



**FINAL  
QUAIL RUN RESTORATION PLAN**

**Prepared for:  
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**Amec Foster Wheeler Project No. 1555500022**

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## **I. PROJECT DESCRIPTION**

This Restoration Plan (Plan) is for the restoration, monitoring, and maintenance activities associated with the restoration of vegetation composed of wetland, riverine and riparian habitat in the 6.38 acres of the borrow areas created by the development of the Quail Run Apartment Project (Project). The Project area consists of 30.93 acres located northwest of the corner of Quail Run Road and Central Avenue in Riverside, California (Figures 1 and 2). It is in Section 1, Township 3 south, Range 5 west, San Bernardino base and meridian (Figure 2).

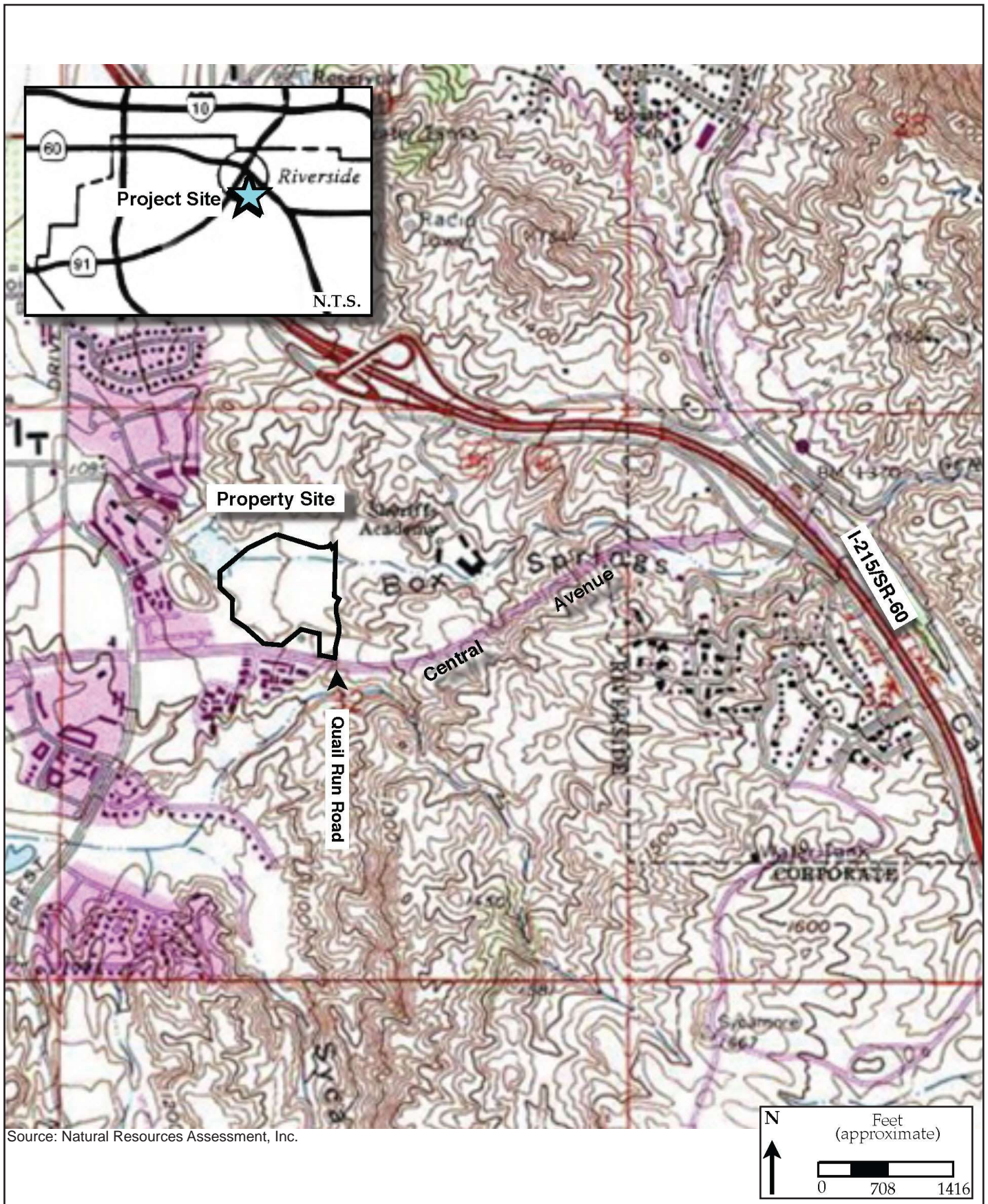
The proposed project is composed of two components. The first is the development of approximately 11.2 acres of the southeastern portion of the project site into thirteen apartment buildings and common areas. The second component is the development of approximately 6.38 acres as a borrow site to provide fill for the apartment pads and roads, which are elevated above the flood plain of Box Springs Creek to the level of the surrounding development. The cut and fill amounts will be balanced on site, as shown in Figure 3. The remaining approximately 13.35 acres will not be impacted by the development.

The project site is currently mostly undeveloped, and is largely comprised of a drainage, some willow and mulefat scrub sites, and upland areas comprising an elevated alluvial terrace and upland slopes. The topography of the site varies from essentially flat with a shallow slope along the Box Springs Canyon channel and the upper terraces, to hilly slopes north and south of the channel (Figures 1 and 2). The Box Springs Channel is enclosed by nearly vertical steep banks on either side at the eastern end, tapering to at-grade slopes at the western end where the channel enters a flood control basin, most of which is off the project site. It is largely the upland areas are proposed for development.

## **II. SOILS**

There are six soils that occur on the property (Figure 4, NRCS 2014). They are Buren fine sandy loam, eroded, Cieneba sandy loam, eroded, Cieneba rocky loam, eroded, Hanford coarse sandy loam, Terrace escarpments, and Tujunga loamy sand, channeled. Cieneba sandy and rocky loams are residuum soils weathered from igneous rock, and are restricted to the hillside in the north-central area of the property. Burren fine sandy loam, Hanford coarse sandy loam, Terrace escarpments, and Tujunga loamy sand are all alluvial soils that are found in the lower slopes along the southern boundary and on the upper and lower flat areas to the north and south of the Box Springs Canyon channel. The Hanford and Tujunga soils are the ones where the restoration sites are located. Boring conducted during the geotechnical investigations for the project implementation (Geomat 2014) indicated that such alluvial soils continue at least to the level of the bottom of the borrow areas, and therefore are expected to be the substrates on which restoration will be implemented. Infiltration rates conducted at selected locations at the depth that would be surface soils at the final grading indicated infiltration rates of 10-16 inches per hour.

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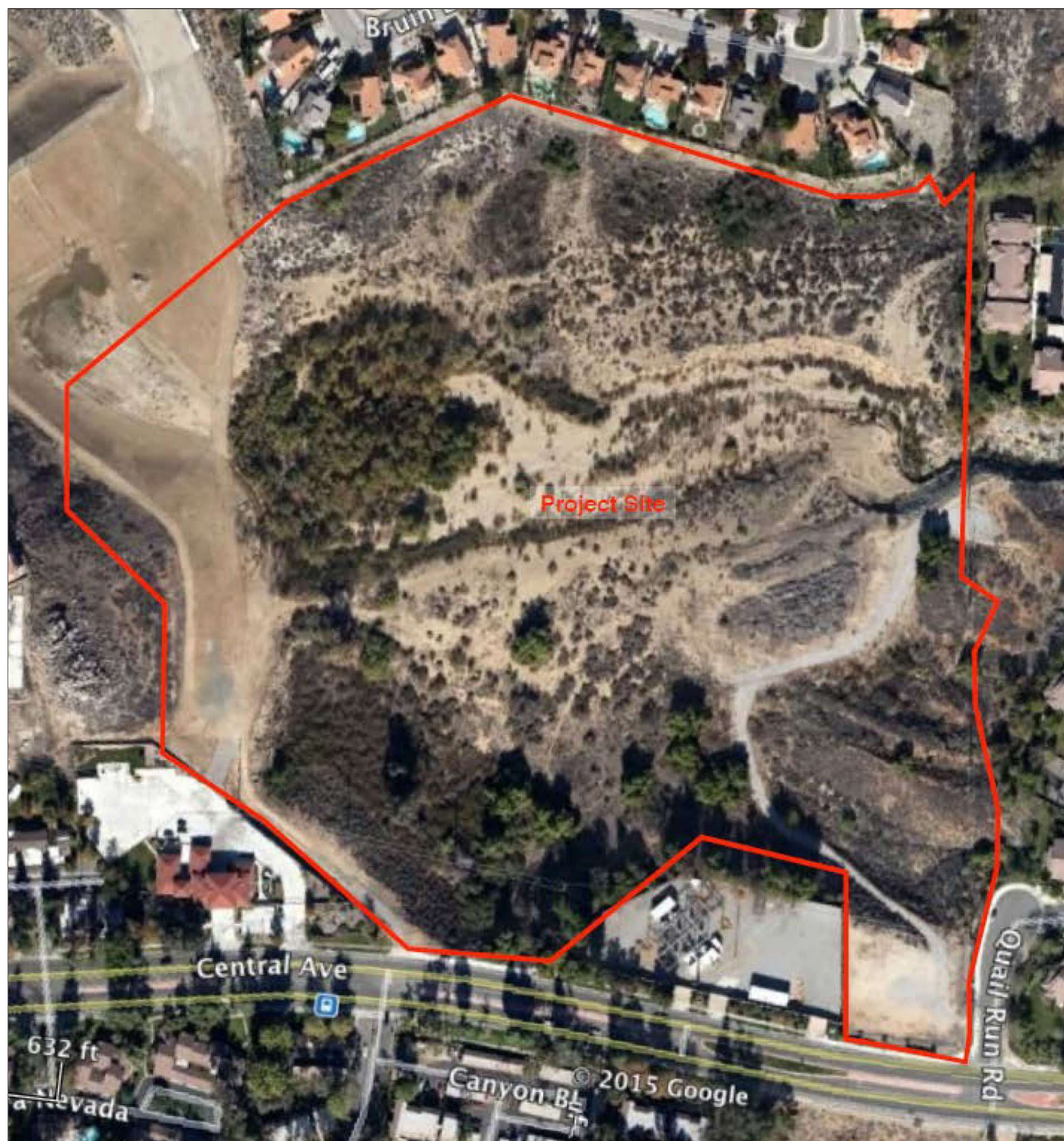
**Project Location and Site Vicinity**  
**Quail Run Development**  
**Riverside, California**  
**Restoration Plan**

**FIGURE**

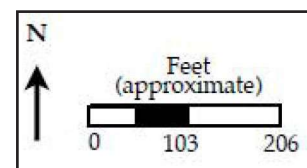
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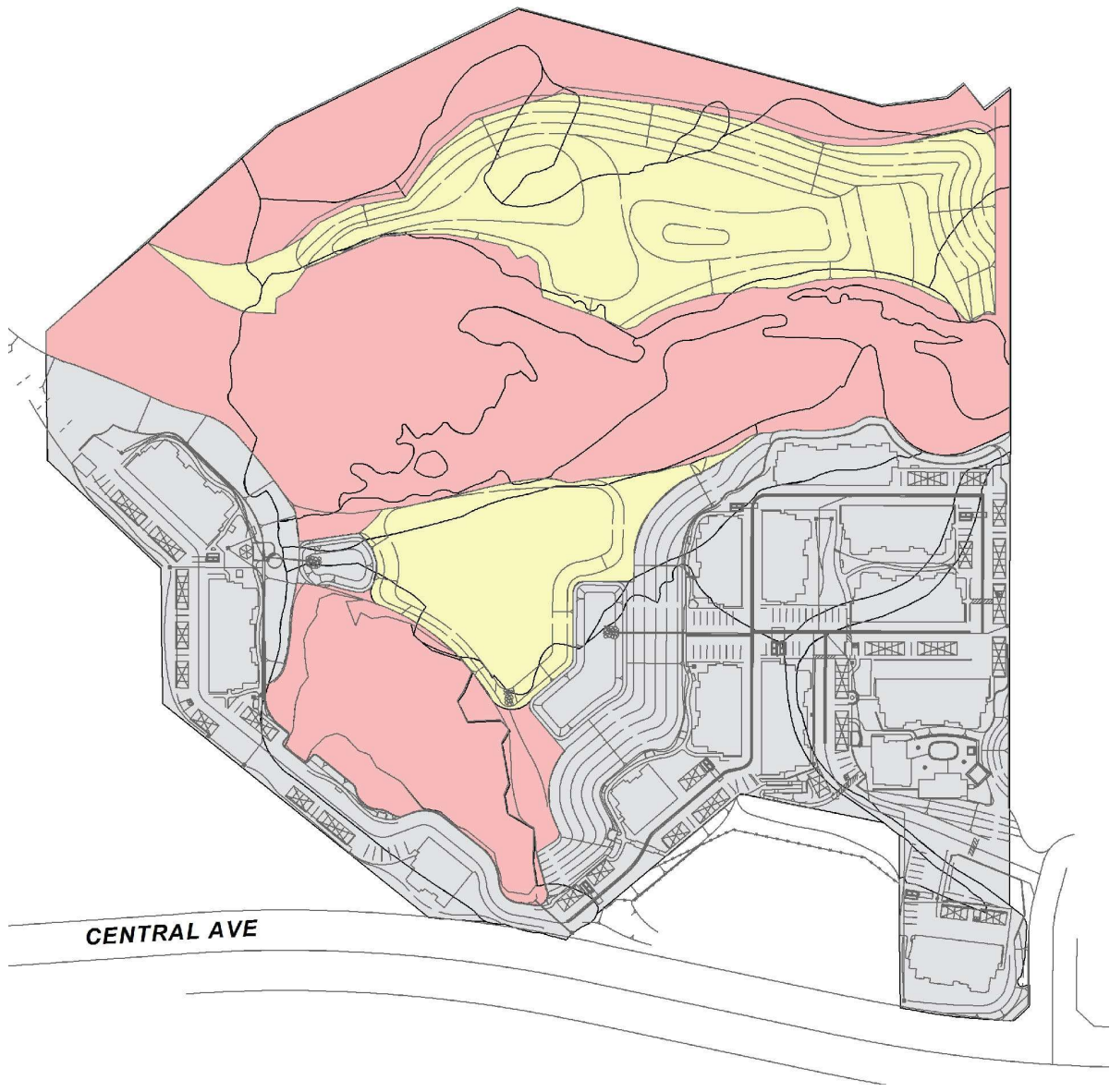
Source: Natural Resources Assessment, Inc.



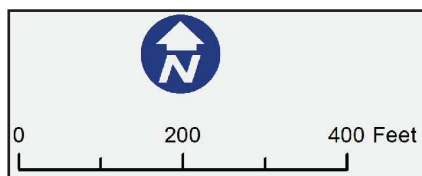
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Source: Natural Resources Assessment, Inc.



#### LEGEND

- Permanent Impacts - Development Area
- Temporary Impacts - Borrow Site and Site of Future Mitigation Areas
- Unimpacted Areas

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**Development and Borrow Site Areas**  
**Quail Run Development**  
**Riverside, California**  
**Restoration Plan**

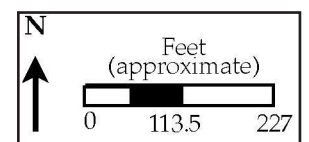
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Source: Natural Resources Assessment, Inc.



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### III. HYDROLOGY

The portion of this property proposed for development, along with most of the rest of the property, has not been used for any purpose historically and has drained naturally to the downstream flood control basin, which is confined behind a dam. Some of the lowest portions of the property have historically (since the construction of the dam) been routinely maintained by the Riverside County Flood Control and Water Conservation District (District), the owners of the dam. Periodically, large storms transport debris and sediment from the four square mile watershed upstream of the property. This material is deposited in the flood control basin at the lowest and westernmost portion of the property and is removed to maintain the capacity of the reservoir for flood control purposes. Due to the small size of the project relative to the entire watershed, and due to the onsite storm water management measures that are designed by the project to control stormwater flows from the developed site, there will be a less than significant difference in the pre-project and post-project flows in Box Canyon Creek.

### IV. PRE-RESTORATION PLANT COMMUNITIES

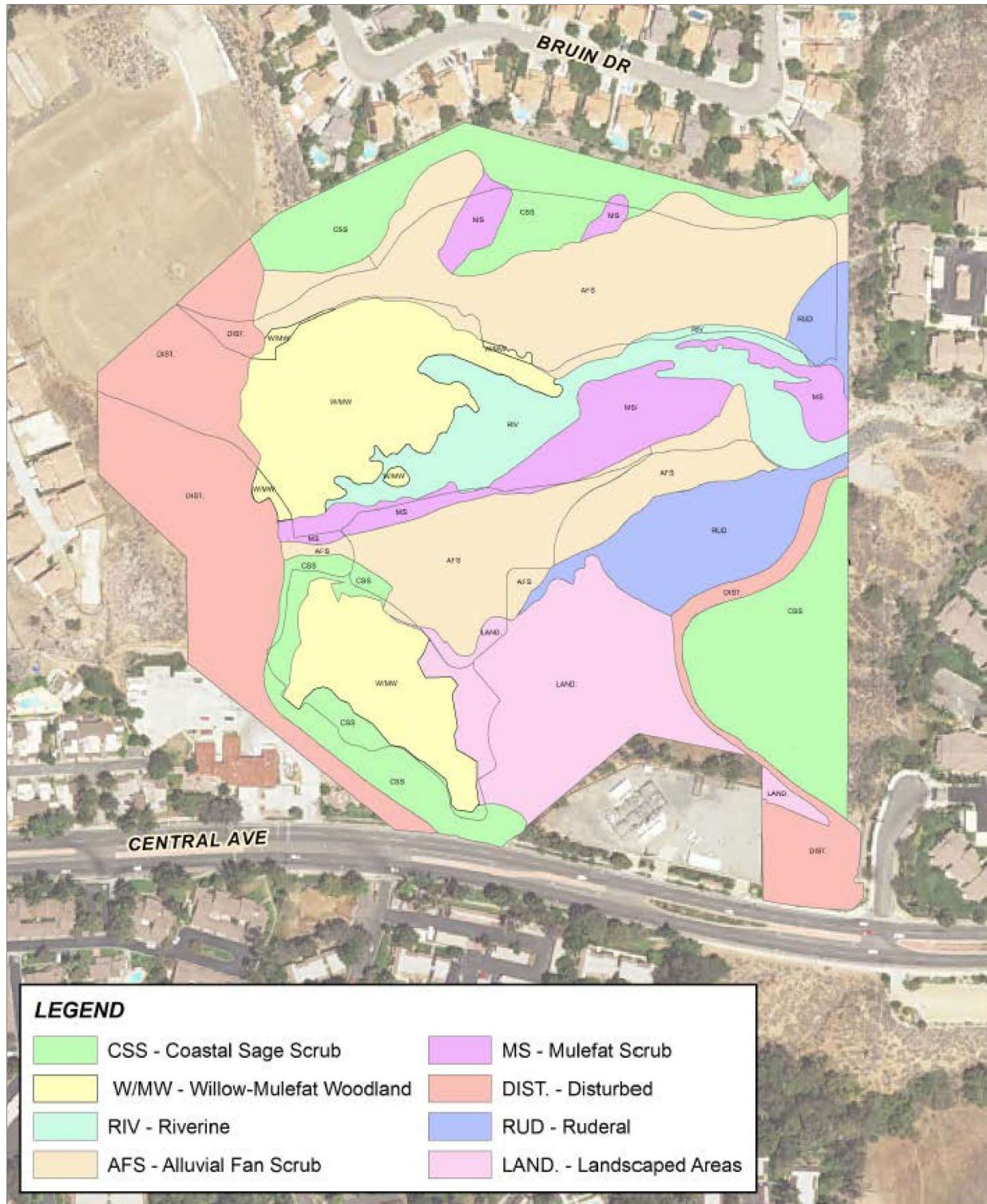
There are several plant communities within the impacted portion of the property that will be restored (Figure 5, Natural Resources Assessment, Inc. 2015 (a) and (b)). Coastal sage scrub forms the dominant scrub community on the southern and northern hillsides of the project, occupying 6.21 acres. The dominant species in this plant community are California sagebrush (*Artemisia californica*), desert brittlebush (*Encelia farinosa*), and California buckwheat (*Eriogonum fasciculatum*). Overall shrub cover was close to 90 percent. This vegetation has minor presence in the project area, and does not require restoration.

The lower terraces of the property on either side of the Box Spring Channel are occupied by alluvial fan scrub composed almost entirely of scalebroom (*Lepidospartum squamatum*). Other plant species in this vegetation type include California buckwheat, Jimson weed (*Datura wrightii*) and castor bean (*Ricinus communis*). Alluvial fan scrub occupies 6.78 acres, and part of this community (5.74 acres) is in the area requiring restoration. Also present on the lower terraces are scattered stands of mulefat scrub (*Baccharis salicifolia*).

Small portions of the upper terrace to the north of the channel support a mixed plant community of non-native species such as Peruvian pepper-tree (*Schinus molle*), eucalyptus (*Eucalyptus* sp.) and native species such as tarragon (*Artemisia dracuncululus*) and cudweed aster (*Lessingia filaginifolia*). This plant community occupies 3.04 acres, and the portion of that area included in the borrow pit footprint will be restored.

The Box Springs Channel is designated as both riverine habitat and as mulefat scrub and as willow/mulefat woodland. There is also a large mixed stand of cattails (*Typha latifolia*) and a mulefat - willow plant community that also includes Peruvian peppertree and eucalyptus in the southwestern corner of the project. Over the entire property, these plant communities occupy 8.04 acres. Most of this area will remain undisturbed, and a portion of it (3.98 acres) is designated for preservation and enhancement. Disturbed areas in these communities will be restored.

The remaining portions of the project site are occupied by disturbed, ruderal, or landscaped vegetation. These areas total 7.11 acres, none of which require restoration or mitigation.



Source: Natural Resources Assessment, Inc.



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## V. IMPACTS TO WILLOW-MULEFAT WOODLAND, MULEFAT SCRUB, RIVERINE AND ALLUVIAL FAN SCRUB

The impacts to the sensitive communities including willow-mulefat woodland, mulefat scrub, riverine, and alluvial fan scrub will be mitigated at a mitigation ratio of 1:1 for replacement or restoration. The impact table is shown as Table 1.

**Table 1.**  
**Riparian and Riverine Acreages Impacted and Requiring Restoration**

Habitat Type	Acres
Riparian	
Willow-Mulefat Woodland	0.08
Mulefat Scrub	0.29
Alluvial Fan Scrub	5.74
Total Riparian	6.11
Total Riverine	0.07
Total Riparian and Riverine	6.18

As the entire borrow area totals 6.38 acres, all of which will be restored, there will be an additional 0.20 acres of restoration to a combination of these communities.

In addition, the project commits to the preservation and enhancement of the 3.98 acres of willow-mulefat woodland and cattail marsh located in the southwestern part of the project site. This area also includes mature individuals of non-native Peruvian pepper tree and eucalyptus, which will be removed to enhance the habitat value of this area, and which will be replaced with native oak trees.

## VI. PROJECT GOALS

There are two goals of the project:

- To restore the borrow areas to the north and south of the Box Canyon Channel (Figure 3) to riverine and riparian vegetation that will be self-sustaining after 5 years of active restoration with minimal requirement for long-term maintenance and management.
- To preserve, enhance, maintain, and manage the undisturbed 3.98 acres of willow-mulefat woodland and cattail marsh located in the southwestern part of the project site.

These goals were described in the Determination of a Biologically Equivalent or Superior Preservation Plan (DBESP) (Natural Resources Assessment, Inc. 2015a). This document, and a Letter Supplement to the DBESP (Amec Foster Wheeler, 2016) are included as Appendices A and B, respectively, to this Plan.



## VII. PROJECT IMPLEMENTATION: BORROW AREA RESTORATION

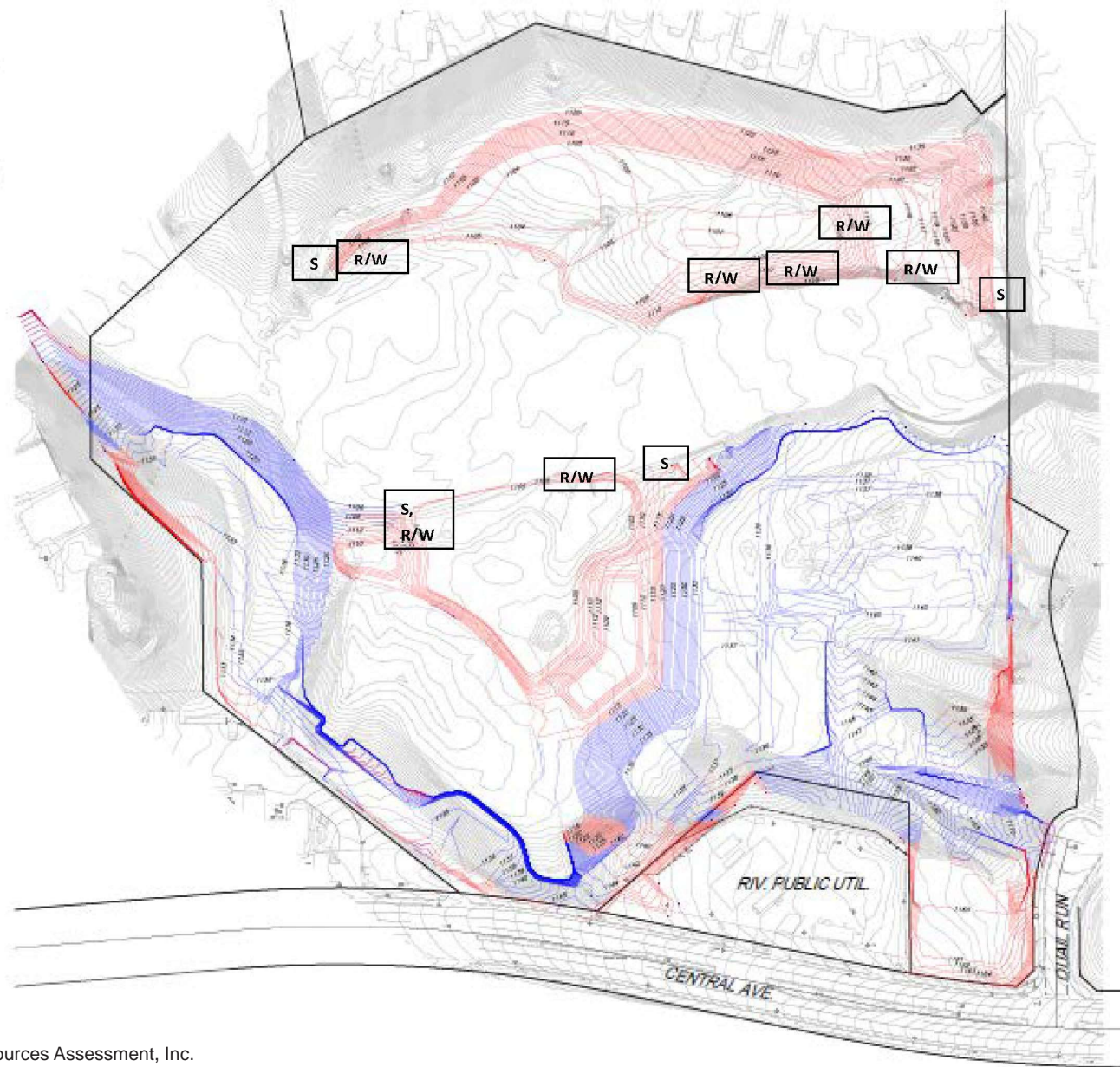
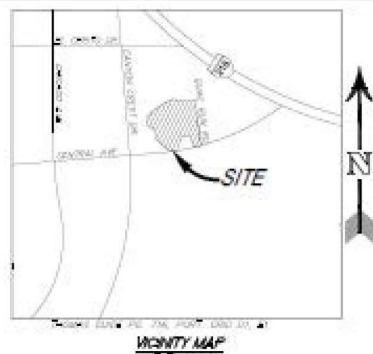
- a. **Documentation of pre-project borrow area species richness.** Prior to the disturbance of the borrow areas, both borrow areas will be surveyed by a qualified Botanist (qualifications described in Section XV) to develop a comprehensive species list of native and non-native plant species present within the confines of the proposed grading sites (Figure 3). These lists, which will be developed for each plant community impacted (willow/mulefat woodland, mulefat scrub, and alluvial fan scrub) will comprise the target species richness list for the restoration of each borrow area. At least 2 indicator species will be specified for each plant community. An indicator species is one that comprises an estimated 15% or greater absolute cover within the community.
- b. **Removal of non-native species.** All individuals of non-native species on both borrow sites will be removed using appropriate Integrated Pest Management (IPM) techniques. This work should be conducted in the spring, prior to the setting of seed of these species. IPM techniques include hand pulling, foliar spraying with species- and habitat-appropriate herbicides, and cut-stump treatments (cutting a woody plant and painting the stump with herbicide within 2 minutes of cutting, allowing the translocation of the herbicide to the roots to prevent re-sprouting). All herbicide application will be conducted or supervised by a licensed firm or individual with the California Department of Pesticide Regulation. Material pulled or cut will be removed from the site and disposed of in a sanitary landfill, or a green waste facility. Species that have been observed in the project area and which may require removal include: eucalyptus, Peruvian pepper tree, salt cedar (*Tamarix ramosissima*), castor bean, Russian thistle (*Salsola tragus*), horehound (*Marrubium vulgare*), sour clover (*Melilotus indicus*), blessed thistle (*Cnicus benedictus*), tree tobacco (*Nicotiana glauca*) and short-pod mustard (*Hirschfeldia incana*).
- c. **Soil Salvage and Stockpiling.** Prior to disturbance for the excavation of the two borrow pits, the top 4-6 inches of soil, including all vegetation material (woody, shrubby, herbaceous, and surface litter and duff) will be removed for stockpiling. Woody and shrubby material that cannot readily be crushed will be stockpiled separately for re-distribution onto the restored surfaces. Woody material may be cut into sections to facilitate storage. These salvage activities will take place under the direction of a Restoration Ecologist (qualifications described in Section XVI). The material will be stockpiled in a location adjacent to each borrow area. The stockpile area will be protected from further disturbance during the grading activities, and will be covered to assure that it remains dry so that seed viability is retained. The stockpiles will be surrounded with weed-free straw wattles during construction to retain the materials in storm events, which maintains the seed bank contained in those soils. Additionally this would be a component of the SWPP to prevent erosion and runoff of native topsoil. Suggested stockpile locations are indicated in the final grading plan Figure 6. The soil will remain stockpiled for no longer than 6 months prior to re-distribution.
- d. **Salvage of rocks.** Any rocks removed that are larger than what can be readily transported for construction fill will be removed to the stockpile areas to be re-distributed to the restoration sites.

- e. **Re-contouring.** Following borrow excavation for construction, the two borrow areas will be re-contoured according to the post-project grading plan shown in Figure 6. This grading will be accomplished by the project contractor. The finish grades will be inspected by the Restoration Ecologist.
- f. **Installation of rocks and woody vegetation material.** Any rocks and woody material removed and stockpiled will be re-distributed to the restoration site to areas where it would function most effectively as roughness elements for control of erosion, or for management of water flow. Suggested areas where these materials may be re-distributed are shown in Figure 6. Final location of such material will be determined by the Restoration Ecologist at the time of re-distribution.
- g. **Re-distribution of salvaged topsoil and vegetation material.** Following installation of the rocks and woody material, the salvaged topsoil will be re-distributed on the restoration sites by replacing the material in mounds delivered with loaders, and then drifting the soil and plant material in a more or less even layer over the borrow area sites from which they had been removed. Once the soil has been spread, erosion control Best Management Practice elements (BMPs) such as certified weed-free straw wattles composed of 100% biodegradable material such as a 70% straw/30% coconut fiber matrix reinforced with biodegradable netting, or willow wattles bound with twine, will be installed in areas where they may be useful to contain erosion and retain native soils. Installation locations and methods will be determined, and the installation overseen, by the Restoration Ecologist.

## VIII. PROJECT IMPLEMENTATION: PRESERVED AREA

- a. **Removal of non-native trees.** Prior to the grading of the borrow areas, the non-native Peruvian pepper trees and the eucalyptus trees in the preserved area will be cut, stump treated with herbicide, and the woody material removed from the site. This activity will be conducted under the direction of the Restoration Ecologist, and will be implemented with minimum disturbance to the native vegetation. Any herbicide application will be conducted by qualified State applicators with appropriate certifications and licenses. Any disturbance that is more severe than the crushing of the vegetation that in the judgement of the Restoration Ecologist would recover passively will be actively restored by de-compacting and re-seeding the impacted area with native seed collected from the site or purchased from an appropriate source that has local provenance.
- b. **Treatment of other non-native species.** Prior to the grading of the borrow areas, other non-native species present in the Preserved Area will be treated with IPM methods to remove such species from the site and to prevent their re-invasion. Any herbicide application will be conducted by individuals with appropriate training and licenses.
- c. **Installation of native oak trees.** Native oak trees will be installed at the locations where non-native trees have been removed. These trees will replace the biological value for nesting birds of the removed tall-growing schlerophyll trees with native trees capable of achieving height and spread that is roughly similar to that of the removed species.

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## **IX. MANAGEMENT AND ROUTINE MAINTENANCE**

The maintenance and management tasks associated with both the restoration sites and the preserved area include the removal and control of non-native species and of maintaining the sites free of trash and unnatural debris. Management of the restoration sites will be the responsibility of the project owner for the first 5 years, or until the project attains the 5-year success criteria, whichever comes first. After that, management will be the responsibility of the Riverside Land Conservancy (RLC) as described in Sections XII and XIV. Management of the preserved area will be the responsibility of the project owner for the first year, and thereafter by the RLC as described in Section XIII and XIV.

Quarterly visits will be made to restoration sites and the preserved area for the purpose of the removal and treatment of non-native species plant species, and for the removal of trash and debris. All such material will be removed from the area and disposed of properly in a landfill.

## **X. RATIONALE FOR ANTICIPATING SUCCESS**

The Box Spring Canyon Channel may at one time have been wider, with the result that flood waters would have been spread over a wider area, resulting in a less focused flow. This would have resulted in a wider area for filtration of the water through the soils, as well as more nutrient recycling. Due to the seasonal and intermittent nature of precipitation and high-flow events in western Riverside County, coarse sediment and debris have historically been transported through the subject property, which is steeper, and deposited on the (flatter) area of the sediment basin behind the dam, where it is removed periodically on an “as needed” basis by the District.

The proposed habitat restoration within the borrow pit sites presents an opportunity to allow fluvial geomorphic processes that have existed even prior to construction of the dam to be restored to the Box Springs Channel. Removal of the material on the elevated portions of the site within the historic channel area will allow habitat that depends on the episodic precipitation and high-flow events to become re-established. Because the borrow pit/restoration sites are currently higher in elevation than the currently active flow areas of the existing channel, removal of that material and re-contouring the borrow areas will allow these areas, which will be newly connected hydrologically to the channel, to undergo the process of being shaped by future episodic events. Some of the sediment being transported through the site from upstream will be deposited in the restored areas, with the remainder of the sediment continuing to be transported to the basin behind the dam. The borrow areas will once again be part of the dynamic channel system that is characteristic of this habitat.

In support of these expectations, the project proponents commissioned a hydrology report that allows for the prediction of water flows based on models from typical as well as more extreme precipitation and water flow events (Tory Walker 2015). The study analyzes the current condition 2-year, 10-year and 100-year 6-hour and 24-hour storms to determine peak flow rates to the Box Springs Dam. The expansion of the floodplain to a wider width, and the provision of low areas where entrained sediment can be captured, is anticipated to attenuate the severity of

scouring by reducing flow rates and moderating the erosive energy of high flow rates. The hydrology report is included as Appendix C to this Plan.

The hydrology models show that the restoration sites will be inundated at least briefly during even a 2-year, 6-hour storm event, as well as during the more severe 10-year and 100-year storm events, but will drain within 24 hours from the low egress points engineered into each borrow area as the water in the sediment basin is released from the sediment dam and the water level recedes. The restoration sites are at or below the grade of the existing channel, so they will tend to collect sediment as the existing channel grade stabilizes to a new equilibrium. The rock and wood installed during the restoration activity, and the re-distribution of the stockpiled soil will allow for revegetation with the same species that had characterized the pre-project site. Species will sort themselves according to hydrological conditions that establish on the site after the first rainy season. Willow and mulefat will establish in the lowest areas, and will quickly develop strong roots to withstand the periodic inundations that will be typical of high flow events. Additional mulefat and other transitional riparian woody species will establish on the higher slopes, up to the level of the 10-year flood contour. Terrace areas, islands, and slopes will be vegetated with alluvial fan scrub species which will be periodically inundated during high flow events as is the case in a natural system. Immediate full revegetation of the borrow areas is neither feasible nor desirable, as the habitat being created is by its nature highly dynamic. Vegetation on the steeper upper grades will be stabilized with standard erosion control BMPs such as properly anchored 100% biodegradable weed-free straw wattles or twine-bound willow wattles to allow for more rapid revegetation of these slopes.

## **XI. MONITORING REQUIREMENTS**

Monitoring of the restoration sites will be the responsibility of the project owner for the first 5 years, or until the project attains the 5-year success criteria, whichever comes first. After that, monitoring will be the responsibility of the RLC as described in Section XII. Monitoring of the preserved area will be the responsibility of the project owner for the first year, and thereafter by the RLC as described in Section XIII.

### **a. Success criteria and implementing steps to ensure success**

- i. Restoration Sites.** The success criteria for the restoration sites will center on species diversity and on plant community development. The desired future condition for the restoration area is that it develop a diverse vegetation with elements of the three impacted communities: willow/mulefat woodland, mulefat scrub, and alluvial fan scrub. Indicator species and a reasonable diversity, representing a portion of the 28 native species observed on the site during biological review in 2014 (Natural Resources Assessment Inc., 2015b, and Appendix D) or the number identified during pre-project monitoring, for each community will be the targets for success.

Specifically, the success criteria are as follows for each plant community:

- Year 1: 10% of the original native species inventory present, including at least one indicator species.

- Year 2: 25 % of the original native species inventory present, including at least one indicator species
- Year 3: 40% of the original native species inventory present, including at least 2 indicator species
- Year 5: 60% of the original native species inventory present, including at least 2 indicator species.
- All years: less than 5% of the total vegetation cover is composed of non-native species. For non-native annual grasses, cover may not exceed 10%.

Species composition will be determined by an annual survey, to be conducted in the spring months when it is judged that species identifications can be most readily made for that season. Cover of non-native species will be estimated visually on an annual basis.

- ii. **Preserved Area.** For all years, non-native species will account for less than 5% of the total vegetation cover in the preserved area; non-native annual grass cover will not exceed 10% of the total vegetation cover. Cover of non-native species will be estimated visually on an annual basis. Survivorship of installed oak trees will be sufficient to produce a 1:1 ratio of removed trees to surviving oak trees.

b. **Monitoring Schedule and Reporting Requirements.**

- i. **Restoration Sites.** A total of at least 4 photo points will be established at each restoration site, with more photo points established if necessary to characterize adequately the diversity of the site. The photo points will be marked with a T-post, and the location of each will be assigned a GPS coordinate in the event that the T-post is removed or washed away. The general direction in which the photo is to be taken will be specified.

Monitoring and reporting will be done initially by the project owner or their representative, as described above. The restoration sites will be visited quarterly during the first two years after implementation, with visits targeted generally in the spring, summer, fall, and winter months. If there is a major precipitation event that has caused high stream flows, a visit will be made to the site within 2 weeks of that event to assess the site condition and to recommend any adaptive management strategies that may be required. Letter reports of a non-quantitative (narrative) nature including photo point documentation will be submitted to the California Department of Fish and Wildlife (Department) and to the United States Fish and Wildlife Service (Service) following the summer, fall, and winter quarterly monitoring events. At the spring annual monitoring visit, the boundaries of each plant community will be determined, and documented with GPS polygons. Plant species inventories and non-native species data will be recorded from these polygons. A full report including species richness and non-native species status in each plant community, in addition to the photo documentation and plant community maps, will be submitted following the spring quarterly visit.

For the following three years, monitoring visits will be made twice a year, in the late winter after major storm events would have occurred; and in the late spring, for vegetation assessment. Letter reports of a non-quantitative (narrative) nature including photo point documentation will be submitted from the late winter visit. A full report including species richness and non-native species status in each plant community, in addition to the photo documentation and plant community maps, will be submitted following the late spring monitoring visit.

After five years (or longer, if necessary to attain the five year success criteria), visits and narrative reporting will be conducted annually by the RLC, using a schedule at their discretion but including a minimum of two monitoring visits per year.

- ii. **Preserved Area.** At least 4 photo points will be established at the preserved area, with more photo points established if necessary to characterize adequately the diversity of the area. The photo points will be marked with a T-post, and the location of each will be assigned a GPS coordinate in the event that the T-post is removed or washed away. The general direction in which the photo is to be taken will be specified. The location of each removed non-native tree will be assigned a GPS coordinate, and native oak trees will be installed at or near the location of each removed non-native tree. Survivorship of these installed trees will be monitored.

The site will be visited twice during the first year after implementation by the project owner or their representative, with visits targeted generally in the spring and fall months. If there is a major precipitation event that has caused high stream flows, a visit will be made to the site within 2 weeks of that event to assess the site condition and to recommend any adaptive management strategies that may be required. Letter reports of a non-quantitative nature including photo point documentation will be submitted to the Department and to the Service following the fall monitoring event. A full report including a more detailed discussion of the site condition, and of the presence of non-native species in addition to the photo documentation will be submitted following the spring visit.

After the first year, visits and narrative reporting will be conducted annually by the RLC, using a schedule at their discretion but including a minimum of two monitoring visits per year.

## **XII. ADAPTIVE MANAGEMENT STRATEGIES**

If success criteria for Year 3 are not met, adaptive management strategies will be evaluated. Potential adaptive management strategies will be those that will encourage the restoration sites and the preserved area to attain success criteria in the remaining two years.

For the restoration sites, the following strategies could be considered:

- Additional seeding of the area that is not attaining success with species that had been present in that plant community prior to project impact. Seed could be collected from any remaining undisturbed areas on the project site, or could be purchased from a source that can indicate local (Riverside County) provenance of the seed. Re-seeding would focus on indicator species.
- Installation of poles for woody species that have failed to establish adequately from seed, such as willow, cottonwood (*Populus* sp.) or mulefat. This method would be utilized only if it is determined that installed poles could be inserted to a depth at which saturated soils are present during summer months.
- Installation of additional roughness elements such as rocks or woody material on the site to encourage germination and/or to protect species or sites that appear to be vulnerable to excessive erosion.
- More frequent treatment of non-native species if it is determined that these species are increasing in cover and/or frequency of occurrence.

If after five years the restoration sites are not meeting success criteria for establishment and self-sustainability, the required period for adaptive management may be extended, re-evaluating success after each 12 months, until success criteria have been met.

For the preserved area, additional native oak trees would be installed if a sufficient number to not survive to attain the success criterion of 1:1 replacement of removed non-native trees.

## **XIII. FINANCING AND ON-GOING MANAGEMENT FOR LONG-TERM CONSERVATION**

The RLC will be tasked with ensuring protection of the long-term conservation values of the restoration sites and the preserved area. The RLC will monitor, maintain, and manage the restored and preserved areas in perpetuity, which includes control of non-native species as described above in Section VII.b. The project proponent will provide the RLC with a non-wasting endowment sufficient to enable maintenance of the restored and preserved areas in perpetuity. The amount needed for the endowment will be determined by consultation with the RLC and with the Department and the Service.



#### XIV. RESPONSIBLE PARTIES

The responsibility for the implementation, monitoring, maintenance, management, and evaluation of the project's compliance with this Plan are as follows:

- **Implementation:** The Project Owner, and their construction contractor, will implement the Plan as written here. The Project Owner will provide the services of a qualified Restoration Ecologist and a qualified Botanist to perform the services described in the Plan.
- **Monitoring:** The Project Owner will retain the services of a qualified Restoration Ecologist and a qualified Botanist to perform the monitoring and reporting as required by this Plan. After 5 years, or when success criteria have been attained, whichever comes first, monitoring will be the responsibility of the RLC.
- **Maintenance and Management:** The Project Owner will provide a suitable non-wasting endowment to the RLC for the performance of the on-going monitoring, maintenance, management, and any specific adaptive management actions that may be required as identified by monitoring, for both the restoration sites and the preserved area.
- **Evaluation:** During the first 5 years of the project, the Department and the Service will review the monitoring reports and evaluate the project's compliance with the success criteria. They will review any adaptive management actions proposed to address compliance issues that may arise.

#### XV. QUALIFICATIONS OF BOTANIST

A Botanist to perform the services and activities required for this Plan will have the following minimum qualifications.

1. A degree in the biological sciences OR at least 5 years of relevant experience (see below)
2. At least 3 years of experience in the identification of plant species in Riverside, Orange, or San Diego Counties

#### XVI. QUALIFICATIONS OF RESTORATION ECOLOGIST

A Restoration Ecologist to perform the services and activities required for this Plan will have the following minimum qualifications:

1. A degree in the biological sciences OR at least 5 years of relevant experience (see below)
2. At least 3 years of experience in conducting riparian or similar habitat restoration in Riverside, Orange, or San Diego Counties

3. At least 3 years of experience in the management and oversight of habitat restoration projects that involve earthmoving and soil surface contouring
4. At least 3 years of experience in monitoring habitat restoration projects and in the preparation of monitoring reports

## **XVII. REFERENCES**

Amec Foster Wheeler. 2016. Letter Supplement to the Quail Run DBESP. Letter prepared for Report prepared for SDH & Associates, Inc. and submitted to California Department of Fish and Wildlife and United States Fish and Wildlife Service. January xx, 2016.

GeoMat Testing Laboratories, Inc. 2014. Basic Infiltration Testing Report, Proposed Multi-family Residential Development, Northwest of Central Avenue and Quail run Road, Riverside, California. Report prepared for SDH & Associates, Inc. March 31, 2014.

Natural Resources Assessment, Inc. 2015a. Determination of a Biologically Equivalent or Superior Preservation Plan (DBESP), Quail Run Development, Assessor's Parcel Numbers 253-240-020, 253-240-028, and 253-060-020. Riverside, California. Report prepared for SDH & Associates, Inc. August 10, 2015.

Natural Resources Assessment, Inc. 2015b. Focused Biological Assessment, Quail Run Development, Assessor's Parcel Numbers 253-240-020, 253-240-028, and 253-060-020. Riverside, California. Report prepared for SDH & Associates, Inc. June 6, 2015.

Natural Resources Conservation Service, 2014. United States Department of Agriculture. Web Soil Survey. Available online at <http://websoilsurvey.nrcs.usda.gov/>

Tory R. Walker Engineering. 2015a. Hydrologic and Hydraulic Analysis of Box Springs Dam. Report prepared for SDH & Associates, Inc. March 30, 2015.

Tory R. Walker Engineering. 2015b. Scour Analysis of Box Springs Canyon at Quail Run. Report prepared for SDH & Associates, Inc. March 31, 2015.

## **XVIII. APPENDICES**

Appendix A: Determination of a Biologically Equivalent or Superior Preservation Plan (DBESP)

Appendix B: Letter Supplement to DBESP

Appendix C: Hydrology Report

Appendix D: List of Native Plant Species Found on Site

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## **APPENDIX A**

### **DETERMINATION OF A BIOLOGICALLY EQUIVALENT OR SUPERIOR PRESERVATION PLAN (DBESP)**

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***NATURAL RESOURCES ASSESSMENT, INC.***

**Determination of a Biologically Equivalent or Superior  
Preservation Plan  
Quail Run Development  
Assessor's Parcel Numbers 253-240-020, 253-240-028, and  
253-060-020  
Riverside, California**

**Prepared for:**

**SDH & Associates, Inc  
5225 Canyon Crest Drive #71439  
Riverside CA 92507  
951 683 3691**

**Prepared by:**

**Natural Resources Assessment, Inc.  
3415 Valencia Hill Drive  
Riverside, California 92507  
951 686 4483**

**August 10, 2015**

**Project Number: SDH14-101**

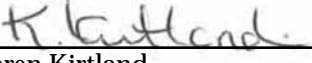
***3415 Valencia Hill Drive  
Riverside, California 92507***

***T (951) 686-4483  
F (951) 686-8418  
nrainc@earthlink.net***



**CERTIFICATION**

I hereby certify that the statements furnished below and in the attached exhibits present data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

  
\_\_\_\_\_  
Karen Kirtland  
Natural Resources Assessment, Inc.

August 10, 2015  
\_\_\_\_\_  
Date

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## 1.0 Definition of the Project Area

The project area consists of 30.09 acres located northwest of the corner of Quail Run Road and Central Avenue in Riverside, California (Figures 1 and 2). It is in Section 1, Township 3 south, Range 5 west, San Bernardino base and meridian (Figure 2).

## 2.0 Project Description and Discussion of Alternatives

The proposed project is composed of two components. The first is the development of the southeastern portion into thirteen apartment buildings and common areas. The second component is the construction of a borrow site to provide dirt for the apartment pads and roads. The dirt amounts will be balanced on site.

There are no proposed alternatives for the project. The project impacts to riverine/riparian resources result almost entirely from the construction of the borrow site. Any proposed alternative to the current design would result in an imbalance of soil on site, requiring the import of fill materials from offsite. Presumably, having to borrow fill from elsewhere would at a minimum result in increased traffic and air quality impacts, and may have other unidentified impacts.

There are no other feasible alternatives for offsite locations for the project.

## 3.0 Riverine/Riparian Resources of the Project Site

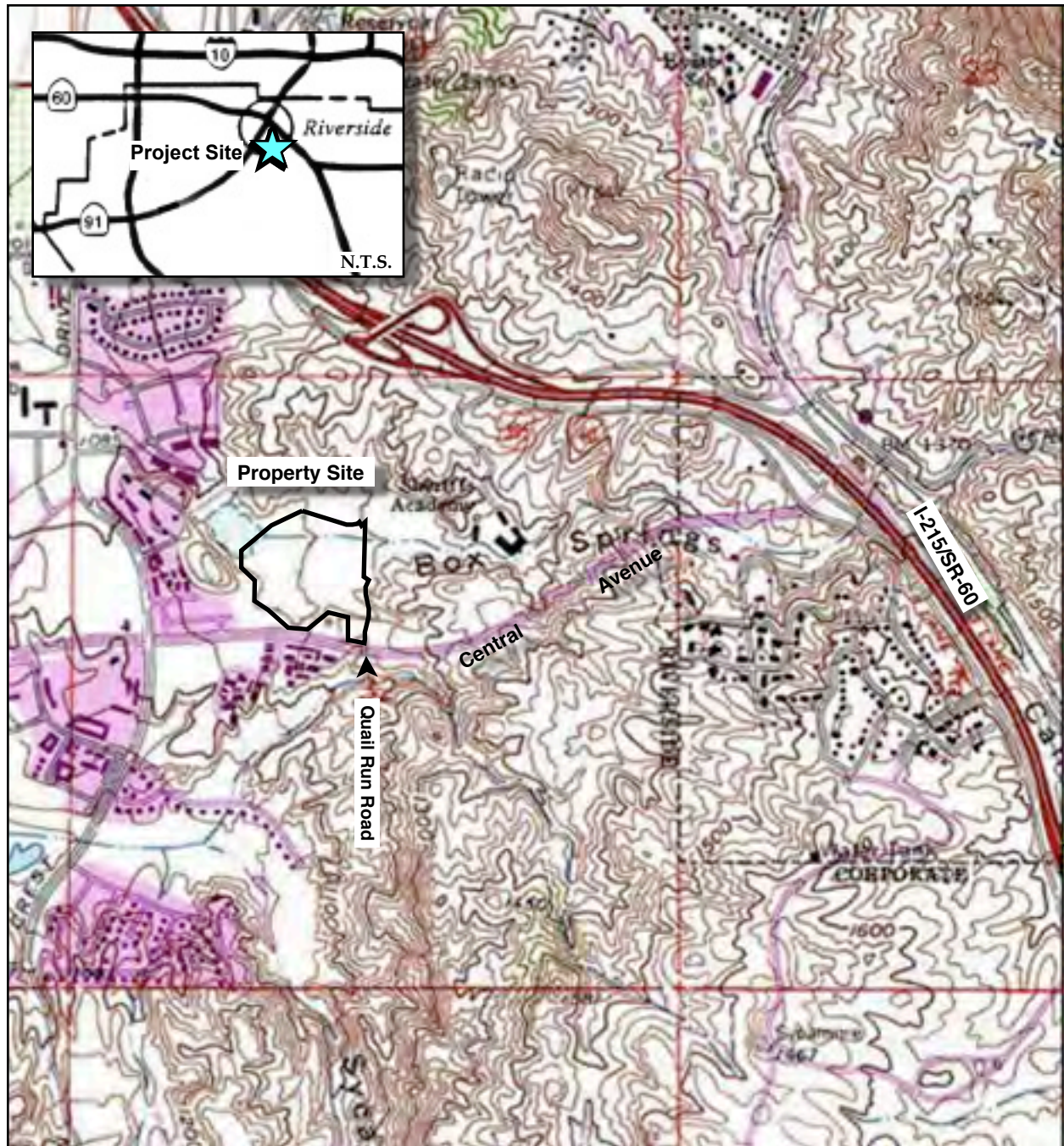
There are several plant communities within the property (Figure 3). This report focuses on the Riverine/Riparian plant communities.

The Box Springs Canyon channel that crosses through the property (north of the project area) has a stand of willow-mulefat riparian woodland just east of the flood basin, and scattered stands of mulefat scrub riparian along the channel. There is also a dense mixed stand of mulefat-willow riparian near the southwestern corner of the property.

The lower terraces of the property on either side of the Box Springs Canyon channel are occupied by alluvial fan scrub composed almost entirely of scalebroom (*Lepidospartum squamatum*) (Photo 2). Other plant species in this include scattered stands of mulefat (*Baccharis salicifolia*) (Photo 3), California buckwheat, Jimson weed (*Datura wrightii*) and castor bean (*Ricinus communis*).

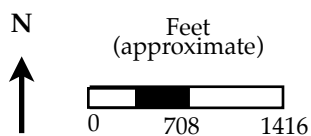
Table A provides the acreages per riparian and riverine habitat type.

Table A. Riparian and Riverine Acreages	
Habitat Type	Acres
<b>Riparian</b>	
Willow-mulefat woodland	3.98
Mulefat scrub	1.81
Alluvial fan scrub	6.78
<b>Total Riparian</b>	<b>12.57</b>
<b>Total Riverine</b>	<b>2.00</b>
<b>Total Riparian and Riverine</b>	<b>14.57</b>



Map Base: Riverside East 1980 7.5'  
USGS topographic quadrangle  
Inset Map: Thomas Bros 2006

Figure 1. Project Location and Site Vicinity



Quail Run Development  
APNs 253-240-020, 253-240-028 and 253-060-020  
Riverside, California

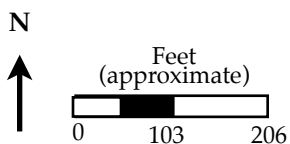




Map Base: Google Earth 2015

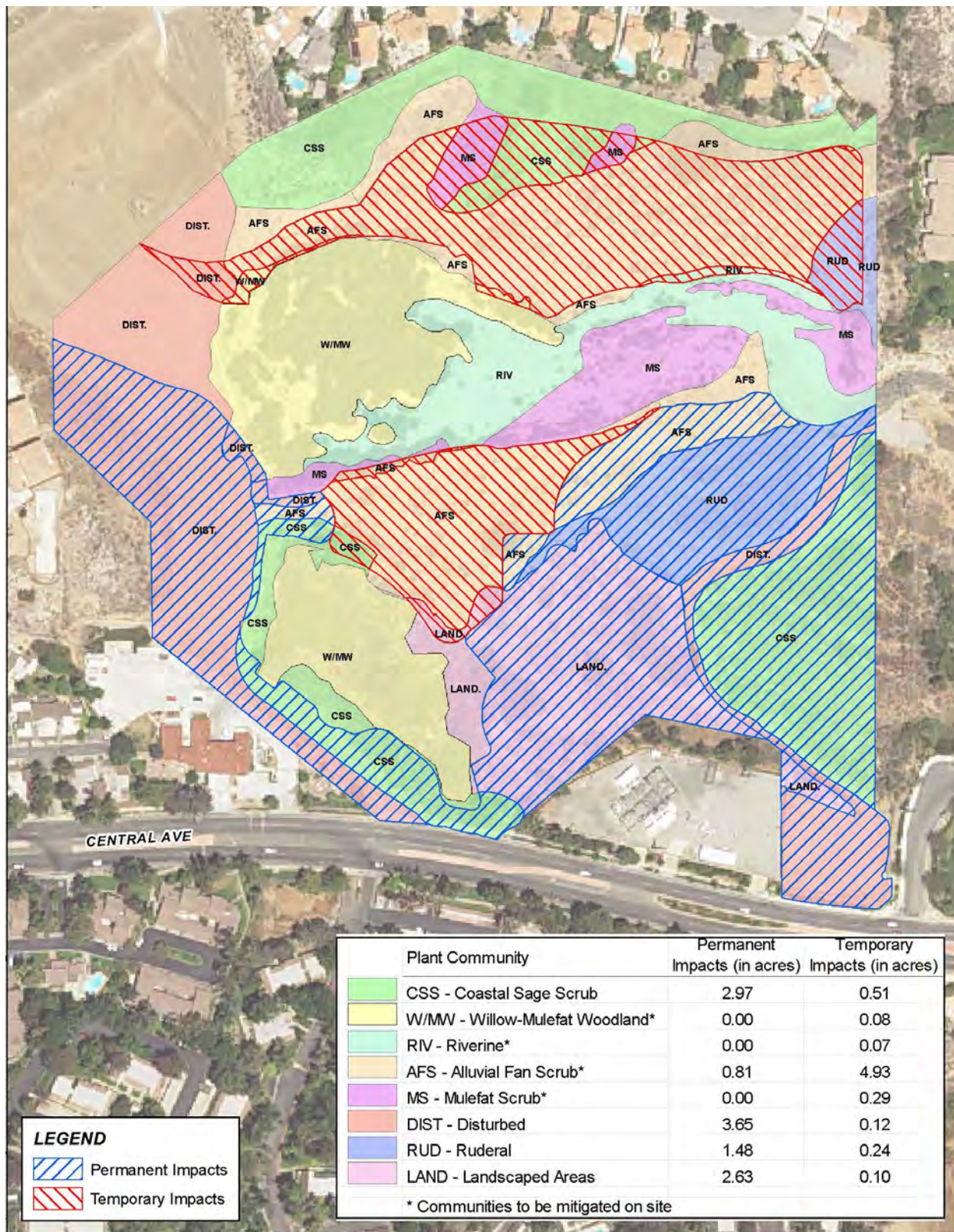
Figure 2. Project Aerial

- Property Boundary
- - - Box Springs Canyon Channel



Quail Run Development  
APNs 253-240-020, 253-240-028 and 253-060-020  
Riverside, California





Sources: SDH Inc, April 2015; Natural Resources Assessment, Inc., June 2015; USDA NAIP, 2014.

**Figure 3. Temporary and Permanent Impacts and Plant Communities**

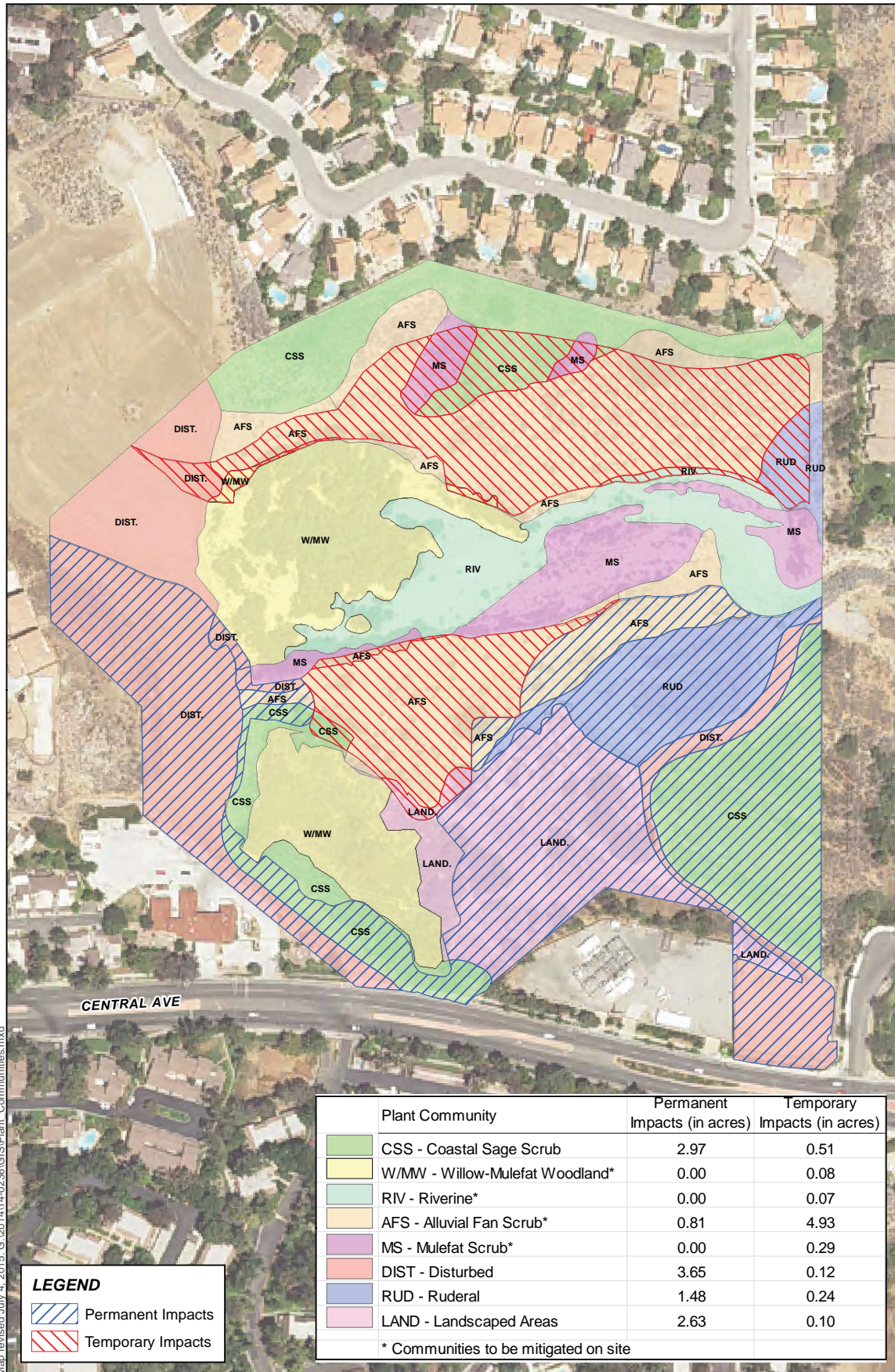
Quail Run Development  
APNs 253-240-020, 253-240-028 and 253-260-020  
Riverside, California

Quail Run Apartments



ALBERT A.  
**WEBB**  
ASSOCIATES





Map revised July 4, 2015. G:\2014\114-0236\GIS\Plant Communities.mxd

Sources: SDH Inc, April 2015; Natural Resources Assessment, Inc., June 2015; USDA NAIP, 2014.

# **Plate 1 - Temporary and Permanent Impacts and Plant Communities**

Quail Run Apartments



ALBERT A.  
**WEBB**  
ASSOCIATES

## **4.0 Impacts to Riparian/Riverine Areas and Vernal Pools**

Riparian/Riverine Areas are defined by the MSHCP as “*lands which contain Habitat dominated by tress [sic], shrubs, persistent emergents, or emergent mosses and lichens, which occur close to or which depend upon soil moisture from a nearby fresh water source; or areas with fresh water flow during all or a portion of the year.*”

The riparian habitats on site provide shelter, shade and food for wildlife. The willow-mulefat and mulefat scrub riparian habitats provide food, shade and shelter for riparian bird and mammal species, and provide food resources for upland birds, mammals and reptiles (Faber, et al 1989). They also provide for filtration and cleaning of water that runs along the Box Springs Canyon Channel.

The alluvial fan scrub habitat provides food, shelter and shade for upland birds, reptiles and mammals. This habitat does not generally provide filtration of water that runs through the site, except for occasional storms.

The riverine habitat provides water resources for all forms of wildlife, including amphibians. The sandy soils associated with the riverine habitat filter the water that runs along the Box Springs Channel.

Both the riverine and willow-mulefat and mulefat scrub riparian habitats provide for nutrient recycling within the general area. The riparian plants take up and store nutrients from the water flowing through the Box Springs Canyon Channel, as well as occasional runoff from rains and Central Avenue. These plants then return the nutrients to the soil when they die and decay. In addition, the water that flows through the riverine area cycles these nutrients through the soils and downstream.

The Box Spring Canyon channel may at one time have been wider, with the result that flood waters would have been spread over a wider area, resulting in a less focused flow. This would have resulted in a wider area for filtration of the water through the soils, as well as more nutrient recycling.

Vernal pools are defined by the MSHCP as “seasonal wetlands that occur in depression areas that have wetlands indicators of all three parameters (soils, vegetation and hydrology) during the wetter portion of the growing season but normally lack wetlands indicators of hydrology and/or vegetation during the drier portion of the growing season . . . . Evidence concerning the persistence of an area's wetness can be obtained from its history, vegetation, soils, and drainage characteristics, uses to which it has been subjected, and weather and hydrologic records” (Riverside County Transportation and Land Management Agency, website address: <http://www.rctlma.org>).

There is no evidence of ponding or areas suitable for ponding of vernal pools within the project boundary. The loamy and rocky soils of the property are not suitable for the development of vernal pools and no vernal pools are expected to occur on site.

The excavation of the borrow site will temporarily impact 0.08 acres of the willow-mulefat woodlands, and 0.29 acres of the mulefat scrub (Table B). There will be no permanent loss of willow-mulefat woodlands or mulefat scrub (Table B). These impacts are significant and will be mitigated by the replacement of the same habitats on site.

The excavation of the borrow site will temporarily impact 0.07 acres of riverine habitat, which will be replaced during the recontouring of the borrow site area (Table B).

The proposed borrow area will temporarily impact 4.93 acres and the development of the apartment complex will permanently impact 0.81 acres of alluvial fan scrub (Table B). This impact is significant and will be mitigated by the replacement of the same habitat on site.





Sources: SDH Inc, April 2015;  
JSDA NAIP, 2014.

Figure 4. Development and Borrow Site Areas

**Temporary and Permanent Impacts**

Quail Run Apartments



Quail Run Development  
APNs 253-240-020, 253-240-028 and 253-260-020  
Riverside, California







**Table B. Impacts to Plant Communities**

Plant Communities	Total Acreage	Acreages Impacted		Total Impacts
		Permanently Impacted	Temporarily Impacted	
<i>Coastal sage scrub</i>	6.21	2.97	0.51	3.48
<i>Disturbed</i>	5.28	3.65	0.12	3.77
<i>Ruderal</i>	1.83	1.48	0.24	1.72
<i>Landscaped</i>	3.04	2.63	0.10	2.73
<i>Upland/Disturbed/ Landscape Subtotal</i>	16.36	10.73	0.97	11.70
<i>Willow-mulefat woodland</i>	3.98	0.00	0.08	0.08
<i>Alluvial fan scrub</i>	6.78	0.81	4.93	5.74
<i>Mulefat scrub</i>	1.81	0.00	0.29	0.29
<i>Riverine</i>	2.00	0.00	0.07	0.07
<i>Wetland/Riparian/ Riverine Subtotal</i>	14.57	0.81	5.37	6.18
<b>Totals</b>	<b>30.93</b>	<b>11.54</b>	<b>6.34</b>	<b>17.88</b>

**A total of 6.18 acres of mitigation will be required for both permanent and temporary impacts to willow-mulefat woodlands, mulefat scrub, riverine habitat, and alluvial fan scrub.**

## 5.0 Project Design Features and Mitigation Measures

The loss of alluvial fan scrub, willow-mulefat woodland, willow scrub and riverine habitat will be mitigated on site as part of the borrow site rehabilitation (Figure 4). The borrow site area will be contoured to maximize surface area for the restoration of these habitats.

The project developer will work with the resource agencies and qualified consultants to develop a detailed restoration plan for the loss of riparian/riverine resources. The plan shall be based on the following outline, with sufficient detail to ensure the success of the restoration work.

1. Project description
2. Graphics of the proposed construction area and final restoration area.
3. Description of impacts to willow-mulefat woodland, mulefat scrub, riverine and alluvial fan scrub
4. Mitigation ratios of 1:1 for replacement/restoration.
5. Project goals.
6. Project implementation, including recontouring of the borrow site to provide low and high points for natural recovery of willow-mulefat woodland, mulefat scrub, riverine and alluvial fan scrub habitat.

7. Site preparation methods
8. Planting program
9. Monitoring requirements
10. Success criteria and implementing steps to ensure success
11. Reporting requirements
12. Adaptive Management Strategy
13. Protective measures to address indirect impacts
14. Financing
15. Responsible Parties

The restoration area will be placed in a conservation easement to protect the site in perpetuity. The easement shall be recorded with the County Recorder. At this time, the ownership of the easement is proposed to come under the jurisdiction of the property management staff for the development. The project proponent is also pursuing dedication of the conservation easement to either the Riverside Land Conservancy (RCL) or the San Jacinto Basin Resource Conservation District (SJCD).

## **6.0 Findings on Conserved Habitats, Riparian Linkages and Functions**

There will be no net loss of riparian/riverine habitats after mitigation has been implemented.

The loss of alluvial fan scrub, willow-mulefat woodland, willow scrub and riverine habitat will be mitigated on site as part of the borrow site rehabilitation. The borrow site area will be contoured to maximize surface area for the restoration of these habitats.

There will be no permanent change to the linkage of Box Springs Channel upstream or downstream from existing conditions. The flow of Box Springs Channel will be widened to increase the availability of riparian habitat. This will also increase available water.

The project developer will work with the resource agencies and qualified consultants to develop a detailed restoration plan for the loss of riparian/riverine resources. In addition, NRAI recommends:

1. No trespass beyond that already delimited by construction limits shall occur into jurisdictional waters.
2. No drainage for subsequent development will be designed to flow or be directed into this area. All final project design flows will be directed into a formal site collection system.

The project as currently designed impacts willow-mulefat woodland, mulefat scrub, riverine and alluvial fan sage scrub habitat. However, project design and the proposed mitigation measures as defined in Section 4.0 will result in a biologically equivalent or superior project relative to alternative design projects. The proposed project would:

1. Mitigate fully on site for impacts to willow-mulefat woodland, mulefat scrub, riverine and alluvial fan sage scrub habitat
2. Have no direct or indirect impact on proposed Riparian Linkages or Functions in adjacent Criteria Cells 719 or 634 or the larger MSHCP Conservation Area.



## **6.0 References**

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- Faber, P.A., E. Keller, A. Sands, and S.M. Massey, 1989. *The Ecology of Riparian Habitats of the Southern California Coastal Region; A Community Profile*. U.S Fish and Wildlife Service Biological Report, 85(7.27). 152 pp.
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## **APPENDIX B**

### **LETTER SUPPLEMENT TO DBESP**

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January 7, 2015

SDH & Associates, Inc  
5225 Canyon Crest Drive #71439  
Riverside CA 92507  
951 683 3691

Subject: Letter Supplement to DBESP for Quail Run Development, Assessor's Parcel Numbers 253-240-020, 253-240-028, and 253-060-020, Riverside, California

Dear Mr. Sommers;

This communication serves as the Letter Supplement to the referenced DBESP (NRAI 2015) as requested by the United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW) in their comment letter addressed to Mr. Brian Norton of the city of Riverside dated September 17, 2015. In that letter, the USFWS and the CDFW stated that:

"The DBESP was prepared consistent with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Policy on the Protection of Species Associated with Riparian/Riverine Areas (MSHCP section 6.1.2). The Wildlife Agencies are providing the following comments as they relate to the project's consistency with the MSHCP. We request some clarifications and have recommendations regarding the proposed restoration plan... Please provide the requested clarifications in the form of a letter supplement to the DBESP."

The requested clarifications are presented here, in the order in which they were raised in the September 17, 2015 letter.

#### Habitat Restoration and Management Plan

"During the February 2015 site visit hosted by the Project proponent, the Wildlife Agencies requested a detailed habitat restoration plan for the proposed mitigation areas, including restoration elevation contours, a list of the plant species to be established (species, numbers, planting map); installation method, irrigation type, frequency, and quantity; planned maintenance actions; success criteria; and a monitoring and reporting schedule. We have yet to receive this information. The DBESP provided the outline for a restoration plan, but did not specify when it will be available to the Wildlife Agencies for review and approval."

#### Response:

The required restoration plan is in preparation, and will be available as a draft for review by mid-January, 2016. All elements of the DBESP outline are being addressed, including the specific information requested above. We note that individual plants are not anticipated to be distributed according to a planting map, but rather will develop as a result of the re-distribution of stockpiled topsoil and vegetation material; and that

Continued...

irrigation is not contemplated. Maintenance, management, and monitoring are to be conducted at both restoration sites, as well as in the preserved area. Monitoring will be for species richness, presence of indicator species for the target plant communities, and cover of non-native species. Photo monitoring will be included. Monitoring in the restoration sites is expected to be performed by the project owner (or their representative) quarterly for the first year, and twice annually for the following five years (or longer if necessary until the success criteria are attained). After that, annual monitoring would be performed by the RLC. Maintenance is expected to consist largely of the control of non-native invasive species and the removal of trash, and possibly to include erosion control if necessary. Maintenance of both the restoration sites and to the preserved area will be conducted quarterly for the first year, and twice a year in subsequent years. Success criteria include development of healthy target plant communities using the metrics described above.

#### Hydrology of Restored Areas

"The post-construction contours and elevations in the restoration areas need to be designed so that the restored vegetation does not wash away during high-flow storm events. Please include hydrological information in the restoration plan that addresses the likelihood that high-flow events will wash away the created habitat areas, illustrates where water will spread (and/or scour out vegetation) during low-, moderate-, and high-flow events, and estimates the quantities of sediment that will likely be deposited in the habitat creation areas over the long run."

#### Response:

A HEC-RAS analysis and a scouring report have been generated by Tory Walker Engineering. These reports will be provided as Appendices in the Restoration Plan referenced above. The reports provide predictions of the levels of high water over a 12-hour and a 24-hour period during a 10-year flood, and also evaluate the impacts of more extreme and less frequent flood events. The expansion of the floodplain to a wider width, and the provision of low areas where entrained sediment can be captured, is anticipated to attenuate the severity of scouring by reducing flow rates and moderating the erosive energy of high flow rates. The evaluations show that the restoration sites will be inundated during such storm events, but will drain as the water is released from the sediment control dam downslope. The restoration sites are at or below the grade of the existing channel, so they will tend to collect sediment as the existing channel grade stabilizes to a new equilibrium. Willow and cottonwood plants that establish in those low areas will quickly develop strong roots and will withstand the periodic inundations that will be typical of high flow events. Mulefat and other transitional riparian woody species will occupy the higher slopes, up to the level of the 10-year flood contour. Terrace areas, island sites, or slopes of the borrow areas vegetated with alluvial fan scrub species will develop buffer areas consisting of mulefat and willow, offering partial protection from scouring although not from inundation during high flow events. Slopes grading down from the existing channel to the new low areas will vegetate more gradually as the site attains a new stability over time. Immediate stabilization of these slopes without the use of riprap or other hardscape elements is neither feasible nor desirable, as the habitat being created is by its nature highly dynamic. Vegetation on the steeper upper grades will be stabilized with standard erosion control BMPs such as properly anchored straw wattles. The restoration plan will clearly indicate the planting areas, and will indicate where new

Continued...

vegetation may be vulnerable for several years until the slopes stabilize under several high-flow events.

#### Seed Collection and Cuttings

"To maximize the probability of establishing native plants on a specific restoration site, it is desirable to use genetic material from the plants most adapted to the site's own soils and hydrology - i.e., genetic material from plants already successfully growing on or near the project site. Therefore, we recommend that the restoration plan include provisions for collecting seeds and cuttings from the existing riparian plants on the site prior to ground disturbance, and then using these to produce the individuals which will be planted in the restoration areas."

#### Response:

Topsoil including seeds and vegetative material from the disturbed areas will be removed prior to grading and borrow activities. This material will be stockpiled using appropriate protection from precipitation and wind and will be stored appropriately to assure seed viability between the time of collection and the time of installation into the prepared restoration sites, a period of time that could be up to 6 months. Poles, which are large cuttings that can successfully be used to generate certain species, will be collected from undisturbed trees and large shrubs (willow, cottonwood, and mulefat) at the time the restoration is implemented, as poles cannot be stored for longer than several weeks. There are ample numbers of mature individuals of these species located on portions of the project site that will not be impacted, and poles can be collected from these individuals without doing harm to the mature trees and shrubs. Poles will only be used if the sites after grading and borrow activities reveal an appropriate near-surface hydrology that will allow them to be installed successfully without supplemental irrigation.

#### Southwest Riparian Woodland-Wetland

"The DBESP states that 3.98 acres of willow-mulefat woodland and cattail marsh located in the southwestern part of the project site will be avoided by the project, but does not specify its long-term fate. Per the MSHCP, "if an avoidance alternative is selected, measures shall be incorporated into the project design to ensure the long-term Conservation of the areas to be avoided, and associated functions and values, through the use of deed restrictions, conservation easement, or other appropriate mechanisms." The Wildlife Agencies recommend that the conservation easement for the restored areas also include the avoided wooded-wetland areas, collectively called the conserved habitat. Please provide clarification regarding the long-term conservation of this area. We request that invasive plants such as tamarisk trees and giant cane (*Arundo donax*) be removed from the southwestern woodland wetland during or immediately following construction to reduce the spread of invasive plants into the restoration areas. To protect the long-term conservation values of the conserved habitat, we request that provisions be made for the long-term control of invasive non-native plants."

#### Response:

The Conservation Easement will be developed to include all restoration as well as conserved areas. The boundaries of the south restoration area will extend to the top of the berms defining the two sediment control basins; the interior of those berms and the basins themselves will be maintained by the project owners. Management and maintenance activities for the restored and conserved areas will include the control of



Continued...

non-native invasive species, and the periodic removal of trash including material that may be brought onto the site by flood events. The period of time for the Conservation Easement will begin immediately following construction, and will include immediate and comprehensive invasive plant species control in the conserved area. The eucalyptus trees and the Peruvian pepper trees currently present in the conserved area will be removed, along with any other non-native invasive species that may be present.

#### Fuel Reduction/Management Zones

"Please provide a map showing the locations of any planned fuel reduction/management zones in relation to the impacted and un-impacted site habitats, and confirm that the fuel reduction/management zones will be located in the project's permanent impact areas rather than in the habitat avoidance areas and the temporary impact/restoration areas."

#### Response:

It is not anticipated that any fuel reduction will be done in the restoration or conserved areas, as these areas are to remain free of any disturbance except for what may occur naturally as result of flood.

#### Long-term Conservation of the Conserved Habitat

"The DBESP states that conservation easement will be held by the apartment complex property management entity. The property management entity is not an appropriate steward for the conserved habitat. We encourage the project proponent to pursue the alternative strategy of engaging land managers with the skills to manage conserved habitat, such as the Riverside Land Conservancy or the San Jacinto Basin Resource Conservation District to be the easement holder and land steward...To ensure protection of the long-term conservation values of the conserved habitat, the land steward should be tasked with maintaining the restored areas in perpetuity, which includes control of invasive species.

The project proponent should provide the land steward with an endowment sufficient to enable the land steward to maintain the restored areas in perpetuity. The amount needed can be determined by consultation with the proposed land steward, subject to final approval by the Department."

#### Response:

The owner is in the process of developing a Conservation Easement with the Riverside Land Conservancy (RLC). It is anticipated that a Letter of Intent from the RLC to engage in a Conservation Easement agreement will be issued by mid-January 2016 for the maintenance of the restored and conserved areas in perpetuity. The RLC and the owner will work with the CDFW to determine the amount of a non-wasting endowment to be provided by the owner to the RLC to perform the monitoring and/or maintenance tasks agreed to among the RLC, the Department, and the owner.

#### The final paragraph of the DBESP carries two additional recommendations:

1. No trespass beyond that already delimited by construction limits shall occur into jurisdictional waters.
2. No drainage for subsequent development will be designed to flow or be directed into this area. All final project design flows will be directed into a formal site collection system.

Continued...

The project will respect these recommendations. No trespass will occur into jurisdictional waters, and all drainage from the development will be captured into site collection systems that have been included as part of the grading design.

Sincerely,

A handwritten signature in black ink, appearing to read 'Carla Scheidlinger', with a stylized flourish at the end.

Carla Scheidlinger  
Restoration Program Manager

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