DRAFT

Wildomar Master Drainage Plan
Lateral C-1 Storm Drain Project

BIOLOGICAL RESOURCES ASSESSMENT, FOCUSED SURVEY FOR BURROWING OWL AND WESTERN RIVERSIDE COUNTY MULTIPLE SPECIES HABITAT CONSERVATION PLAN CONSISTENCY ANALYSIS

18 August 2014

Riverside County Assessor's Parcel Numbers:

380-040-003
380-040-004
380-050-002
380-050-003
380-050-007
380-050-008
380-050-009

Section 35, Range 4 West, Township 6 South of the USGS 7.5' Wildomar, California quadrangle

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Fieldwork Performed 3 & 17 July 2014; 5, 11 & 18 August 2014 by:
Michael D. Wilcox and 25 July 2014 by Scot Chandler

AMEC Earth & Environmental, Inc. (AMEC) conducted a habitat assessment and consistency analysis on the alignment of the Wildomar Master Drainage Plan Lateral C-1 Storm Drain Project in the City of Wildomar, Riverside County, California (Project). The proposed project includes the installation of approximately 2,400 linear feet of an underground storm drain and is anticipated to result in a site disturbance of 2.46 acres. *Vegetation communities traversed by the proposed alignment primarily include highly disturbed areas of non-native grassland, existing developed areas (road ways and landscaped residential properties) and several strips of mixed willow riparian habitat. The Project alignment is located within a portion of the Lake Elsinore Area Plan of the MSHCP. The alignment is not located within, or adjacent to any MSHCP cells, cell groups, corridors or Criteria Areas. For these reasons, implementation of the proposed Project is expected to have no effect on MSHCP reserve assembly or conservation areas. There are no survey areas for any amphibian or mammalian species or any special linkage areas onsite. The entire alignment is, however, within the MSHCP survey area for the burrowing owl (Athene cunicularia) and suitable habitat for the burrowing owl is present throughout. For these reasons, a focused survey for burrowing owl was conducted in accordance with MSCHP survey guidelines. No burrowing owls, or sign thereof, were detected on or immediately adjacent to the alignment. One area of the project alignment, however, traverses a fenced area of private property that was inaccessible at the time of the surveys. This inaccessible area contains suitable burrowing owl habitat and is likely to contain suitable sheltering/nesting oportunities for burrowing owl (i.e., California ground squirrel [Spermophilus beecheyi]) as ground squirrels were observed on this property from offsite. Although no active bird nests were observed, nesting birds protected by the Migratory Bird Treaty Act (MBTA) are likely to occur onsite. For these reasons, nesting bird surveys are recommended if Project activities are proposed for the nesting season (1 February 31 August). No suitable habitat is present for the listed coastal California gnatcatcher (Polioptila californica californica) or southwestern willow flycatcher (Empidonax traillii extimus). Potentially suitable habitat for least Bell's vireo (Vireo bellii pusillus) is, however, present within the riparian vegetation located along two onsite drainages and within one strip of habitat not associated with a drainage. If removal or disturbance to riparian vegetation or project-generated noise greater than 60 decibels (dB) is proposed to occur during the nesting season (1 February-31 August) a focused survey for least Bell's vireo may be required. Several oak trees were observed at several locations along the alignment. It is unclear if these trees will be impacted by implementation of the proposed project as two are located on inaccessible private property and the limits of project disturbance were not marked. There are no vernal pools along the project alignment.*

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APPENDICES

1.0 PROJECT AND PROPERTY DESCRIPTION

Albert A. Webb Associates (Webb) contracted AMEC Environment and Infrastructure, Inc. (AMEC) to perform a biological resources assessment, focused survey for burrowing owl (*Athene cunicularia*) and consistency analysis for the Wildomar Master Drainage Plan Lateral C-1 Storm Drain Project (project) in accordance with the requirements of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). Riverside County Flood Control and Water Conservation District (District) proposes the construction of the project located in the City of Wildomar, Riverside County, California (Figure 1 in Appendix IV).

The proposed project includes the installation of approximately 2,400 linear feet of an underground storm drain with an estimated diameter of 84 inches and 66 inches and will also include ancillary structures. The project will connect to the existing reinforced concrete box culvert under Palomar Street that is part of the District's Wildomar Master Drainage Plan Lateral C. The proposed storm drain was designed to safely carry the 100-year storm runoff.

Site disturbance resulting from project implementation is anticipated to encompass approximately 2.46 acres, which includes a 20-foot buffer around the centerline of the alignment. For the purpose of the burrowing owl survey, a 150-meter (approximately 500-feet) buffer area of appropriate habitat surrounding the alignment was assessed and surveyed, where accessible, in accordance with MSHCP survey protocol. The proposed project is located within Refa Street from Palomar Street to Charles Street and in Charles Street southeasterly to Woshka Lane. A 500-foot lateral will extend northwesterly from the Charles Street and Refa Street intersection to Billie Ann Road. Specifically, it is located within Section 35 of Township 6 South, Range 4 West, as shown on the United States Geological Survey (USGS) 7.5 minute Wildomar, California quadrangle (Figure 2). The geographic coordinates near the middle of the site are 33.60091° North latitude and 117.26430° West longitude. The proposed project site is bordered to the northwest and southeast by large-lot rural residential housing, to the northeast by single-family tract homes, and to the southwest by single-family residential tract homes and large-lot rural residences.

The Project alignment occurs on at least portions of the following Riverside County Assessor's Parcel Numbers (APNs): 380-040-003, 380-040-004, 380-050-002, 380-050-003, 380-050-007, 380-050-008 and 380-050-009.

1.1 Fieldwork

A general biological assessment and habitat assessment for burrowing owl was conducted on 3 July 2014 by AMEC senior biologist Michael D. Wilcox. A burrow search for burrowing owl and the first visit of the focused survey for burrowing owl was conducted by Wilcox on 17 July 2014. Three follow-up visits to complete the focused survey for burrowing owl were conducted by Wilcox on 5 August, 11 August and 13 August 2014. Weather conditions were mild during the field assessment and focused surveys (Table 1 below). Lists of all plant and vertebrate species detected are attached as Appendices I & II. Representative site photographs are included in Appendix III.

1.2 Topography/Hydrology

Topography of the alignment is relatively flat with elevations ranging between approximately 1,230-1,276 feet above average mean sea level (AMSL), gradually rising in elevation from the southwest to the northeast.

The project alignment has been subjected to a variety of anthropomorphic site disturbances which has resulted in very limited undisturbed natural habitat remaining on or immediately adjacent to the alignment (Photos 1-6 in Appendix III). Site disturbances observed included existing roads (i.e., Refa Street, Charles Street, Palomar Street), rural ranch-style residences, single-family residential tract development and undeveloped vacant fields. The undeveloped vacant fields appear to have been subjected to vegetation clearing (presumably for agriculture, weed abatement and/or fire suppression) at some time in the past. Surrounding land use consists of a mixture of rural residential homes/ranchettes, single-family tract home development and vacant, undeveloped fields.

Two (2) small unnamed drainages, both blue-line streams, are crossed (or impacted) at four locations of the alignment (Figure #) Both of these drainages meet the definition of "Waters of the State of California (WSC)" and "Waters of the United States (WUS)" (Section 1.4). No vernal pools, however, were observed.

1.3 Soils Analysis

Nine (9) mapped soil types are mapped along the Project alignment (Figure 2 in Appendix IV). These are summarized below:

- GyC2: Greenfield sandy loam, 2 to 8 percent slopes, eroded
- HfD: Hanford sandy loam, 2-15 percent slopes
- MmB: Monserate sandy loam, 0 to 5 percent slopes
- MmC2: Monserate sandy loam, 5 to 8 percent slopes, eroded
- MnD2: Monserate sandy loam, shallow, 5 to 15 percent slopes, eroded
- MnE3: Monserate sandy loam, shallow, 15-25% slopes, severely eroded
- PaA: Pachappa fine sandy loam, 0-2% slopes
- PlB: Placentia fine sandy loam, 0-5% slopes
- PlD: Placentia fine sandy loam, 5-15% slopes

None of these soil types are predominantly clay, alkali or known to be specifically associated with any special-status flora, fauna or support vernal pools.

1.4 Vegetation

Most of the proposed project alignment is located within existing paved and/or highly compacted dirt surfaces of public roadways (i.e., Refa Street and Charles Street). One area of the alignment, however, traverses an undeveloped vacant field located west of the intersection of Refa Street and Charles Street (Photos 1 & 4 in Appendix III, Figure 1 in Appendix IV). Two narrow, intermittent strips of trees and shrubs (i.e., Peruvian pepper [*Schinus molle*], willows [*Salix* spp.] and mulefat [*Bacharris salicifolia*]) will be crossed by this portion of the alignment. Additionally, a small patch of cattails (*Typha* sp.) and bullrush (*Scirpus* sp.) is located at the northwestern terminus of this portion of the alignment. Vegetation present in the undeveloped areas and along the roadside margins of project alignment consists primarily of non-native grassland (Figure 3 in Appendix IV) dominated by ruderal, weedy and invasive exotic plant species, a remnant of past anthropogenic disturbances such as weed abatement and fire control practices (Photos 1-6 in Appendix III). Other areas along the alignment are vegetated with ornamental shrubs, trees and ground cover as these areas serve as property boundaries and residential landscaping. Conversely, several areas along the alignment were entirely barren, having been very recently disced or otherwise cleared of all vegetation presumably to

serve as firebreaks or weed control. Representative, conspicuous and dominant plant species identified along the alignment included mostly dormant or dead, mustards (*Brassica* ssp.) and bromes (*Bromus* ssp.), slender wild oats (*Avenua barbata*) and vinegar weed (*Trichostema lanceolatum*). Landscaped, ornamental trees present along the alignment include Peruvian pepper (*Schinus molle*), gum trees (*Eucalyptus* spp.), Australian acacia (*Acacia* sp.), Aleppo pine (*Pinus halepensis*), Chinaberry (*Melia azedarach*), almond (*Prunus dulcis*) and shrubs are also present intermittently throughout the alignment, usually planted along fence lines, as windbreaks or decoratively around residential dwellings, ranchettes and/or industrial and commercial development.

1.5 Oak Trees

There are several oak trees that occur intermittently along portions of the alignment (Figure 4 in Appendix IV). What appears (from a distance) to be a coast live oak (*Quercus agrifolia*) is present on a parcel of inaccessible private property just west of the intersection of Refa Street and Charles Street. This tree appears to be outside, just north of the proposed project alignment. However, since the area is inaccessible (permission to access by the property owner was not granted) and entirely fenced, and because the limits of the right of way were not marked, AMEC can only estimate and speculate whether this tree is within or outside of the project disturbance area. Several sapling coast live oaks are also present near the western end of the alignment (Figure 4 in Appendix IV). These oak saplings appear to be south of the proposed alignment and are under the size threshold (2" diameter at breast height) to be coverd under the Riverside County Oak Tree Management Guidelines. In addition to the native oaks, at least one non-native oak tree is also present along the alignment. A single southern live oak (*Quercus virginiana*) is present on a parcel of inaccessible private property but hangs over the property line on to Refa Street. This tree, along with many other ornamental trees and shrubs along the alignment may require trimming and the project disturbance may extend into the drip line of these trees.

Riverside County Oak Tree Management Guidelines, approved by the Board of Supervisors on March 2, 1993, provides protection of oak trees (*Quercus* spp.) greater than two (2) inches in diameter at breast height (4.5 feet above the ground) for single tree trunk or the sum of the diameter of multiple tree trunks at breast height. The guidelines also protect the area surrounding oak trees to a distance of 10 feet or the height of the tree, whichever is greater. The area that is defined as the "drip line" (i.e., the outer edge of the perimeter of the trees branches) is also protected by the guidelines.

1.6 Jurisdictional Waters Assessment

A delineation of jurisdictional waters was conducted to determine the presence of state and federal jurisdiction that is potentially subject to regulation by the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA), Regional Water Quality Control Board (RWQCB) under Section 401 of the CWA and Porter Cologne Water Quality Control Act, California Department of Fish and Wildlife (CDFW) under Section 1602 of the California Fish and Game Code, and County of Riverside under the MSHCP.

USACE and RWQCB jurisdiction was delineated to the ordinary high water mark (OHWM). CDFW jurisdiction was delineated by measuring the elevations of land that confine a stream to a definite course when its waters rise to their highest level and to the extent of associated riparian

vegetation. Riparian/riverine areas jurisdictional under the MSHCP were mapped similar to CDFW jurisdiction but also included riparian areas not associated with a watercourse.

Field surveys of the project site were conducted by AMEC delineator Scot Chandler on 25 July 2014. Surveys consisted of walking the entire project site and identifying potentially jurisdictional water features. Visual observations of vegetation types and changes in hydrology were used to locate areas for evaluation. Weather conditions during delineation fieldwork were conducive for surveying with clear skies.

The project site contains two jurisdictional drainages that are traversed by the project alignment several times and an additional strip of riparian vegetation, not associated with a definable drainage that is also crossed by the alignment. The proposed project will temporarily impacts 0.033 acre and permanently impact 0.004 acre of USACE and RWQCB jurisdiction, will temporarily impact 0.036 acre and permanently impact 0.011 acre of CDFW jurisdiction, and will temporarily impact 0.036 acre and permanently impact 0.164 acre of MSHCP jurisdiction (AMEC 2014).

1.7 Migratory Bird Treaty Act (MBTA) and other bird related issues, including Burrowing Owl, Coastal California Gnatcatcher, Least Bell's Vireo, and Southwestern Willow Flycatcher

There is no suitable habitat (i.e., coastal sage scrub or chaparral) for the listed coastal California gnatcatcher (*Polioptila californica californica*) anywhere along the Project alignment. There is also no suitable habitat (i.e., extensive areas of multi-layered riparian vegetation and surface water or saturated soils for at least a portion of the year) for southwestern willow flycatcher (*Empidonax traillii extimus*) anywhere along the alignment. Two of the drainages traversed by the project contain riparian vegetation that is potentially suitable habitat for least Bell's vireo (*Vireo bellii pusillus*). The areas of the drainage containing potentially suitable least Bell's vireo habitat, however, are largely areas that would not likely be directly impacted by the proposed project as much of the riparian habitat is located away from the proposed alignment. Additionally, it should be noted that much of the riparian habitat that is potentially suitable for least Bell's vireo habitat was located on inaccessible, fenced private property to the west, northwest and south of the proposed project alignment. One small area, within another drainage was located at the northeastern project terminus, southwest of the intersection of Charles Street and Woshka Lane (Figure 5 in Appendix IV).

The MSHCP does not provide coverage or conservation of birds protected by the federal Migratory Bird Treaty Act (MBTA) therefore impacts to native birds are not permitted under any part of the MSHCP. A variety of birds protected by the MBTA were observed along the alignment during the field assessment, some with potential nest onsite and/or immediately adjacent to the Project alignment. No nests or nesting behavior, however, were observed during the surveys. Representative examples of birds with potential to nest onsite include, but are not limited to, house finch (*Haemorhous mexicanus*), Anna's hummingbird (*Calypte anna*), mourning dove (*Zenaida macroura*), killdeer (*Charadrius vociferus*), California towhee (*Melozone crissalis*) and California horned lark (*Eremophila alpestris actia*). Because impacts to nesting birds are not covered by the MSHCP, any activities that could potentially cause disruption of natural nesting behavior or directly disturb an active nest or nesting bird must be minimized or avoided. Although there is no established protocol for nest avoidance, regulatory agencies generally recommend avoidance buffers of about 500 feet for birds-of-prey, and 100–

300 feet for songbirds, however this is often determined on a case by case, or project by project basis. The nesting season for most species in the Project area is from approximately 1 February to 31 August. Avoidance of Project activities that have the potential to disturb nesting birds during the nesting season is the easiest way to avoid impacts. If it is not feasible to avoid such Project activities during the nesting season, nesting bird surveys conducted by a qualified biologist should be completed prior to any such activities. If active nests are found, they should be avoided through the establishment of an adequate "no disturbance buffer zones" (generally 100'-500') and observed by Project activities until after the young have fledged.

The entire project alignment is within the Burrowing Owl Survey Area as defined by the MSHCP. Suitable habitat for Burrowing owl is present throughout undeveloped portions of the alignment. Additionally, many California ground squirrel (*Spermophilus beecheyi*) burrows were observed and mapped during the focused burrow search phase of the assessment. For these reasons, a focused nesting season survey for burrowing owl in accordance with the requirements of the MSHCP was conducted. The burrowing owl survey is discussed in Section 2.4 below.

2.0 MSHCP COMPLIANCE

2.1 MSHCP Section 3.2.2 Project Relationship to Reserve Assembly

The Project alignment is located within the Elsinore Area Plan of the MSHCP. The alignment is not located within any MSHCP cells, corridors, or Criteria Areas (Riverside County Integrated Project [RCIP] 2003). The alignment is also not located immediately adjacent to any MSHCP cells, corridors, or Criteria Areas. For these reasons, implementation of the proposed Project is expected to have no effect on MSHCP reserve assembly or conservation areas.

There are no requisite survey areas for any amphibian or mammalian species along the Project alignment (Riverside County Integrated Project [RCIP] 2003).

2.2 MSHCP Section 6.1.2 Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools/Fairy Shrimp

The site traverses two natural drainages that qualify as WSC and WUS. Project impacts to these areas trigger riparian/riverine protection under the MSHCP. Willows (*Salix* spp.), Freemont cottonwoods (*Populus fremontii*), mulefat (*Baccharis salicifolia*) and cattails are intermittently present along several areas along two drainages traversed by the project alignment. These drainages flow into a concrete-lined channel just north of Palomar Street .

No vernal pools, or areas considered to have potential for vernal pooling were observed along the alignment. Focused surveys for listed fairy shrimp are not recommended for this project.

Potentially suitable riparian habitat for least Bell's vireo is intermittently present within two drainages traversed by portions of the project alignment. The areas of potentially suitable habitat, howoever, are generally not located at the alignment/drainage crossings. The potentially suitable habitat is primarily located offsite, west, northwest and south of the portions of the project alignment. Habitat suitable for southwestern willow flycatcher is not present anywhere along the Project alignment.

2.3 MSHCP Section 6.1.3 Protection of Narrow Endemic Plant Species and Criteria Area Plant Species

The Project alignment is not located within any requisite Narrow Endemic Plant Species Survey Areas or Criteria Area Plant Survey Areas.

2.4 Habitat Assessment, Burrow Search and Focused Survey for Burrowing Owl

The entire Project alignment is within a designated survey area for the burrowing owl as required by the MSHCP. Habitat for burrowing owl was assessment was over the entire Project alignment and adjacent habitats (out to 500 feet of the alignment where accessible) in accordance with MSHCP "Burrowing Owl Survey Instructions" (County of Riverside 2006a). During the assessment the Project alignment was methodically searched for burrowing owls, their sign (burrows, pellets, scat, litter, and animal dung) and components of suitable burrowing owl habitat. No burrowing owls or their sign were observed on or adjacent to the site during the field visit. Many California ground squirrel burrows, which are suitable for and often used by burrowing owls were observed, however throughout the Project alignment. Undeveloped open space suitable for burrowing owl foraging, wintering and breeding is also present throughout much of the Project alignment (Figure 6 in Appendix IV and photos 1-6 in Appendix III).

For these reasons, a focused breeding season survey for burrowing owl was conducted by AMEC on four separate days in accordance with the MSHCP "Burrowing Owl Survey Instructions" (County of Riverside 2006a). Focused burrowing owl surveys were conducted during the morning hours (1 hour before to 2 hours after sun rise) of 17 July 2014 and on 5, 11 and 13 August 2014.

Table 1. Focused Burrowing Owl Survey Field Data

Date	Time	Sky (% cloud cover)	Temperature (°Fahrenheit)	Wind (miles per hour)
17 July 2014	0500-0800	Cloudy (100)	65-69	1-3
5 August 2014	0530-0800	Clear (0)	58-67	0-3
11 August 2014	0530-0800	Partly cloudy (25)	66-77	0-1
13 August 2014	0530-0830	Overcast-partly cloudy (100-25)	64-68	0-4

No burrowing owls, or sign thereof, were observed anywhere onsite or within the 500 foot buffer zone area surveyed, as required by the Burrowing Owl Survey Instructions. It should be noted, however, that one portion of the proposed alignment is located on fenced private property that was inaccessible and thus not surveyed

2.5 MSHCP Section 6.3.2 Additional Survey Needs and Procedures

Because riparian vegetation and two drainages, which are blue-line streams, are traversed by several areas of the proposed alignment, Riverside County will require a Determination of Biologically Equivalent or Superior Preservation (DBESP) analysis in accordance with MSHCP guidelines.

If project implementation proposes to remove or disturb to riparian vegetation and/or result in project-generated noise greater than 60 decibels (dB) during the nesting season (1 February-31 August) a focused survey for least Bell's vireo would likely be required.

Thirty (30) days or less prior to ground-disturbing Project activities, a pre-construction survey for burrowing owl is required to ensure that the area has not been occupied since completion of the focused surveys.

Any burrowing owls, or territories present must be avoided during the breeding season (defined by MSHCP guidelines as 1 March – 31 August). Any burrowing owls which cannot be avoided by the project will need to be relocated in the non-breeding season, with guidance from Riverside County and the CDFW.

3.0 LITERATURE CITED AND REFERENCES

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APPENDIX I

VASCULAR PLANTS

VASCULAR PLANTS

SYMBOLS AND ABBREVIATIONS:

*	Nonnative species
**	Sensitive species
sp.	Plant identified only to genus; species unknown (plural = spp.)
cf.	Uncertain identification, but plant specimen "compares favorably" to named species (from Latin *confer*: compare [with]).

This list reports only plants observed on the site by this study. Plants that were clearly planted ornamentals or agricultural plantings are not included. Other species may have been overlooked or undetectable due to their growing season. Plants were identified from keys, descriptions and drawings in Jepson 2013, and nomenclature and systematics follow that source. Plants of uncertain identity were taken to the UC Riverside Herbarium for identification.

GYMNOSPERMS

Pinaceae	**Pine Family**
**Pinus halepensis*	Aleppo pine

EUDICOT ANGIOSPERMS

Amaranthaceae	**Amaranth Family**
**Amaranthus albus*	pigweed amaranth
Anacardaceae	**Cashew Family**
**Schinus molle*	pepper tree
Asteraceae	**Sunflower Family**
Baccharis salicifolia ssp*. salicifolia*	mule fat
**Centaurea melitensis*	tocalote
**Cirsium vulgare*	bull thistle
Deinandra paniculata	paniculate tarplant
Erigeron canadensis	horseweed
Helianthus annus	annual sunflower
Heterotheca grandiflora	telegraph weed
**Lactuca serriola*	prickly lettuce
**Taraxacum officinale*	common dandelion
Brassicaceae	**Mustard Family**
**Hirschfeldia incana*	shortpod mustard
*Sisimbryum irio	London rocket
Chenopodiaceae	**Chenopod Family**
**Salsola tragus*	Russian thistle
Euphorbiaceae	**Euphorbia Family**
Croton setigerus	dove weed

Fabiaceae	**Euphorbia Family**
**Acacia* sp.	Australian acacia
Lotus purshianus	Spanish clover
Fagaceae	**Beech Family**
**Quercus virginiana*	Eastern live oak
Quercus agrifolia	coast live oak
Geraniaceae	**Geranium Family**
**Erodium cicutarium*	redstem filaree
Hamamelidaceae	**Witch-hazel Family**
**Liquidambar styraciflua*	liquidambar
Lamiaceae	**Mint Family**
**Marubium vulgare*	horehound
Trichostema lanceolatum	vinegar weed
Malvaceae	**Mallow Family**
**Malva parviflora*	cheeseweed
Meliaceae	**Mahogany Family**
**Melia azedarach*	China berry
Platanaceae	**Sycamore Family**
Platanus racemosa	Western sycamore
Polygonaceae	**Buckwheat Family**
**Melilotus indicus*	sourclover
Rosaceae	**Rose Family**
**Prunus dulcis*	almond
Salicaceae	**Willow Family**
Populus fremontii	Fremont cottonwood
Salix sp.	willow tree
Tamaricaceae	**Tamarisk Family**
**Tamarix ramosissima*	salt-cedar

MONOCOT ANGIOSPERMS

Arecaceae	**Palm Family**
**Washingtonia* sp.	fan palm

Cyperaceae	**Sedge Family**
Carex sp.	sedge
Poaceae	**Grass Family**
**Avena barbata*	slender wild oat
**Bromus diandrus*	ripgut brome
**Bromus madritensis* ssp. *rubens*	red brome
**Cynodon dactylon*	Bermuda grass
**Schismus* sp.	Mediterranean grass
Typhaceae	**Cattail Family**
Typha sp.	cattail

APPENDIX II

VERTEBRATE ANIMALS

VERTEBRATE ANIMALS

SYMBOLS AND ABBREVIATIONS:

*	Nonnative species
**	Sensitive species
sp.	Animal identified only to genus; species unknown (plural = spp.)

This list reports only animals or their sign observed on the site by this study. Other species may have been overlooked or undetectable due to their activity patterns. Nomenclature and taxonomy for fauna observed on site follows the American Ornithologists' Union Checklist (2013) for avifauna, Crother et. al (2012) for herpetofauna and CDFG (2008) for mammals.

AMPHIBIANS & REPTILES

Hylidae	**Treefrogs**
Pseudacris hypochondriaca	Baja California chorus frog
Phrynosomatidae	**Horned Lizards and allies**
Sceloporus occidentalis	western fence lizard
Uta stansburiana	side-blotched lizard

BIRDS

Cathartidae	**New World Vultures**
Cathartes aura	turkey vulture
Accipitridae	**Hawks, Old World Vultures, Harriers**
Buteo jamaicenisis	Red-tailed hawk
Buteo lineatus	Red-shouldered hawk
Columbidae	**Pigeons and Doves**
**Columba livia*	rock pigeon
Streptopelia decaocto	Eurasian collared dove
Zenaida macroura	mourning dove
Trochilidae	**Hummingbirds**
Calypte anna	Anna's hummingbird
Picidae	**Worldpeckers**
Colaptes auratus	northern flicker
Melanerpes formicivorus	acorn woodpecker
Picoides nuttallii	Nuttal’s woodpecker
Falconidae	**Falcons**
Falco sparverius	American kestrel
Charadriidae	**Plovers and Relatives**
Charadrius vociferus	killdeer

Tyrannidae	**Tyrant Flycatchers**
Sayornis nigricans	black phoebe
Sayornis sayi	Say's phoebe
Tyrannus vociferans	Cassin's kingbird
Corvidae	**Crows and Jays**
Aphelocoma californica	western scrub jay
Corvus brachyrhynchos	American crow
Corvus corax	common raven
Hirundinidae	**Swallows**
Hirundo rustica	barn swallow
Sturnidae	**Starlings**
**Sturnus vulgaris*	European starling
Emberizidae	**Sparrows**
Chondestes grammacus	lark sparrow
Melozone crissalis	California towhee
Melospiza melodia	song sparrow
Fringillidae	**Finches**
Carduelis psaltria	lesser goldfinch
Haemorhous mexicanus	house finch
Troglodytidae	**Wrens**
Thryomanes bewickii	Bewick's wren
Turdidae	**Thrushes**
Sialia Mexicana	western bluebird
Mimidae	**Mockingbirds, Thrashers and Allies**
Mimus polyglottos	northern mockingbird
Aegithalidae	**Long-tailed Tits**
Psaltriparus minimus	bushtit
Passeridae	**Old World Sparrows**
**Passer domesticus*	house sparrow
MAMMALS	
Geomyidae	**Pocket Gophers**
Thomomys bottae	Botta's pocket gopher (holes, mounds)
Sciuridae	**Squirrels**
Spermophilus beecheyi	California ground squirrel

Rabbits and Hares	**Leporidae**
Sylvilagus audubonii	desert cottontail

APPENDIX III

SITE PHOTOGRAPHS

Wildomar Master Drainage Plan
Lateral C-1 Storm Drain Project

Photo 1. Representative condition of the Refa Street portion of alignment (center of dirt road). The portion of the alignment traversing the private property on left (background) was inaccessible at the time of surveys. View facing north.

Photo 2. Representative condition of the Refa Street portion of alignment (center of dirt road). The portion of the alignment traversing the private property on right was inaccessible at the time of surveys. View facing south.

Wildomar Master Drainage Plan
Lateral C-1 Storm Drain Project

Photo 3. Representative condition of location of proposed alignment tie-in to existing flood control channel at northeast junction of Refa Street and Palomar Street. Private property at this location was accessible and surveyed for burrowing owl. View facing north.

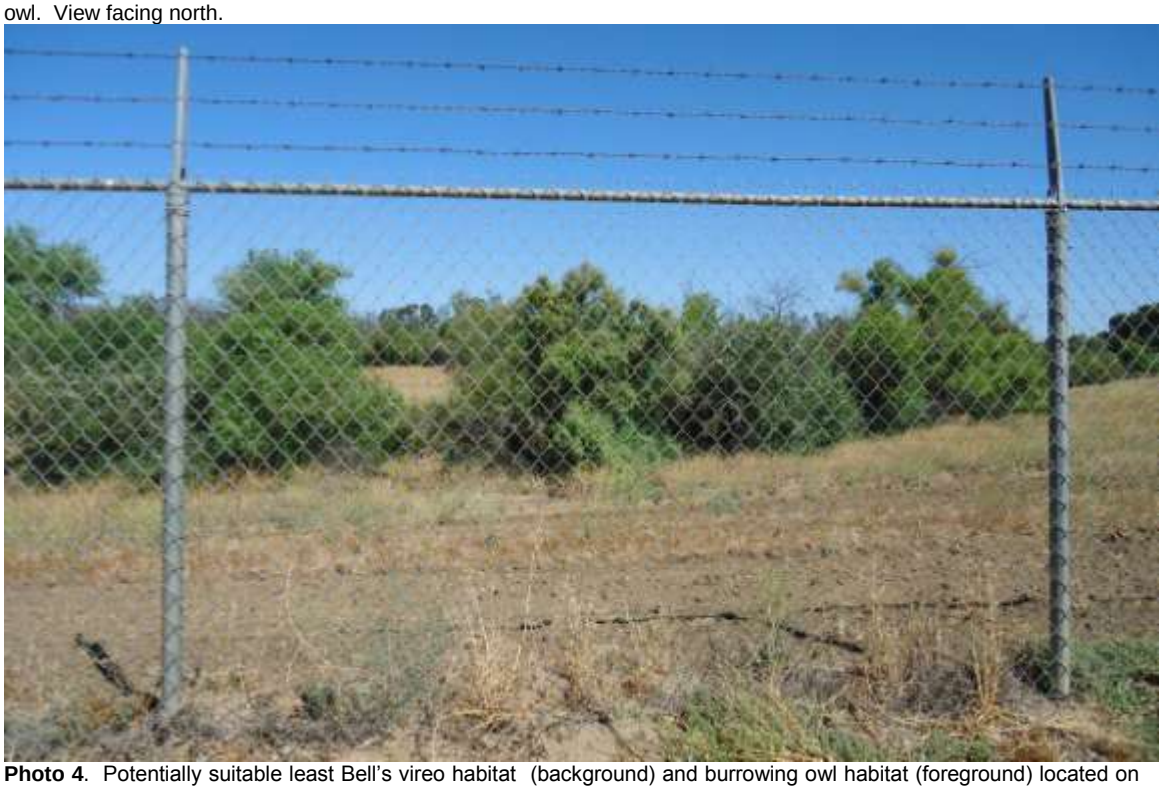

Photo 4. Potentially suitable least Bell's vireo habitat (background) and burrowing owl habitat (foreground) located on inaccessible private property traversed by a portion of the proposed alignment and immediately adjacent to other portions of the alignment. View facing west.

Photo 5. Representative condition of the northwestern terminus of the proposed alignment (approximate center of pic). View facing north.

Photo 6. Representative California ground squirrel burrow suitable for burrowing owl.

APPENDIX IV

MAP FIGURES

Prepared By: Mindy Beohm, AMEC Source: 20140164LAYOUT - 2000 Exploded

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Date: 8/6/2014

amec

Vicinity & Location
Wildomar Line C Project

FIGURE
1

Prepared By: Mindy Beohm, AMEC

Source: NRCS soilsmart ca 679

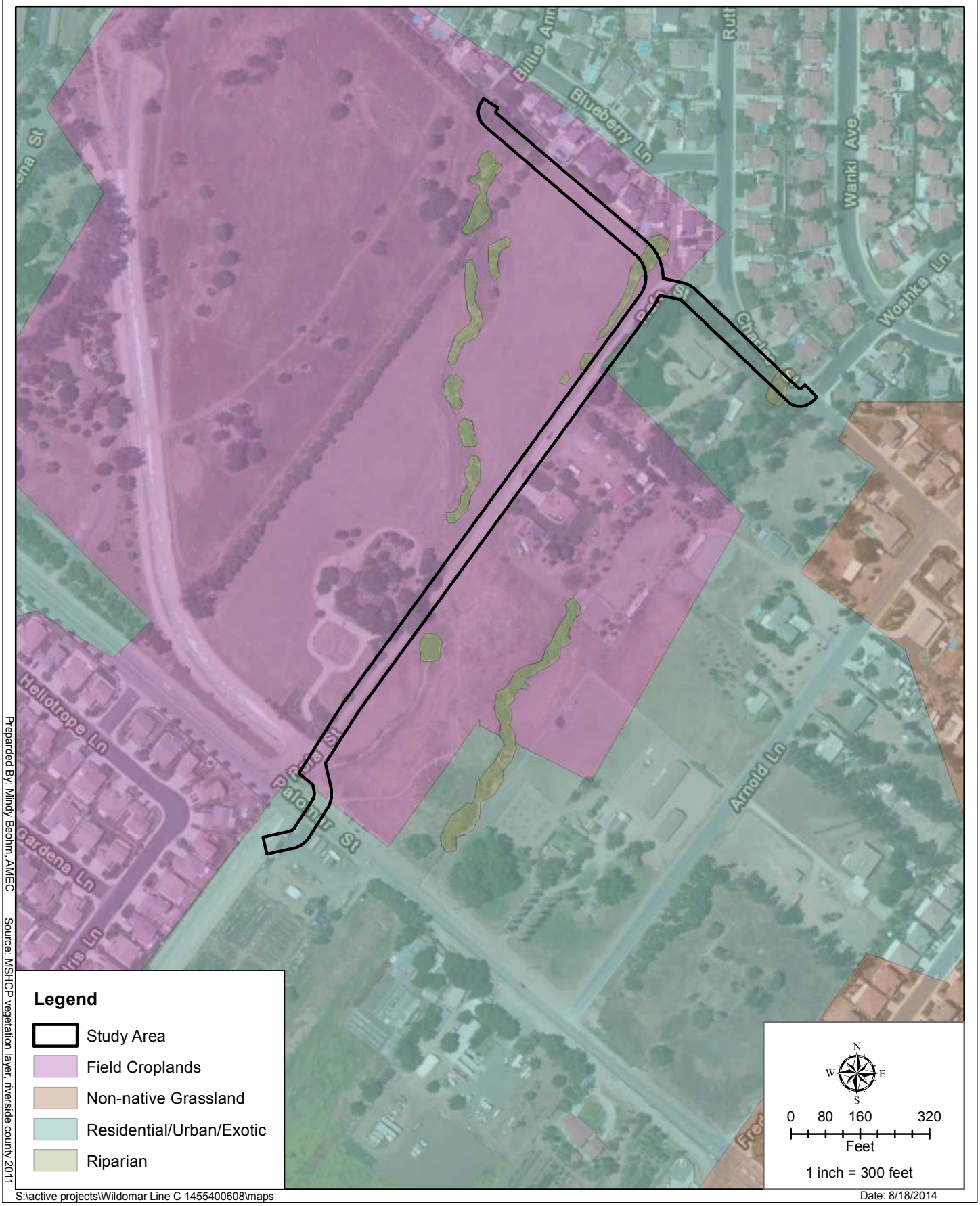
S:\active projects\Wildomar Line C 1455400608\maps

Date: 8/18/2014

amec

Soils Map
Wildomar Line C Project

FIGURE
2



Prepared By: Mindy Beohm, AMEC Source: MSHCP vegetation layer, riverside county 2011

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Date: 8/18/2014

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Vegetation Map
Wildomar Line C Project

FIGURE
3

Prepared By: mindy beohm, AMEC

Source: sd alignment

S:\active projects\Wildomar Line C 1455400608\maps

Date: 8/18/2014

amec

Oak Trees Map
Wildomar Line C Project

FIGURE
4

Prepared By: Mindy Beohm, AMEC Source: MSHCP vegetation layer, riverside county 2011

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Date: 8/18/2014

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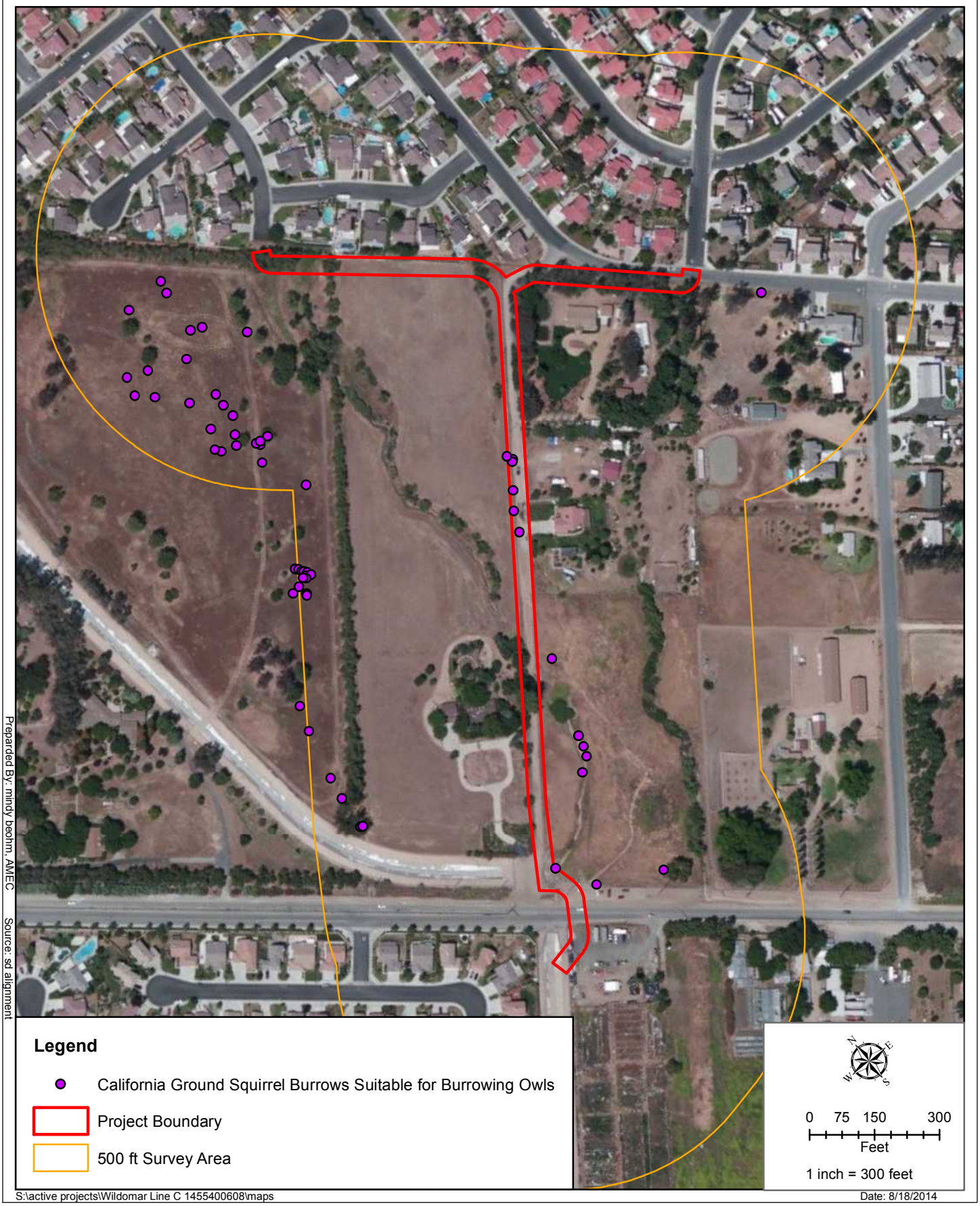
Least Bell's Vireo Habitat Map
Wildomar Line C Project

FIGURE
5



Prepared By: mindy beohm, AMEC

Source: sd alignment

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Date: 8/18/2014

amec

Burrowing Owl Survey Results Map
Wildomar Line C Project

FIGURE 6