of land area);
- Habitat conservation (1,215 acres or 27% of land area);
    - BLM Area of Critical Environmental Concern and Research Natural Area (638 acres);
    - Santa Ana River Woollystar Preservation Area (547 acres);
    - District Conservation Easement (10 acres); and
    - City of Highland Biological Mitigation Area (20 acres); and
    - Undesignated habitat (3 acres).
- Undeveloped Natural Habitat (604 acres or 14% of land area);
- Aggregate Mining and processing (832 acres or 19% of land area);
- Arterial roads/highways (66 acres or 2% of land area);
- Agricultural (6 acres or 0.1% of land area);
- Undesignated/Public Ownership (70 acres or 2% of land area);

A brief description of these existing uses follows.

3.3 WATER CONSERVATION

Water conservation on the project site is accomplished by recharging the Bunker Hill Groundwater Basin through the use of 14 percolation basins.[1] There are 1,260 acres or 28 percent of the project area currently designated Water Conservation, with a wetted area of 64 acres.[2] The percolation basins are owned by the District and are located in the eastern section of the Planning Area as shown in Figure 3.2.

The water is conveyed by gravity flow from the Santa Ana River to the percolation basins where it ponds to depths of 3 to 10 feet. The water then percolates into the ground, recharging the Bunker Hill Groundwater Basin that underlies the San Bernardino Valley. The District and its predecessors have been operating these and other water conservation facilities in the Upper Santa Ana River Wash area since 1911 to "ensure recharge of the Bunker Hill Groundwater Basin in an environmentally and economically responsible way, using local native surface water to the maximum extent practicable to improve the supply and quality of groundwater, balancing such demands with those of land, mineral, and biological resources."[3]

3.4 FLOOD CONTROL

The SBCFCD maintains flood control facilities (levees, flood walls, etc.) along several waterways:

- Santa Ana River (along the east and south of the project area);
- Plunge Creek (in the north of the project area);
- Mill Creek (in the southeast of the project area); and
- City Creek (located off the project site to the northwest).

These active flow channels cover approximately 414 acres (9% of the project area) and contain levees to keep the water flows within the confines of the channels.

3.5 HABITAT CONSERVATION

Six land cover categories were mapped in the Planning Area:

- Developed/Ruderal (776 acres);
- Riversidean alluvial fan sage scrub (3,025 acres);
- Non-native grassland (159 acres);
- Chamise chaparral (178 acres);
- Riversidean upland sage scrub (72 acres); and
- Recharge basins (257 acres).

Two animal species and two plant species known to occur in the Planning Area are listed as threatened or endangered under the CESA and/or FESA:

- Federally listed endangered San Bernardino kangaroo rat (*Dipodomys merriami parvus*);
- Federally threatened coastal California gnatcatcher (*Polioptila californica californica*);

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1 Basins are typically areas of shallow excavation where water percolation takes place. Flow of water into these basins brings suspended sediment, which is dropped to the basin floor with percolation of the water. This sediment requires periodic removal for percolation rates to remain efficient.

2 The wetted area is the surface area of the basin actually covered by water.

3 Mission Statement of the San Bernardino Valley Water Conservation District, 2003.

- State and federally listed endangered Santa Ana River Woollystar (*Eriastrum densifolium* ssp. *sanctorum*); and
- State and federally listed endangered slender-horned spineflower (*Dodecahema leptoceras*).

Two other plant species considered sensitive (i.e., California Native Plant Society [CNPS] List 1B plants) are known to occur in the Planning Area:

- Plummer's mariposa lily (*Calochortus plummerae*); and
- Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*).

The known occurrences of the listed species, the two List 1B species, and several other special status species are shown in Figure 3.4.

Existing Habitat Conservation Areas

Habitat conservation areas include BLM designated ACEC and Research Natural Areas (RNA); a District conservation easement area (established as mitigation for an aggregate vehicle haul road), the Santa Ana River Woollystar Preservation Area (established as mitigation for the Seven Oaks Dam), and the City of Highland Biological Mitigation Areas. The total acreage of these habitat conservation areas is 1,215 acres or 27 percent of the Planning Area (Figure 3.5).

Bureau of Land Management Area of Critical Environmental Concern and Research Natural Area. The BLM, a Federal Bureau in the Department of the Interior, manages approximately 130,000 acres of surface land (referred to as BLM public land) and 167,000 acres of Federal mineral ownership where the surface is privately owned (referred to as BLM split estate land) as part of the South Coast Resource Management Plan (SCRMP), completed in 1994. Approximately 1,044 acres of public lands in the vicinity of the Santa Ana River Wash area are included in the SCRMP, with approximately 1,019 acres within the Planning Area. These public lands are managed primarily for protection of sensitive species habitat, open space, and water conservation. Approximately 638 acres (14% of the project area) of BLM administered land within the Planning Area are designated as ACEC and Research Natural Area (RNA).

ACECs were authorized in Section 202 (c)(3) of the Federal Land Policy and Management Act of 1976 ([43 U.S.C. 1712), which states that in the development and revision of land use plans, there shall be given "priority to the designation and protection of areas of critical environmental concern." Secondary designations can be attached to an ACEC depending on the type of resources contained therein. One of these secondary designations is RNA,[1] which is a physical and biological unit where natural conditions are maintained insofar as possible, and which is reserved for the primary purpose of research and higher education. These conditions are achieved by allowing ordinary physical and biological processes to operate without human intervention. Management prescriptions are imposed to limit the full range of multiple land uses otherwise authorized on Federal land.[2]

The BLM ACEC and RNA provides enhanced protection of two federally listed plant species: Santa Ana River Woollystar[3] and slender-horned spineflower,[4] as well as many other sensitive species. The smallest parcel is located in the northernmost tip of the Planning Area. The other two larger parcels are located in the center portion of the Planning Area.

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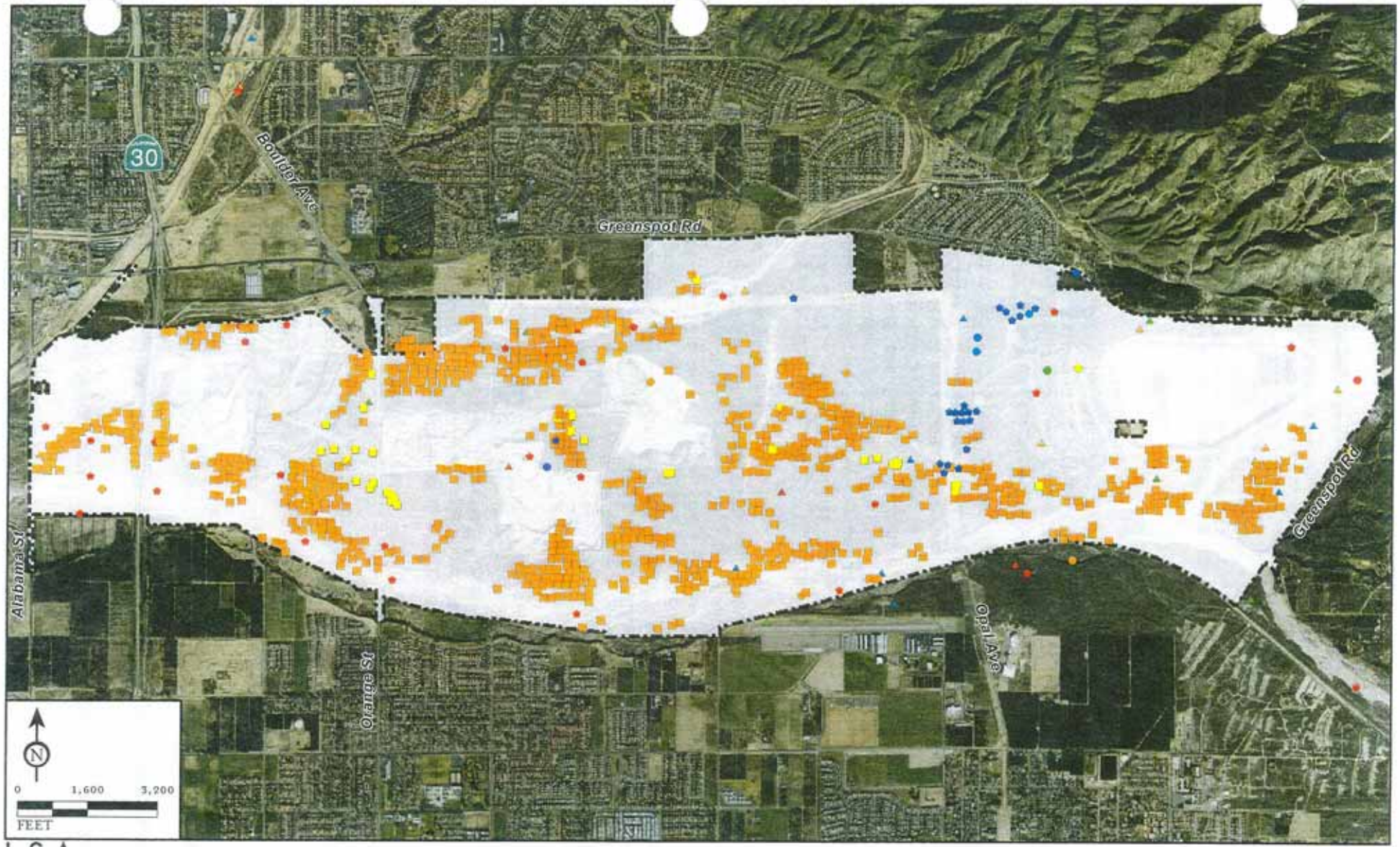
1 In California, the other secondary designations are Cultural, Hazard, and Outstanding Natural Area.

2 U.S. Department of the Interior, Bureau of Land Management, California Desert District, Palm Springs, South Coast Resource Area, *South Coast Resource Management Plan and Record of Decision*, June 1994.

3 The Santa Ana River Woollystar is a perennial herb that blooms in the summer. The entire plant is woolly with blue, star-like flowers. It is Federal endangered, State endangered, and California Native Plant Society List 1B.

4 The slender-horned spineflower is an annual spreading herb that blooms in the spring. The flower petals and sepals are white to pink, and hairy. It is Federal endangered, State endangered, and California Native Plant Society List 1B.



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Plan Boundary
Coastal California Gnatcatcher
San Diego Horned Lizard
Loggerhead Shrike
Los Angeles Pocket Mouse
San Bernardino Kangaroo Rat
Santa Ana Speckled Dace
Southern California Rufous-Crown Sparrow
Western Burrowing Owl
Western Spadefoot Toad
Parry's Spineflower
Plummer's Mariposa Lily
Robinson's Pepper-Grass
Santa Ana River Woollystar
Slender-Horned Spineflower

Not all areas have been surveyed

SOURCES: Thomas Bros, 2001, San Bernardino Water Conservation District, Dudek, Santa Ana Watershed Project Authority, AirPhotoUSA, 2008.
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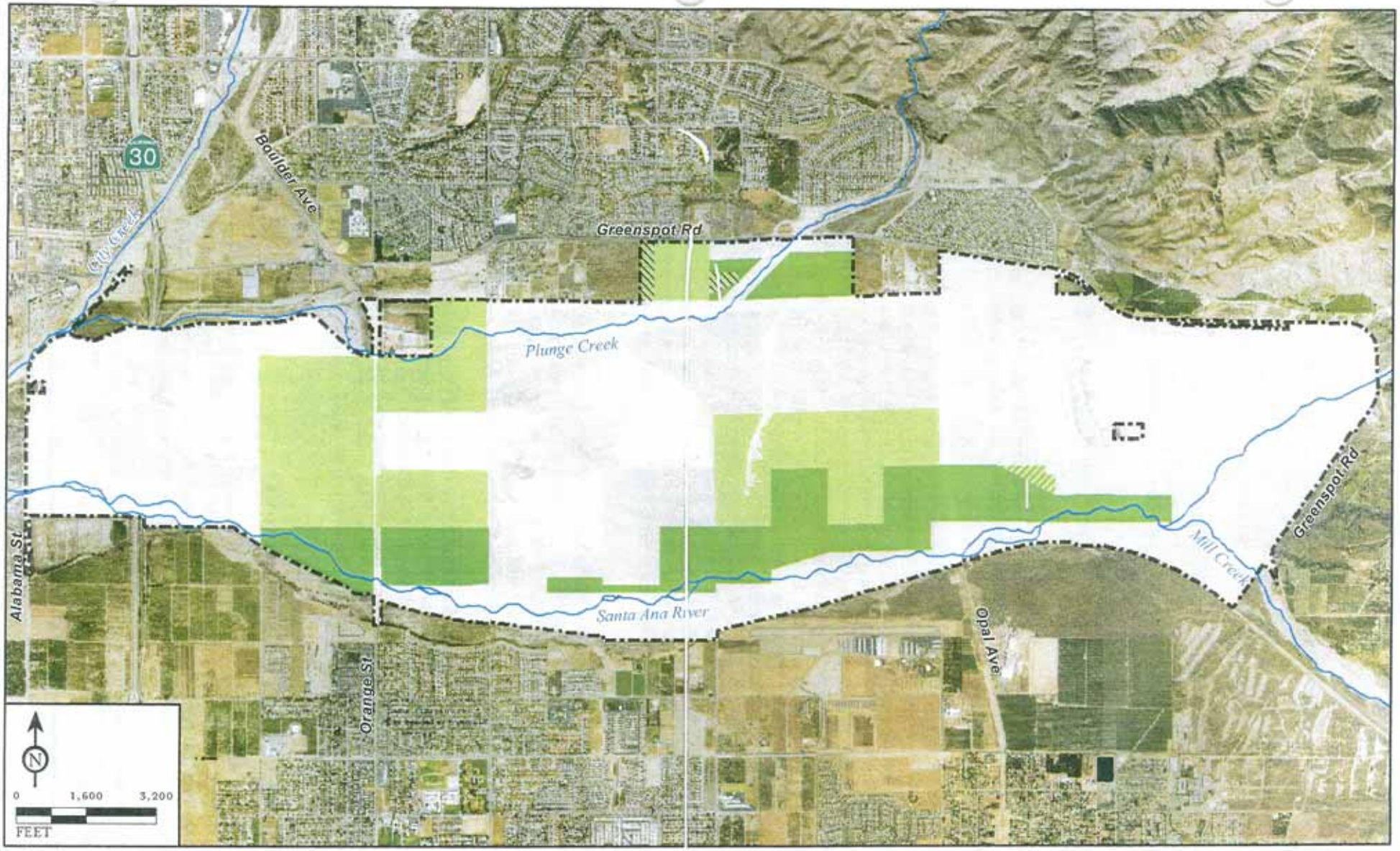
FIGURE 3.4

Upper Santa Ana River Wash
Land Management Plan
Environmental Impact Report

Known Occurrences*
of Some Sensitive Species



LSA

FIGURE 3.5

PLAN BOUNDARY

BUREAU OF LAND MANAGEMENT, AREA OF CRITICAL ENVIRONMENTAL CONCERN

CITY OF HIGHLAND

CONSERVATION EASEMENT (ROBERTSON'S)

SANTA ANA RIVER WOOLLYSTAR PRESERVATION AREA

Upper Santa Ana River Wash
Land Management Plan
Environmental Impact Report

SOURCES: San Bernardino Water Conservation District; Santa Ana Watershed Project Authority; Air Photo USA (2007)

Existing Habitat Conservation Areas

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Besides providing enhanced protection for these species, the BLM ACEC and RNA also provides for groundwater recharging. Pursuant to an Act of Congress approved February 20, 1909, 760 acres of public lands were "withdrawn from settlement and entry and reserved for the purpose of aiding in the conservation of the waters of the San Bernardino Valley." Section 2 of the Act further provides that:

> *...any company or corporation may have the right, under such rules and regulations as the Secretary of the Interior may prescribe, to conduct to said lands and to distribute over them ... waters not otherwise appropriated ... thereby ... replenishing the supply of underground waters in the San Bernardino Valley.*

Pursuant to this Act, the BLM has previously approved groundwater recharge facilities on the public lands. These facilities are operated by the District.

In addition, an area of 61 acres (located in the westernmost BLM ACEC and RNA) that has been disturbed by mining activities would be designated for mining activities after the property is exchanged between the BLM and the District.

Santa Ana River Woollystar Preservation Area. The Santa Ana River Woollystar Preservation Area (WSPA) totals approximately 547 acres or 12.2 percent of the Planning Area and is made up of three distinct parts that are located near the parcels of the BLM ACEC and RNA. Two parts generally follow the Santa Ana River along the southeastern boundary of the Planning Area, and one area surrounds Plunge Creek around the northern boundary near Greenspot Road. Generated by the construction of the Seven Oaks Dam, which is located upstream from the Planning Area, the Santa Ana River Woollystar Preservation Area was created to provide mitigation for the impacts to the Santa Ana River Woollystar and exists because of a Local Cooperation Agreement[1] with the ACOE and three County Flood Control Districts (Orange, Riverside, and San Bernardino). The Santa Ana River Woollystar Preservation Area is managed by San Bernardino County Flood Control District and encompasses a total of approximately 707 acres, with 160 acres located west of Alabama Street and outside of the Wash Planning Area. It should be noted that a forthcoming Army Corps of Engineers/Local Sponsor Seven Oaks Dam MSHMP document will manage additional species within the same WSPA boundaries identified in the Wash Plan. This MSHMP would not impact anything the Wash Plan EIR covers.

District Conservation Easement. As mitigation for impacts to biological resources that were created with the construction of a mining vehicle haul road in the Planning Area for Robertson's mining activities, approximately 10 acres of land owned by the District were placed into a conservation easement. This conservation easement ensures that this area would be left in its natural state and that no development or disturbance to biological resources would occur on the site.

City of Highland Biological Mitigation Area. The City of Highland completed a drainage channel project that required mitigation for the impacts that the project caused to biological resources. Pursuant to the mitigation measures, 20 acres of land were set aside for the preservation of biological resources. This mitigation land would eventually be managed by the BLM and added to the BLM ACEC and RNA land located in the Planning Area. As a separate action to be taken between the City of Highland and the BLM independent from the Wash Plan, ownership of this 20 acres of land shall be conveyed to the BLM.

3.6 UNDEVELOPED NATURAL HABITAT

Approximately 604 acres (14% of the total land area) is presently unmanaged, undeveloped natural habitat. This is not to suggest that this represents the total quantity of undeveloped natural habitat in the Planning Area, because natural habitat areas are also included within the Habitat Conservation, Water Conservation, and Flood Control land uses shown in Figure 3.2. The unmanaged, undeveloped natural

[1] A Local Cooperation Agreement is the same as a Project Cooperation Agreement, which is a legally binding contract between the ACOE and a non-Federal sponsor that sets forth the responsibilities of each party in the implementation of a project. This document includes the items of local cooperation.

habitat designation includes those areas not within an existing managed habitat area such as the WSPA, ACEC and Natural Research Area, Highland biological resources mitigation, and Robertson's easement. This unmanaged, undeveloped natural habitat consists of land that is not actively being used or designated for a particular use. For example, some of the unmanaged, undeveloped natural habitat in the project area is owned by the District, but not actively used for water conservation, and other open space is part of the floodplain of the Santa Ana River and Mill Creek.

3.7 AGGREGATE MINING AND PROCESSING

The Planning Area includes properties that are currently under leases from the Conservation District and the City of Redlands for sand and gravel mining to both Cemex (as successor to C.L. Pharris Sand and Gravel, Inc. dba Sunwest Materials) and Robertson's Ready Mix, Inc. The District's lease to Cemex dates back to September 10, 1979, and was most recently amended July 10, 1997. The Robertson's lease from the District was entered into October 5, 1992, and was amended August 11, 2003. Figure 3.6 shows existing mining and quarries. The areas covered by both of these leases are depicted in Figure 3.7. Under these leases, the land depicted is leased to the mining operators for the removal of sand, gravel, and rock, at defined royalty rates. Under both leases, it is the responsibility of the mining operator to secure the permits necessary to conduct mining operations. Both leases contain provisions allowing the Conservation District to continue its water conservation activities on the leased property, though such water conservation activities are required to be coordinated with any active mining operations.

The Conservation District also has a mining lease, covering approximately 80 acres, to Redlands Aggregate. Redlands Aggregate has in turn entered into an agreement (sublease) with Cemex to conduct all active mining operations on this parcel. Under this series of agreements, Cemex pays a minimum monthly rental to Redlands Aggregate, and a defined royalty per ton for production above certain annual defined tonnage thresholds. Redlands Aggregate then pays the Conservation District a defined royalty, based on a percentage of the sale price of the material excavated from the site.

The Redlands Aggregate lease area and a portion of the Cemex lease areas are permitted and are the site of active mining operations. Other parts of the Cemex lease area, including the northerly half of Section 12, are not permitted for active mining operations, and have been held as future reserves. The Robertson's lease area similarly contains no present, active mining. Preliminary attempts to permit these areas independently by the respective mining operators ran into complications because of a host of issues, which included whether the City of Redlands or the City of Highland would serve as lead agency, proposed permitting conditions on mining, and the intervening Federal listing of the San Bernardino kangaroo rat as an endangered species.

In addition to the above-described leases with the District, Cemex similarly leases property from the City of Redlands for mining and related activities. This lease was entered into by Cemex's predecessors, on May 5, 1987.

As shown in previously referenced Table B, approximately 832 acres (19% of the total land area) within the Planning Area are currently categorized as existing and past aggregate mining. This is significantly less than the total amount of property currently under the two mining leases referenced above. The land use quantities shown in Table B reflect an attempt to refine a CEQA baseline condition based on the history and progress of actual mining activity in the Planning Area, as compared to land that is presently leased, but that only might be available for mining at some future date. As shown in Figure 3.2, existing and past aggregate mining activities (i.e., aggregate mining and processing) mostly fall within areas for which there are existing mining permits.

As shown in the previously referenced Figure 3.2, the existing and past mining and processing operations are and have been generally located in the western and central western portions of the project site. The Cities of Highland and Redlands have approved land use permits for all of the existing mining operations. Cemex and Robertson's are the current aggregate mining and processing operators within the Planning Area.

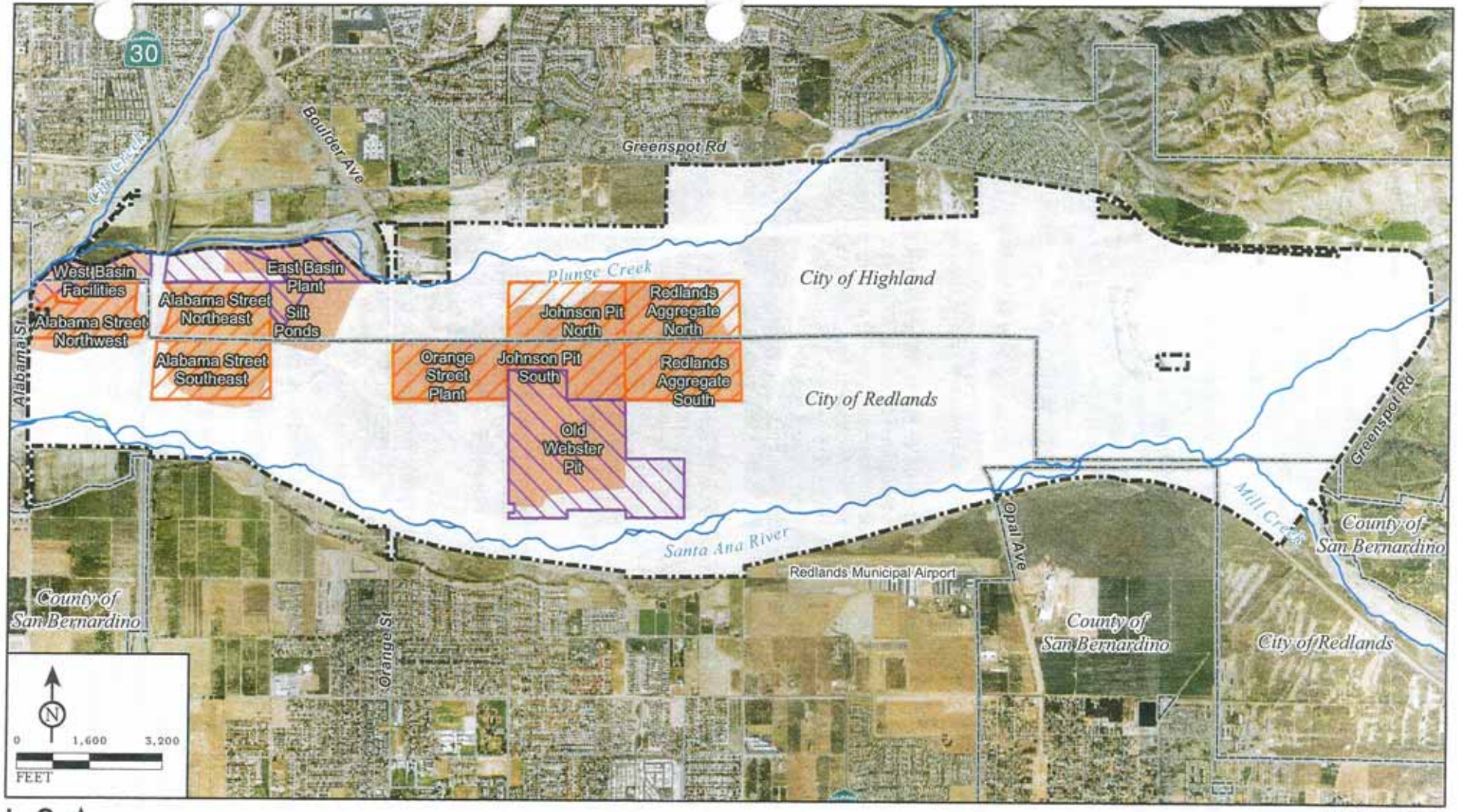

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FIGURE 3.6

PLAN BOUNDARY

JURISDICTIONAL BOUNDARY

AGGREGATE MINING LAND USE

PERMIT QUARRIES 10-25-07

CEMEX PERMITTED

ROBERTSON'S PERMITTED

Upper Santa Ana River Wash
Land Management Plan
Environmental Impact Report

SOURCE: San Bernardino Valley Water Conservation District; Thomas Bros, 2006; Dudek, 2006; AirPhotoUSA, 2007.

Existing Mining/ Quarries

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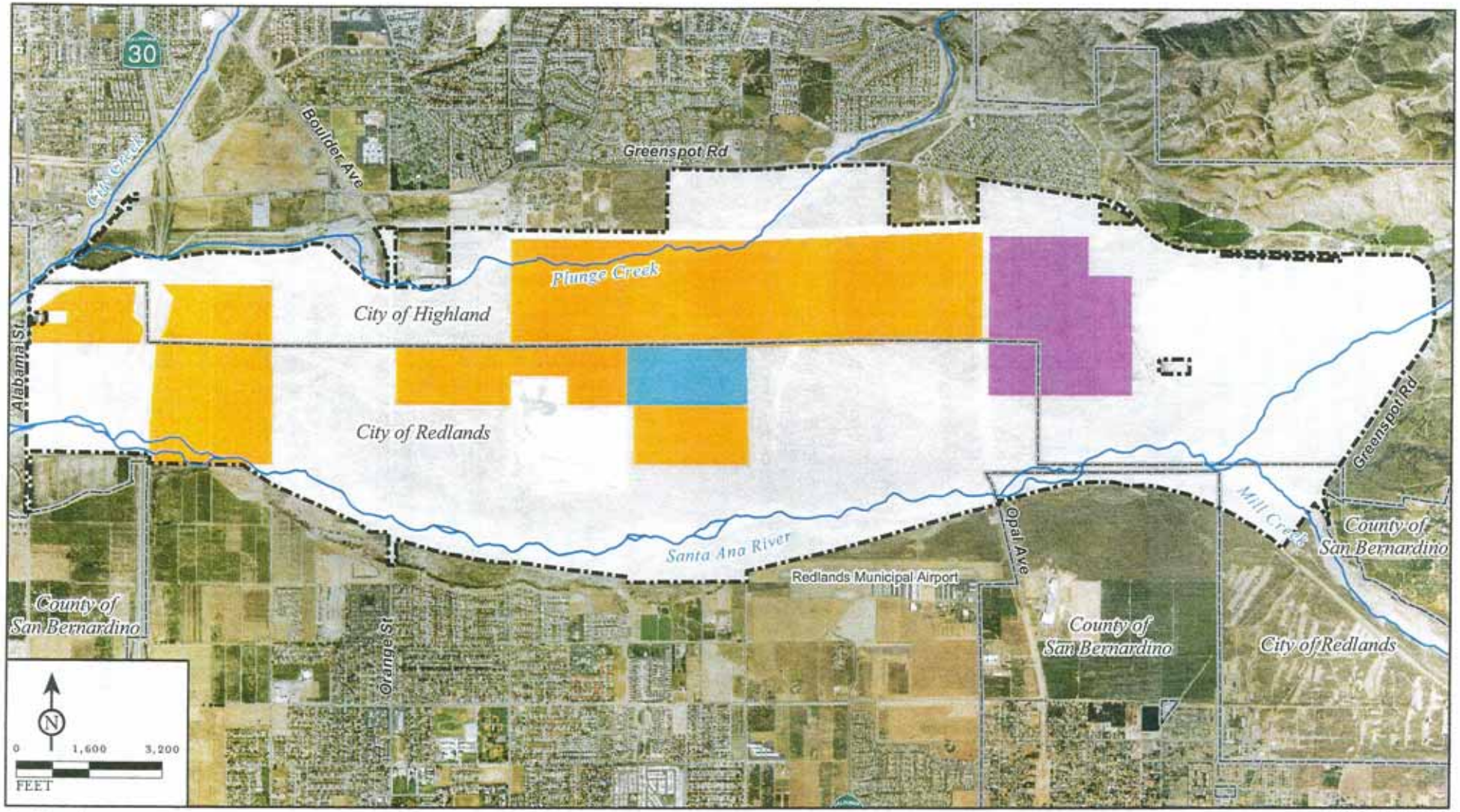

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FIGURE 3.7

PLAN BOUNDARY

JURISDICTIONAL BOUNDARY

MINING LEASE PROPERTIES

CEMEX

REDLANDS AGGREGATE

ROBERTSON

Upper Santa Ana River Wash
Land Management Plan
Environmental Impact Report

SOURCE: San Bernardino Valley Water Conservation District; Thomas Bros, 2006; AirPhotoUSA, 2007.

Mining Lease Areas

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Cemex is currently conducting excavations in the approved Alabama Street northwest, northeast, and southeast quarries, adjacent to SR-30 and in the approved Redlands Aggregate Pits North and South. Aggregate processing is conducted at the Orange Street Plant, as are silt ponds and aggregate storage facilities ancillary to the processing operation. Aggregate processing occurs at both the Alabama Street and the Orange Street plants, and concrete batching occurs at the Alabama Street plant. From the years 2003 through 2005, Cemex had an average annual processing rate of 2.5 million tons per year (MTPY). Air quality permits from South Coast Air Quality Management District (SCAQMD) limit the plant to a not-to-exceed amount of 18,000 tons per day or 5.4 MTPY based on 300 operating days annually. As part of the proposed project, the areas to be mined represent an expansion in footprint acreage over and above existing permitted acreage. However, Cemex has agreed to limit its production to 3 MTPY as part of the Planning Area.

Robertson's currently operates an aggregate facility at the East Basin Processing Plant and a concrete batch plant at its West Basin facility. Excavations are currently conducted in the former "Old Webster Quarry" area that will be included as part of the East Quarry South. During the past 3 years, Robertson's has an average annual processing rate of approximately 2.0 MTPY. Robertson's has land use approval to produce 2.0 MTPY at its East Basin Processing Plant. SCAQMD air quality permits limit production to a not-to-exceed amount of 8,500 tons per day or 2.55 MTPY based on 300 operating days annually. As part of the Wash Plan, Robertson's proposes to increase production from 2.0 MTPY to 3.0 MTPY.

Approximately 61 acres of lands designated as BLM ACEC and RNA have been disturbed by previous and existing mining activities and by prior flood control channels. This inconsistency between land use designations and mining activities is one problem to be solved by the proposed project. The TAC determined that, although portions of the BLM land that are currently designated as ACEC and RNA have been disturbed or fragmented by adjacent mining operations, those lands would be better suited for mining expansion. Conversely, some of the most intact, viable wildlife habitat areas are contained within lands leased for future mining activities and are currently allocated to water conservation. The TAC concluded that some of these lands were best suited for joint use as water conservation and habitat conservation rather than mining, which led to the land exchange proposal that is a part of the proposed project.

3.8 ARTERIAL ROADS/HIGHWAYS

Arterial[1] roads and highways[2] constitute 66 acres (2% of the total land area) within the Planning Area. Orange Street-Boulder Avenue and SR-30 traverse the Planning Area in a north-south direction while Alabama Street and Greenspot Road form the west and east boundaries of the project, respectively. Greenspot Road also forms a portion of the northern boundary. The Planning Area has a network of unpaved internal mining haul roads, access roads, and maintenance service roads. While the most extensive on-site roadway system provides movement for the mining operations, smaller roadway systems serve the on-site needs of utility providers, water service companies, flood control districts, and the District. The existing haul roads that are used and maintained exclusively by the mining companies, Cemex and Robertson's, are generally located in the western portion of the Planning Area. The other service roads are maintained mostly by the District.

The rail bed (fill) and bridge abutments for the old Atchison Topeka and Santa Fe (Burlington Northern Santa Fe) railway remain in some areas. The tracks and ties have been removed from this vacated railroad right-of-way; however, the old alignment can still be traced across the Wash from the southerly entrance at Opal Avenue in the San Bernardino County community of Mentone to the northerly exit in the City of Highland.

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1 An arterial is a major street carrying the traffic of local and collector streets to and from freeways and other major streets, with controlled intersections and generally provides direct access to properties.

2 A highway serves high-speed traffic with no crossings that interrupt the flow of traffic (i.e., no crossings at grade).

3.9 TRAILS

There are no existing trails within the Wash Plan area; therefore, no acreage is allocated under the Existing Land Uses for trails. During special events, however, such as the annual City of Highland Trails Day, specific permission has been granted by the District to allow hikers to use certain existing maintenance/service roads on District property. The proposed project would designate certain existing maintenance roads and abandoned rights-of-way for use as recreational trails, to formalize their use under specific limiting conditions. The Cities of Highlands and Redlands would amend the applicable elements of their respective general plans to show trail alignments consistent with these new trail alignments, and show how they relate and interconnect with other, regional trail networks.

3.10 AGRICULTURAL

An actively farmed citrus grove of 6 acres (0.1% of the total land area) is located south of Greenspot Road in the northeastern portion of the Planning Area. This orchard is located on land owned by the East Valley Water District and would not be affected by the proposed project.

3.11 AREA NOT A PART

Although encompassed by the outer limits of the Planning Area, several land areas are not a part of this project (52 acres). They are also shown in previously referenced Figure 3.2 and include the following:

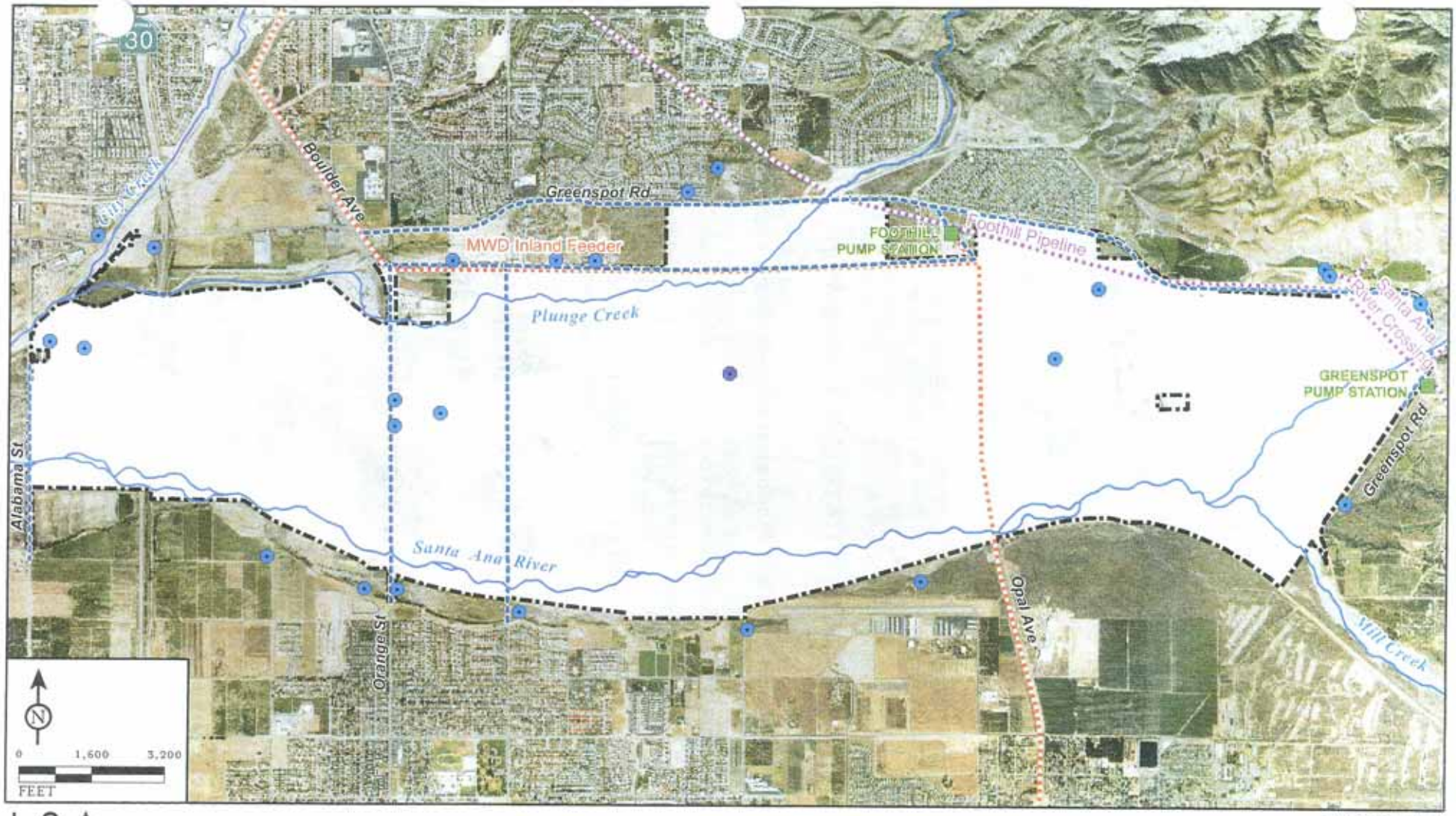
- Matich Batch Plant and a landscaping company facility (2.0 acres) adjacent to Alabama Street in the far northwestern part of the project area;
- BLM ACEC land containing the Inland Fish and Game Club (35.5 acres) located at the southeast corner of Boulder Avenue and Greenspot Road;
- Three privately owned parcels (9.5 acres) generally located in the northeast section of the project area, adjacent to and south of Greenspot Road; and
- One privately owned parcel (5 acres) generally located in the center of the eastern portion of the project area.

3.12 UNDESIGNATED/PUBLIC OWNERSHIP

Six parcels of land are designated as vacant account for 70 acres (2% of the total land area). These parcels are owned by public entities and would be used at some future date for a public activity or facility. The specific details regarding the future activity or facility and timing of those uses are unknown. These lands would remain as "vacant" and unaffected by this project.

3.13 UTILITY EASEMENTS

Several utility easements are located in the rights-of-way of public roadways that traverse or border the Planning Area. These utilities include the City of Redlands water supply wells and pipelines; East Valley Water District water supply wells, tanks, and pipelines; Southern California Edison power lines; Metropolitan Water District of Southern California (Metropolitan) Inland Feeder Pipeline; San Bernardino Valley Municipal Water District (Valley District) Foothill Pipeline Pump Station; Southern California Gas Company gas lines; and Adelphia Communications fiber optic cables. Most of these utility easements are located within the roadway rights-of-way and are shown in Table B as part of the roadway systems. The acreages of each of these facilities are minimal and not significant in relation to the total project with the exception of the Inland Feeder easement. The Inland Feeder easement covers approximately 77 acres within the Planning Area. Easements are not referred to as individual uses in the Planning Area. These utility easements are delineated in Figure 3.8.



LSA

FIGURE 3.8

PLAN BOUNDARY

PUMP STATION

WELL

SBVWCD OBSERVATION WELL 4-11H1

FACILITY

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

SAN BERNARDINO VALLEY MUNICIPAL WATER DISTRICT

SOUTHERN CALIFORNIA EDISON EASEMENT

Upper Santa Ana River Wash
Land Management Plan
Environmental Impact Report

SOURCE: AirPhotoUSA (2007), San Bernardino Valley Water Conservation District (2007); San Bernardino Valley Municipal Water District.

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Utility Easements and Services

City of Redlands Municipal Utilities Department

The City of Redlands maintains two water wells near the entrance to the Cemex Plant off Orange Street-Boulder Avenue. These two wells provide a portion of the water needed to serve the residents and businesses in the City. The pipelines are within the Orange Street-Boulder Avenue right-of-way. Acreages for these facilities are included within the Arterial Roads/Highways category of Table B.

East Valley Water District

Four facilities, water tanks and wells with boosters, operated by the EVWD are within the Planning Area. Three facilities are located off Greenspot Road and one facility is located off Cone Camp Road. The acreages of these facilities are included in the Water Conservation and Habitat Conservation categories of Table B.

Southern California Edison

Southern California Edison maintains overhead energy transmission lines within the Planning Area. These facilities are located within or adjacent to existing rights-of-way. The acreage for these facilities is included within the Arterial Roads/Highways and Aggregate Mining categories of Table B. One alignment runs north to south with southern and northern entrances at Church Street. Another alignment runs east to west from 5th Street to Greenspot Road along Pole Line Road. Southern California Edison alignments also parallel Orange and Alabama Streets. The easement along Pole Line Road would remain; however, the expanded mining area of the proposed project would impact the north to south line that traverses the Wash Plan area. Transmission lines within the Wash servicing mining and water facilities would remain or be relocated as necessary to service the operations.

Metropolitan Water District of Southern California

Metropolitan maintains one segment for the Inland Feeder, an underground water distribution pipeline under a Joint Use Agreement. The easement for the Inland Feeder is the largest within the project area and is approximately 77 acres. The alignment traverses in an east-west direction along the northern edge of the Planning Area, and a north-south direction at the western edge of the District spreading basins, within the right-of-way for Cone Camp Road. Metropolitan maintains a permanent maintenance easement for this pipeline, which begins at Boulder Avenue in the City of Highland, runs east along the Southern California Edison easement to Cone Camp Road in the City of Highland, and turns south across the Planning Area to Opal Avenue in the San Bernardino County community of Mentone.

The San Bernardino Valley Municipal Water District (Valley District)

The Valley District Foothill Pipeline Pump Station is located adjacent to Cone Camp Road, just south of Greenspot Road. This pump station provides the capability to continue water deliveries in the Foothill Pipeline while also pumping water into the Metropolitan Inland Feeder Pipeline. The acreage for this facility is located within the Water Conservation land use category included in Table B.

Southern California Gas Company

These pipelines are within the street rights-of-way and are not affected by the Wash Plan project.

Adelphia Fiber Optic Cables

These cables are within the street rights-of-way and are not affected by the Wash Plan project.

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4.0 PROPOSED PROJECT

The proposed project designates land uses for specific areas within the Planning Area. These proposed land uses are interrelated. The proposed land uses and land areas are shown in Figure 4.1. The acreage covered by each of the following uses is shown in the previously referenced Table B. and the proposed ownership is shown in Figure 4.2. The proposed uses and activities, and the related land exchanges included in the proposed project, are discussed below.

4.1 WATER CONSERVATION

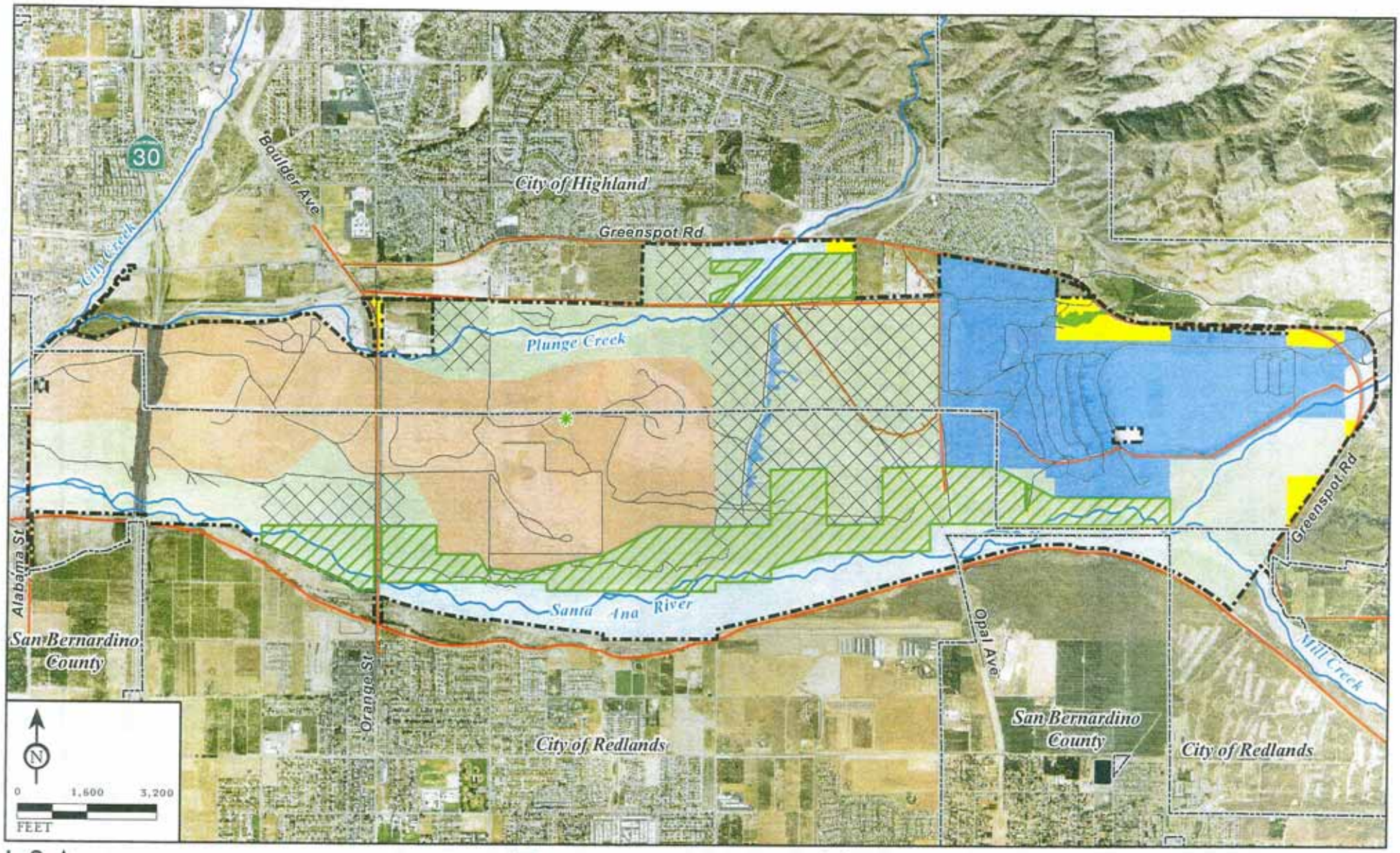
The proposed project contains two different types of approvals: One at a project level, and one at a programmatic level.

The project level involves the Conservation District's existing water recharge facilities and operations, which will continue under the proposed project. This will include diverting native Santa Ana River water, and conveying same by way of canals and similar facilities to groundwater spreading basins made of earthen dikes, and periodically maintained to assure efficient recharge percolation rates. This operation will largely mirror the Conservation District's existing activity.

The programmatic level approval seeks biological clearance for the potential development of additional water spreading or conservation facilities, within the area depicted as Proposed Phases 1-3 in Figure 4.4. As explained in more detail below, current studies are underway to determine the extent and efficiency of existing groundwater spreading facilities in the Planning Area, and how such facilities will serve and respond to regional water needs under an emerging regional groundwater management structure, just now coming into being. The uncertainties associated with the regional long-term water needs, the inter-relationship of local groundwater supplies, surface water supplies naturally occurring in the Planning Area, the inter-relationship of the cooperating water agency stakeholders in the emerging regional management structure, and unknown effects of the operations of the recently-completed Seven Oaks Dam on all of the above render any precise formulation of future water facilities needs highly speculative at this point. Without the information that can only come from further study and experience applying the integrated water management plan just now being approved, it cannot be predicted how many new facilities might be needed, of what size, and where.[1]

What can be determined, however, is that if there is a need for future water facilities, such needs will have to be met within the geographic limits of portions of the Planning Area. This is the area of the Conservation District's historic spreading, before many of its facilities were destroyed as part of the construction of Seven Oaks Dam. This is also the area of the Bunker Hill Basin that has historically had the greatest distance between the ground surface and groundwater levels, leaving sufficient area for the groundwater mounding necessary for effective recharge. Portions of the basin further to the west have less rechargeable area, and convey recharged water more quickly to the Pressure Zone, where high groundwater levels have been a periodic problem. If the Bunker Hill Basin does require future facility solutions, the eastern portion of the Basin is where it will have to happen.

[1] Efforts at this study are already underway. In December 2007, the Conservation District, in partnership with the San Bernardino Valley Municipal Water District, applied to the Department of Water Resources for a grant to undertake analysis of the effective rates of recharge of spreading basins in the Seven Oaks Dam Borrow Pit and to examine what additional facilities development might yield to the region's overall groundwater recharge capacity.



LSA

PLAN BOUNDARY

JURISDICTIONAL BOUNDARY

WATER CONSERVATION

FLOOD CONTROL

HABITAT CONSERVATION

AGGREGATE MINING

STATE ROUTE 30

Subject to the Spineflower Relocation Program

ROADS

AGRICULTURAL

UNDESIGNATED/PUBLIC OWNERSHIP

WOOLLYSTAR PRESERVATION AREA

BLM, ACEC OR RNA

ROADS*

TRAILS

RIVER OR CREEK*

FIGURE 4.1

Upper Santa Ana River Wash Land Management Plan Environmental Impact Report

SOURCES: Th[illegible]ros, 2001, San Bernardino Water Conservation District, Dudek, Santa Ana Watershed Project Author[illegible]PhotoUSA, 2007.

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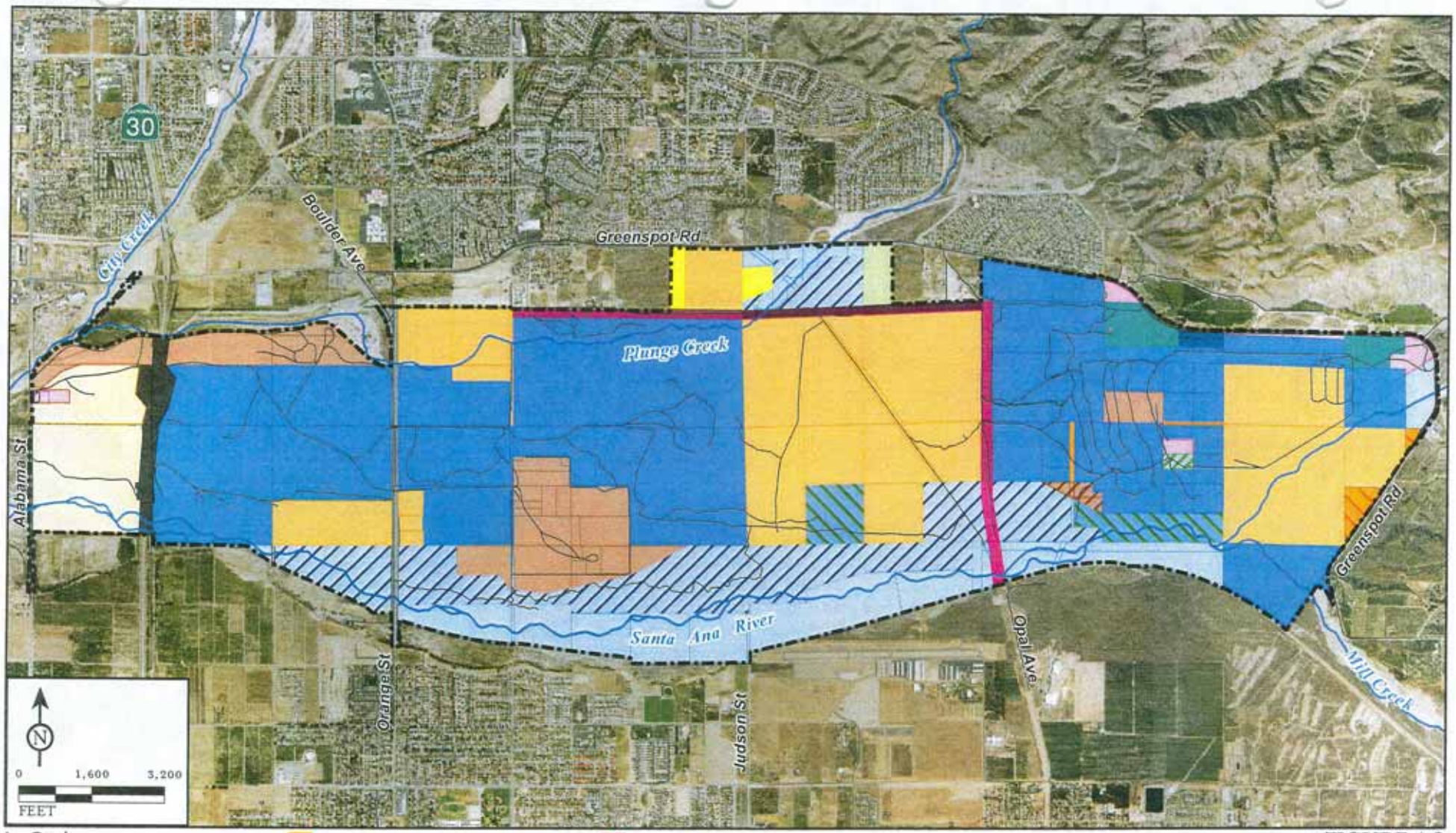
* Road and stream locations digitized from 2006 aerial.

Propos[illegible]and Uses



LSA

FIGURE 4.2

PLAN BOUNDARY
PRIVATE
CALTRANS
CITY OF HIGHLAND
CITY OF REDLANDS
COUNTY OF SAN BERNARDINO
EAST VALLEY WATER DISTRICT
OTHER GOVERNMENT
ROBERTSON'S READYMIX
SBVWCD / SBCFCD
US GOVERNMENT (BLM)
SBVWCD OWNED - WSPA EASEMENT
SBCFCD - WSPA EASEMENT
ORANGE COUNTY
FLOOD CONTROL - MWD EASEMENT
SBVWCD - MWD EASEMENT
BLM - MWD EASEMENT
SAN BERNARDINO VALLEY MUNICIPAL WATER DISTRICT
SAN BERNARDINO COUNTY FLOOD CONTROL DISTRICT
SAN BERNARDINO VALLEY WATER CONSERVATION DISTRICT
MITIGATION LAND/ROBERTSON'S HAUL ROAD - (SBVWCD OWNER)
STREET RIGHT-OF-WAY - REDLANDS, HIGHLAND
ROADS*
RIVER OR CREEK*

SOURCES: San Bernardino Valley Water Conservation District, San Bernardino County, AirPhotoUSA, 2007

*Road and stream locations digitized from 2006 aerial.

Upper Santa Ana River Wash
Land Management Plan
Environmental Impact Report

Proposed Ownership

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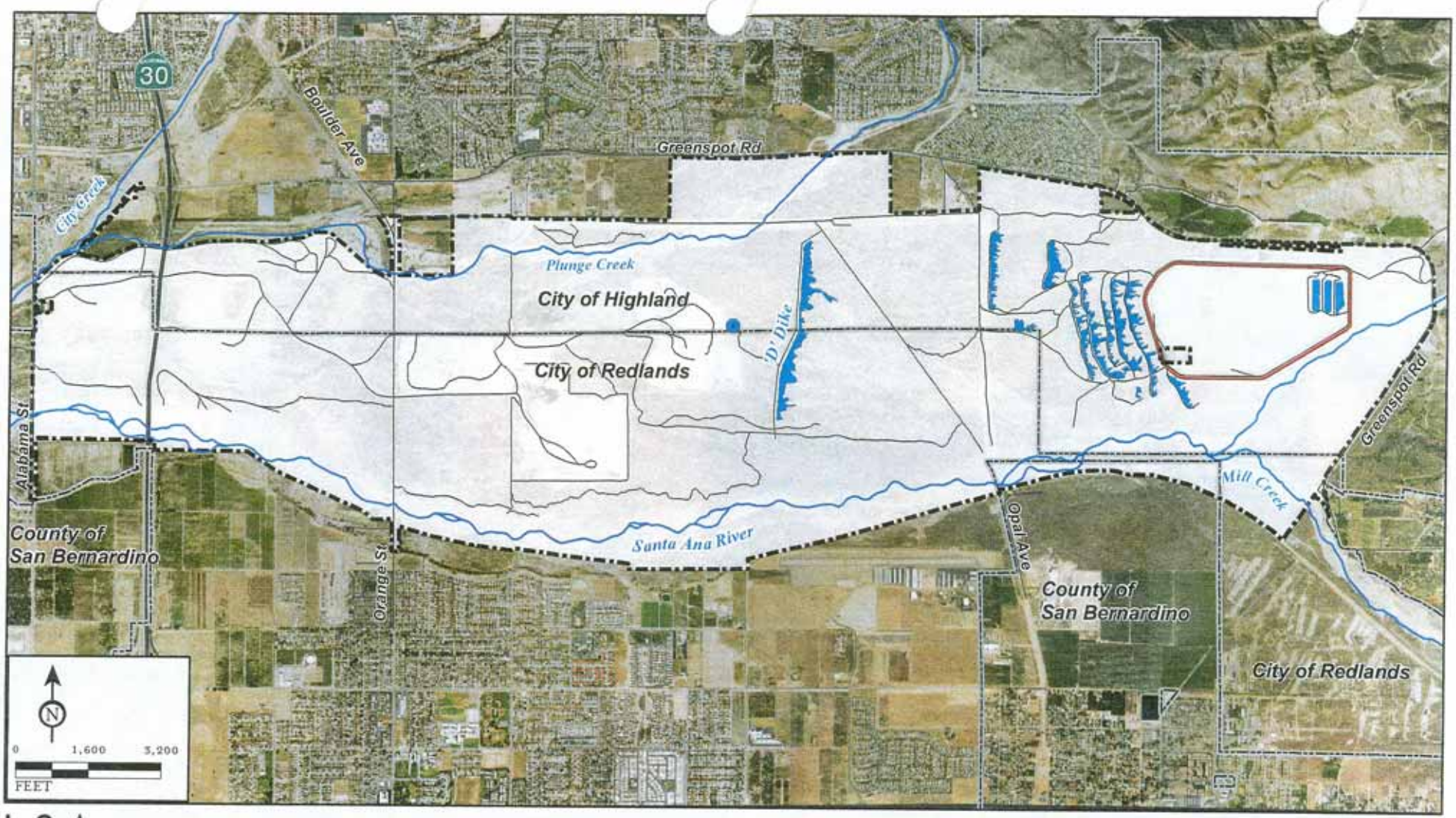

LSA

FIGURE 4.3

PLAN BOUNDARY

JURISDICTIONAL BOUNDARY

EXISTING AND FUTURE FACILITIES

EXISTING WATER CONSERVATION BASINS

FORMER BORROW PIT - FUTURE WATER CONSERVATION BASINS

SBVWCD OBSERVATION WELL 4-11H1

RIVER OR CREEK*

ROADS*

* Road and stream locations digitized from 2006 aerial.

SOURCE: San Bernardino Valley Water Conservation District, AirPhotoUSA, 2007.

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Upper Santa Ana River Wash
Land Management Plan
Environmental Impact Report

SBVWCD Existing Facilities

Recognizing this, the project identifies a "set-aside" area for future water facilities. Phases 1 and 2 of this "set aside" area are within the Water Conservation land use designation. Some 165 acres, Proposed Phase 3, is part of a joint use area with habitat preservation. Impacts to biological resources over this area will be minimized because the only proposed facilities in Proposed Phase 3 will be those akin to the Conservation District's present basins, i.e., earthen dikes, unlined channels and canals, and the like. This will preserve some continuity of the habitat with exclusive habitat dedication areas to the south, such as the WSPA, but still provide the possibility of additional groundwater recharge capacity to meet growing water demands.

Construction-level impacts from such future facilities, like air quality, noise, or impacts to hydrology, are not and cannot yet be assessed, because the nature of, location of, and need for, those facilities is not presently known. By factoring in the biological impacts of placing water facilities in this area now, however, the project preserves flexibility for prudent water management measures to respond to future water needs, while ensuring long-term management of habitat areas under a series of biological mitigation measures, and, ultimately, a Habitat Conservation Plan.

Existing Water Conservation District Facilities and Water Rights. Under existing conditions, some 1,260 acres are designated for water conservation. This area includes the District's existing wetted area of 64 acres of recharge basins. Although the project entails approximately 520 fewer acres of property that would be designated as Water Conservation, it will not result in any loss of any existing facilities. The proposed project sets up the ability for the District and BLM to exchange lands, including lands currently containing District-operated dikes and basins, which will be designated ACEC and Natural Research Area by the BLM as part of a subsequent Federal environmental document. However, groundwater recharge activities will continue to be allowed within some of the areas designated for habitat conservation by BLM. BLM has indicated that, even after the exchange, existing District groundwater recharge facilities, like "D" Dike and the canals serving it, can continue to be operated and maintained, even after the BLM takes ownership. This will be incorporated into any designation of such exchanged lands as part of the ACEC, and will be incorporated into the contemplated Habitat Conservation Plan that will serve as the management tool for all of the habitat conservation lands to be conserved and managed as part of the project, and the expected Habitat Conservation Plan that will attend issuance of any "take" permit by the USFWS. The project, therefore, will result in no reduction in groundwater recharge basin acreage from existing baseline.

The District has recently analyzed the environmental impacts of its prospective water spreading activities in the Final Environmental Impact Report of the San Bernardino Valley Water Conservation District-Santa Ana River and Mill Creek Rights Application and Groundwater Management Plan dated February 22, 2007, and certified on March 7, 2007 (SCH No. 2003071003) (Water Rights EIR). The Water Rights Final EIR serves as the environmental analysis for the District's continuing water recharge operations, and changes to those operations that may occur from recent agreements and developments relating to regional groundwater and surface water management. A copy of the Water Rights EIR is available for inspection at the District's offices, at 1630 W. Redlands Boulevard, Suite A, Redlands, California 92373, and is incorporated in its entirety by reference herein.

As explained in the Water Rights EIR, the District's future spreading is anticipated to be equivalent to, or somewhat marginally decreased from, its historical operation. The Water Rights EIR was prepared in connection with an application the District made to the State Water Resources Control Board for an appropriative license, essentially designed to mirror the District's historical pre-1914 water rights, and its water spreading activities consistent with those rights. The Water Rights EIR looked at the District's water spreading history over a reference period of 1969 to 1998, and took from that period the maximum diversions that indicate the outer limit of what water the District would spread. In addition, the Water Rights EIR included a Program for Effective Recharge Coordination (PERC) providing certain restrictions on recharge activities when groundwater levels in the Bunker Hill Basin, particularly in the pressure zone at its western end, rose above identified levels. The District's license application was accompanied by competing applications filed by San Bernardino Valley Municipal Water District and Western Municipal Water District. Through the State processes, each objected to the proposed license of the other.

These competing claims were resolved in a settlement agreement entered into in August 2005 among the District, San Bernardino Valley Municipal Water District, and Western Municipal Water District, and affirmed in a "Stipulation of Applicants" filed with the State Water Resources Control Board on April 5, 2007. Under this settlement agreement, the parties agreed that the amounts to be spread by the District would be 10,400 acre-feet per year (afpy) pursuant to pre-existing licenses, and up to an additional 39,600 per year. The settlement agreement laid out priorities for recharge of these amounts. The settlement agreement also contemplated a cooperative groundwater management administrative procedure, under which groundwater stakeholders would annually convene to determine recharge goals and limits for various sub areas of the San Bernardino Basin. These limits would be set annually, depending on fluctuating groundwater supply availability and basin recharge capacity. Under this administration, the District agreed to relinquish its historical, unilateral ability to determine the amount and location of recharge of its license and historical rights, in favor of a regional, multi-party procedure for regional groundwater management.

As a consequence of these agreements, and as recognized in the Water Rights EIR, there is the possibility that groundwater recharge by the District would decrease, in comparison with historic recharge amounts, under this new regional management system. The District has agreed to a limit of 50,000 afpy of its own recharge, which is less than maximum amounts under the reference period from 1969 to 1998. The Water Rights EIR recognized this as a potential significant environmental impact, and issued a statement of overriding consideration indicating that the long-term benefits of cooperative surface and groundwater management among the stakeholders outweighed the possible negative environmental effects from this potential reduction.[1]

Given this new limitation the District has assumed, it is reasonable to project that the District's prospective water recharge activities will be at or somewhat below its historical practices. As such, the District's existing facilities, including the 64 wetted acres, are likely to be sufficient for all groundwater the District is likely to spread under its own rights. Although the project will result in a reduction in area designated Water Conservation, the project will not lose any water recharge facilities. The District will continue to operate, maintain, and repair its water conservation facilities (access roads, canals, culverts, dikes, basins, and diversion structures) within the Planning Area in the same manner as existing conditions.

The Water Rights EIR was certified as final by the District Board on March 7, 2007. The findings made by the District Board in connection with that certification are included in its Resolution No. 428, which is also available for review at the address listed above for the Water Rights EIR. The Water Rights EIR is incorporated by reference in its entirety in this EIR, and serves as the analysis for any long-term environmental effects from the District's prospective water spreading operations.

A part of the proposed project would result in the District's Observation Well No. 4 being displaced by aggregate mining. This well provides information needed to monitor groundwater depths for the aggregate mining activities, as well as information on groundwater migration for the Bunker Hill Basin. This well will be reconstructed outside of mining areas on the upstream, dry side of "D" Dike and Percolation Basin. The specific site will be determined in coordination with the BLM and the USFWS, because the projected site will be on property exchanged to BLM under the contemplated land exchange.

Potential Future Water Conservation Facilities. The District's 50,000 afpy limit, and its existing facilities, does not necessarily constitute the full amount of groundwater recharge or groundwater recharge facilities that may be required region-wide. For example, San Bernardino Valley Municipal Water District, in cooperation with a number of other water agencies, has released the Upper Santa Ana Integrated Regional Water Management Plan (IRWMP), designed to be a comprehensive management tool for both surface water and groundwater supplies in the region. Since its release,

[1] In the settlement agreement, the Conservation District also recognized the priority of certain senior water rights holders ("Prior Rights Companies") to 88 cfs of flows, which might further reduce long-term recharge by the District as compared with historical recharge practices.

the District approved the IRWMP on December 6, 2007. Several other agencies have also approved the IRWMP since its release. One of the goals stated by that plan is to enhance groundwater basin storage within the region to allow the San Bernardino Basin area to store up to a 160,000 afpy of conjunctively-used water supplies. The IRWMP contemplates potential future facilities to enhance the area's groundwater recharge capability, and contemplates the possibility of a series of conjunctive use strategies for utilizing the basin's groundwater storage capabilities.

Therefore, there exists the possible need for additional groundwater spreading facilities in the eastern end of the Bunker Hill Basin, outside of the footprint of existing groundwater spreading facilities, but within the 740 acres designated in the project's land use plan for Water Conservation and the approximately 165 acres located in the northeast portion of Section 12.[1] At this point, the Regional Groundwater Management Program contemplated under the settlement agreement of August 2005 has not yet taken shape.[2] In addition, it appears likely that the deliberative processes contemplated by the Seven Oaks Accord will be incorporated into the larger IRWMP management procedure. At this point, it is impossible to predict how the specific management decision of this as-yet untested deliberative management structure will evolve, let alone assess potential environmental impacts from those decisions. Nevertheless, the IRWMP does seem to point to a potential long-term need for additional groundwater spreading facilities, for spreading by the District or others.

In response to this need, the project includes the dedication and environmental mitigation of the full 740-acre Water Conservation area of the Land Plan and the additional 165 acres to be exchanged to BLM, to accommodate these potential, future facilities. The project will secure biological clearance for potential future use of this area for groundwater recharge facilities. Specific, construction-level analyses of any such facilities, and the specifics of their operation, will tier off of this EIR, and the biological clearance provided through the dedication of the 732 acres of managed conservation area added by the project.

Planned Facilities

When Seven Oaks Dam was constructed, several recharge basins were removed to construct the borrow pit. Depending on the results of studies now underway, the Water Conservation District may reconstruct basins and associated pipelines and canals within the borrow pit. The expansion of additional basins or pipelines within the borrow pit is still speculative, in terms of variations on design of such facilities, the effectiveness of anticipated recharge, and optimization of any future facilities with existing basins already constructed by the District within the pit. Similarly, although there are no specific plans for additional groundwater recharge facilities and such facilities are not a part of this EIR, there is a possible need for additional recharge facilities to accommodate recharge of water rights from non-District sources, or imported water from the State Water Project, as part of the IRWMP.

The expansion of additional basins or other facilities within proposed Phases 1 through 3 is part of the programmatic Wash Plan project description, which looks at the potential biological impacts from these future facilities. Biological impacts are assessed projecting the same ratio of ground disturbance for future facilities as exist presently in the District's most intensively developed spreading area, just west of the borrow pit. As shown in Figure 4.5, the ratio of wetted and maintained is approximately 31 percent of the overall land area. Since this percentage has been derived from the District's most developed spreading basin area, it is a conservative predictor of the degree of likely disturbance from any new facilities. Using this factor over the acreages of the various proposed Phases, the future facilities would impact additional acreage as shown in Table C.

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1 The 165 acres are located within the eastern portion of an approximately 320-acre area referred to as the north half of Section 12 that is currently owned by the District and will be exchanged to the BLM as part of the land exchange. The 320-acre area, inclusive of the 190-acre portion, will be designated as ACEC and Natural Research Area as part of a subsequent environmental document. See Figures 3.2, 3.12, and 3.15.

2 The Settlement Agreement contemplated amendment to the Seven Oaks Accord to include the Conservation District in its procedures for setting annual groundwater recharge objectives, and this amendment has yet to occur.

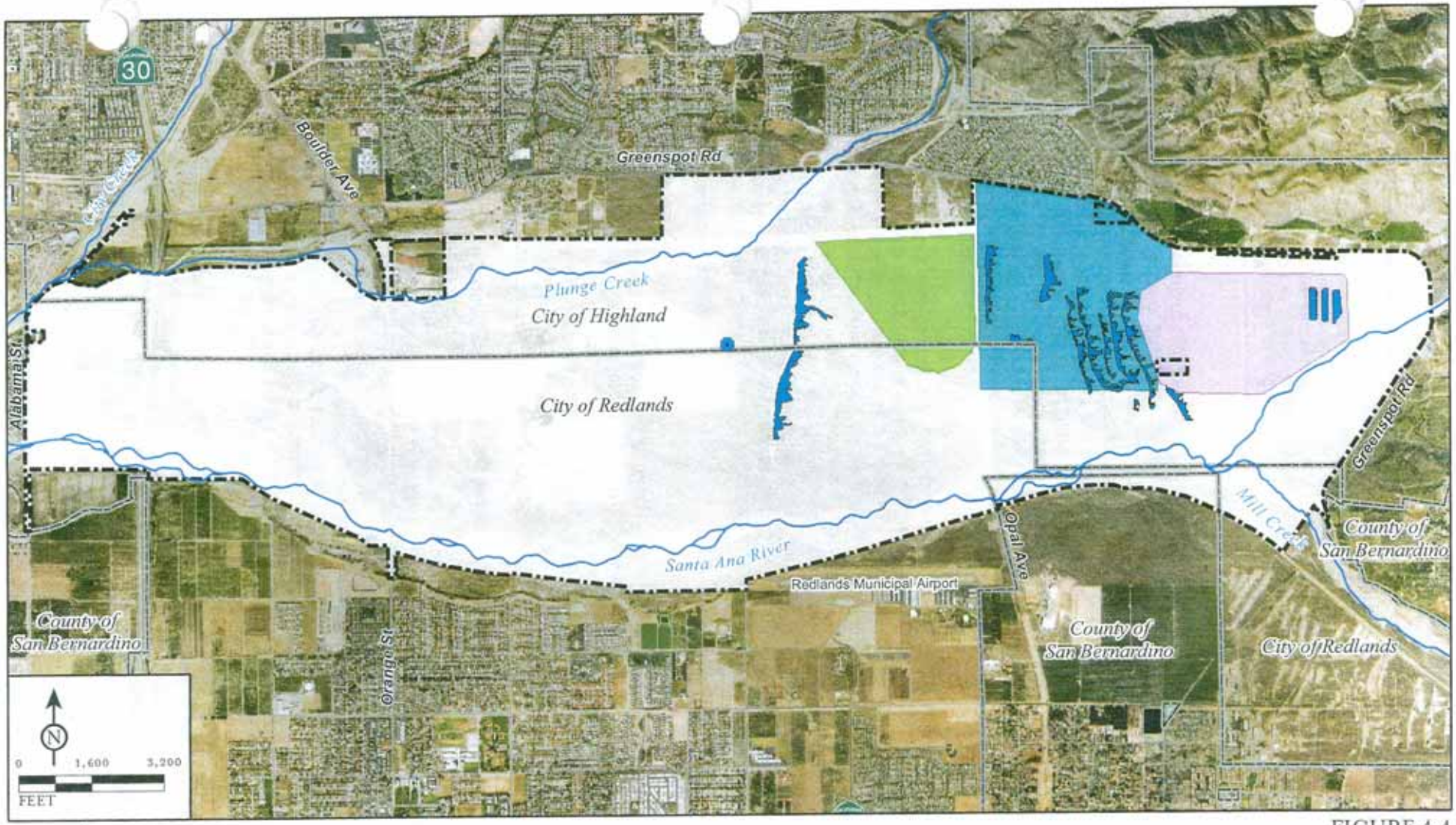

FIGURE 4.4

LSA

PLAN BOUNDARY

JURISDICTIONAL BOUNDARY

PROPOSED PHASES

PHASE 1 - BORROW PIT (240 Ac)

PHASE 2 - SECTION 7 (372 Ac)

PHASE 3 - SECTION 12 (165 Ac)

SBVWCD OBSERVATION WELL 4-11H1

EXISTING WATER CONSERVATION BASINS

Upper Santa Ana River Wash
Land Management Plan
Environmental Impact Report

Conservation District Potential New Facilities

SOURCE: San Bernardino Valley Water Conservation District; Thomas Bros, 2006; AirPhotoUSA, 2007.

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LSA

FIGURE 4.5

PLAN BOUNDARY
JURISDICTIONAL BOUNDARY
WATER CONSERVATION BASINS

PROPOSED PHASES
PHASE 1 - BORROW PIT - 240 ACRES
PHASE 2 - SECTION 7 - 372 ACRES TOTAL
PORTION OF PHASE 2 - 81 ACRES
PHASE 3 - SECTION 12 - 165 ACRES

Upper Santa Ana River Wash
Land Management Plan
Environmental Impact Report

SOURCE: San Bernardino Valley Water Conservation District; Thomas Bros, 2006; AirPhotoUSA, 2007.

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Wetted and Maintained Basin Area

Table C – Future Water Conservation Phases – Impacted Acreages

Proposed Phase	Total Acreage in Phase	Percentage of Disturbed Area	Impacted Acreage	Non Impacted Acreage
1	235	31%	73	162
2	366	31%	114	252
3	165	31%	51	114
Total	**767**	**31%**	**238**	**529**

Access Roads: Existing and Future Maintenance Activities. The District maintains numerous access or service maintenance roads throughout the project area. Although these roads are on District property, the District has given consent to several agencies[1] to use them for their public service activities. Most are 12–15 feet wide and surfaced with native material such as gravel or compacted soil. Maintenance activities include clearing encroaching vegetation, filling ruts and potholes, grading, resurfacing (with similar materials), and repairing washouts. Vegetation control usually occurs annually and other activities usually occur every 2–3 years.

Canals: Existing and Future Maintenance Activities. Canals may experience sedimentation and are typically dug into the existing topography and are left with their natural earth and rock surface. Depending on the canal, the bottom and sides of the canals may develop natural rock armor over time, as the fine material is washed away. Maintenance activities include clearing encroaching vegetation, removing sedimentation, and repairing washouts or erosion. Washout and erosion repair is typically accomplished by filling in the eroded area with native material and sometimes grouted rock. Vegetation control usually occurs annually and other activities occur infrequently.

Culverts: Existing and Future Maintenance Activities. Typically pipe or box culverts are used to pass water in a canal beneath a road crossing. Activities include clearing encroaching vegetation, clearing of debris or sediment in the nearby canal, and repairing damage to the nearby canal or the culvert itself. Repair of the nearby canal is due to erosion or washout of the canal sides above or below the structure and is typically accomplished by filling in the eroded area with native material and sometimes grouted rock. Repairing the culvert itself typically requires excavation of the roadway. Vegetation control usually occurs annually, sediment removal every 2–3 years, and the remaining activities infrequently.

Dikes: Existing and Future Maintenance Activities. Dikes are typically composed of native material, from which much of the rock has been removed, formed into a berm 5–15 feet high. Native vegetation is left to grow on the slopes of dikes. Water passes from one basin to the next through overflow culverts, typically constructed of corrugated metal pipe with a concrete headwall, that pass through the dikes. Activities include occasional excavation and compaction of the dike material at the source of leaks, similar work to replace broken overflow culverts, and repair of washouts. Such repairs occur infrequently.

Basins: Existing and Future Maintenance Activities. Basins are typically areas of shallow excavation on the upstream side of dikes, and are where the actual water percolation takes place. Flow of water into these basins brings suspended sediment, which is dropped to the basin floor with percolation of the water. This sediment requires periodic removal, which also tills the basin floor, in order for percolation rates to remain efficient. Activities include clearing encroaching vegetation and removal of sediment. Vegetation control usually occurs annually and sediment removal occurs every 1–5 years depending on the basin, storm intensity, and other variables. Removed sediment is used for dike, canal, and access road maintenance.

[1] Agencies that use the service roads include the District, SBCFCD, EVWD, Metropolitan, Southern California Edison, and the Valley District.

Diversion Structures: Existing and Future Maintenance Activities. These structures divert water from the canals into the basins. The diversion structures typically consist of concrete or cement block, with wooden gates and associated hardware. Activities include clearing encroaching vegetation and debris or sediment from the nearby canal, repair of the nearby canal, and repair of damage to the structure itself. Repair of the nearby canal is due to erosion or washout of the canal sides above, below, or around the structure and such repair is typically accomplished by filling in the eroded area with native material and sometimes grouted rock. Vegetation control occurs annually, removal of sediment occurs every 2–3 years, and all other activities occur infrequently.

4.2 FLOOD CONTROL

The Planning Area encompasses portions of the Santa Ana River, Plunge Creek, City Creek, and Mill Creek covering approximately 414 acres which are administered by County Flood (Figure 4.6). There is 8-acre reduction of land used for flood control or the operations and maintenance of those lands with the proposed project. County Flood would not require additional maintenance, repairs, or construction work associated with the Santa Ana River, Mill Creek, Plunge Creek, or City Creek as a result of the proposed project.

To maintain these flood control facilities (levees, flood walls, etc.) and ensure safe water flows, maintenance is necessary on an ongoing basis. Flood control operations may involve an additional approximately 574 acres, constituting WSPA. This area may be utilized during peak times for temporarily accommodating floodwaters that overflow the channels.

Santa Ana River Existing and Future Maintenance Activities

Maintenance work associated with the Santa Ana River covers the entire south bank of the Santa Ana River from the confluence of Mill Creek, including the Mill Creek levee[1] on the east, to Alabama Street on the west. Future activities on the south bank may include maintenance, repairs, and construction to harden the face of the levee to prevent erosion of the embankment. Maintenance, repair, construction, and low-flow activities may also be required for the levee areas downstream of the Old Trestle Bridge Crossing at the mouth of the Santa Ana River Canyon to ensure that water flows travel safely into the Mill Creek/Santa Ana River confluence areas of the wash.

Mill Creek Existing and Future Maintenance Activities

Maintenance activities along Mill Creek include repair, construction, grading, armor surfacing, and low-flow work along the entire reach of Mill Creek Levee. The location is identified as the Mill Creek Levee and floodwall,[2] which starts at Garnet Street on the upstream end and extends along the south side of the creek to its confluence with the Santa Ana River. Accessibility is required along the entire south side. The levee on the north side of the creek is less improved and needs constant maintenance during the year. The levee on the north side also travels downstream from Garnet Street to its confluence at the Santa Ana River. Additional work may be performed in this confluence area for habitat manipulation enhancements in conjunction with the ACOE.

Plunge Creek Existing and Future Maintenance Activities

Plunge Creek maintenance includes maintenance, repair, and construction to the levees downstream of the bridge at Greenspot Road. Low-flow channel work would be necessary to ensure the flow passes into the wash, away from the residents and properties along Greenspot Road. Levee maintenance and protection may also be necessary at the Orange Street-Boulder Avenue Bridge. At Plunge Creek and Elder Creek outfall, maintenance, repair, construction, and low-flow channel work on and between levees on both sides of the outfall would be required to ensure the flows travel safely into Plunge Creek.

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1 A levee is typically composed of native material and formed into a berm 5 to 15 feet high. Native vegetation is left to grow on the slopes. Maintenance activities include occasional excavation and compaction of the levee material at the source of leaks, similar work to replace overflow culverts, and repair of washouts. Such repairs occur infrequently.

2 A floodwall is a long, narrow reinforced concrete wall usually built to protect land from flooding. If built of earth, the structure is usually referred to as a levee. Floodwalls and levees confine stream flow within a specified area to prevent flooding.

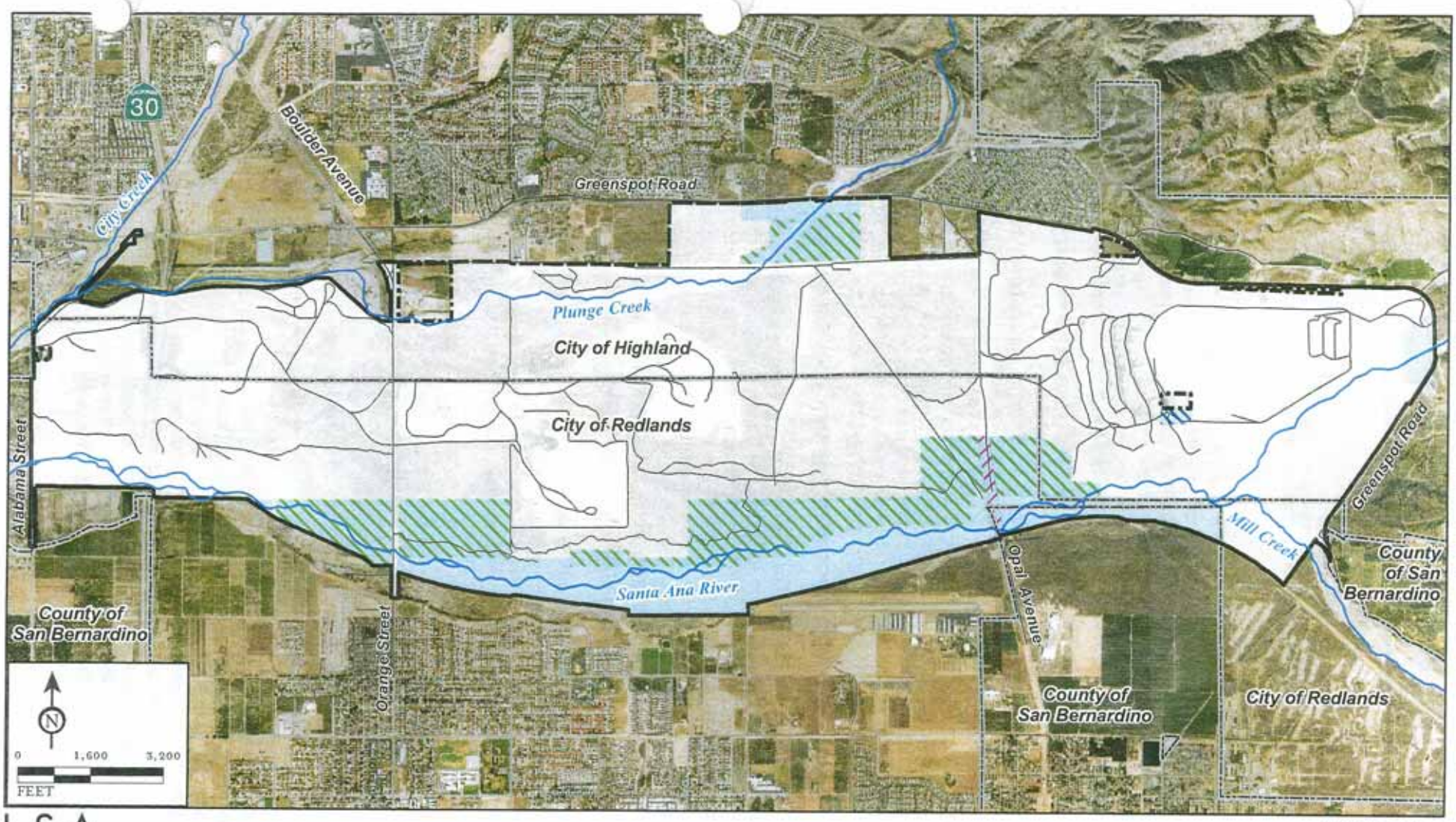

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FIGURE 4.6

PLAN BOUNDARY

MWD EASEMENT - FLOOD CONTROL

SAN BERNARDINO COUNTY FLOOD CONTROL DISTRICT

SBCFCD - WSPA

SBVWCD/SBCFCD

JURISDICTIONAL BOUNDARY

RIVER OR CREEK*

ROADS*

* Road and stream locations digitized from 2006 aerial.

SOURCE: San Bernardino Valley Water Conservation District; San Bernardino County; AirPhotoUSA, 2007

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Upper Santa Ana River Wash Land Management and Habitat Conservation Plan EIR/EIS

San Bernardino County Flood Control Areas

City Creek Existing and Future Maintenance Activities

City Creek requires maintenance, repair, and construction work on both levees as well as low-flow channel work upstream and downstream of the Alabama Street Bridge and 5th Street Bridge crossings over City Creek to keep the water flows within the confines of the channel on their way to the Santa Ana River. In addition, maintenance, repair, and construction for both sides of the confluence of City Creek and Plunge Creek as well as low-flow channel work would be necessary.

Existing and Future Maintenance Activities

Maintenance activities for all facilities include the following:

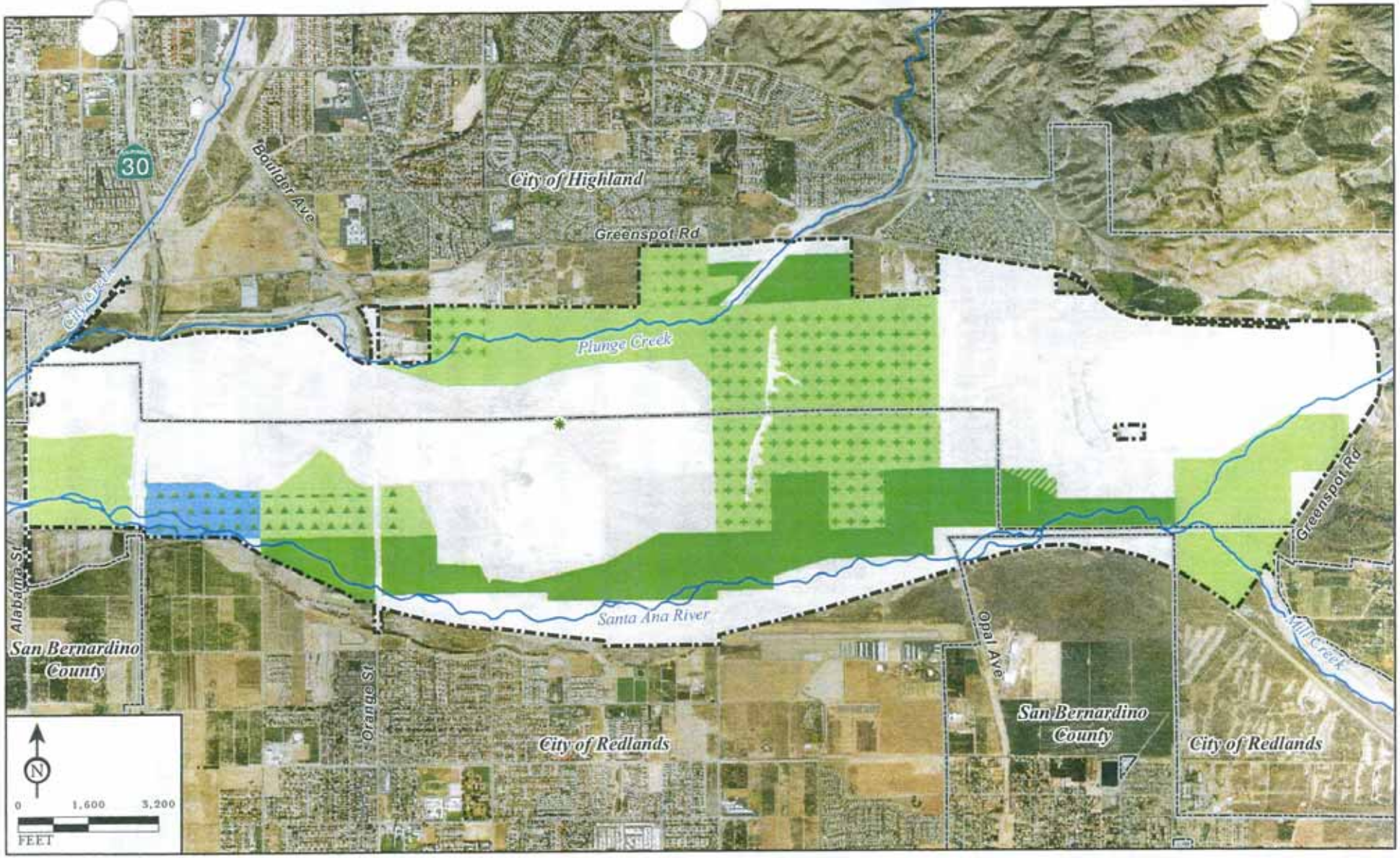
- Weed control (with the use of herbicides, scrapers, dozers, and/or loaders);
- Levee repair along toe and top of the levee utilizing placement of fill material, stone, etc.;
- Erosion repair and/or sediment removal along toe of the levee, access roads, etc.;
- Rebuilding storm-damaged facilities as routine or during an emergency;
- Protection of any public or private facilities;
- Placement and irrigation of planting for aesthetic and flood control purposes;
- Maintaining security structures such as gates, barriers, or fencing; and/or
- Installation of any drains, piping or utilities crossing flood control facilities.

These activities occur at each of the flood control locations.

4.3 HABITAT CONSERVATION

Conservation of the Planning Area habitat is considered critical to the long-term survival of a variety of sensitive species. As shown in Figure 4.7, the Habitat Conservation Area for the proposed project would cover 1,947 acres including the WSPA, ACEC and RNA, and additional area designated habitat conservation as part of the Wash Plan that will be included in the future Santa Ana River Wash HCP. The proposed project would add 732 acres to the managed total habitat lands and would result in approximately 44 percent of the total land area within the Planning Area being designated for habitat conservation. In addition, land used for water conservation also provides habitat. Designation of these lands as habitat would provide improved quality and continuity of habitat for the federally listed endangered species and all the other sensitive species known to reside in the Planning Area.

As a part of the examination of the environmental impacts of the proposed project to habitat, analysis of the existing biological conditions was undertaken by Dudek Associates (Dudek). Dudek also undertook an analysis of the impacts that would occur to the various types of habitat identified through its study of existing biological conditions, and proposed a series of mitigation measures. This effort, originally designed to be incorporated directly into a HCP for the project and submitted to the USFWS in connection with a proposed take permit, has been redirected while the USFWS conducts certain additional analysis, including spectral analysis of satellite imagery of the Planning Area. USFWS is looking at whether additional information regarding impacts, on a more species-based analysis, might be appropriate for later proceedings it would undertake in considering approval of the HCP and issuance of a take permit, as a part of ultimate implementation of the water conservation, mining, roadway improvements, trails, and other aspects of the Wash Plan. Nevertheless, Dudek's work has determined the existing biological profile of the various habitat areas of the Planning Area and serves as a basis for making a determination of the impacts to such habitat, on an acreage basis, from the proposed project.



LSA

FIGURE 4.7

PLAN BOUNDARY
JURISDICTIONAL BOUNDARY
POTENTIAL BLM ACEC*
OR WCD CONSERVATION AREA
BLM ACEC AND HABITAT CONSERVATION
HABITAT CONSERVATION
EXISTING CONSERVATION EASEMENT
SANTA ANA RIVER WOOLLYSTAR PRESERVATION AREA
RIVER OR CREEK**

*ACEC: Area of Critical Environmental Concern

* Subject to the Spineflower Relocation Program
** Stream location digitized from 2006 aerial.

SOURCES: San Bernardino Water Conservation District; AirPhotoUSA (2007)

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Upper Santa Ana River Wash
Land Management Plan
Environmental Impact Report

Proposed Habitat Conservation Areas

Ultimate implementation of the Project would require approval by USFWS of a HCP, a Habitat Management Plan (HMP), an Implementation Agreement, and issuance of a take permit. Any changes to the entitlements for mining activities would take place after the EIR is certified, after these items are approved and after the land exchanges have been completed. USFWS has indicated that it would not undertake analysis of the HCP until the contemplated land exchange between BLM and the District is completed. Because the District would proceed to implement its participation in the land exchange as part of the proposed project, the acreages of property proposed to be included as habitat management as a result of the analysis by Dudek are described in this EIR, and mitigation measures herein identified are required to assure the lands designated as habitat management would continue to provide sustainable habitat capable of serving as mitigation through habitat preservation. The acreages and locations of proposed habitat management areas were determined with the full participation and concurrence of USFWS and the CDFG representatives to the Wash Plan Task Force, and with the mitigation measures proposed, are anticipated to mitigate, to the greatest extent feasible, the anticipated effects of the proposed project. The identification of the acreage for habitat management and the mitigation measures to preserve its status as habitat as identified in this EIR are called the "Habitat Enhancement Plan" herein.

The mitigation measures proposed in this EIR are not necessarily finally exhaustive of all mitigation procedures or requirements that may ultimately be required by the USFWS, as part of its anticipated HCP for the Santa Ana River Wash. The USFWS may call for additional measures or habitat preservation strategies. USFWS representatives have indicated that these additional measures would not, however, alter the scope of the area of property to be required for mitigation or contradict the mitigation strategies originally proposed by Dudek and reviewed by the Wash Plan Technical Committee's HCP Working Group, which included USFWS. Thus, while the additional analysis being now undertaken by the USFWS may reveal additional information on project impacts within the Planning Area on distribution of species, or refine proposed mitigation measures, such information would only complement the acreage-based analysis used in this EIR. The proposed acreage set asides, and mitigation measures proposed here, would still serve to mitigate to the greatest extent feasible the environmental impacts to habitat caused by the proposed project.

The habitat lands are made up of the following and Table D summarizes the acreages within each habitat area.

- Existing District Easement (10 acres);
- Existing and Future Santa Ana River Woollystar Preservation Area (574 acres);
- Existing and Future BLM ACEC and RNA (6 acres);
- Habitat Conservation and Potential ACEC Land (674 acres);
- City of Redlands Open Space (141 acres); and
- Existing City of Highland Biological Mitigation (20 acres).

Table D – Habitat Conservation Areas

Habitat Conservation Area	Existing Conservation Area (acres)	Proposed Conservation Area (acres)	Difference
Existing District Easement	10	10	**+0**
Santa Ana Woollystar Preservation Area	547	574	**+27**
Bureau of Land Management ACEC	638	670	**+32**
Habitat Conservation/Potential ACEC	0	532	**+532**
City of Redlands former Open Space	0	141	**+141**
City of Highland Biological Mitigation Area	20	20	**0**
Totals	**1,215**	**1,947**	**+732**

Existing District Conservation Easement

This easement was required as mitigation for Robertson's mining activities (mining vehicle haul road across BLM land). Although the haul road would be on District land after the planned land exchange, the Conservation Easement would remain unaffected by the proposed project. With implementation of the proposed project, the management of the Conservation Easement would be consistent with the requirements of the HMP, to be developed in conjunction with the HCP for the Planning Area.

Existing and Future Santa Ana River Woollystar Preservation Area

The existing 547 acres of the WSPA within the Planning Area would be maintained in accordance with the Santa Ana River Woollystar Preservation Area HMP and managed by the SBCFCD, and is essentially unaffected by the proposed project. The proposed project, however, provides for an exchange of land between the SBCFCD and Robertson's Ready Mix. Robertson's would exchange approximately 47 acres of land owned by Robertson's that is populated with the Santa Ana River Woollystar for approximately 20 acres in the Santa Ana River Woollystar Preservation Area that is not populated. These 20 acres are the site of a prior lumber mill operation that has long since been abandoned, but the land was disturbed in such a way that it is considered poor habitat. When this land exchange is completed, the Santa Ana River Woollystar Preservation Area would have a net increase of 27 acres within the Planning Area, resulting in a proposed total WSPA area of 574 acres within the Planning Area.

BLM ACEC and RNA

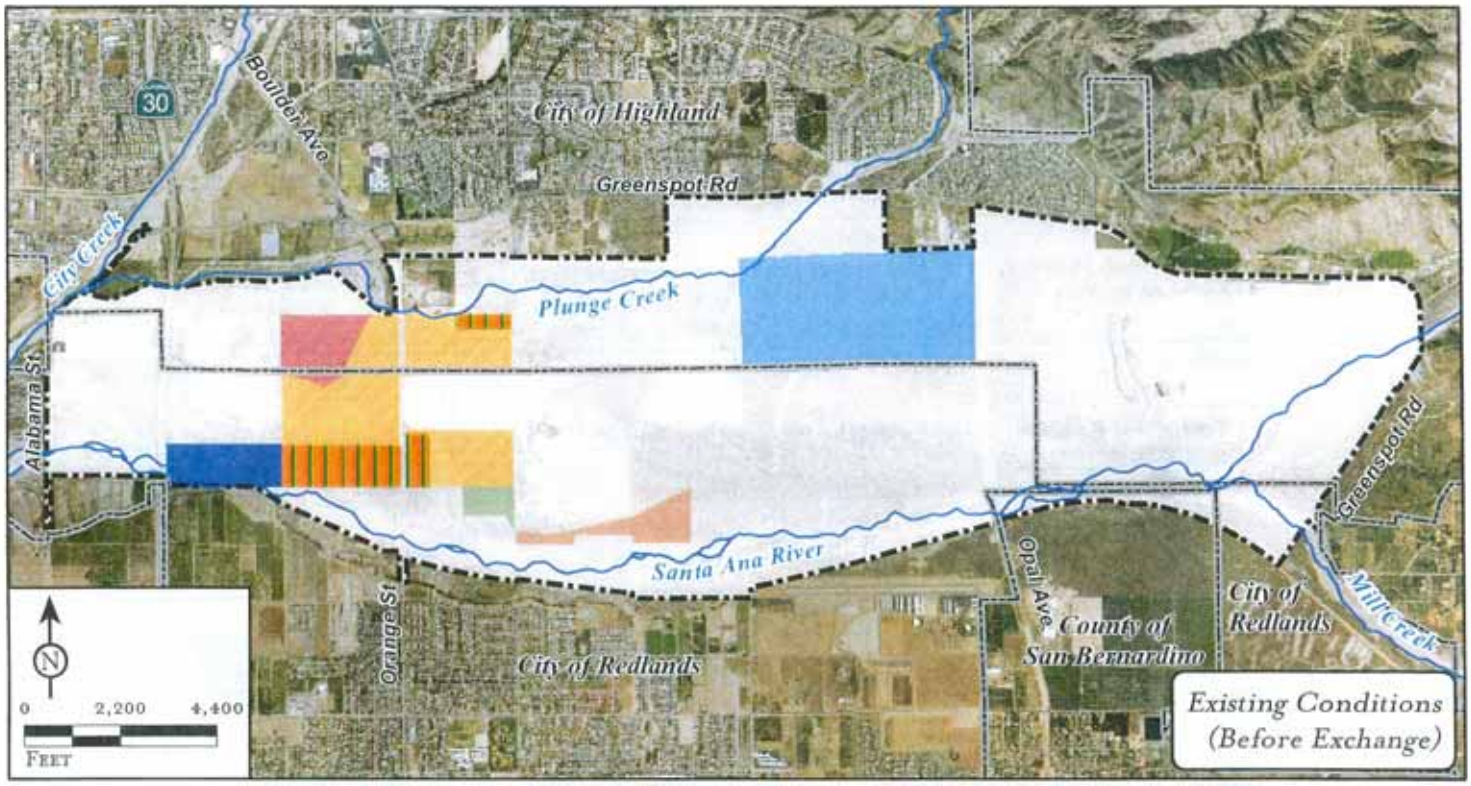
As a part of implementation of the proposed project, a land exchange would be executed between BLM and the District. The land exchange will be subject to a separate, subsequent, EIS in accordance with Federal environmental procedures (NEPA).

The land exchange would be completed pursuant to the authority of Section 206 of the Federal Land Policy and Management Act (FLPMA) and regulations at 43 Code of Federal Regulations 2200. FLPMA requires that the values of lands to be exchanged be equal or made equal by a cash payment. Additionally, any cash equalization payment cannot exceed 25 percent of the value of the lands being transferred out of Federal ownership and should be reduced to the smallest amount possible. In addition, implementing legislation will be required to clarify that the earlier 1909 reservation of these lands for water conservation, and various unused utility rights-of-way previously granted over portions of the exchanged lands, will not prevent the exchange.

The proposed exchange consists of a core exchange, which includes those lands minimally necessary to implement the Wash Plan, as well as additional lands that may be exchanged if necessary to equalize values. With the proposed core exchange, the BLM would convey ownership of approximately 315 acres of public lands to the District and the BLM would acquire approximately 312 acres of District land.

If the value of the public lands were to exceed the value of the District lands in the core exchange, the District may convey all, or a portion of, 65 acres of additional lands to the BLM. If the value of the public lands were less than the value of the District lands, the BLM may convey all, or a portion of, 85 acres to the District.

The lands being considered in the proposed exchange are shown in Figure 4.8. The legal descriptions of the Federal lands and the District's lands in the proposed exchange are shown in Tables E and F. The final selection of parcels to be exchanged depends on the appraised values of the parcels and the approval of Congress. However, the parcels being considered would be addressed in the subsequent EIS for the BLM land exchange.



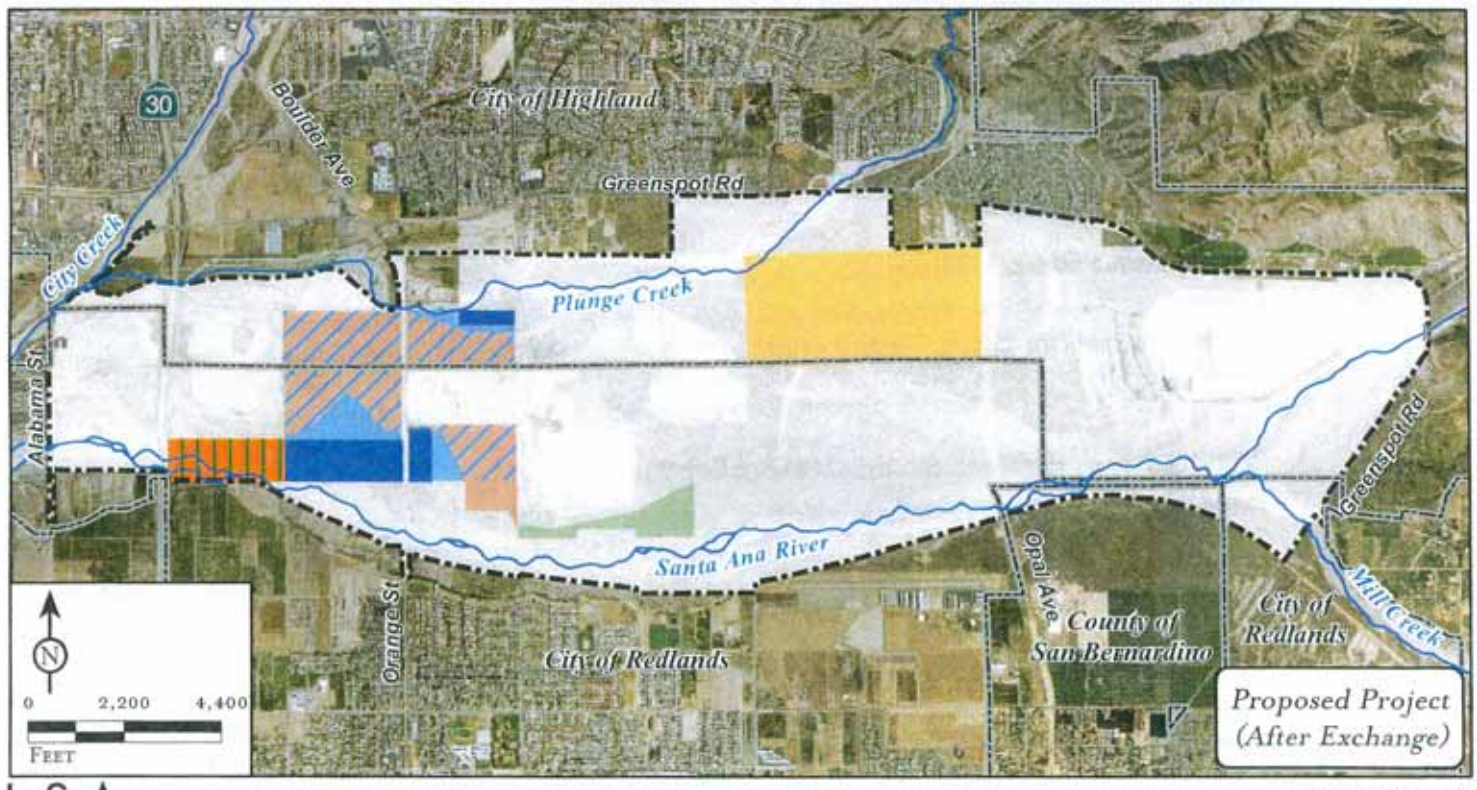


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FIGURE 4.8

PLAN BOUNDARY

JURISDICTIONAL BOUNDARY

AGGREGATE MINING

BLM, ACEC*

BLM, ACEC*, MINING USE

BLM, ACEC*, POTENTIAL EXCHANGE

SANTA ANA WOLLYSTAR PRESERVATION AREA

WATER CONSERVATION

WATER CONSERVATION, POTENTIAL EXCHANGE

WATER CONSERVATION, MINING USE

*ACEC: Areas of Critical Environmental Concern

SOURCES: San Bernardino Valley Water Conservation District, San Bernardino County, Santa Ana Watershed Project Authority, AirPhotoUSA 2007.

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Table E – Federal Land Proposed for Exchange

Legal Description	Acres
Township 1 South, Range 3 West, SBM Section 10, S ½, NE ¼, S ½, NW ¼, SW ¼, S ½, SE ¼; (approximately 85 acres of Federal lands described as N ½, N ½, SE ¼, N ¼, SW ¼, SE ¼, S ½, NW ¼, SW ¼, SE ¼, S ½, S ½, SW ¼, S ½, N ½, S ½, and SW ¼ would be included in the exchange only if necessary to equalize values)	315 to 400

Source: BLM

Table F – San Bernardino Valley Water Conservation District Land Proposed for Exchange

Assessor's Parcel No.	Legal Description	Acres
291-151-001 291-151-002 291-151-005	Township 1 South, Range 3 West, SBM Section 12, NW ¼, NE ¼	320
290-271-003 portion of included in exchange if needed to equalize value	Township 1 South, Range 3 West, SBM Section 9, S ½, S ½, SE ¼, S ½, N ½, S ½, SE ¼, except that portion conveyed to the State of California for State Route 30	60

Source: BLM

Habitat Conservation and Potential ACEC and RNA Land

The BLM and District lands subject to equalization would all be designated for habitat conservation, regardless of the final outcome on which parcels of land would be exchanged. The parcels that remain under District ownership would be designated for habitat conservation and would be managed in accordance with the future Upper Santa Ana River Wash HCP. The parcels that remain under BLM ownership shall also be managed in accordance with the HMP, or designated for ACEC and RNA, depending on specific location.

City of Redlands Open Space

The City of Redlands owns approximately 217 acres of land between SR-30 and Alabama Street, presently leased for mining. Approximately 141 acres of this land is currently designated as "open space." In the proposed project, these approximately 141 acres would be designated for habitat conservation and would be managed in accordance with the future Santa Ana River Wash HCP.

Existing City of Highland Biological Mitigation Area

These 20 acres would remain a mitigation area for the City of Highland's previously completed drainage channel project. No changes are proposed to this area as a part of the project. Eventually, separate actions may be taken so that this land will be managed by the BLM and added to the BLM ACEC and RNA land located in the Planning Area.

4.4 UNMANAGED, UNDEVELOPED NATURAL HABITAT

There would be no land in this classification in the proposed project. All 604 aces of existing unmanaged and undeveloped natural habitat would be transferred to differing classifications to ensure the land is managed. Most of this land would become habitat, either as a formal conservation easements or BLM managed for natural resource protection.

4.5 AGGREGATE MINING AND PROCESSING

Aggregate mining land uses would include the following:

- Expansion of existing and development of new sand and gravel mines; three sites operated each by Cemex and Robertson's; and

- Reclamation for the closure of mining facilities (Cemex and Robertson's) concurrently and following completion of mining extraction activities.

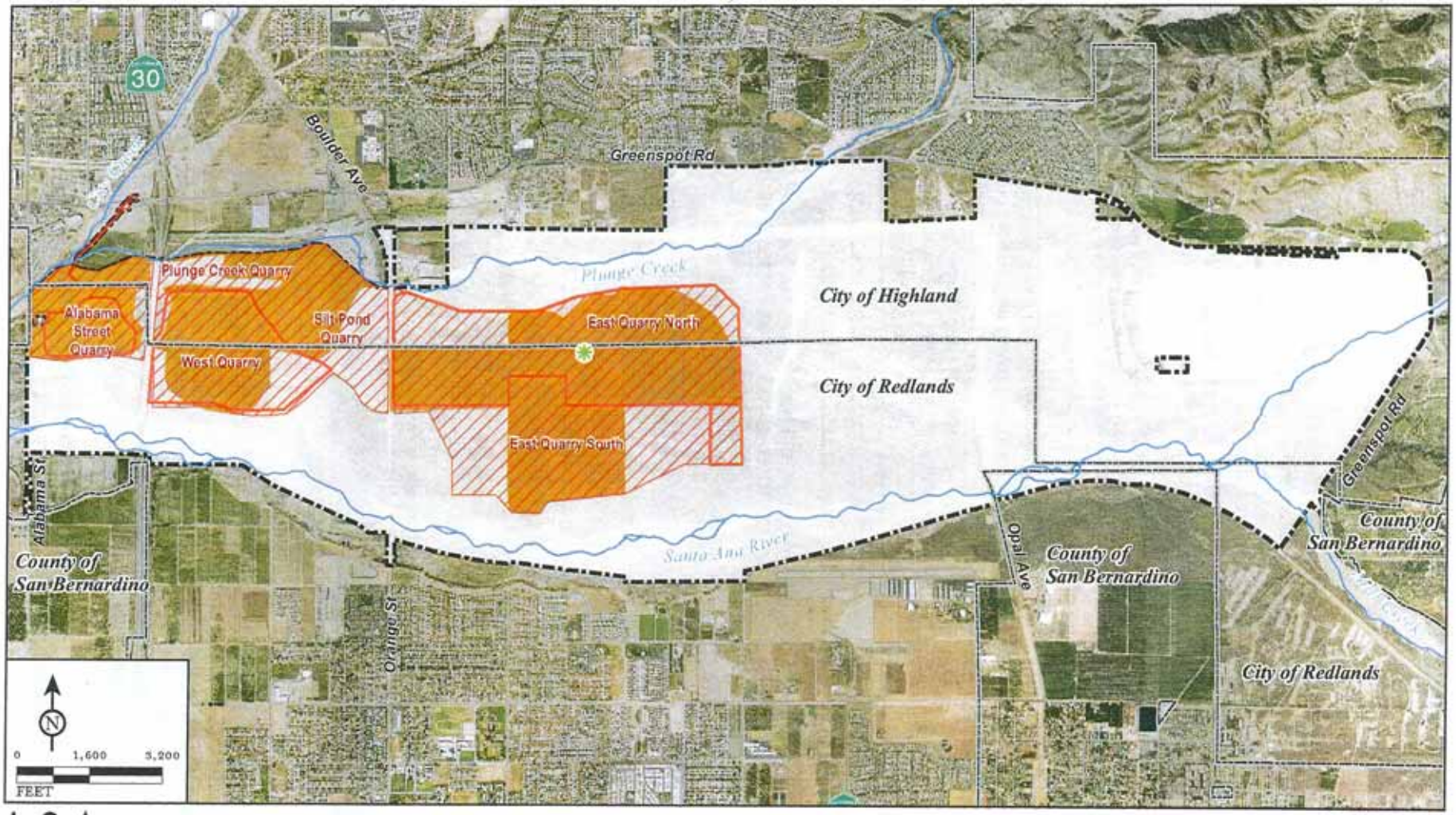
With implementation of the proposed project, aggregate mining land uses would increase by approximately 363 acres, from an existing 832 acres previously and currently mined to approximately 1,195 acres. Overall, the proposed mining land use area would total approximately 759 acres within the City of Redlands and approximately 436 acres within the City of Highland, as described in Table G. Cemex owns 3 acres, leases 1,294 acres from the District and leases 217 acres from the City of Redlands in the Planning Area. Robertson's owns 337 acres and leases 240 acres from the District in the Planning Area.

Table G – Project Mining Areas

Operators	Highland (Acres)	Redlands (Acres)	Total (Acres)
Existing Disturbed Mining Areas			
Cemex Construction Materials LP: Alabama Street Quarries Northwest, Northeast, and Southeast, Johnson Pit North and South, Redlands Aggregate Pit North and South, and Orange Street Plant	175	364	540
Robertson's Ready Mix: Plunge Creek Quarry Old Webster Quarry, the silt pond, and East and West Basin facilities	85	160	245
Other*	42	5	47
Total	**302**	**529**	**832**
Existing Permitted Mining Areas			
Cemex Construction Materials LP:* Alabama Street Quarries Northwest, Northeast, and Southeast, Johnson Pit North and South, Redlands Aggregate Pit North and South, and Orange Street Plant	220	352	572
Robertson's Ready Mix: Plunge Creek Quarry Old Webster Quarry, the silt pond, and East and West Basin facilities	110	221	331
Other*		4	4
Total	**330**	**577**	**907**
Proposed Mining Areas			
Cemex Construction Materials LP: Alabama Street Quarry, West Quarry, and East Quarry North	256	422	678
Robertson's Ready Mix: Plunge Creek Quarry, the Silt Pond Quarry, East Quarry South, West and East basin facilities, and 5th Street access road	180	333	513
Other*		4	4
Total	**436**	**759**	**1,195**

* Includes areas disturbed previously by mining companies other than Robertson's or Cemex.
Note: Acreages may not add up due to rounding.

Approximately 1,195 acres of land are proposed for aggregate mining (extraction of sand and gravel) generally located in the western portion of the Planning Area, from Alabama Street to about the center of the project area. The existing quarry names would be changed in the Planning Area to reflect the new quarries. The locations of the proposed new quarries for Cemex are shown in Figure 4.9 and Figure 4.10 for Robertson's quarries. As part of the proposed project, Cemex and Robertson's would each increase production to a maximum of 3 million tons per year.



LSA

FIGURE 4.9

PLAN BOUNDARY

JURISDICTIONAL BOUNDARY

EXISTING AGGREGATE MINING AREA

PROPOSED AGGREGATE MINING AREA

CEMEX PROPOSED QUARRIES

SUBJECT TO THE SPINEFLOWER RELOCATION PROGRAM

Upper Santa Ana River Wash
Land Management Plan
Environmental Impact Report

SOURCES: San Bernardino Valley Water Conservation District, San Bernardino County, Santa Ana Watershed Project Authority, AirPhotoUSA (2007)

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Cemex Aggregate Mining Areas

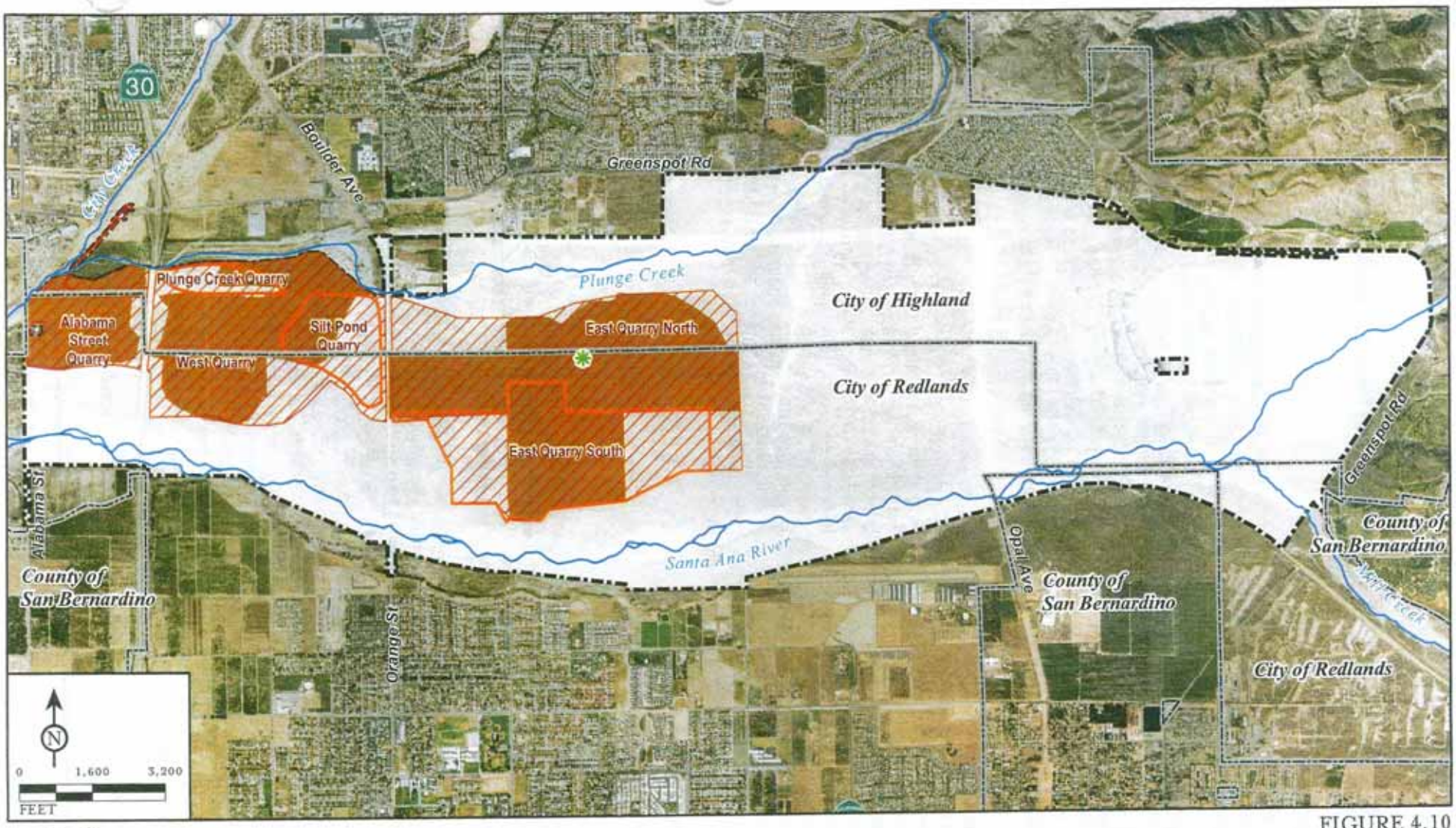

FIGURE 4.10

LSA

- PLAN BOUNDARY
- JURISDICTIONAL BOUNDARY
- EXISTING AGGREGATE MINING AREA
- PROPOSED AGGREGATE MINING AREA
- ROBERTSON PROPOSED QUARRIES
- SUBJECT TO THE SPINEFLOWER RELOCATION PROGRAM

Upper Santa Ana River Wash
Land Management Plan
Environmental Impact Report

Robertson's Aggregate Mining Areas

SOURCES: San Bernardino Valley Water Conservation District, San Bernardino County, Santa Ana Watershed Project Authority, AirPhotoUSA (2007)

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The following discusses the Cemex and Robertson's Mining Plans that would be executed through the cities with the implementation of the proposed project.

Cemex Mining Plan

The proposed location and configuration of the quarries to be operated by Cemex are shown in Figure 4.9. These quarries are the Alabama Street Quarry (west of SR-30); the West Quarry (east of SR-30 and west of Orange Street-Boulder Avenue); and the East Quarry North (east of Orange Street-Boulder Avenue). Compared with the existing permitted mining areas, the proposed mining land use designations for Cemex add 48 acres to the East Quarry North, 17 acres to the Alabama Street Quarry, and 41 acres to the West Quarry for a total of 106 acres of additional planned mining and processing areas for a total of 678 acres. Out of the total 678 acres, approximately 553 acres have been disturbed with mining aggregate process plants, silt ponds, grading, and access roads. Approximately 55 acres of this previously disturbed 553 acres have some natural revegetation. The remaining 125 acres of the 678 acres are undisturbed lands. The estimated operating life of the proposed mining facilities is 61 years with an estimated mining and reclamation completion date of 2070.

Alabama Street Quarry. Cemex plans to mine approximately 51 of the 69 acres at the Alabama Street Quarry, all of which are located within the City of Redlands. This quarry consists of the existing Alabama Northwest Pit and, in addition to the mining of sand and gravel from the site, it also includes 18 acres that are currently used for a ready-mix concrete batch plant, asphalt plant, maintenance facilities, a variety of roads, and various setbacks from Alabama Street. Mining activities would take place to a maximum depth of 150 feet with slopes at 2H:1V.[1] Mining would be restricted to 20 feet from groundwater with no operations allowed in standing groundwater. The Alabama Street Quarry is completely disturbed and excavations would be phased within the pit at varied elevation levels to avoid the potential of high groundwater levels and recharge activities that fluctuate from year to year. Timing of phasing would depend on the quality of and demand for material, groundwater levels, and mining conducted at other Cemex sites that are located within the Wash. The duration of each phase is estimated at 2 to 5 years per phase, generally as follows:

- *Phase 1:* Mine to a depth of 80 feet.
- *Phase 2:* Mine to a depth of 120 feet.
- *Phase 3:* Mine to a depth of 150 feet.

Reclamation of the finished slopes would begin as portions of the quarry reach final grade. The reclamation would consist of recontouring and revegetation of the slopes. The end use for the quarry would be groundwater storage or recharge basin, open space, or other acceptable uses, such as recreation, as determined by the landowner (the City of Redlands).

West Quarry Mine Plan. Approximately 68 acres of the facilities in West Quarry are in the City of Highland and 118 acres are in the City of Redlands. The planned 176-acre excavation area would maintain a setback of 50 feet from the Caltrans right-of-way along the west side of the quarry, and no setbacks would be established on the south side to District lands. The haul road that extends west to east abuts the West Quarry on the north and east. Mining would take place to a maximum depth of 120 feet with slopes at 2H:1V, except for any previously mined area with existing slopes that cannot be laid back due to the Planning Area boundary constraints. Mining would be restricted to 20 feet from groundwater with no operations allowed in standing groundwater. Excavations would be phased within the pit at varied elevation levels to avoid the potential of high groundwater levels (natural or from recharge activities) and recharge activities that fluctuate from year to year from interfering with mining activities. Timing of phasing would depend on the quality of and demand for material, groundwater levels, and mining conducted at other Cemex sites within the wash. The duration of each phase is estimated at 2 to 5 years per phase, generally as follows:

[1] This notation refers to the horizontal to vertical slope; in this case, the horizontal slope is twice is the length of the vertical slope.

- *Phase 1:* Mine the high walls in the northwestern portion of the pit to an overall depth of about 80 feet.
- *Phase 2:* Mine the western half of the existing pit areas to an overall depth of 80 feet.
- *Phase 3:* Initiate mining in the east portion of the site to a depth of 40 feet.
- *Phase 4:* Mine the east portion to 80 feet.
- *Phase 5:* Mine the site to 100 feet.
- *Phase 6:* Mine the site to 120 feet.
- *Phase 7:* Final reclamation.

East Quarry North Mine Plan. Cemex proposes to mine 378 acres within this 420-acre quarry site to a maximum depth of 120 feet with slopes at 2H:1V. Approximately 188 acres of the proposed quarry would be located in the City of Highland with 232 acres located in the City of Redlands. Approximately 297 acres of the proposed mining site have been disturbed by past mining operations with about 125 acres relatively undisturbed. The mining operations would maintain a setback of 50 feet from the Orange Street-Boulder Avenue right-of-way. The north and east sides of the pit would be adjacent to areas designated for habitat conservation and no setbacks would be established. To the south, the quarry would daylight[1] into the East Quarry South operated by Robertson's. Excavations would be phased within the pit at varied elevation levels to avoid the potential of high groundwater levels and recharge activities that fluctuate year to year. Timing of phasing would depend on the quality of and demand for material and mining conducted at other Cemex sites within the wash with an estimated 5 to 10 years per phase, generally as follows:

- *Phase 1:* Mine the previously mined eastern portion of the pit to an overall depth of about 80 feet.
- *Phase 2:* Mine the central area (existing Johnson Pit South) to an overall depth of 80 feet.
- *Phase 3:* Mine the central and eastern portions to a depth of 100 feet.
- *Phase 4:* Mine the central and eastern portions to a depth of 120 feet.
- *Phase 5*: Initiate mining on the area north of the Orange Street Plant to a depth of 80 feet.
- *Phase 6:* Mine the north area to 100 feet.
- *Phase 7:* Reconfigure Orange Street Plant and initiate mining on east half of plant site to 80 feet.
- *Phase 8:* Mine the north area to 120 feet and the east plant area to 100 feet.
- *Phase 9:* Move needed plant facilities to the east side of the current Orange Street Plant site and mine the west half to 100 feet.
- *Phase 10:* Mine the remainder of the western areas to a depth of 120 feet.
- *Phase 11:* Final reclamation.

Mining operations may move from within the quarry depending on actual aggregate quality and the type of material in demand at that time. The proposed operations at this site would not increase overall mining production of the Cemex operations. Mining and reclamation activities would be conducted on the upper slopes concurrently and are estimated to continue intermittently for the life of the permit depending on market demand and aggregate quality. Monitoring and maintenance of reclamation efforts would be initiated once excavated areas reach final grade. The end use for the East Quarry North is proposed to be water conservation, groundwater storage and recharge basins, recreation, and open space, as determined by the landowner (District).

[1] Daylight in this context means that the two adjacent quarries will be excavated to the same depths without leaving a quarry wall between the two.

Mining operations are planned to excavate material using standard open pit mining techniques. Equipment used would not differ (other than technological advancements or replacement equipment) from that currently being used for mining on site. The site would provide a location where Cemex can excavate material on an as-needed basis. Safety features in the form of a three-strand fence with warning signs every 300 feet would be placed around the south side of the quarry where it is potentially accessible to the public. Caltrans maintains fencing along the west side of the West Quarry and SR-30.

Table H summarizes the existing and planned mining and processing activities for Cemex.

Table H – Cemex Existing and Planned Quarries

Site	Permitted Mining Area (Acres)	Existing Disturbed Mining Area (Acres)	Proposed Mining Area (Acres)	City* Area (Acres)	Miscellaneous Uses
Johnson North	79	53	59	H: 59	Ponds, haul roads (29 acres)
Johnson South	59	56	58	R: 58	
Redlands Aggregate North	79	58	75	H: 75	Pond, setback (7 acres)
Redlands Aggregate South	78	78	77	R: 77	
Redlands Aggregate Southeast	NA	NA	21	R: 21	
Orange Street Plant	77	84	76	R: 76	Setback, berm (2 acres)
Orange Street North	NA	NA	54	H: 54	Setback (1 acre)
East Quarry North Subtotals	NA **372**	**329**	**420**	**H: 188** **R: 232**	**39**
Alabama Street Northwest	55	73	72	R: 72	Plant, roads, setbacks (22 acres)
Alabama Street Quarry Totals	**55**	**73**	**72**	**R: 72**	**22**
Alabama Street Southeast	77	69	75	R: 75	Setbacks (2 acres)
Alabama Street Northeast	68	69	68	H: 68	Haul road, setbacks (3 acres)
Alabama Street East	NA	NA	43	R: 43	Setbacks, roads (5 acres)
West Quarry Subtotals	NA **145**	**138**	**186**	**H: 68** **R: 118**	**10**
Cemex Total Mine and Facilities Acres	**572**	**540**	**678**	**H: 256** **R: 422**	**71**

* H=Highland, R=Redlands, in proposed condition.

Note: Acreages may not add up due to rounding.
Four (4) acres of property currently leased by Matich from Redlands is included as future mining within the Wash Plan. This property is not included in the planned or permitted acreage for Cemex or Robertson's.

Source: Lilburn Corporation, Cemex, Robertson's, San Bernardino Valley Water Conservation District, January 2005. LSA GIS Data sets December 2007

Mining and reclamation activities would be conducted concurrently and are estimated to continue intermittently for the life of the permit depending on market demand and aggregate quality. As an area is cleared for mining, the site's vegetation would be salvaged and surface material to a depth of six inches would be scraped and moved directly, when possible, to an area ready for reclamation. Prior to mining previously disturbed areas outside the existing pits (approximately 60 acres), the operator would remove yucca, cacti, and other unique species deemed suitable for transplanting by qualified personnel. The removed plants would either be directly replanted to slopes ready for revegetation or be maintained for future revegetation activities. Topsoil would be stockpiled for reuse during reclamation.

Robertson's Mining Plan

Robertson's Ready Mix would also operate three quarry facilities. Robertson's excavations would occur in the East Quarry South, the Silt Pond Quarry, and the Plunge Creek Quarry, as shown in previously referenced Figure 4.10. The East Quarry South would contain 291 acres with 128 acres of new mining land added. Of this 291-acre excavation site, 142 acres are currently undisturbed land. The Silt Pond Quarry would add 98 acres of new excavation area including 8 acres of undisturbed land. The Plunge Creek Quarry is also a new excavation site and totals 38 acres with roadways and setbacks. Of this area, 13 acres are presently undisturbed land. The total amount of undisturbed land planned for mining excavations in these three proposed quarries is 175 acres. Robertson's would continue to operate its processing plants, roads, and silt ponds on 85 acres. The estimated operating life of the mining operations is 61 years. The proposed project is anticipated to be approved in 2008 leading to mining permit approval and the start of mining in the newly approved areas in 2009 with an estimated mining and reclamation completion date of 2070.

Plunge Creek Quarry Mining Plan. The Plunge Creek Quarry is located east of SR-30, south of Plunge Creek, and north of the West Quarry within the City of Highland. Mining on the approximately 33 acres would remove approximately 20 feet of materials to form a drainable basin that would enhance the capacity of the East Basin Flood Control Basin. The site would be graded at 1 percent sloping to the Plunge Creek invert so that the basin is drainable by gravity. A flood control protective berm would be constructed along the south edge of the quarry.

Mining operations are planned to excavate material using standard mining techniques, removing material with a dozer, shovel, and loader. Haul trucks with a capacity of up to 120 tons would transport material to the adjacent East Basin Processing Plant via existing haul roads. Equipment used would not differ (other than technological advancements or replacement equipment) from that currently being used for mining at the existing Old Webster Quarry. Excavations may be limited at times due to seasonal flooding with no operations allowed in standing water. The timing for completion of mining and reclamation would ultimately depend on market demand and aggregate quality, but would not extend past 2070.

Reclamation of the site would consist of grading contours to allow drainage into Plunge Creek to the north. Reclamation would consist of final contouring, ripping compacted areas, covering slopes with available salvaged topsoil, and revegetation of the slopes and berm on the south side of the quarry. It is expected that the reclaimed quarry may be flooded during heavy seasonal runoff.

Silt Pond Quarry Mining Plan. The Silt Pond Quarry and facilities consist of approximately 98 acres, of which 62 acres are located in the City of Highland and 36 acres are in the City of Redlands. The proposed quarry is currently located on public lands administered by the BLM and, as a part of the Wash Plan, the acreage is to be exchanged for other lands within the Planning Area that are owned by the District.

The Silt Pond Quarry southern and western boundaries are the Robertson's haul road from its Old Webster Quarry, the eastern boundary is Orange Street-Boulder Avenue, and the northern boundary is the East Basin Flood Control road and the Robertson's processing plant. Cemex's haul road currently cuts across the east-central portion of the site and Cemex would abandon the use of this

road when the quarry is being mined. At that time, Cemex would utilize Robertson's existing haul road tunnel beneath Orange Street-Boulder Avenue for haul road traffic.

Mining in the Silt Pond Quarry would occur to a maximum depth of 150 feet with slopes of 2H:1V on the east side along Orange Street-Boulder Avenue and 1H:1V slopes along the north, west, and south perimeters. The steeper slopes and greater depth are planned to provide additional volume for the deposition of silts into the completed quarry. The planned mining would maintain a setback of 68 feet from the Orange Street-Boulder Avenue right-of-way along the east side. No setbacks would be established on the north, west, or south as the pit is adjacent to haul roads.

Excavations would be phased within the pit at varied elevation levels to avoid the potential of high groundwater levels and recharge activities that fluctuate year to year. Timing of phasing would depend on the quality and demand of material and mining conducted at other Robertson's sites within the wash, with an estimated 3 to 5 years per phase, generally as follows:

- *Phase 1:* Mine the northeastern quarter of the pit to an overall depth of about 80 feet.
- *Phase 2:* Mine the central portion to an overall depth of 80 feet.
- *Phase 3:* Mine the southeast area to a depth of 80 feet.
- *Phase 4:* Mine the site to a depth of 100 feet.
- *Phase 5:* Mine the site to 125 feet.
- *Phase 6:* Mine the site to 150 feet.
- *Phase 7:* Final reclamation.

Mining operations are planned to excavate material using standard open pit mining techniques and transporting it to the East Basin Processing Plant. Mining would be restricted to 20 feet from groundwater with no operations allowed in standing groundwater. Existing District monitoring wells and other nearby wells would be used as groundwater monitoring wells to determine the depth to groundwater. Mining and reclamation activities would be conducted concurrently and are estimated to continue intermittently for the life of the permit depending on market demand and aggregate quality. Mining operations would move within the quarry depending on actual aggregate quality and on the type of material in demand at that time. The pit slopes would be mined to the reclamation design contours. Upon completion of mining, the site would be used for the deposition of silts created during the processing operations.

Reclamation during mining would consist of maintaining stable slopes. The completed quarry would be used to deposit the silt-laden water from Robertson's East Basin Processing Plant and future silts from Cemex's Orange Street Plant. The quarry would gradually fill with settled silts, be covered with surface material, revegetated with native species, and returned to open space.

East Quarry South. Located in the City of Redlands, East Quarry South contains almost the entire Old Webster Quarry, which has been mined by various operators since the 1920s. Robertson's has been mining a portion of the area since 1989. The 291-acre East Quarry South mining area contains approximately 142 acres that have been disturbed by past and existing mining and approximately 20 acres located within the existing Santa Ana River Woollystar Preservation Area. This area, located in the far southwestern section of the proposed quarry site, was previously used for a lumber operation and is heavily disturbed. The East Quarry South is bounded on the north by Cemex's Orange Street Plant and several other pits, which comprise the planned East Quarry North, which would daylight with the East Quarry South. To the east and south are habitat conservation lands and the Santa Ana River Woollystar Preservation Area. Mining would take place in East Quarry South to a maximum depth of 120 feet with slopes at 2H:1V. Robertson's would initiate a land exchange with the County Flood Control District to acquire the 20-acre lumber mill site and deed approximately 47 acres to the Santa Ana River Woollystar Preservation Area.

Excavations would be phased within the pit at various elevation levels to avoid the potential of high groundwater levels and recharge activities that fluctuate year to year. Timing of phasing would depend on the quality of and demand for material and mining conducted at other Robertson's sites within the Wash with an estimated 5 to 10 years per phase, generally as follows:

- *Phase 1:* Mine the western portion of the pit to an average depth of about 80 feet.
- *Phase 2:* Mine the eastern portion to an overall depth of 80 feet.
- *Phase 3:* Mine the western half of the site to a depth of 100 feet.
- *Phase 4:* Mine the eastern half of the site to a depth of 100 feet.
- *Phase 5:* Mine the western half to a depth of 120 feet.
- *Phase 6:* Mine the eastern half to a depth of 120 feet.
- *Phase 7:* Final reclamation.

Mining operations are planned to excavate material using standard open pit mining techniques of creating benches every 20 to 25 feet in height with the dozer and shovel; removing material and loading the haul trucks with the shovel; and transporting material to the East Basin Processing Plant. Mining operations may move within the quarry depending on actual aggregate quality and the type of material in demand at that time. Mining and reclamation activities would be conducted on the upper slopes concurrently and are estimated to continue intermittently for the life of the permit depending on market demand and aggregate quality. As mining progresses, contouring of the final perimeter quarry walls would be undertaken. Final reclamation of the lower slopes would lag toward the end of mining. Monitoring and maintenance of reclamation efforts would be initiated once excavated areas reach final grade. The end use for the East Quarry South would be groundwater storage or recharge basin or recreation.

Robertson's existing and proposed mining and processing sites are summarized in Table I.

Table I – Robertson's Existing and Planned Quarries

Site	Permitted Mining Area (Acreage)	Existing Disturbed Mining Area (Acres)	Planned Mining Area (Acres)	City*Area (Acres)	Miscellaneous Uses
Old Webster Quarry	211	149	162	R: 162	
Old Webster Quarry West	NA	NA	70	R: 70	
Old Webster Quarry East	NA	NA	58	R: 58	
East Quarry South Subtotal	**211**	**149**	**291**	**R: 291**	
Silt Pond Quarry	NA	43	98	H: 62	Roadways, setbacks
				R: 36	(8 acres)
Plunge Creek Quarry	38	13	38	H: 38	Roadways, setbacks
					(5 acres)
Silt Pond, Plunge Creek totals	NA	**56**	**137**	**H: 101**	**13 acres**
				R: 36	
Mine Sites Totals	NA	**205**	**428**	**H: 101**	**13 acres**
	249			**R: 327**	

Table I – Robertson's Existing and Planned Quarries

Site	Permitted Mining Area (Acreage)	Existing Disturbed Mining Area (Acres)	Planned Mining Area (Acres)	City*Area (Acres)	Miscellaneous Uses
West Basin**	33	33	36	H: 30 R: 6	Process plants, roads
East Basin	36	36	36	H: 36	Process plants roads
Silt Pond	13	13	13	H: 13	Silt ponds
Facilities Totals	**82**	**82**	**85**	**H: 79** **R: 6**	**85 acres**
Robertson's Mines and Facilities Totals	**331**	**288**	**513**	**H: 180** **R: 333**	**85 acres**

Note: Acreages may not add up due to rounding.
Four (4) acres of property currently leased by Matich from Redlands is included as future mining within the Wash Plan. This property is not included in the planned or permitted acreage for Cemex or Robertson's.

* H=Highland, R=Redlands, in the proposed condition

** West Basin Site includes 3 acres of the 5th Street mining access road.

Source: Lilburn Corporation, Cemex, Robertson's, San Bernardino Valley Water Conservation District, January 2005. LSA GIS Data sets December 2007

Mine Waste (Cemex and Robertson's)

Mining activities extract approximately 5 percent of unusable materials consisting of boulders and clay or silt. Boulders not sold or crushed by either operator would be stockpiled on site and integrated into the final reclamation of the sites. Silt, which is a byproduct of material washing at the Orange Street Plant for Cemex and the East Basin Processing Plant for Robertson's, would be deposited in the existing silt ponds in the eastern half of Johnson Pit North until filled by Cemex, or into the existing silt ponds southwest of the East Basin Processing Plant by Robertson's. In future years the Silt Pond Quarry located to the west of Orange Street-Boulder Avenue would be used for the deposition of silts by both Cemex and Robertson's.

Production Process (Cemex and Robertson's)

The mining operators would excavate the designated extraction areas by the same standard mining practices now used in their operations. This includes excavating material using standard open pit mining techniques of either pushing material with a dozer to a working level or removing and loading material with the loader and/or shovel into haul trucks and transporting material to the Orange Street and East Basin Processing Plants. Excavated materials may be initially screened by a portable grizzly screen, which moves with the mining inside the pit to separate out large boulders.

Prior to mining the undisturbed areas, the operators would remove yucca, cacti, and other unique species deemed suitable for transplanting by qualified personnel. The removed plants would either be directly replanted to slopes ready for revegetation or be maintained for future revegetation activities. In addition, any measures required pursuant to the HCP for the overall implementation of the Wash Plan would be undertaken.

Maximum production of the aggregate processing plants would be 3 million tons per year for each mining company (Cemex and Robertson's), with a combined total of 6 million tons per year. The Mine and Reclamation Plans for the Planning Area prepared by Lilburn Corporation estimate the aggregate reserves in the mine area to be 200 million tons. These estimated reserves vary based on depth, slope angles, setbacks, and use of areas for settling. Production at the Alabama Street Plant, Orange

Street Plant, and East Basin Processing Plant would not exceed air quality permits from the SCAQMD.

Cemex Processing. Excavated materials are transported via haul truck to a surge pile at the Alabama Street Plant or Orange Street Plant. Cemex signed an agreement with Robertson's to utilize its tunnel under Orange Street-Boulder Avenue for truck travel between its Orange Street Plant and Alabama Street and West Quarries. This would reduce the crossing of Orange Street-Boulder Avenue by off-road trucks at the signal located at the plant's driveway. In addition, a paved internal access road for highway-legal trucks only would be constructed from the signal at the Orange Street Plant to access 5th Street directly between City Creek and the SR-30 southbound on-ramps at 5th Street. Trucks from the Orange Street Plant would utilize this 30-foot paved access road to minimize truck traffic from Orange Street-Boulder Avenue northbound to 5th Street and on 5th Street from Orange Street-Boulder Avenue to SR-30. Robertson's trucks would also utilize this access road along the east bank of City Creek to 5th Street.

Material is processed at the Orange Street Plant through a series of crushers and wet and dry screens to produce specification grade, sized aggregates, and sand. The crushed and screened material is transported by customer owned trucks for a wide variety of construction uses throughout the area. Mining and the Orange Street Process Plant currently operate between the hours of 4:00 a.m. to 10:00 p.m. Monday through Friday, 6:00 a.m. to 6:00 p.m. on Saturdays, with no processing allowed on Sundays. Shipping is allowed 24 hours, 7 days per week. No change in operational hours is requested.

Production at the processing plants operated by Cemex would not exceed existing air quality permits. The existing plants have approved air quality permits from the SCAQMD. No additional air quality permits are required.

In addition, the operator complies with the SCAQMD's Rules 403 and 1157 to control fugitive dust emissions, which would be extended to include all active operations. Dust control measures may include watering of haul roads, active mining and processing areas, and stockpiles of fine materials; limiting truck speeds; use of chemical stabilizers on haul roads; and routine maintenance of equipment and trucks. Trucks sprays and wheel washers are utilized and any spillage onto public roads is cleaned up. The mining operations would generally be within the pits protected from direct winds. Furthermore, mining is restricted when winds exceed 25 miles per hour. In addition, the operator shall comply with all existing and future California Air Resources Board (CARB) and SCAQMD regulations related to diesel-fueled trucks and equipment.

Robertson's Processing Plant. Excavated materials are transported via haul truck to a surge pile at the East Basin Processing Plant. Robertson's utilizes its tunnel under Orange Street-Boulder Avenue for truck travel between the East Quarry South and the existing East Basin Processing Plant. This eliminates the crossing of Orange Street-Boulder Avenue. In addition, Robertson's trucks would utilize the planned access road along the east bank of City Creek to 5th Street.

Processing at the approved 38-acre East Basin Processing Plant consists of a variety of primary, secondary, and tertiary crushing, wet and dry screening to produce specification grade, sized concrete and asphalt aggregate, sands, and road base. The crushed and sized material is mainly transported to other regional Robertson's Ready Mix facilities and to the concrete batch plant at the West Basin or Highland Facilities with some product shipped to various other end users. Mining and processing currently operates between the hours of 4:00 a.m. to 10:00 p.m. Monday through Friday, 6:00 a.m. to 6:00 p.m. on Saturdays, with no processing allowed on Sundays. Shipping is allowed 24 hours, 7 days per week. No change in operational hours is requested.

The existing aggregate plant has approved air quality permits from the SCAQMD. The East Basin Processing Plant is planning to produce a maximum of up to 3 MTPY. Increased production would require a modification to its permit to operate from the SCAQMD. Based on engineering parameters,

Robertson's may replace a piece of existing equipment to increase its production or add another piece of equipment next to it. There would not be any substantial change to the East Basin Plant.

Dust control equipment on the plants includes water sprays, enclosed operations, and baghouses. In addition to these permits, the operator complies with the SCAQMD Rules 403 and 1157 to control fugitive dust emissions, which would be extended to include all active operations. Dust control measures include watering of haul roads, active mining and processing areas, and stockpiles of fine materials; limiting truck speeds; use of chemical stabilizers on haul roads as needed; and routine maintenance of equipment and trucks. Wash racks for highway trucks are utilized and any spillage onto public paved roads is cleaned up. The mining operations would generally be within the pits protected from direct winds. Furthermore, mining is restricted when winds exceed 25 miles per hour. In addition, the operator shall comply with all existing and future CARB and SCAQMD regulations related to diesel-fueled trucks and equipment.

Reclamation Plans (Cemex and Robertson's)

For both operators, reclamation of the mining pits would be undertaken concurrently with mining operations. Reclamation would be in compliance with reclamation standards recommended by the State's Surface Mining and Reclamation Act (SMARA)[1] regulations (Public Resources Code § 2710 et seq.). The reclamation plans for the proposed new quarries with implementation of the proposed project addresses the steepness of the slopes with most of the new slopes constructed at a ratio of 2H:1V. The Silt Pond Quarry would be the only quarry with a new slope of 1H:1V, which would be protected from public access through fencing and signs. Some pre-existing steeper slopes would remain at locations where project boundaries cannot accommodate a 2H:1V slope. Revegetation of completed 2H:1V slopes as well as monitoring of revegetation activities would be initiated upon completion of final grades along portions of the pit slope. The lower 20 feet of the slopes and the quarry bottoms would not be revegetated due to typical operational requirements of groundwater storage or recharge basins. Final grading of the basin floor would be coordinated with the landowner to facilitate the designated end use. Activities would be initiated upon completion of final grades along portions of the project in phases as areas are mined out. The completed mining areas would be utilized for future water conservation, including water recharge and water storage basins, open space, or other uses agreed upon by the landowner and the city involved. The side slopes would be revegetated with native plant species and would be available for habitat conservation and open space. Subsequent environmental review would be required should the final use involve anything other than passive open space or water conservation.

Process plants, mining equipment, stockpiles, and refuse would be removed. Locked gates and fencing, as needed, would remain along quarry rims with signs posted every 300 feet to prevent public access into the quarries.

Mining Facilities Haul Roads

Cemex and Robertson's private haul roads cover about 19 acres and are used internally by mining trucks. Cemex's haul road connects the Alabama Street operations with the Orange Street Plant with a signalized intersection on Orange Street-Boulder Avenue. Robertson's trucks use a tunnel crossing beneath Orange Street-Boulder Avenue to provide a haul route from the Old Webster Quarry to the Plunge Creek East Basin Processing Plant. Cemex has signed an agreement with Robertson's to utilize the tunnel crossing beneath Orange Street-Boulder Avenue for truck travel between Cemex's Orange Street Plant and Alabama Street and West Quarries. A new paved, road approximately 30 feet wide, is to be constructed to connect the existing Cemex's Orange Street-Boulder Avenue crossing to the proposed 5th Street Access Road described below. All haul roads in the Wash Plan are within the land use area designated for mining.

[1] The Surface Mining and Reclamation Act of 1975 was enacted by the California Legislature to address the need for a continuing supply of mineral resources and to prevent or minimize the negative impacts of surface mining to public health, property and the environment. The Department of Conservation Office of Mine Reclamation and the State Mining and Geology Board are jointly charged with ensuring proper administration of the Act's requirements.

Mining Facilities 5th Street Access Road

One of the circulation elements of the proposed project is a new off-street paved road to be constructed along the existing City Creek levee located on the east side of City Creek between 5th Street and the east-west boundary of the project (Figure 4.11). This new access road segment would connect with a new paved road to be constructed within the mining area to serve the Cemex and Robertson's processing plants. The northern terminus of the new access road would connect to eastbound 5th Street for exiting vehicles that would go south on SR-30. All other vehicles that would not go south on SR-30 would use the Alabama Street access. Entering vehicles from SR-30 or east of SR-30 would ingress from the westbound lane of 5th Street and traverse beneath the 5th Street Bridge connecting to the levee Access Road. The new Access Road would be constructed on an easement granted to Robertson's by County Flood and would be a private roadway. The new levee Access Road would serve as the ingress and egress route for the trucks serving both Cemex and Robertson's processing plants.

4.6 ARTERIAL ROADS AND HIGHWAYS

The proposed project includes the reservation of rights-of-way and environmental mitigation for subsequent improvements to Greenspot Road and the Greenspot Road Bridge (Figure 4.12), Alabama Street, and Orange Street-Boulder Avenue (Figure 4.13). The Greenspot bridge crossing will be replaced and Greenspot Road will be widened to four lanes. The roadway improvements will be subject to subsequent environmental review by the Cities of Highland and Redlands as part of their engineering design plan approval processes. Total acreage of new roadway improvements within these ultimate rights-of-way would be approximately 47 acres within the Planning Area.

Additionally, within the Wash Plan, an existing dedicated right-of-way is in place for a portion of Church Street. This dedicated right-of-way is within an area that will be mined as part of the proposed project in the future. The expansion of mining activities would prohibit the development of a roadway. Prior to the mining in the area dedicated for Church Street, these portions of Church Street must be vacated.

Greenspot Road Widening, Realignment and New Bridge

A portion of the northern and eastern boundary of the Planning Area in the City of Highland includes Greenspot Road and the Greenspot Road Bridge crossing of the Santa Ana River. As part of three separate City of Highland projects, several tight curves in Greenspot Road will be realigned to increase the curve radii and the bridge crossing will be replaced, and Greenspot Road will ultimately be widened to four lanes.

The first City of Highland project includes a new Greenspot Road Bridge to be built at the Santa Ana River crossing. The new bridge would be located approximately 250 feet west (downstream) of the existing bridge. In addition, a connection between the new bridge and the existing roadway to the south would be constructed as well as a connection between the new section of Greenspot Road north of the bridge and the existing roadway. Within the next five years, the new bridge would be built with four travel lanes and sidewalk to match the ultimate width of Greenspot Road, which would be a Major Highway with a 104-foot right-of-way, 80 feet curb-to-curb, 6.5-foot sidewalk, and 5.5-foot parkway on both sides of the right-of-way. The two-lane new bridge project would include realignment of a total of 3,369 feet of Greenspot Road on both sides of the bridge to match the location of the new bridge. The bridge project would realign Greenspot Road to increase the curve radius north of the new bridge crossing as shown in Figure 4.12. The existing curve on Greenspot Road northerly of the new bridge would be smoothed to accommodate a design speed of 65 miles per hour.

The second City of Highland project would realign Greenspot Road to smooth out the "S" curve (see western portion of Greenspot Road as shown in Figure 4.12). This "S" curve is located on Greenspot Road east of Santa Paula Street and would be smoothed to accommodate a design speed of 65 miles per hour. The Greenspot Road "S" curve improvements would extend easterly from Santa Paula Street approximately 2,857 feet.

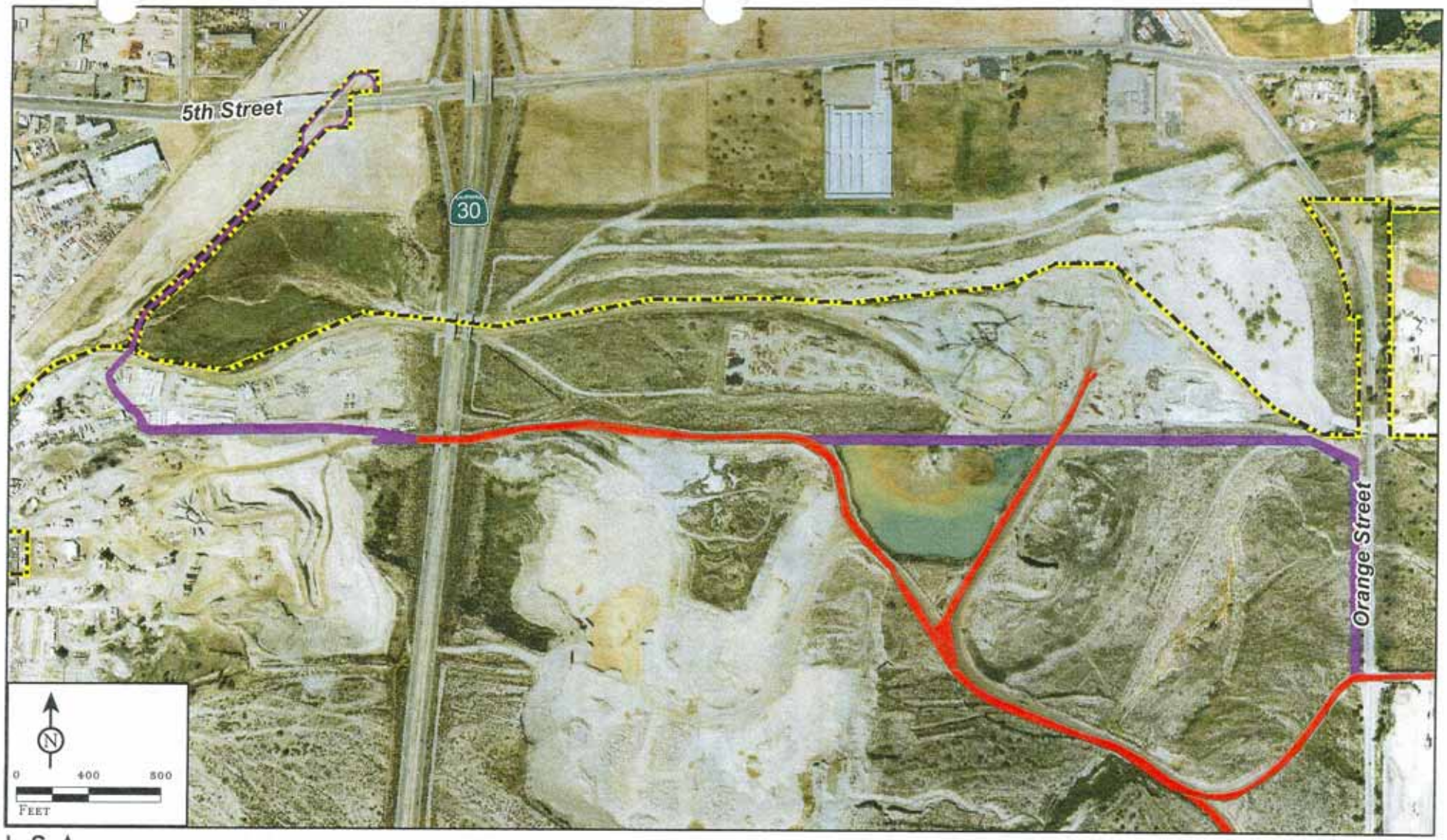

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FIGURE 4.11

PLAN BOUNDARY

PROPOSED NEW PAVED ROAD AND NEW ACCESS ROAD TO 5TH STREET

EXISTING HAUL ROAD

Upper Santa Ana River Wash
Land Management Plan
Environmental Impact Report

Proposed Mining Access and Haul Roads

SOURCE: San Bernardino Water Conservation District; AirPhotoUSA, 2007

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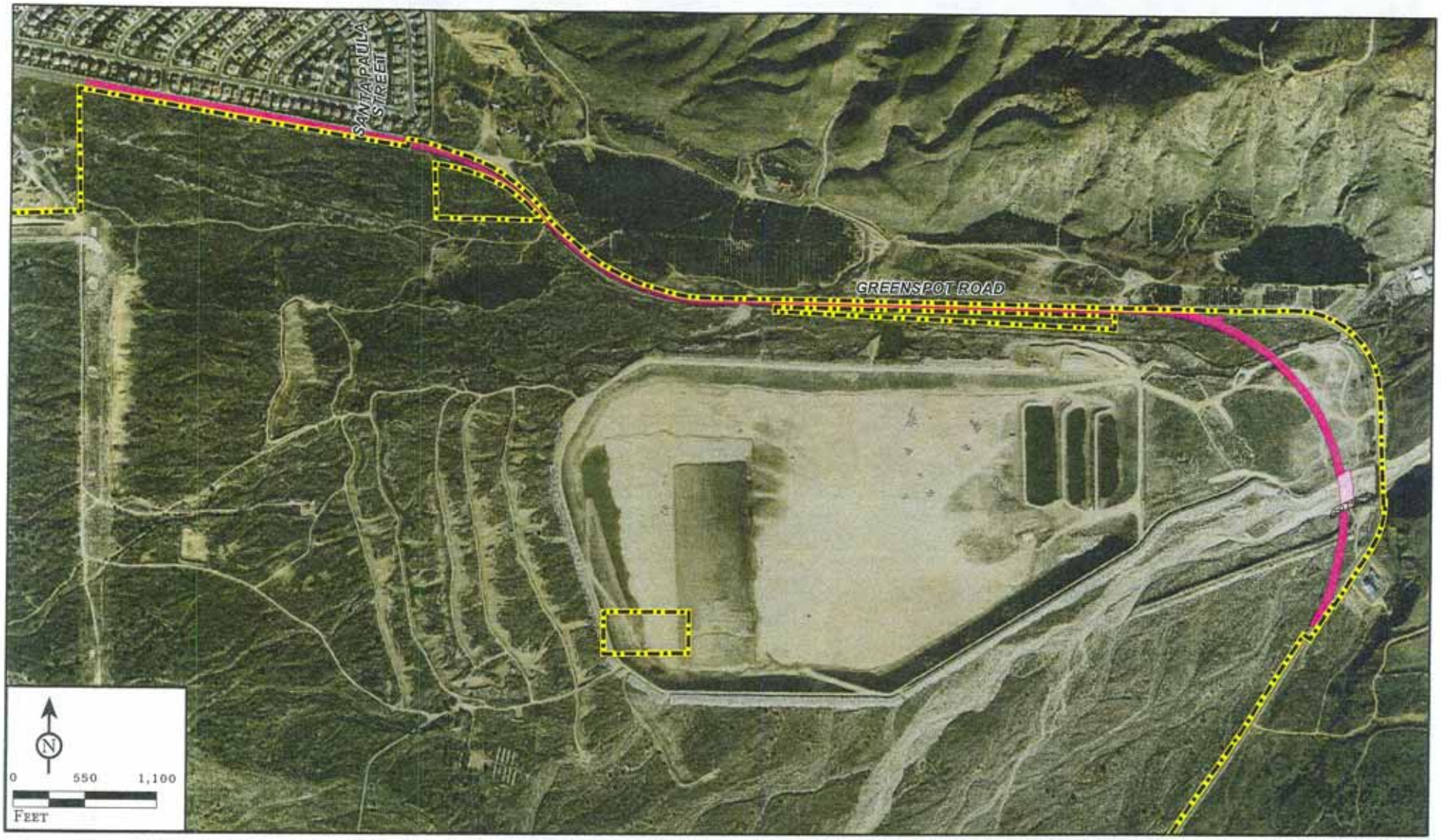

LSA

FIGURE 4.12

PLAN BOUNDARY

PROPOSED ALIGNMENT OF GREENSPOT ROAD

PROPOSED BRIDGE

PROPOSED ROADWAY

PROPOSED CHANNEL IMPROVEMENTS

Upper Santa Ana River Wash
Land Management Plan
Environmental Impact Report

Proposed Greenspot Roadway
Alignment and New Bridge

SOURCE: SBV Water Conservation District, 2002; San Bernardino County, 2004; AriPhotoUSA, 2008

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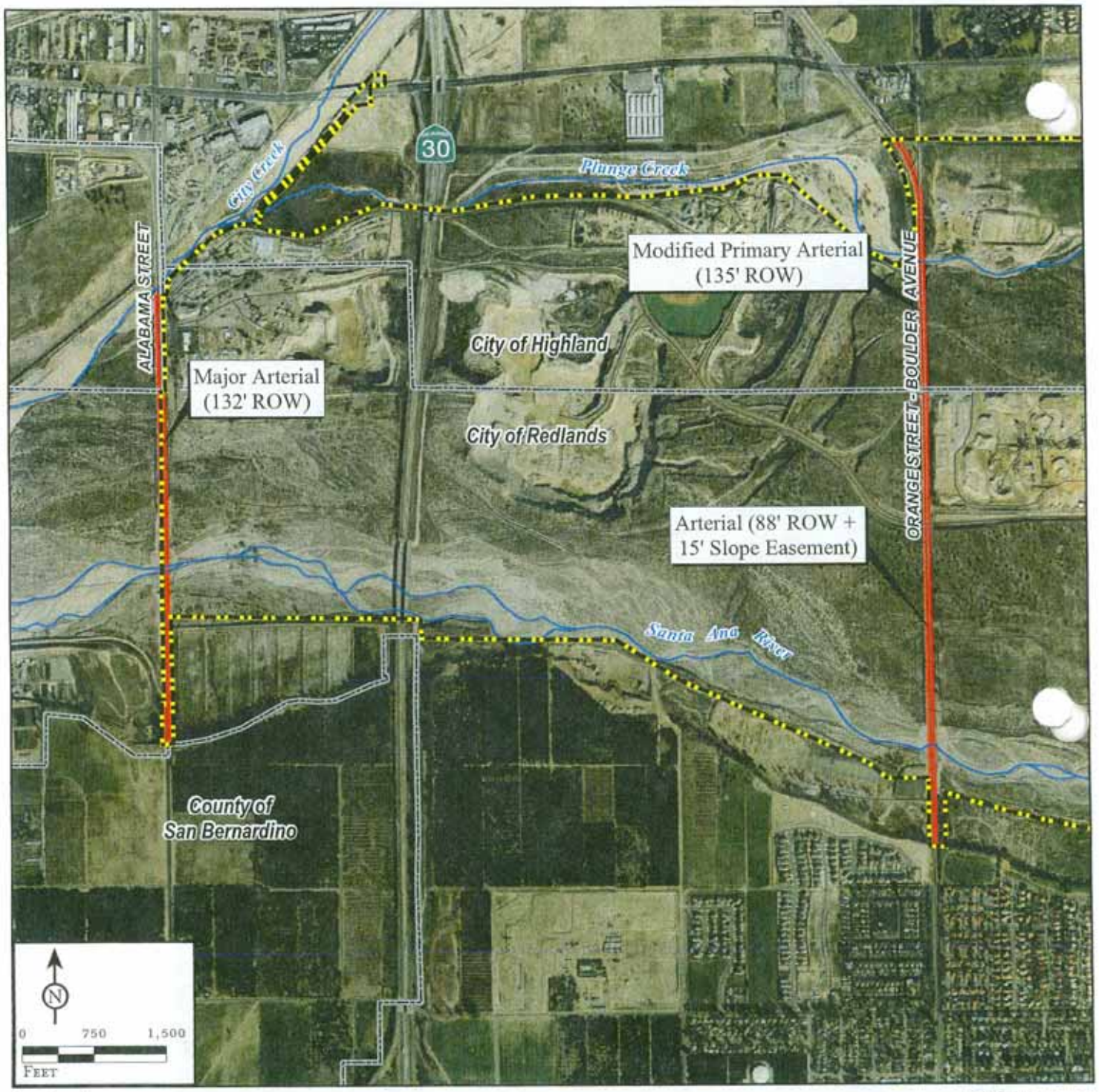

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FIGURE 4.13

PLAN BOUNDARY

JURISDICTIONAL BOUNDARY

ARTERIAL ROADS

ROADS*

RIVER OR CREEK*

*Road and stream locations digitized from 2006 aerial.

Upper Santa Ana River Wash
Land Manageme
Environmental Impact Re

Arterial Roads
Ultimate Planned ROW

SOURCE: San Bernardino Valley Conservation District; Thomas Bros., 2006; AirPhotoUSA, 2008

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The third City of Highland project, which could be constructed in one or more phases, would widen a total of 6,226 feet of Greenspot Road to four lanes, where it has not been widened by the first and second projects with street improvements per the City's Major Highway standards, from the west line of Section 6 to the beginning of the "S" curve and from the end of the "S" curve to the beginning of the Greenspot Road Bridge improvements previously described.

The Greenspot Road projects include widening Greenspot Road to its ultimate width for a distance of approximately 11,962 feet, including the reconstructed and realigned roadway on both sides of the new bridge. The Greenspot Road and bridge improvements would result in approximately 29.5 acres of permanent disturbance. A total of approximately 13.2 acres would be temporarily disturbed during construction based on 33 feet of linear staging areas beyond the roadway right-of-way, plus 4.7 acres of land around the bridge construction site. Included in the street improvements would be streetlights and associated signage and underground utilities such as electrical, telephone, optic cable, water and sewer. Also included in the street improvements would be removal of 1.7 acres of existing pavement, which would reduce the area permanently disturbed by the same amount.

This document serves as a program level EIR for these Greenspot Road and Bridge projects, providing the environmental analysis and mitigation needed for designation of the rights-of-way. Subsequent project-specific impact analyses and design-level construction drawings would be prepared by the City of Highland.

Alabama Street Widening

The centerline of Alabama Street north of the existing mining operations and the entire Alabama Street south of the mining operations form the western boundary of the Planning Area. This public roadway travels north-south in the City of Redlands and continues on through the City of San Bernardino and the City of Highland outside the project boundary. The southern boundary of the project area on Alabama Street extends approximately 1,600 feet south of the bridge crossing over the Santa Ana River. From the northern limits of this bridge crossing to the northern Redlands City limits (approximately 2,575 feet), Alabama Street would be widened to an ultimate 132-foot right-of-way with 24-foot-wide slope easements. Total estimated area to be disturbed by construction of new roadway equals approximately 1.4 acres. Temporary impacts would occur during construction on approximately 5.0 acres, based on a linear 33 foot staging area along both sides of the roadway. South of the Santa Ana River Bridge, outside the Planning Area, Alabama Street would also be widened to the ultimate right-of-way of 132 feet.

This document serves as a program level EIR for these street improvements, providing the environmental analysis and mitigation needed for designation of the rights-of-way. Subsequent project-specific impact analyses and design-level construction drawings would be prepared by the City of Redlands.

Orange Street-Boulder Avenue Widening

Orange Street-Boulder Avenue traverses the Planning Area in a north-south direction and passes through both the Cities of Highland and Redlands.

In the City of Highland, the paved roadway is currently 30 feet wide with 3-foot to 10-foot wide graded shoulders. Ultimately, the street improvements would include a 135 foot right-of-way with a 98-foot curb separation, curb, and gutter, 6.5-foot sidewalk, and graded shoulder. Estimated area to be disturbed by construction includes 5.75 acres permanent and 4.0 acres temporary based on a linear 33 foot staging area along both sides of the roadway.

In the City of Redlands, the build out of Orange Street would require an 88-foot right-of-way with a slope easement on the western side of the right-of-way in the Planning Area. This slope easement would be 15 feet at the southern boundary of the bridge over the Santa Ana River widening to 30 feet at the northern bridge boundary and tapering to 0.0 feet at the northern roadway boundary at the City limits. The street widening includes widening the roadway south of the Orange Street Bridge for about

1,000 feet to its ultimate width of two lanes in both directions. The area to be disturbed by construction and permanent right-of-way equals approximately 10.7 acres. Temporary impacts would occur during construction on approximately 7.4 acres, based on a linear 33 foot staging area along both sides of the roadway.

4.7 TRAILS

As part of developing this Land Management Plan, an analysis of existing trails and General Plan Community Trails was completed. As a result of that review and analysis, it was determined that the various trail plans for the Cities of Highland and Redlands did not fully match, and did not completely address the ultimate trail needs of the Wash Plan. The following is a summary of the proposed trails developed as a combined effort of the participating jurisdictions. Figure 4.14 depicts the proposed trail plan.

All trails would be located on existing streets, service roads, or old railroad beds. Additionally, the placement of signs indicating that trails and service roads would serve a dual purpose would be required. Off-road vehicles and equestrian uses would not be permissible trail activities within the interior of the project area. Boulders from the surrounding area or similar barricades may be placed to direct trail users away from Habitat Conservation, Flood Control, Water Conservation, and mining areas. Off-trail use would be discouraged by (1) signage; (2) barriers placed in or near areas of sensitive habitat; (3) maintenance of existing grades, which provide separation from adjacent areas; and (4) maintenance of surrounding area in natural conditions because boulders, topography, and soils are unsuitable for bicycle and off-road use.

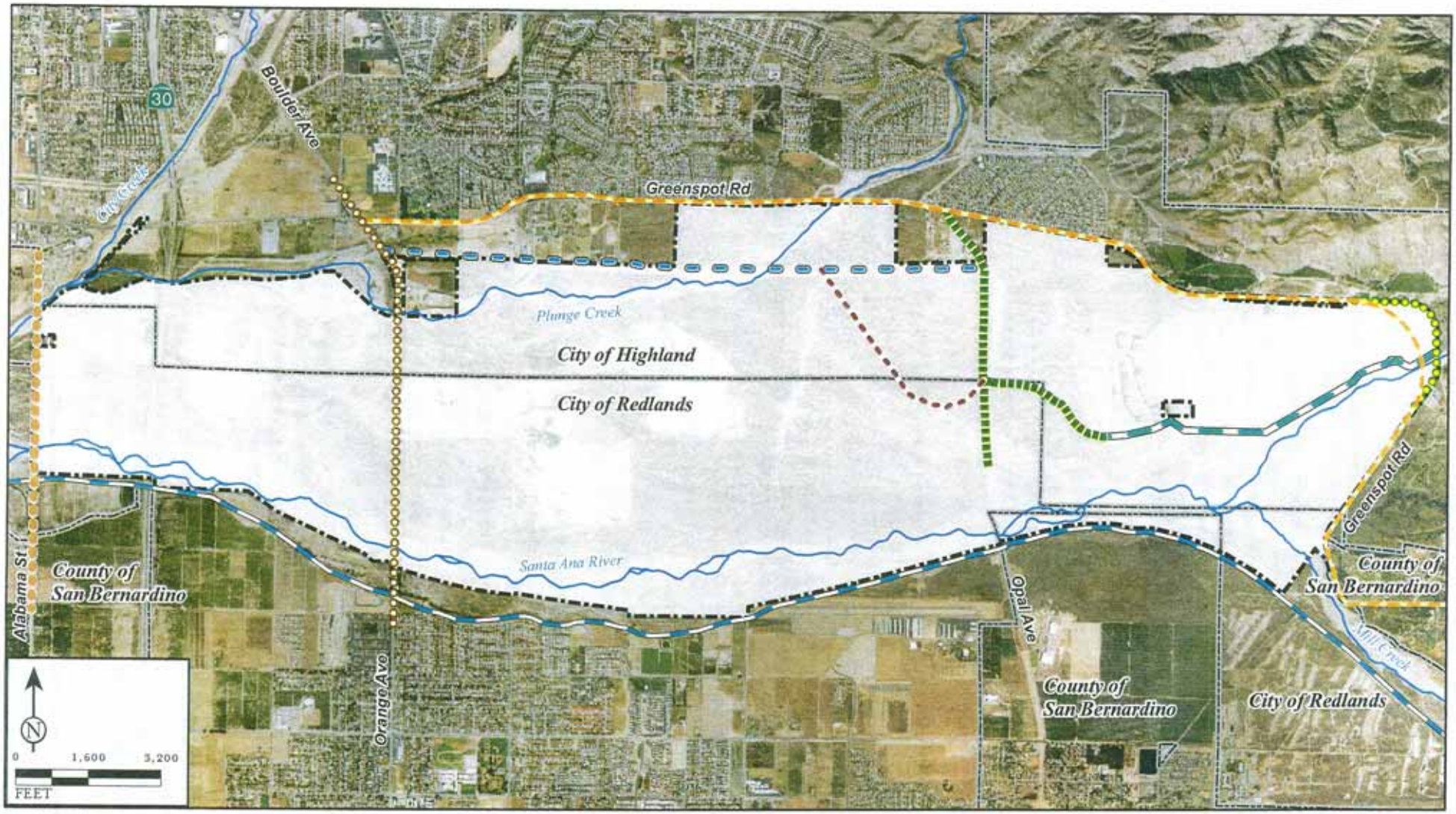
In addition to the trails proposed within the project area, a significant regional trail is planned just outside the project boundaries. The Santa Ana River Trail passes outside the southern border of the project site and is reflected in the General Plans of the City of Highland and City of Redlands. The Santa Ana River Trail is planned to extend 110 miles and is envisioned to provide bicycling, riding, and hiking from the San Bernardino Mountains to the Pacific Ocean. It would provide recreational and commuting opportunities in three counties (San Bernardino, Riverside, and Orange). Although not a part of the proposed project, the Santa Ana River Trail would intersect the Orange Street-Boulder Avenue Trail on the south side of the Santa Ana River, and also intersect the Greenspot Road Trail east of the project boundary.

Classes of Trails

There are four (4) categories of trails included in the Plan. Definitions for Classes 1 through 3 are adopted from the Caltrans *Highway Design Manual*.[1] These are as follows:

- **Class 1 trails** (dedicated bikeways, paved bike paths) provide a completely separate right-of-way for the exclusive use of bicycles and pedestrians with crossflow by motorists minimized. Class 1 trails would be off-road bicycle trails that could also be used for hiking because there would be no vehicle traffic from the local street system. As applicable, these trails would be developed to Caltrans standards as published in the *Highway Design Manual.*
- **Class 2 trails/lanes** (paved bikeways in street rights-of-way) provide a striped lane for one-way bicycle travel on a street or highway. Class 2 trails are located along the side of and within the paved cross-section of the roadway. There would typically be a trail on both sides of the street to facilitate bicycle traffic going each direction. As applicable, these trails would be developed to Caltrans standards as published in the most *Highway Design Manual.*
- **Class 3 trails** (paved multi-use) provide for shared use with pedestrian or motor vehicle traffic. Class 3 trails are approximately 10 to 12 feet wide and would accommodate hiking, non-motorized bicycle use, and maintenance vehicles. These trails would deviate slightly from the

[1] *Highway Design Manual, Chapter 1000 Bikeway Planning and Design*, California Department of Transportation, June 26, 2006.



LSA

FIGURE 4.14

PLAN BOUNDARY
JURISDICTIONAL BOUNDARY
RIVERS AND CREEKS
ALABAMA STREET TRAIL
ORANGE STREET/BOULDER AVENUE TRAIL
GREENSPOT ROAD TRAIL
OLD GREENSPOT ROAD TRAIL
POLE LINE ROAD TRAIL
OLD RAIL LINE TRAIL
CONE CAMP ROAD TRAIL
SOUTH RIM TRAIL
SANTA ANA RIVER TRAIL (NAP)

Upper Santa Ana River Wash
Land Management Plan
Environmental Impact Report

SOURCE: San Bernardino Water Conservation District (2006); City of Highland (2006); City of Redlands (2006); AirPhotoUSA(2007).

Planned Trails

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Caltrans design standards for the purposes of accommodating the periodic maintenance activities associated with utility providers and water conservation vehicles.

- **Class 4 trails** (unpaved multi-use) trails would accommodate certain types of trail activities, including bicyclers, hikers, and maintenance vehicles. The trails would not normally be paved and, in most cases, they would align with existing maintenance roads and/or abandoned railroad beds. Some paving may be required, if preferred, to keep users on the trail when nearing critical habitat areas. In the Planning Area, multi-use unpaved trails would respect the "existing/baseline" conditions to preserve the unique habitat; however, there would be areas where it would be necessary to install physical barriers, such as, but not limited to, large boulders and fencing.

Proposed Trail Locations

Alabama Street Trail (Class 2). The Alabama Street Trail would run north-south along the westerly edge of the project boundary. This trail is shown as a Class 2 bikeway located on the paved road section of Alabama Street right-of-way. This trail is currently shown on the *City of Highland General Plan Update* Multi-Use Trails Map where its City Creek Trail connects to Alabama Street. The City of Redlands General Plan does not depict a trail on Alabama Street; therefore, the City of Redlands General Plan would need to be amended to include this trail.

Orange Street-Boulder Avenue (Class 2). Passing through the Cities of Highland and Redlands, the Orange Street-Boulder Avenue Trail runs north-south along Boulder Avenue to Orange Street in the City of Highland and Orange Street in the City of Redlands. It would be a Class 2 bikeway located on both sides of the paved road section of Orange Street-Boulder Avenue rights-of-way. This trail is currently shown on the *City of Highland General Plan Update* Multi-Use Trails Map; but the *City of Redlands 1995 General Plan* currently shows a "north-south" trail, following the unconstructed Church Street alignment located to the east of Orange Street. The Church Street trail would no longer be feasible with the implementation of the Wash Plan, because any future construction of Church Street would be set aside for mining activities. The *City of Redlands General Plan* would need to be amended to remove the existing alignment for the Church Street trail to realign with the Orange Street-Boulder Avenue corridor to link with the Orange Street-Boulder Avenue Trail proposed by the City of Highland. The *Circulation Element* of the *City of Redlands General Plan* currently identifies a Class 3 bikeway occurring along Orange Street within the City. The *City of Redlands General Plan* would need to be amended to reclassify the Class 3 bikeway occurring along Orange Street to a Class 2 bikeway/trail to be consistent with the proposed trails plan.

Greenspot Road (Class 2). The Greenspot Road Trail would run east-west along the north side of the Planning Area predominantly in the City of Highland; however, it would enter the City of Redlands at the southeast corner of the Planning Area eventually intersecting the Santa Ana River Trail. This trail is shown as a Class 2 bikeway located on the paved road section of the Greenspot Road right-of-way inclusive of the new "S" curve realignment and new bridge over the Santa Ana River westerly of the existing Greenspot Iron Trestle Bridge. The Greenspot Road Trail would be located along both sides of the paved street section to accommodate bicycle traffic in both directions.

Old Greenspot Road Trail (Class 1). The Old Greenspot Road Trail runs along the existing alignment of Greenspot Road where it travels across the Greenspot Iron Trestle Bridge, about one mile downstream from the base of the Seven Oaks Dam. When the new Greenspot Road Bridge is completed just westerly of the Iron Trestle Bridge, the existing roadway would be converted into a Class 1 Dedicated Bikeway with connections to the newly realigned Greenspot Road. This new trail alignment could also be used for occasional maintenance vehicles for the Seven Oaks Dam and the District.

Pole Line Road Trail (Class 4). The Pole Line Road Trail extends along the northerly portion of the project area between the Orange Street-Boulder Avenue Trail and the proposed Cone Camp Road Trail. This trail is currently shown on the *City of Highland General Plan Update* Multi-Use Trails Map as an unpaved maintenance road for electrical utility and water conservation use. It is also contiguous to the east-west alignment of the Metropolitan Inland Feeder Pipeline. Construction of the portion of

this trail from Orange Street to Church Street in the City of Highland is anticipated to occur as part of residential development entitlements and could be built on or contiguous to the existing Metropolitan Easement. The trail section east of Church Street in the City of Highland would be constructed in the existing Abby Way right-of-way outside of the project area boundaries. Abby Way currently terminates near an EVWD Well Site (APN 1210-211-24). The Pole Line maintenance road enters and traverses the Planning Area at this location.

The Pole Line Road Trail would stay within its existing alignment, so as to preserve nearby natural habitat in the Planning Area. In areas where the Pole Line Trail would pass adjacent or near to areas of sensitive habitat, it may be necessary to install physical barriers to prevent trail user incursions into the habitat. The types of barriers to be used would mimic current features found in the Planning Area whenever possible, utilizing large boulders or other naturally occurring materials from the surrounding area. Where more prohibitive barriers would be required, step through facilities and fencing may be used.

Old Rail Line Trail (Class 4). The Old Rail Line Trail would extend along the abandoned railroad bed from the northerly alignment of the Pole Line Road Trail, southerly to an existing maintenance road, then easterly to Cone Camp Road. The abandoned rail line is a straight-line path surfaced with crushed lava (remnant of the old railway that served the local citrus industry). A new trail bed is not proposed. This multi-use unpaved trail would utilize the vacated railroad bed, preserving the natural habitat in the Planning Area. The trail bed is slightly raised above the elevation of surrounding habitat, which is bordered by fairly rough terrain dominated by boulders and perennial shrubs. Consequently, it is likely that off-road/off-trail use would be discouraged from entering the natural habitat/habitat conservation areas because of these obstacles. This trail is currently shown on the *City of Highland General Plan Update* Multi-Use Trails Map where the abandoned rail line currently exists. The City of Redlands General Plan does not depict a trail connecting the old rail line with Cone Camp Road; therefore, the City of Redlands General Plan would need to be amended to include the Old Rail Line Trail.

Where the Old Rail Line Trail converges with the maintenance road to Cone Camp Road, the trail would be blocked to deter public use beyond this point for the following reasons:

- The old railroad bed grade becomes significantly raised in elevation south of this point;
- Federally listed species occur in greater abundance in this area; and
- The BLM ACEC and RNA are located in this area.

The Cone Camp Road Trail (Class 4). The Cone Camp Road Trail would use the existing Cone Camp Road beginning at Greenspot Road on the north and proceeding southerly. The trail proceeds to an existing boulder and pylon barrier turn-around point, to prohibit traversing the Santa Ana River Woollystar Preservation Area. Additionally, the trail turns easterly toward the old Cone Camp site where it becomes the Borrow Pit South Rim Trail. A new trail bed is not proposed; rather, this multi-use unpaved trail would utilize the existing disturbed area Cone Camp Road, to preserve the unique habitat in the Planning Area. This trail is currently shown on the *City of Highland General Plan Update* Multi-Use Trails Map where the Cone Camp Road currently exists. The City of Redlands General Plan depicts a trail in the vicinity of the proposed Cone Camp Road Trail; the Santa Fe – Mentone Trail. Because the proposed Cone Camp Road Trail would terminate at an existing boulder and pylon barrier turn-around point and not connect with the existing Santa Fe – Mentone Trail, the City of Redlands General Plan requires an amendment to remove the Santa Fe – Mentone Trail. Additionally, the City of Redlands General Plan does not depict a trail on Cone Camp Road; therefore, the City of Redlands General Plan would need to be amended to include the Cone Camp Road Trail.

Borrow Pit South Rim Trail (Class 3). The Borrow Pit South Rim Trail would begin at the existing Greenspot Road (Old Greenspot Road Trail) on the east, and proceed westerly under the proposed new Greenspot Road Bridge (when constructed), along the existing paved maintenance road on the

southern rim of the borrow pit, and connect to the Cone Camp Road Trail at the old Cone Camp campground. Barriers may be erected along the inner edge of this trail to prevent entry on to the pit side slopes, and any potential interference with water spreading activities.

Guidelines for Public Use and Maintenance of Trails in the Plan Area

1. All Class 3 multi-use unpaved trails would be for passive recreational uses, limited to:
   - Bird watching;
   - Hiking and mountain bike use on designated trails;
   - Photography; and
   - Scientific research.
2. Equestrian and off-highway (inclusive of motorized bikes) use is prohibited within the interior of the Planning Area (excluding normal maintenance vehicles). Equestrian uses frequently bring non-native seeds and other plant materials into sensitive habitat areas, compromising the non-native vegetation control plan. Consultations with representatives of the USFWS indicate that the acreage compromises reached in the Task Force deliberations on mining and habitat balances would be threatened if regular equestrian uses were permitted on such interior trails, and habitat preservation areas. Consequently, in working with development of a trails plan, the Cities of Redlands and Highland agreed that equestrian uses would be prohibited.
3. Trail markings, maintenance, directional signage, and barriers shall be designed and implemented such that adverse effects of passive recreation, such as trampling vegetation and erosion, would be minimized.
4. Motorized vehicular access by the public would be strictly prohibited. Vehicular use shall be restricted to use as necessary by public safety or emergency personnel, or for repair and maintenance activities.
5. As appropriate, daily and seasonal limits on trails use would be established. When necessary, trails would be closed on a temporary basis to minimize disruption of nesting and other wildlife functions for species that would be covered by the subsequent Santa Ana River Wash HCP, WSPA as modified by the proposed project, or ACEC and RNA as modified by the subsequent BLM land exchange, or if public access has resulted in, or is expected to result in, significant negative impacts to sensitive species. Passive recreational uses would be limited or restricted in critical wildlife areas during breeding season, as determined appropriate.
6. Education and outreach would be used to increase public awareness and appreciation for habitat and wildlife values. Informational signage would be placed at strategic locations throughout the trails of the Planning Area to explain the nature and sensitivity of the protected habitat. Public access information packets and guides would be developed for users of trails in the Planning Area. These packets would be made available on all participating agency websites
7. Feeding of all wildlife would be prohibited.
8. The following litter control measures would be implemented along the trails:
   - Closed garbage cans and recycling bins would be provided at trailheads and access points.
   - Litter and trash would be collected and removed on a regular basis, either as a matter of funding for the administration of the trails or through implementation of an "adopt a trail" program. Garbage cans and recycling bins would be maintained appropriately.
   - Penalties would be imposed for littering and dumping on Planning Area trails.
9. Pets would be required to be leashed at all times.

4.8 AGRICULTURE

There is no change to the existing agricultural land as a result of the proposed project. The existing 6-acre orchard would remain.

4.9 AREA NOT A PART

There is no change to the lands that would remain as not a part.

4.10 UNDESIGNATED/PUBLIC OWNERSHIP

There is no change to the lands designated undesignated/public ownership as a result of the proposed project.

4.11 UTILITY EASEMENTS

The following utility easements within or adjacent to the project area are expected to remain:

1. The City of Redlands water supply wells and pipelines;
2. East Valley Water District water supply wells, tanks, and pipelines;
3. Metropolitan Water District of Southern California Inland Feeder Pipeline;
4. Southern California Gas Company gas lines; and
5. Adelphia Communication fiber optic cables.

The easements held by Southern California Edison along the perimeter of the project area and along Pole Line Road are also expected to remain; however, the energy lines that traverse the project area in alignment with Church Street in the Cities of Redlands and Highland would be impacted by the proposed project. As the mining area expands, these energy transmission lines would need to be relocated and will be addressed in subsequent environmental review at the time the activity occurs.

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5.0 INTENDED USE OF THE WASH PLAN DOCUMENT

5.1 AGENCIES EXPECTED TO USE THE WASH PLAN DOCUMENT

Lead Agency

- San Bernardino Valley Water Conservation District.

Responsible Agencies

- City of Highland.
  - Community Development Department.
  - Public Works Department.
- City of Redlands.
  - Community Development Department.
  - Municipal Utilities Department.
  - Public Works Department.
- County of San Bernardino.
  - Land Use Services Department.
  - Flood Control District.
- U.S. Department of Interior.
  - Bureau of Land Management.
  - Fish and Wildlife Service.

Trustee and Responsible Agencies

- California Department of Fish and Game.
- South Coast Air Quality Management District (SCAQMD)
- California Regional Water Quality Control Board, Santa Ana Region.
- California Department of Water Resources, Southern California Division.
- California Department of Conservation, Office of Mine Reclamation.
- California Department of Environmental Quality, South Coast Air Quality Management District.
- California Department of Transportation.

Other Agencies

- San Bernardino International Airport.
- East Valley Water District.
- U.S. Department of Defense, U.S. Army Corps of Engineers.
- Southern California Edison.
- Metropolitan Water District of Southern California.

5.2 PERMITS AND OTHER APPROVALS

Table J enumerates the actions to be taken by individual agencies, local public entities, utility districts, private owners, and federal entities that must occur to fully implement the Wash Plan.

Table J – Actions Required to Implement the Wash Plan

Entity	Action
Local Districts/Public Agencies	
San Bernardino Valley Water Conservation District (Lead Agency)	• Certify EIR as CEQA Lead Agency. • Approve the Land Management Plan. • Amend leases with Robertson's and Cemex to relocate mining. • Approve CEQA portion of land exchange with BLM. • Conduct ongoing groundwater recharge operations and maintenance. • Approve location of new paved road in mining area on District land. • Grant Rights-of Way easements to the respective City for Recreational Trails on District land. • Set aside District-owned lands for Habitat Conservation, as indicated in Land Management Plan. • Approve Habitat Enhancement Plan and Implementation Agreement. (Incorporating this EIR mitigation measures, as well as any additional measure the USFWS may impose with the HCP or HMP).
San Bernardino County Flood Control District (Responsible Agency)	• Conduct ongoing flood control operations and maintenance within Planning Area. • Approve the Santa Ana River Woollystar Preserve Area land exchange with Robertson's. • Approve and permit a new aggregate delivery vehicle Access Road to 5th Street at the City Creek Levee. • Approve Habitat Conservation Plan and Implementation Agreement.
East Valley Water District (Responsible Agency)	• Conduct ongoing water supply operations and maintenance within the Planning Area. • Approve Habitat Enhancement Plan and Implementation Agreement.
City of Highland (Responsible Agency)	• General Plan and Zoning Regulations amendment from Agriculture Equestrian (Ag/Eq) to Open Space (OS) and Public/Institutional (P/I) to Open Space (OS) and related zone change from Agricultural Equestrian Residential (A/EQ) to Open Space (OS) and Public/Quasi-Public (P/Q) to Open Space (OS). • Amend General Plan for the trails in the Conservation and Open Space Element. • Incorporate mitigation measures related to trails, pursuant to conditions of approval imposed on Cemex and Robertson's, and in cooperation with the City of Redlands, SBVWCD, and San Bernardino County Parks and Recreation Department. • Approve a Conditional Use Permit and Reclamation Plan for Robertson's to mine aggregate in the Wash Area. • Approve a Conditional Use Permit and Reclamation Plan for Cemex to mine aggregate in the Wash Area. • Approve and permit location of new paved Access Road to 5th Street. • Designate rights-of-way for future construction project to straighten and widen Greenspot Road. • Designate right-of-way for future construction of new bridge on Greenspot Road over the Santa Ana River. • Designate right-of-way for future widening of Alabama Street. • Designate right-of-way for future widening of Orange Street-Boulder Avenue. • Approve Habitat Conservation Plan and Implementation Agreement. • Potential approval for construction of street and traffic improvements to widen and extend 3rd Street from Palm Avenue to 5th Street.

Table J – Actions Required to Implement the Wash Plan

Entity	Action
City of Redlands (Responsible Agency)	• Amend General Plan for designated trail rights-of-way in the Open Space and Conservation Element. • Incorporate mitigation measures related to trails. • Approve a Conditional Use Permit and Reclamation Plan for Robertson's to mine aggregate in the Wash Area. • Approve a Conditional Use Permit and Reclamation Plan for Cemex to mine aggregate in the Wash Area. • Designate right-of-way for future widening of Alabama Street. • Designate right-of-way for future widening of Orange Street-Boulder Avenue. • Approve Habitat Conservation Plan and Implementation Agreement.
Private Entities	
Robertson's	• Approve location of and construct new paved road in mining area on District and SBCFCD land. • Revise air quality permits with SCAQMD. • Approve the Santa Ana River Woollystar Preserve Area land exchange with the SBCFCD. • Approve Habitat Enhancement Plan. • Amend lease with the District. • Conduct mining operations on areas designated for Mining in Land Management Plan, pursuant to conditions imposed by City of Highland and City of Redlands.
Cemex	• Approve location of and construct new paved road in mining area on District and SBCFCD land. • Approve Habitat Enhancement Plan. • Amend lease with the District. • Conduct mining operations on areas designated for Mining in Land Management Plan, pursuant to conditions imposed by City of Highland and City of Redlands.
Federal/State Entities	
Bureau of Land Management (Responsible Agency)	• Authorize and grant rights-of-way for groundwater recharge operations on BLM land. • Authorize and grant right-of-way for future widening of Orange Street-Boulder Avenue. • Authorize and grant rights-of-way for trails on BLM land. • Reference this Land Management Plan in a separate EIS to exchange Federal lands with the District. • Approve Habitat Enhancement Plan and Implementation Agreement. • Amend the South Coast Resource Management Plan to include Areas of Critical Environmental Concern.
U.S. Army Corps of Engineers (Responsible Agency)	• Potential approval of Section 404 Permit for construction associated with the new Access Road to 5th Street and excavations along City Creek and Plunge Creek within the Plunge Creek Quarry. • Approve the Santa Ana River Woollystar Preserve Area land exchange between the SBCFCD and Robertson's.
Regional Water Quality Control Board	• Approve NPDES permit for site drainage on construction of the new aggregate delivery vehicle paved road and Access Road to 5th Street.
U.S. Fish and Wildlife Service (Responsible Agency)	• Reference this EIR in the issuance of a take permit, in approving a formal Habitat Conservation Plan and Habitat Management Plan for the Planning Area, after a Record of Decision on the BLM EIS to exchange land with the District.
California Department of Fish and Game (Trustee and Responsible Agency)	• Reference this EIR and Habitat Enhancement Plan and Implementation Agreement to reach a Consistency Determination of the USFWS for the Habitat Conservation Plan and Habitat Management Plan for the Planning Area. • Potential approval of a Section 1600 streambed alteration agreement for construction associated with the new access road to Fifth Street, and excavations along Plunge Creek within the Plunge Creek Quarry.

Table J – Actions Required to Implement the Wash Plan

Entity	Action
South Coast Air Quality Management District (Responsible Agency)	• Amendment to Robertson's air quality permits
Other	
San Bernardino Valley Municipal Water District	• Not Applicable

5.3 WASH PLAN COMPONENTS REQUIRING FEDERAL AND STATE ACTION

- Record of Decision approving a BLM land exchange with the District, and amending the South Coast Resource Management Plan;
- Approval by the USFWS of a Habitat Conservation Plan and companion Habitat Management Plan for the Planning Area, and issuance of an Incidental Take Permit pursuant to Section 10(a)(1)(B) of the Federal Endangered Species Act for Cemex and Robertson's mining activities, including a new paved road and new Access Road, and Cities of Redlands and Highland for a Trails Management Plan and street rights-of-way designations; and City of Highland designation of right-of-way for future construction of a new bridge on Greenspot Road over the Santa Ana River.
- Consistency Determination by the CDFG pursuant to Section 2080.1 of the Fish and Game Code (after the USFWS completes a Federal Environmental Assessment (EA) for the Incidental Take Permit), and issuance of a Streambed Alteration Agreement pursuant to Section 1600 et seq., also of the Fish and Game Code.
- Department of Conservation, Office of Mine Reclamation review of reclamation plans, plan amendments and financial assurances (SMARA).