ALTFILLISCH PROPERTY
RCRCD IN LIEU FEE PROGRAM
LONG-TERM MANAGEMENT PLAN

For the
USACE – Los Angeles District
In Lieu Fee Program Interagency Review Team

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List of Acronyms
33 C.F.R. 332 In-Lieu Fee Regulations document of USACE

CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRAM	California Rapid Assessment Method
IRT	Interagency Review Team
MSHCP	Western Riverside County Multiple Species Habitat Conservation Plan
Project	RCRCD's Altfillisch property area under this plan
RCRCD	Riverside-Corona Resource Conservation District
USACE	U.S. Army Corps of Engineers

SECTION I. Long-Term Management Plan Description

33 C.F.R. § 332.4(c) 11

A. PURPOSE

The purpose of this plan is to ensure that the Altfillisch property is perpetually preserved and managed in a way that is beneficial to the site's ecosystem and all of the native flora and fauna within it. No one species will be managed for in a way that is detrimental to the system as a whole. RCRCD will manage and monitor the property in perpetuity to preserve the habitat and conservation values present in accordance with this plan. Long Term Management will be funded through a non-wasting endowment. RCRCD will be responsible for providing an annual report to the IRT documenting management activities and funds spent. If activities beyond those listed in this document are necessary, RCRCD will seek approval of the IRT prior to implementation.

The Long Term Land Manager is Riverside-Corona Resource Conservation District (**RCRCD**). Pursuant to the RCRCD In-Lieu Fee Enabling Instrument dated July 26, 2012 and 33 C.F.R. §332.8(u)(3), RCRCD may assign long-term management responsibilities to the Southwest Resource Management Association.

After the performance standards set forth in the Interim Management Plan (IMP) have been achieved, long term maintenance will begin.

B. Preliminary actions

A baseline inventory of habitat types and plant and animal species found on the property will be compiled using data collected up to the time of the Long Term Management Plan (LTMP) initiation. Photo points used for monitoring and reporting during the IMP will be evaluated and moved if necessary to best exhibit the conditions on the site.

C. Timing

The RCRCD will monitor the Project area on a minimum quarterly basis and conduct maintenance activities (i.e., weed removal, trash removal, repair and maintenance of signage, repair of vandalism or other trespassing disturbances, and restoration or management following flood or fire damage) as necessary.

Activities performed will include the following:

Activity	**Frequency**
Site inspections	Quarterly and as needed
Repair/maintain signage	Quarterly or more frequently as necessary
Trash removal	Quarterly as necessary
Invasive Weed Control	Quarterly as needed; Monthly in Winter and Spring as needed
CNPS/CDFG Rapid Assessment	Every 5 years
Species specific surveys for CNDDB or MSHCP listed species found or likely to be found at the site.	Every 5 years or at MSHCP standard frequency
CRAM assessments	Every 5 years
Maintain documentation of all activities within the property.	Continually
Assess whether any remedial actions are necessary to preserve habitat and ecosystem function at the site and plan those actions coordinating with the IRT where necessary.	Annually or as needed
Visits to the site with guests for educational purposes.	As appropriate
Reporting	Annually

D. Biological Monitoring

The habitat within the property will be monitored every five years using the California Native Plant Society (CNPS)/Department of Fish and Game (CDFG) Rapid Assessment technique and the California Rapid Assessment Method (CRAM). Any official modifications to the procedure and data forms for either method will be used to keep the data comparable with assessments of current conditions throughout the area.
Data from these surveys, combined with data from surveys conducted under the IMP, will be used to assess natural variations in plant species and communities and to assess whether remedial action may be necessary to maintain the healthy function of the ecosystem at the site.

Species of Special Concern

Santa Ana Suckers have been known to be present in small numbers in the low flow of the Santa Ana River near this location. The RCRCD holds an active SAS 10a permit with the USFWS, so any activities taking place in or near to known habitat will be monitored under this permit and included in the RCRCD annual sucker activity report. Least Bell's Vireo were heard in summer 2014 in the vicinity of the eastern edge of the property. In other sites restored by the RCRCD, listed birds began to occupy the restored area after three or four years, in which the canopy and density of the vegetation promoted nesting and forage opportunities. It is expected that, at the time of implementation of this LTMP listed birds including the Least Bell's Vireo will occupy the site. There are no other sensitive species known to occur on the property at the time this plan is written. If any corrective action is needed on the property surveys for possible sensitive species present will be conducted before any action is taken.

If sensitive species that are being monitored by Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) personnel on other MSHCP lands are present on the property, qualified MSHCP biologists will be allowed on the property to conduct surveys for these species using their monitoring methods, timing, and frequency provided that these activities would pose no significant threat to the healthy function of the ecosystem at the site. Data from these surveys, combined with data from surveys conducted under the IMP, will be used to assess natural variations in sensitive species condition and visitation, and to assess whether remedial action may be necessary to maintain the healthy function of the ecosystem at the site. If any other species of special concern or listed species are suspected or determined to be present the IRT and appropriate regulatory agencies will be notified and qualified biologists will be allowed to monitor the species in a manner suited to the species that would pose no significant threat to the healthy function of the ecosystem at the site or to the species itself.

E. Control of Invasives

During the quarterly site visits the presence and condition of invasive species will be visually assessed and any corrective action necessary for the healthy function of the ecosystem will be arranged for. This may include plans for immediate removal of invasive plants about to set seed, future treatment with appropriate aquatic herbicide of invasive plants found in a young stage, and trapping of invasive animals (e.g. Cowbirds, crayfish, feral pigs, etc.). Removal of invasive species will generally be considered necessary if the species in question, or a group of species

together, poses a threat to the healthy function of the ecosystem or the continued presence of a listed species that has been known to be present at the site within the last 5 years.

It is expected that, by the time of implementation of this LTMP, there will be maintenance issues associated with the presence of feral pigs within the project area. A separate feral pig management plan is being constructed to encompass all potentially affected RCRCD conserved lands which, once completed, will be used as the feral pig management plan for the project area. Until that time the following actions will be taken to address feral pig management issues. Damage to the project will be photographed, documented and used to obtain a depredation permit. Pigs in the area will be trapped and/or hunted depending on the site conditions of the affected area and the specifications set forth on the depredation permit. Care will be taken to minimize damage to native vegetation by control efforts. Depending on the size of the affected area wire cages or other protection methods may be used to protect desired native vegetation and their effectiveness will be documented. Any usable information obtained from protection efforts will be saved for use in future management plans.

Invasive species removal will be conducted with appropriate tools, traps, herbicides, etc. that will provide the least amount of negative impact to native flora and fauna of the site as possible. All tools, traps, and herbicides will be used in the manner and type of area for which they were produced and approved for use in where applicable.

F. Native species management

In general, no native plants or animals will be removed from the property, living or dead, except for the following:

- The removal is part of a transport approved by any regulatory agencies.
- The individuals are reasonably suspected to have a disease that poses a significant threat to the health of the ecosystem of the site and/or nearby wild lands.
- There is a large scale die-off of, natural or otherwise, and leaving the remains onsite would pose a significant threat to the health of the ecosystem of the site, nearby wild lands, water quality, and/or people living and working nearby.
- It is documented in monitoring results that the species or individual is causing a negative impact to the health of the ecosystem of the site that is expected to continue to escalate and is not expected to reach a point of equilibrium that maintains the healthy function of the ecosystem.

G. Property Management

Property Monitoring

The property will be visited quarterly to assess its overall condition and perform any necessary maintenance such as trash removal and repair of signage. Any observations will be noted and addressed if necessary.

Trash Removal

Trash will be removed quarterly as necessary.

Signage

Signage will be repaired quarterly or as necessary. If more frequent repair is necessary, repairs will be conducted as necessary.

Enforcement

RCRCD shall undertake all reasonable actions to prevent the unlawful entry and trespass by persons whose activities would be inconsistent with the conservation values of the Project and would violate the permitted uses set forth in the Declaration of Restrictive Covenant.

H. Reporting

RCRCD will provide annual reports to the IRT in September with the following information:

- A summary of observations and actions taken during and as a result of the quarterly site checks.
- Photos from photopoints.
- Summaries of habitat and species monitoring in relevant years.
- List of any sensitive species found on the property in the previous year.
- List of any new invasive species detected.
- Map(s) showing locations of sensitive and new invasive species sightings as well as any notable disturbances to the site.
- If necessary, list of detrimental influences and notable disturbances that RCRCD plans to address in the following year.

I. Site visitation

RCRCD may allow qualified biologists to visit the property to conduct surveys provided that these activities would pose no significant threat to the healthy function of the ecosystem at the site. Examples of reasons for these surveys can be found in the Biological Monitoring section of this document under Species of Special Concern. RCRCD may also chaperone small educational visits for environmental monitoring and preservation related subjects provided they are conducted in a manner and time that they would pose no significant threat to the healthy function of the ecosystem at the site.

SECTION II. Adaptive Management Plan

33 C.F.R. § 332.4(c)12

The party responsible for implementing adaptive management procedures is the RCRCD.

Management practices, monitoring methods, and other activities on the site not listed in this plan that the RCRCD deems useful to maintaining, increasing, or monitoring the health of the ecosystem at the site may be implemented with written approval of the IRT before implementation. If unforeseen changes in the site condition occur RCRCD will provide a detailed description of the condition in writing to the IRT. RCRCD will consult with the IRT as to what action to take and any changes in management and monitoring must be satisfactory to RCRCD and approved by IRT for them to be implemented.

Documentation of all adaptive management approved and taken will be maintained by RCRCD.

A. Potential challenges

If grazing is noted on vegetation to a degree that could threaten to halt natural regeneration in a large area, wire cages may be installed to protect small plants.

It is expected that damage due to feral pigs will occur within the project. Expected control methods are discussed in Section I E Control of Invasives above.

During this period, plant failure from activities such as die-off due to drought, flooding or fire may occur. Under these circumstances the impact area will not be replanted, but instead, will be allowed to regenerate naturally. Under managed conditions, it is expected that much of the impacted area will recover naturally as the habitat types to be restored at the site are adapted to a disturbance prone ecosystem where a cycle of disturbance by flood or fire and natural recovery is expected. If it is determined from observations at regular site visits that the impact area is not expected to recover naturally, for example due to an abnormally high level or frequency of disturbance, RCRCD will consult with IRT in the manner described at the beginning of this section.

If the main stream channel changes course within the property no remedial action is expected to be necessary. The intermittently braided river system at the site is expected to be dynamic with the locations of specific communities fluctuating somewhat over time as natural regeneration of the appropriate plant species in the appropriate places is expected to occur once the site has reached the natural state necessary to reach the performance standards set forth in the Interim Management Plan.

If there are other unforeseen local circumstances such as a slow drying out of the site or changes in ground water flow due to earthquakes, measures will be taken to enhance or rehabilitate the affected areas, as needed, with plant species appropriate to the changed regime. If a site becomes wetter, then it is likely that natural colonization of appropriate plant species will occur,

but some planting of appropriate plant species will be done if needed.

In the case of widespread, sweeping changes in regional climate that would have affected the both the habitat of the original impact site and the ILFP mitigation site, RCRCD will implement adaptive management actions pursuant to the prevailing conditions. This may result in a different vegetation type or jurisdiction than originally planned. The contingency measures will insure that appropriate changes to plant palettes are made and that additional planting, maintenance, and monitoring will be implemented to ensure survival and establishment of both planted and volunteer native vegetation.

SECTION III. Financial Assurances

33 C.F.R. § 332.4(c) 13

> **33 CFR § 332.4(c)(13) *Financial Assurances*. A description of financial assurances that will be provided and how they are sufficient to ensure a high level of confidence that the compensatory mitigation project will be successfully completed, in accordance with its performance standards.**

The Program Sponsor will take the following actions to ensure that there is a high level of confidence the ILF Project will be successfully completed.

A. Funds outlined in this approved ILF Project budget will be earmarked, held in the Program Account, and disbursed as work is accomplished to operate and monitor this ILF Project.

B. Funds outlined in approved ILF Project budgets will be earmarked, and held in the Program Account to manage the individual ILF Project, including contingency and Remedial Actions.

C. A financial assurance for each ILF Project in accordance with 33 C.F.R. 332.3(n).

> **33 CFR § 332.3(n)(1) *Financial Assurances*. (1) The district engineer shall require sufficient financial assurances to ensure a high level of confidence that the compensatory mitigation project will be successfully completed, in accordance with applicable performance standards. In cases where an alternate mechanism is available to ensure a high level of confidence that the compensatory mitigation will be provided and maintained (e.g., a formal, documented commitment from a government agency or public authority) the district engineer may determine that financial assurances are not necessary for that compensatory mitigation project.**

RCRCD is a public agency charged, by statute, with conserving natural resources within portions of western Riverside and San Bernardino Counties in southern California. (See Public Resources Code, § 9151 et seq.) RCRCD routinely rehabilitates and maintains wetland and riparian environments, and holds dozens of conservation easements encompassing hundreds of acres of these aquatic areas. Many of these conservation easements are associated with Army Corps 404 permits. As part of its work, RCRCD holds and manages numerous non-wasting endowments and other mitigation funding. RCRCD's experience with mitigation projects ensures a high level of confidence that this ILF Project will be completed and maintained in perpetuity.

Unlike mitigation banks, RCRCD will be selling advanced credits before implementing this ILF Project. Consequently, financial assurances will be achieved in the accumulation of funds in the Program Account from advanced credit sales associated with this ILF Project that will be used to implement this Project. To ensure that these funds are protected, RCRCD intends to send a "letter of commitment" that will earmark funds sufficient to cover the cost of this ILF Project. The letter will serve as a formal, documented commitment from RCRCD to the USACE to provide sufficient financial assurances to ensure a high level of confidence that the ILF Project will be successfully completed, in accordance with applicable performance standards.

D. Finally, each approved ILF Project will have an identified schedule for the release of the financial assurances as the ILF Project meets its approved Performance Standards.

A schedule of Project completion is included in Section VI of the Development Plan. At this point, the schedule is the best estimate of when each phase of implementation of the Project will be completed. RCRCD will inform the District Engineer upon the completion of each of the different stages of the Project, and will request a release of the financial assurances associated with that particular stage once that stage is complete.

Funds required for the long-term endowment to manage the ILF Project in perpetuity shall be set aside approximately three (3) years before the commencement of the long-term management period.

SECTION IV. References

A. Literature Cited

"California Department of Fish and Wildlife - CNDDB Quick Viewer." *CA Department of Fish and Wildlife*. N.p., n.d. Web. 13 August 2014. < https://map.dfg.ca.gov/bios/?tool=cnddbQuick >.

California Wetlands Monitoring Workgroup (CWMW). 2009. Using CRAM (California Rapid Assessment Method) to Assess Wetland Projects as an Element of Regulatory and Management Programs. 46 pp.

Hoag, J. C. et al. 2001. Users guide to description, propagation and establishment of wetland plant species and grasses for riparian areas in the intermountain west. TN Plant Materials No. 38. USDA-NRCS, Boise, ID.

Rogers, D.L. and A.M. Montalvo. 2004. Genetically appropriate choices for plant materials to maintain biological diversity. University of California. Report to the USDA Forest Service, Rocky Mountain Region, Lakewood, CO. Online: http://www.fs.fed.us/r2/publications/botany/plantgenetics.pdf

Society for Ecological Restoration. 2002. The SER primer on ecological restoration. A publication of the Science & Policy Working Group. April 2002 (First Edition). Society for Ecological Restoration International. Online: http://www.ser.org/ content/ecological_restoration_primer.asp.

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Official Soil Series Descriptions. Available online at http://soils.usda.gov/technical/classification/osd/index.html. Accessed [08/14/2014].

“National Wetlands Inventory” Wetlands Mapper. U.S. Fish and Wildlife Service. Web. 6 August 2014. < http://www.fws.gov/wetlands/Data/Mapper.html >.

"Web soil survey." *Web soil survey*. USDA, n.d. Web. 8 August 2014. <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.asp&xgt;.

USACE. 2008. Rules and Regulations, Section 332.4. Federal Register, Volume 73, No. 70:19670-19678

B. Definitions of Important Terms

In this document, with regard to habitat treatments, we adopt terminology consistent with that published in the Federal Register (USACE 2008), as well as Society of Ecological Restoration (http://www.ser.org) and Rogers and Montalvo (2005) for additional terms, as follows:

Buffer: An upland, wetland, and/or riparian area that protects and/or enhances aquatic resource functions associated with wetlands, rivers, streams, lakes, marine, and estuarine systems from disturbances associated with adjacent land uses.

Revegetation: A general term that refers to the reestablishment of plant cover through planting seeds or other plant resources such as cuttings, vegetative propagules, or containerized plants where there is currently little or no vegetation. There is no particular goal implied other than producing vegetative cover. Reclamation, rehabilitation, and restoration frequently involve revegetation (after Rogers & Montalvo 2004).

Restoration: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resources area. Rehabilitation and reestablishment are the two forms of restoration recognized by USACE.

Rehabilitation: Manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area. For example, the removal of invasive species that are detrimental to the function of a wildland habitat, together with encouraging colonization of native riparian plant species through planting and natural dispersal, serves to improve natural functions and degraded habitat.

Reestablishment: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Reestablishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions. For example, the removal of a berm or culvert crossing from a stream channel that had constricted the channel, and returning the area to its natural hydrology together with planting of native riparian species, increases the function of a wildland habitat, together with increasing the area of the habitat.

Riparian Area: Lands adjacent to streams, rivers, lakes, and estuarine-marine shorelines.

Enhancement: The manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in a gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area. For example enhancement by weeding of invasive woody species such as Eucalyptus may improve a plant community toward a natural, native condition that provides superior nesting habitat for least Bell's vireo while decreasing the nesting habitat for red-tailed hawk.

Establishment: (= Creation). The manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area and function. This is consistent with SER: The planting and establishment of a plant community that differs from the natural community currently or historically existing on that site. For example, the grading, contouring, and planting of a wetland in an area that was previously upland habitat.

SECTION V. Attachments and Figures

Attachments

Attachment 1. Habitat Construction Plan
Attachment 2. List of plant species to be planted at the site
Attachment 3. Possible Invasive plant species

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Figure 5. Surrounding Land Ownership

Attachment 1

Altfillisch Property
Santa Ana River, California

Special Provisions and General Notes

Overview

1. The Contractor is responsible for conforming to all requirements set forth in this document.
2. Throughout this document the word "Contractor" will mean the plant installation and maintenance, and weed control contractor.
3. For any questions regarding this project contact Kerwin Russell and Shani Pynn at the RCRCD.
4. The Contractor shall visit the site and understand all requirements before bidding on the project.
5. The contractor is responsible for having a current copy of this document at the project site at all times.
6. All work shall be carried out by liscenced and bonded Contractors and their experienced staff.
7. Contractor shall perform work according to the best standards of practice for the trades being used herin.
8. Contractor shall always have a competant foreman on site who understands these plans and specifications.
9. The Contractor is responsible for removing all construction debris from the site prior to completion.
10. The Contractor shall provide direct supervision of the contractor's personelle and of those of any subcontractors. At any time the contractor is not present at the site a competant representative shall be present who has the authority to discuss and agree to project specifics with the Natural Resources Manager and/or the Habitat Restoration Specialist.
11. The Contractor shall notify the Natural Resources Manager and the Habitat Restoration Specialist of any conditions detrimental to project success in writing and will not procede until both them and the contractor are satisfied with the plan of action.
12. All areas will include installation, planting, and planting maintenance for a period of no less than 90 days after the last date of installation (all installation work completed).

Scope of Work

1. The Purpous of this project is to restore mixed Southern Cottonwood Willow Riparian Forest in the Santa Ana River within the project area.

Site Hazards

1. The project involves work on loose soils and some steep slopes.
2. The river channels may contain rapid flows and heavy flooding may occur throughout the site during the rainy season and especially during storm events.
3. Hazardous conditions and changing weather should be expected, and safety precautions taken at all times.
4. Hazzards such as mud, snakes, poison oak, flooding and contact with people trespassing on the property are possible.
5. The contractor shall ensure that all personnel take relevent safety precautions as needed.
6. The Contractor will comply with all provisions and conditions outlined in all federal and state permits heald by the RCRCD and any additional provisions required by the RCRCD.

Construction Drawings

1. Detailed information on the installation of the plant material is included in the following pages.

Sheet Index

Project Directory

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Altfillisch Property
Habitat Construction Plan
Santa Ana River, California

Date: 08/25/2014
Job Name: Altfillisch ILFP
File name: Altfillisch Construction Plan
Drawn By: SP
Checked By:

Revisions

Title Sheet
Sheet
0.1

Altfillisch Property
Santa Ana River, California

Planting

Site Preparation

1. Specific plant placement will be marked onsite by the Habitat Restoration Specialist using colored flags/flagging tape.
2. All plant material, unless otherwise authorized by the Habitat Restoration Specialist will be obtained from the RCRCD in a form ready for planting.
3. All Plant material will be from cuttings and seeds collected in the local ecoregion of the Santa Ana River and nearby areas.
4. All plants will have moist soil prior to planting and will not be allowed to dry out before or during planting.
5. All planting will occur from September to March when the weather is cool.
6. Plants will be picked up fron RCRCD nursery the day planting is to begin.
7. Any plant material purchased from local native plant nurseries and seed sources will be arranged, purchased, and picked up by RCRCD and will be available for pickup from RCRCD nursery.
8. Within two weeks prior to planting, complete weed eradication in the planting area shall be done.

Planting of Seeds

1. Seeds will be raked into soil in larger areas and/or broadcast seeded under the direction of the Habitat Restoration Specialist.

General

1. All flags marking planting spots shall be left in place after planting to aid in visibility of new plantings.
2. A plant list with species and associated flag colors will be provided to the contractor by the habitat restoration specialist prior to pickup of plants from RCRCD nursery and a copy of the list will be provided with plants when they are picked up.

Rehabilitation area

Mixed Southern Cottonwood Willow Riparian Forest	**45.66ac. at 200 pl/ac**
Species, as in Jepson Manual, 2012	**Common Name**
Artimisia douglasiana	Mugwort
Artemisia dracunculus	Tarragon
Croton californicus	California croton
Juncus balticus subsp. ater	Wire rush
Platanus racemosa	western sycamore
Populus fremontii	Freemont's Cottonwood
Rosa californica	California rose
Salix gooddingii	Black Willow
Salix laevigata	Red Willow
Salix lasiolepis	Arroyo willow

Enhancement area

Mixed Southern Cottonwood Willow Riparian Forest	**30.14ac. at 200 pl/ac**
Species, as in Jepson Manual, 2012	**Common Name**
Artimisia douglasiana	Mugwort
Artemisia dracunculus	Tarragon
Baccharis salicifolia	Mulefat
Croton californicus	California croton
Juncus balticus subsp. ater	Wire rush
Rosa californica	California rose

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Altfillisch Property
Habitat Construction Plan
Santa Ana River, California

Date: 08/25/2014
Job Name: Altfillisch ILFP
File name: Altfillisch Construction Plan
Drawn By: SP
Checked By:

Revisions
1 - 9/8/14
2 - 12/2/14
3 - 2/16/16

Planting
Sheet
1.1

Attachment 2 – Planting lists

Rehabilitated Mixed Southern Cottonwood Willow Riparian Forest area

Species, as in Jepson Manual, 2012	**Common Name**
Artimisia douglasiana	Mugwort
Artemisia dracunculus	Tarragon
Croton californicus	California croton
Juncus balticus subsp. ater	Wire rush
Platanus racemosa	western sycamore
Populus fremontii	Freemont's Cottonwood
Rosa californica	California rose
Salix gooddingii	Black Willow
Salix laevigata	Red Willow
Salix lasiolepis	Arroyo willow

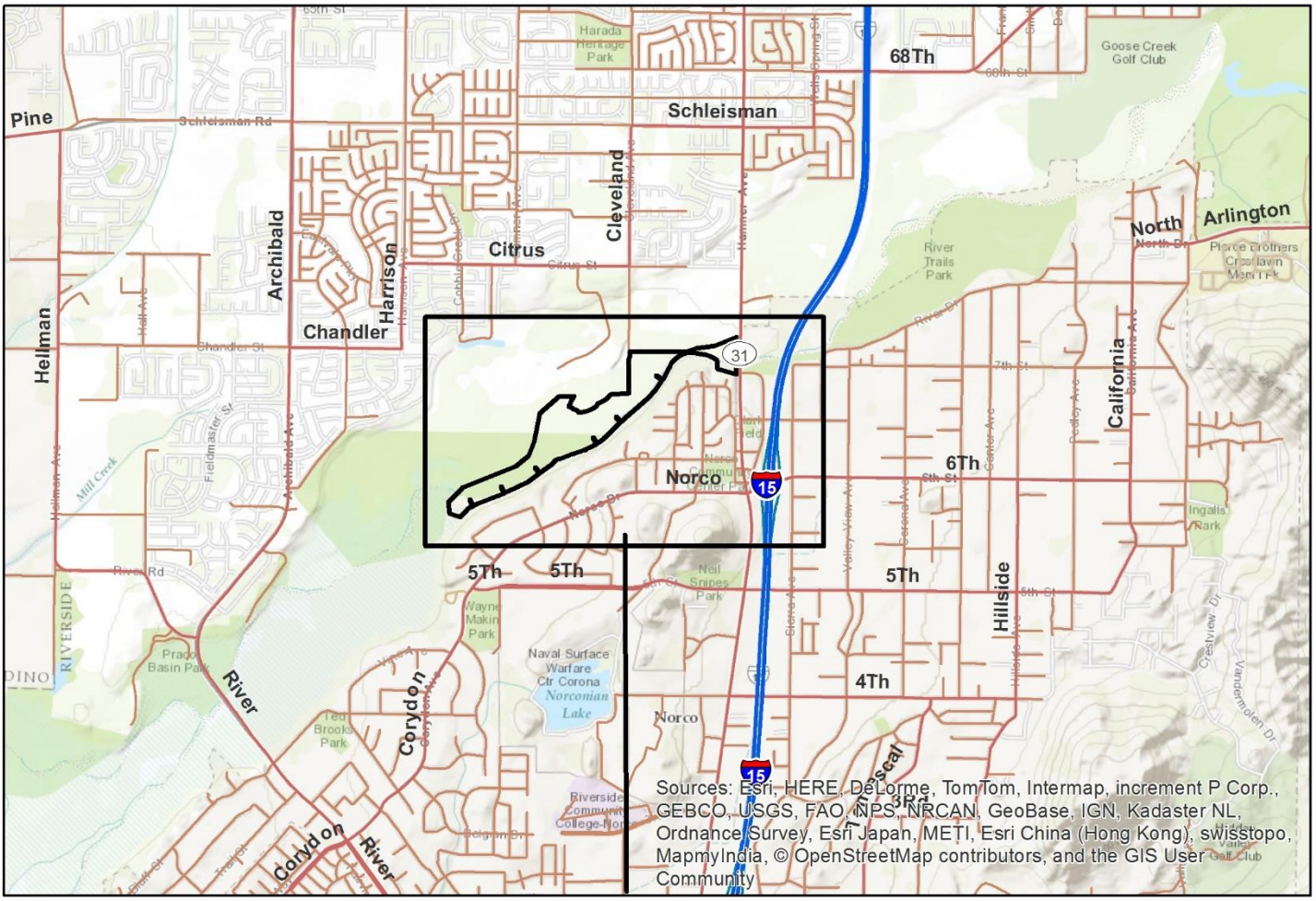
Enhanced Mixed Southern Cottonwood Willow Riparian Forest area

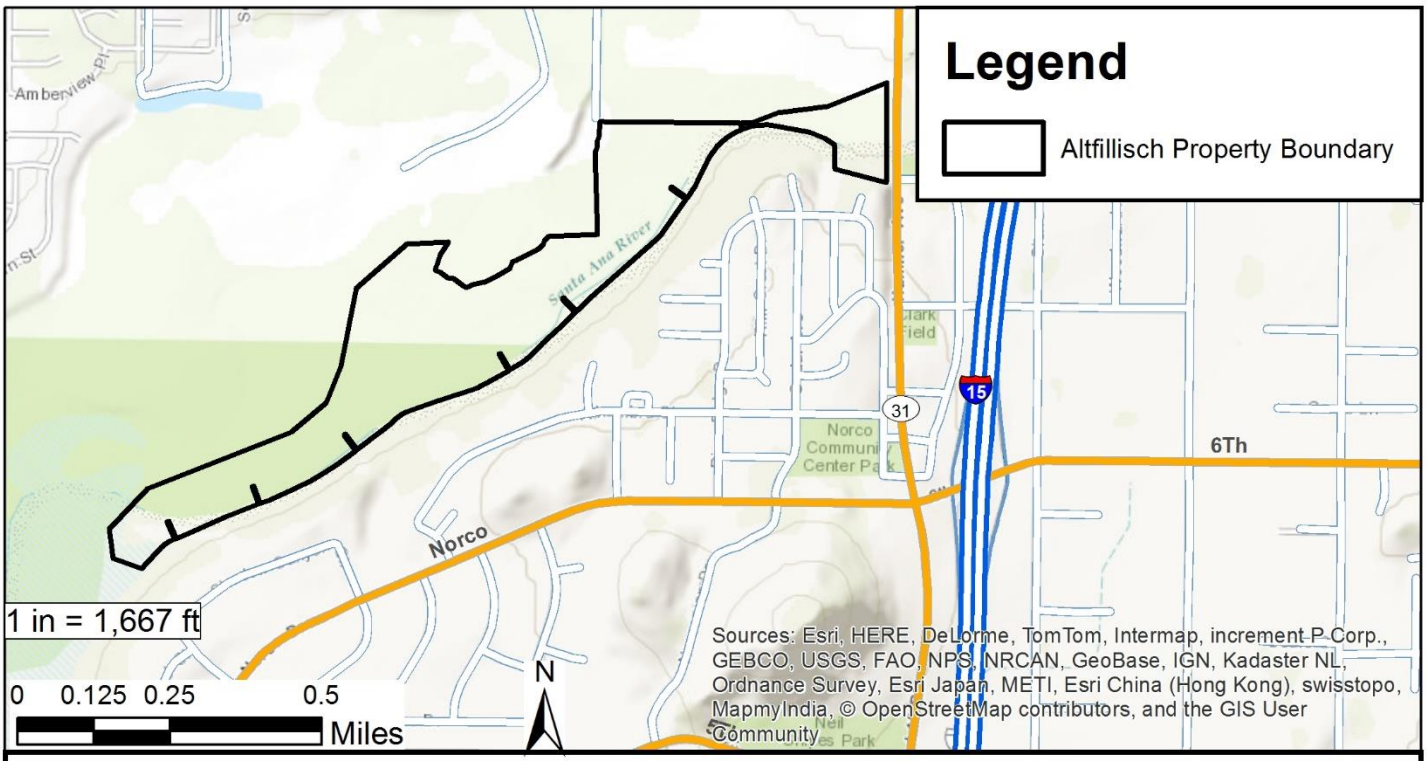
Species, as in Jepson Manual, 2012	**Common Name**
Artimisia douglasiana	Mugwort
Artemisia dracunculus	Tarragon
Baccharis salicifolia	Mulefat
Croton californicus	California croton
Juncus balticus subsp. ater	Wire rush
Rosa californica	California rose

Attachment 3. Invasive Plant Species found on the property and/or nearby.

Species	Common Name	Habitats
Ailanthus altissima	tree of heaven	upland, riparian banks
Arundo donax	giant reed	riparian
Avena barbata	slender wild oat	upland
Avena fatua	wild oat	upland
Brassica nigra	black mustard	banks, swales, drainages
Bromus diandrus	rip-gut brome	upland, banks, benches
Bromus madritensis	red brome	upland, banks, high area
Centaurea melitensis	tacalote	upland, banks, high area
Chenopodium ambrosioides	epizote	riparian banks, swales
Cirsium vulgare	bull thistle	upland, riparian banks
Cortaderia species	pampus grass, jubata grass	upland, riparian banks
Cynodon dactylon	Bermuda grass	riparian edges, drainages
Echinochloa crus-galli	barnyard grass	riparian edges, drainages
Erodium brachycarpum	short-fruited filaree	open dry areas
Erodium cicutarium	red-stemmed filaree	open dry areas
Erodium moschatum	white-stemmed filaree	open dry areas
Eucalyptus species	blue gum	riparian, swales
Ficus carica	common fig	riparian areas
Fraxinus uhdei	shamel ash	riparian areas
Hirshfeldia incana	perennial or short pod mustard	upland, banks, high area
Lactuca serriola	prickly lettuce	riparian edges, drainages
Lepidium latifolium	perennial pepperweed	wetland, riparian banks
Lobularia maritima	Sweet-alyssum	banks, swales, drainages
Marrubium vulgare	common horehound	upland, banks
Melilotus alba	white sweet-clover	riparian banks, swales
Melilotus indicus	sour clover	riparian banks, swales
Nicotiana glauca	tree tobacco	upland, banks, high area
Pennisetum setaceum	African fountain grass	riparian, upland
Polypogon monspeliensis	annual beard grass	riparian edges, drainages
Pulicaria paludosa	Spanish sunflower	banks, moist swales
Raphanus sativus	wild radish	banks, swales, drainages
Ricinus comunis	castor bean	upland, riparian banks
Rumex crispus	curley dock	banks, moist swales
Salsola tragus	Russian thistle	upland, banks, swales
Schinus molle	Peruvian pepper tree	riparian edges, drainages
Silibium marianum	milk thistle	riparian edges, drainages
Sisymbrium irio	Lodon rocket	upland, banks, swales
Sonchus asper	prickly sow-thistle	riparian edges, drainages
Tamarix species	tamarisk, salt cedar	riparian, moist swales
Vinca major	periwinkle	riparian
Washingtonia filifera	California fan palm	riparian edges, drainages
Washingtonia robusta	Mexican fan palm	riparian areas, drainages

Figure 1.





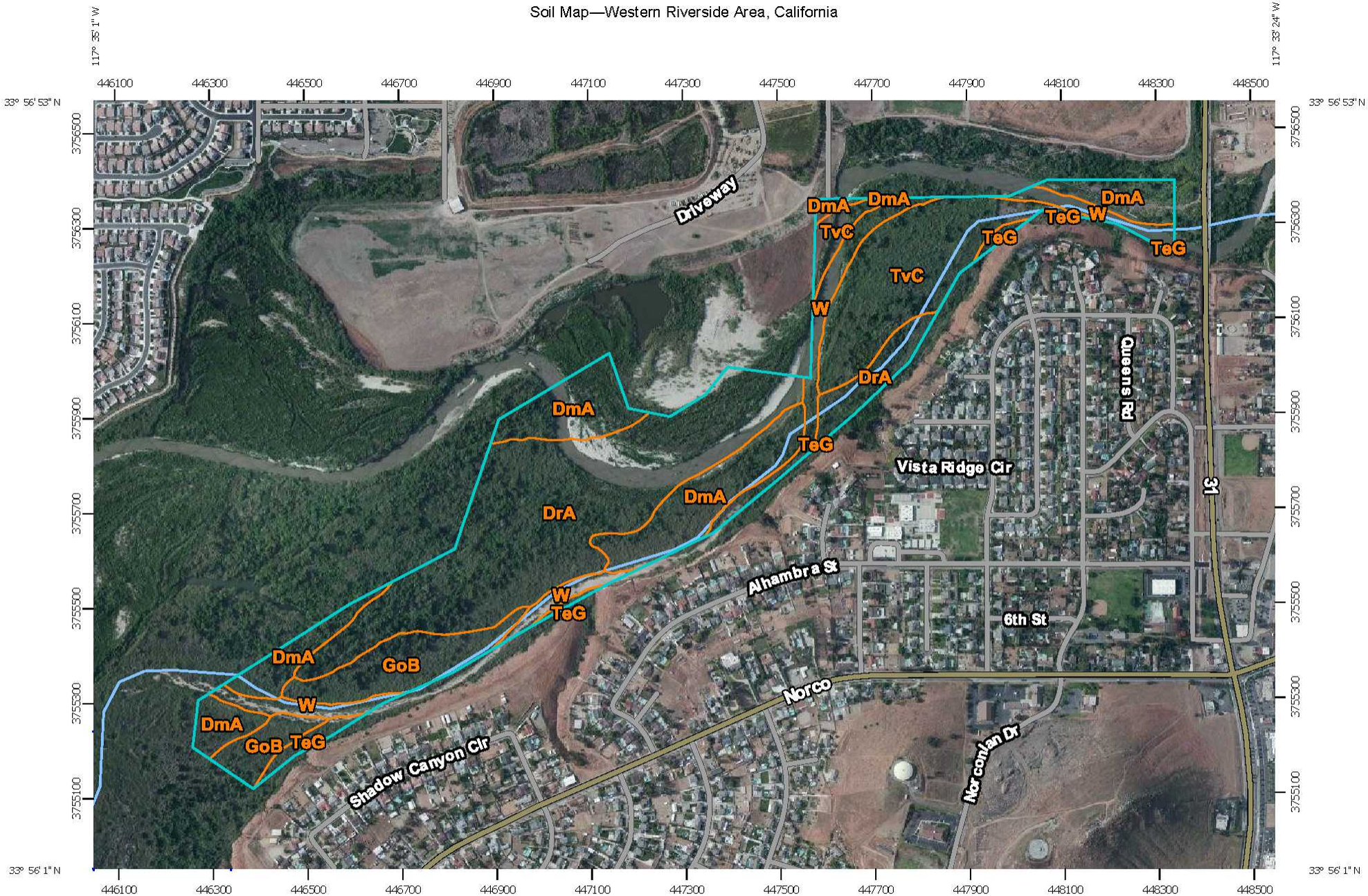
RCRCD
RIVERSIDE-CORONA RESOURCE CONSERVATION DISTRICT
RCRCD
4500 Glenwood Dr.
Riverside, CA. 92501
(951) 683-7691

Altfillisch Property

Location Map

Norco, California

Figure 2. Soils Map



Map Scale: 1:11,400 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 150 300 600 900

Feet: 0 500 1000 2000 3000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Western Riverside Area, California
Survey Area Data: Version 6, Dec 9, 2013

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

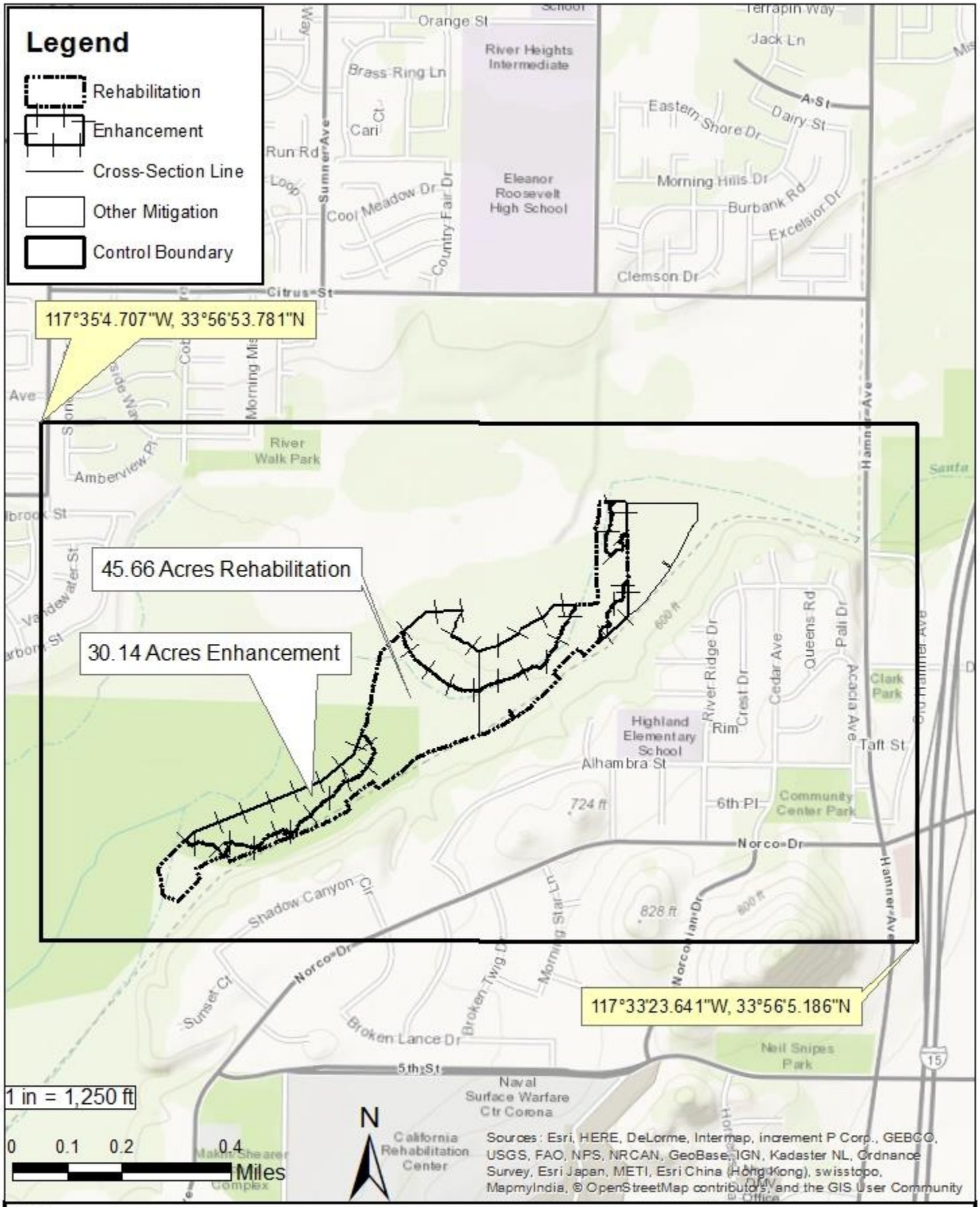
Date(s) aerial images were photographed: May 3, 2010—Jul 3, 2010

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Western Riverside Area, California (CA679)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
DmA	Dello loamy sand, poorly drained, 0 to 2 percent slopes	31.6	22.7%
DrA	Dello loamy fine sand, gravelly substratum, 0 to 2 perc ent slopes	55.1	39.6%
GoB	Grangeville loamy fine sand, drained, 0 to 5 percent sl opes	13.5	9.7%
TeG	Terrace escarpments	2.7	2.0%
TvC	Tujunga loamy sand, channeled, 0 to 8 percent slopes	22.9	16.4%
W	Water	13.4	9.6%
Totals for Area of Interest		**139.2**	**100.0%**

Figure 3.



RCRCD
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Altfillisch Property

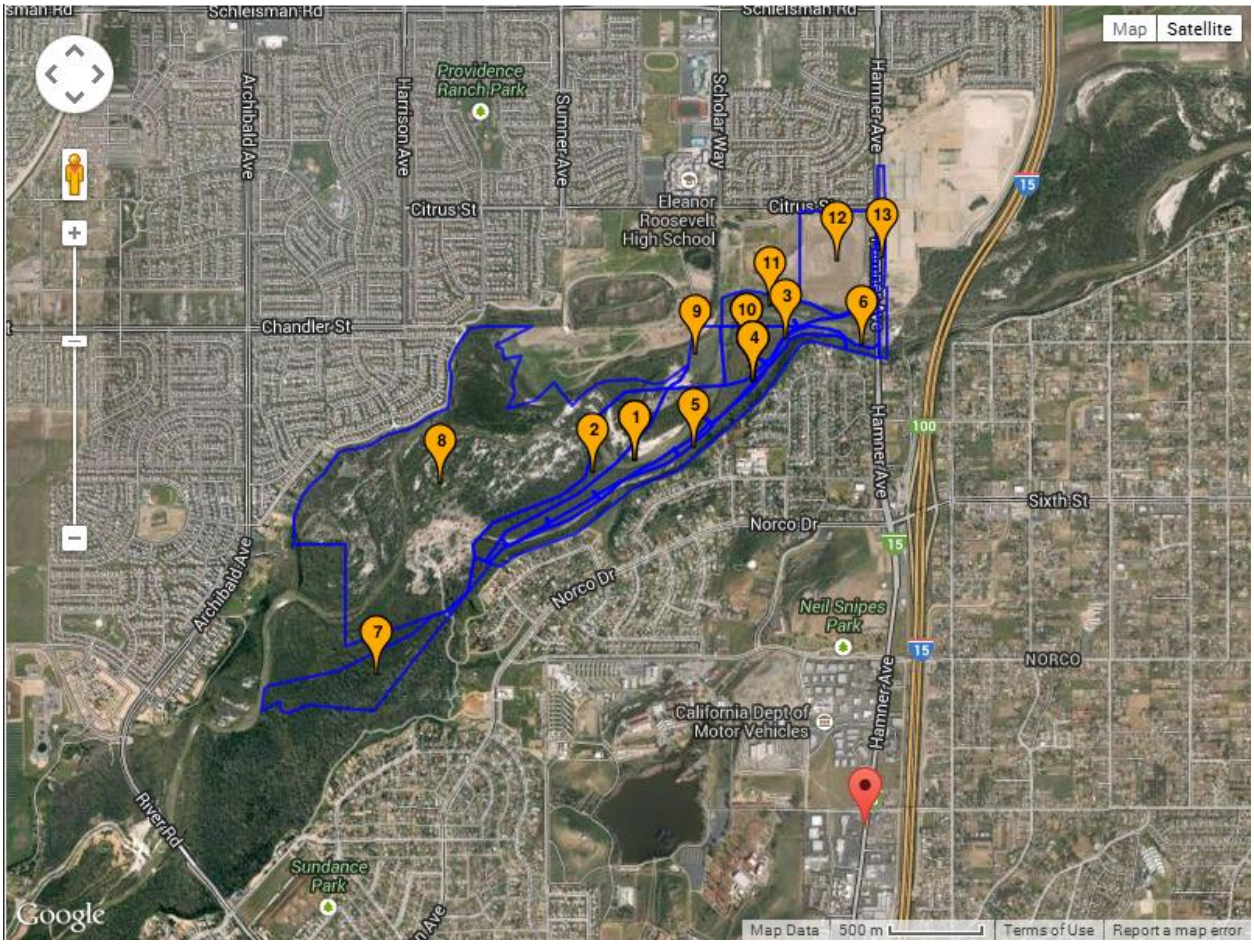
Conceptual Plan

Norco, California

Figure 4.


River Ridge Dr
Rim Crest Dr
Canyon Ridge Cir
Vista Ridge Cir
Alhambra St
Google earth
© 2014 Google
353 m
1994
Imagery Date: 1/12/2013 33°56'30.57" N 117°34'13.09" W elev 182 m eye alt 1.69 km
Graph: Min, Avg, Max Elevation: 170, 170, 171 m
Range Totals: Distance: 246 m Elev Gain/Loss: 1.74 m, -0.35 m Max Slope: 1.4%, -36.5% Avg Slope: 0.7%, -11.5%
171 m
170 m
171 m
0.0%
25 m
50 m
75 m
100 m
125 m
150 m
175 m
200 m
225 m
246 m

Figure 5. Surrounding Land Ownership



Map showing adjacent parcels according to ParcelQuest in August of 2014

Portions of Parcels 1 and 2 are owned by RCRCD and are the parcels that the mitigation is within.
Portions of Parcels 1 and 2 that are excluded from the RCRCD property are owned by Altfillisch Properties.
Parcels 3 and 5 are owned by Orange County Flood Control District.
Parcels 4, 6, 9, 10, and 11 are owned by Altfillisch Properties.
Parcel 7 is owned by Orange County Water District.
Parcel 8 is owned by USA 130.
Parcel 12 is owned by Jurupa Community Services District and is a public park.
The owner of Parcel 13 is not listed.