

**DETERMINATION OF BIOLOGICALLY EQUIVALENT
OR SUPERIOR PRESERVATION (DBESP) ANALYSIS FOR
IMPACTS TO MSHCP RIPARIAN/RIVERINE AREAS**

FOR THE

North Ranch [Tract 32535] Residential Development Project

Prepared For:

CV Inland Investments 1, LP
1900 Quail Street
Newport Beach, California 92660
Contact: Mr. Adam Smith
Phone: (949) 258-7555

Prepared By:

Glenn Lukos Associates, Inc.
29 Orchard
Lake Forest, California 92630
Contact: Martin Rasnick
Phone: (949) 837-0404
Fax: (949) 837-5834

TABLE OF CONTENTS

	Page #
1.0 INTRODUCTION.....	3
2.0 DEFINITION OF THE PROJECT AREA	3
3.0 PROJECT DESCRIPTION	3
4.0 BIOLOGICAL INFORMATION.....	4
4.1 Site Description.....	4
4.2 Vegetation Descriptions.....	4
4.3 MSHCP Riparian/Riverine Areas and Vernal Pools	7
4.4 Habitat Assessments for <i>Section 6.1.2</i> Wildlife Species	8
5.0 PROJECT IMPACTS/INFEASIBILITY OF AVOIDANCE.....	9
5.1 Unavoidable Impacts to MSHCP Riparian/Riverine Areas.....	9
5.2 Infeasibility of Avoidance.....	10
5.3 Impacts to Habitat Function.....	12
5.4 Mitigation for Permanent Impacts	13
6.0 FINDING OF BIOLOGICALLY EQUIVALENT OR SUPERIOR PRESERVATION.....	13
7.0 CERTIFICATION.....	14

LIST OF EXHIBITS

- Exhibit 1 – Regional Map
- Exhibit 2 – Vicinity Map
- Exhibit 3 – Project Site Plan
- Exhibit 4 – Riparian/Riverine Habitat Map
- Exhibit 5 – Vegetation Map
- Exhibit 6 – Site Photographs
- Exhibit 7 – Potential Yates Road Mitigation Site Map

1.0 INTRODUCTION

The following document provides an analysis in support of a Determination of Biologically Equivalent or Superior Preservation (DBESP) for impacts to 0.42-acre of habitat that meets the definition of Multiple Species Habitat Conservation Program (MSHCP) riparian/riverine areas under *Section 6.1.2: Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools* of the MSHCP, herein after referred to as *Section 6.1.2* for the North Ranch Residential Development Project [Tract 32535] (Project) located in the City of Wildomar, Riverside County, California. The Project will result in on-site improvements that will have direct permanent impacts to MSHCP riverine/riparian habitat supported by two of three drainage features associated with the Project site. Impacts to the riparian/riverine area will occur from road improvements (storm drain/bridge crossings) and the construction of a water quality basin.

2.0 DEFINITION OF THE PROJECT AREA

The Project is located in western Riverside County, California in the City of Wildomar [Exhibit 1 – Regional Map]. The Project site comprises approximately 31.40 acres of land, and is located within Assessor's Parcel Numbers 380-100-004, 380-100-005, 380-100-006, 380-110-005, 380-110-006, 380-120-001, 380-120-002, 380-130-002, and 380-130-018. The Project site is located at Latitude 33.594419 and Longitude -117.251191 within Section 1, Township 7 South, and Range 4 West (as depicted on the U.S. Geological Survey (USGS) topographic maps Wildomar, California (dated 1953 and photorevised in 1988) and Murrieta, California (dated 1953 and photorevised in 1979) [Exhibit 2]. The Project is bounded by Catt Road to the north, Clinton Keith Road to the south, Hidden Springs Road to the east, and residential development to the west. The Project site is located within the Elsinore Area Plan of the MSHCP, but is not located within the MSHCP Criteria Area.

3.0 PROJECT DESCRIPTION

The proposed Project will include a total of 81 detached single-family residential dwellings and related improvements throughout the site. Residential improvements will consist of various plan types including multi-level structures, with wood or metal frame, stucco, reinforced masonry, or similar type construction. Other improvements include the construction of landscape slopes, driveways, curb, sidewalk and gutter, paseos, storm drain improvements, wet and dry utilities, one infiltration basin, one extended detention basin and various open space lots to accommodate existing vegetation, wetlands and riparian preservation. Entrance to the site will be provided at Arnett Road and Stable Lanes Road.

The proposed Project will result in impacts to MSHCP riparian/riverine areas, specifically as a result of the construction of Arnett Road, an access road entering the Project from the north and traversing the Project site in a north-south direction along the western portion of the site where it will bisect the existing northernmost drainage (Drainage 1). A portion of riparian/riverine habitat associated with this drainage will also be impacted by the construction of a catch basin located in close proximity to Arnett Road and improvements in the form of sloped banks.

Impacts to a small unvegetated riverine area associated with the off-site drainage, located southeast of the site, will occur from improvements to the existing dirt-road Stables Lane Road, which will be a southern point of ingress/egress (access road) to the development. A graphic depicting the Project site plan is attached as Exhibit 3.

4.0 BIOLOGICAL INFORMATION

4.1 Site Description

Habitat assessments, general and focused biological surveys, and vegetation mapping (including the mapping of all riparian/riverine resources) were conducted as a part of the MSHCP review for the proposed Project.

The area associated with the Project consists of approximately 31.40 on-site acres and 1.69 off-site acres of land.

The Project site is generally comprised of disturbed land that previously supported several residential structures that have recently been demolished. Additionally, the Project site contains three potentially jurisdictional drainage features. Two of the drainage features are located on-site (Drainages 1 and 2) and the other is off-site to the southeast (Drainage 3). All three drainage features support MSHCP riparian or riverine habitat areas. The Project, as proposed, will impact one on site drainage (Drainage 1) and a portion of the off-site drainage (Drainage 3). The native vegetation types associated with the on-site drainage to be impacted consist of a swath of southern cottonwood willow riparian habitat and associated emergent wetlands (0.42-acre), which meets the definition of a MSHCP riparian/riverine area pursuant to *Section 6.1.2* of the MSHCP document. The off-site portion of the drainage (Drainage 3), which will be potentially impacted by the proposed Project, consists of a small length of unvegetated riverine habitat (0.002-acre), which also meets the definition of MSHCP riparian/riverine areas. Exhibit 4 depicts the limits of CDFW jurisdiction, which also constitutes riparian/riverine habitat on site.

4.2 Vegetation Description

Overall the site supports areas with varying degrees of disturbance and generally contains areas of non-native grasses, dominated by brome species (*Bromus* spp.), patchily distributed Riversidean sage scrub habitat dominated by California buckwheat (*Eriogonum fasciculatum*), ruderal herb layer vegetation, and ornamental/exotic species. Table 4-1 and 4-2 below summarize vegetation types/land uses and associated acreages for both on and off-site areas respectively. Exhibit 5 provides a vegetation map for the Project site. Exhibit 6 provides representative site photographs. A detailed description of each of the eight vegetation/land use types follows Tables 4-1 and 4-2 below.

Table 4-1. Summary of Vegetation Mapping, On-Site.

Vegetation	Acreage On-site
Alkali marsh	0.08
Coast live oak woodland	0.21
Developed/disturbed	15.63
Disturbed Riversidean sage scrub	0.33
Non-native grasslands/ruderal	11.83
Riversidean sage scrub	1.75
Southern cottonwood willow riparian	1.57
Total	31.40

Table 4-2. Summary of Vegetation Mapping, Off-Site.

Vegetation	Acreage On-site
Alkali marsh	0.04
Coast live oak woodland	0.06
Developed/disturbed	1.25
Disturbed Riversidean sage scrub	0.25
Man-made basin	0.02
Riversidean sage scrub	0.07
Southern cottonwood willow riparian	0.003
Total	1.68

4.2.1 Alkali Marsh

Approximately 0.08 acre on site and 0.03 acre off site contain alkali marsh (AM) habitat associated with the Project site. The on-site AM areas occur around the northernmost drainage on-site. Specifically, the marsh area is located on the northern side of the drainage along the northeastern stretch of the drainage. Alkali marsh was also mapped off-site at the western end of this drainage abutting a man-made basin. These areas are dominated by riparian species, including Mexican rush (*Juncus mexicanus*), yerba mansa (*Anemopsis californica*), basket rush (*Juncus textillus*), false carrot (*Yabea microcarpa*), curly dock (*Rumex crispus*), and common cattail (*Typha latifolia*). This area meets the definition of a MSHCP riparian/riverine area pursuant to *Section 6.1.2* of the MSHCP. Although these plants constitute the AM habitat, none of these plants, or other plants observed in this area, is targeted for conservation under *Section 6.1.2*.

4.2.2 Coast Live Oak Woodland

Approximately 0.21 acre on site and 0.06 acre off site contain coast live oak woodland (CLOW) habitat associated with the Project site. The CLOW vegetation type is located in the southern portion of the Project site and is associated with a jurisdictional drainage feature (Drainage 2). The dominant plant species in this vegetation type, accompanying the coast live oaks (*Quercus*

agrifolia), includes eucalyptus (*Eucalyptus globulus*), scattered stands of mulefat (*Baccharis salicifolia*), and a patchy understory of California buckwheat (*Eriogonum californicum*), brome grasses (*Bromus* spp.), mustard (*Brassica* spp.), and fiddleneck (*Amsinckia tessellata*). This area meets the definition of a MSHCP riparian/riverine area pursuant to *Section 6.1.2* of the MSHCP. Although these plants constitute the CLOW habitat, none of these plants, or other plants observed in this area, is targeted for conservation under *Section 6.1.2*.

4.2.3 Developed/Disturbed

Approximately 15.63 acres on site and 1.25 acres off-site contain Developed/Disturbed (DD) areas associated with the Project site. These areas are developed or disturbed to a level in which only bare soil or ruderal species are present. This vegetation/land use type also includes escaped exotic and ornamental species. Non-native grass species are typically present but do not solely dominate the ground cover in these areas. This vegetation type is located throughout the Project site, especially in the northern areas. Species included in this category, existing on-site as dominants during the time of surveys, include brome grasses (*Bromus* spp.), wild oats (*Avena fatua*), Jimson weed (*Datura stramonium*), mustards (*Brassica* spp.), horseweed (*Erigeron canadensis*), and fiddleneck. This category also contains ornamental species including olive trees, eucalyptus, and oleander (*Nerium oleander*). This area does not meet the MSHCP riparian/riverine or vernal pool definition. Additionally, none of the plants in this area are targeted for conservation under *Section 6.1.2*.

4.2.4 Disturbed Riversidean Sage Scrub

Approximately 0.33 acre on site and 0.25 acre off-site contain disturbed Riversidean sage scrub (dRSS) habitat associated with the Project site. This vegetation type is located mostly around Stable Lanes Way and adjacent to Clinton Keith Road located in the southern portion of the Project. This vegetation type is dominated by California buckwheat. This area does not meet the MSHCP riparian/riverine or vernal pool definition. Additionally, none of the plants in this area are targeted for conservation under *Section 6.1.2*.

4.2.5 Man-Made Basin

Approximately 0.02 acre of off-site area is associated with a man-made basin. The basin is located at the west-central boundary of the Project site and receives hydrology from the northern most jurisdictional drainage feature. During the survey the basin was holding water and supports emergent vegetation around its banks including broadleaf cattail and curly dock (*Rumex crispus*). This area meets the definition of a MSHCP riparian/riverine area pursuant to *Section 6.1.2* of the MSHCP. Although these plants constitute the riparian/riverine habitat, none of these plants, or other plants observed in this area, is targeted for conservation under *Section 6.1.2*.

4.2.6 Non-Native Grasslands/Ruderal

Approximately 11.83 acres of the Project site support non-native grassland/ruderal (NNG) habitat. Areas containing NNG occur mostly centrally within the Project site. These areas are disturbed but not to the extent documented for the areas identified as DD. This vegetation type is dominated by non-native grass species including red brome, ripgut brome (*Bromus diandrus*),

soft brome (*Bromus hordeaceus*), and wild oats. Ruderal forb species also occur; however, they do not dominate the ground cover as they do in other more frequently disturbed areas. A few isolated cottonwoods (*Populus fremontii*) are located within this vegetation type, along the disturbed boundary of a dirt road (Stable Lanes Road) in the eastern portion of the Project site. This area does not meet the MSHCP riparian/riverine or vernal pool definition. Additionally, none of the plants in this area are targeted for conservation under *Section 6.1.2*.

4.2.7 Riversidean Sage Scrub

Approximately 1.75 acres on site and 0.07 acre off site contain Riversidean sage scrub (RSS) habitat associated with the Project site. This vegetation type is patchily distributed within the southern portion of the Project site and is moderately to heavily disturbed. This vegetation type is largely dominated by California buckwheat. This area does not meet the definition of a MSHCP riparian/riverine area pursuant to *Section 6.1.2* of the MSHCP. Additionally, none of the plants in this area are targeted for conservation under *Section 6.1.2*.

4.2.8 Southern Cottonwood Willow Riparian

Approximately 1.57 acres on site and 0.003 acre off site contain southern cottonwood/willow riparian habitat (SCWR) associated with the Project site. The SCWR vegetation community is associated with a drainage feature that bisects the north central area of the Project site (Drainage 1). Dominant species associated with this vegetation type include red willow (*Salix laevigata*), Fremont cottonwood (*Populus fremontii*), Gooding's black willow (*Salix gooddingii*), arroyo willow (*Salix lasiolepis*), mulefat (*Baccharis salicifolia*), and some scattered olive trees (*Olea europaea*). The understory associated with this vegetation type is dominated by iris leaved rush (*Rumex crispus*), broadleaf cattail (*Typha latifolia*), and horseweed (*Erigeron canadensis*). This area meets the definition of a MSHCP riparian/riverine area pursuant to *Section 6.1.2* of the MSHCP. Although these plants constitute the SCWR habitat, none of these plants or other plants observed in this area are targeted for conservation under *Section 6.1.2*.

4.3 MSHCP Riparian/Riverine Areas and Vernal Pools

Section 6.1.2 of the MSHCP document describes the process through which the protection of riparian/riverine areas and vernal pools is intended to occur within the MSHCP Plan Area. The purpose of this process is to ensure that the biological functions and values of riparian/riverine areas and vernal pools throughout the MSHCP Plan Area are maintained such that habitat values for wildlife and plant species inside the MSHCP Conservation Area are also maintained. The MSHCP requires that, as projects are proposed, the effect of those projects on riparian/riverine areas and vernal pools must be addressed. This study analyzes the riverine and riparian resources within the Project area pursuant to the requirements set forth in *Section 6.1.2* of the MSHCP and is detailed in the sections below.

The MSHCP defines riparian/riverine areas and vernal pools as follows:

Riparian/Riverine Areas are defined as “lands which contain habitat dominated by trees, 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.”

Vernal Pools are defined 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. Obligate hydrophytes and facultative wetlands plant species are normally dominant during the wetter portion of the growing season, while upland species (annuals) may be dominant during the drier portion of the growing season.”

The approximate 1.57 (1.57 on-site 0.003 off-site) acres of SCWR habitat with emergent wetland, the approximate 0.12 (0.08 on-site and 0.04 off-site) acre of AM, the approximate 0.27 (0.21 on-site and 0.06 off-site) acre of CLOW habitat, the approximate 0.02 acre of riparian habitat associated with the man-made basin, and the approximate off-site 0.06 acre of unvegetated riverine habitat, meet the definition of MSHCP riparian/riverine areas and totals 2.04 acres. There are no vernal pools within the Project site or its off site improvement area.

4.4 Habitat Assessments for Section 6.1.2 Wildlife Species

As noted above, the Project site supports MSHCP riparian/riverine habitat. Due to the presence of MSHCP riparian/riverine habitat, GLA biologists conducted habitat assessments for the least Bell’s vireo (*Vireo bellii pusillus*) [LBV], the southwestern willow flycatcher (*Empidonax traillii extimus*) [SWFL], and the western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) [cuckoo] within the site. Results of habitat assessments and applicable focused surveys are discussed for each species below. Vernal pools were not present on site; therefore, surveys for listed fairy shrimp were not required pursuant to *Section 6.1.2* of the MSHCP.

4.4.1 *Least Bell’s Vireo (LBV)*

Volume I, Section 6.1.2 of the MSHCP requires focused surveys for the federally and State listed LBV within areas of suitable riparian habitat that cannot be avoided by projects. The Project site contains riparian habitat with some potential to support the LBV. As such, focused LBV surveys were conducted by GLA during 2013 within riparian habitat to be affected by the Project.

The USFWS LBV survey guidelines stipulate that a minimum of eight visits be conducted within areas of suitable habitat during the period from April 10 to July 31, with at least ten days between site visits.¹ Surveys must be conducted between sunrise and 11:00 am, and weather conditions must be conducive to a high level of bird activity.

¹ U.S. Fish and Wildlife guidelines for least Bell’s vireo surveys recommend surveys of up to 50 hectares (approximately 120 acres) and no more than 3 linear kilometers (approximately 1.8 miles) per day, depending on site conditions (e.g., density and width of vegetation). U.S. Department of the Interior, Fish and Wildlife Service. 1999. Least Bell’s vireo Survey Guidelines, Published guidelines by Ecological Services Carlsbad Fish and Wildlife Office, 3 pages.

GLA biologists conducted focused vireo surveys on April 29, May 9, 22, June 3, 13, 24, and July 9 and 19 of 2013. Table 2-2 presented below summarizes the survey dates and surveying biologists for the 2013 focused surveys. LBV was not detected during focused surveys.

Table 2-2. Summary of Least Bell’s Vireo Survey Dates

Date (2013)	Start Time	End Time	Surveyors	Temp (°F) start/end	Wind Speed (Mph)	Cloud Cover start/end
4/29	0915	1045	D. Moskovitz	68/76	0-0	Clear/Clear
5/9	0630	0830	T. Bomkamp	55/55	0-1	Overcast/Clear
5/22	0745	0845	T. Morgan	63/70	2-5	Overcast/Overcast
6/3	0845	1030	D. Moskovitz T. Morgan	69/75	0-1	Clear/Clear
6/13	0650	0830	T. Morgan	62/75	0-2	Clear/Clear
6/24	0600	0730	T. Morgan	60/60	2-5	Overcast/Overcast
7/9	0700	1030	T. Morgan	75/85	0-2	Scattered/Scattered
7/19	0700	1000	T. Morgan	68/74	0-3	Broken/Broken

4.4.2 Southwestern Willow Flycatcher (SWFL)

Volume I, Section 6.1.2 of the MSHCP requires focused surveys for the federally and State listed SWFL within areas of suitable riparian habitat that cannot be avoided by projects. The Project site does not contain or occur next to adjacent riparian habitat with some potential to support the SWFL. The SWFL breeds in relatively dense riparian tree and shrub communities. The on-site riparian habitat is small in size, and lacks the vegetative structural complexity and density typically associated with SWFL habitat. As such, focused SWFL surveys were not conducted, nor are they necessary.

4.4.3 Western Yellow-Billed Cuckoo (Cuckoo)

Volume I, Section 6.1.2 of the MSHCP requires focused surveys for the cuckoo within areas of suitable riparian habitat that cannot be avoided by projects. The Project site does not contain riparian habitat with some potential to support the cuckoo. The cuckoo requires large areas of dense riparian habitat (10 to 100 acres) with dense canopy cover. The riparian habitat associated with the Project site lacks the patch size required for cuckoo occupation. As such, focused surveys were not conducted, nor are they necessary.

5.0 PROJECT IMPACTS/INFEASIBILITY OF AVOIDANCE

5.1 Unavoidable Impacts to MSHCP Riparian/Riverine Areas

The proposed Project will result in unavoidable impacts to 0.42 acre of MSHCP riparian/riverine areas, including 0.42 acre of permanent impacts to SCWR habitat and emergent marsh in Drainage 1, and 0.002-acre of permanent impacts to unvegetated riverine areas in Drainage 3.

The Project has been designed to avoid the majority of the riparian/riverine habitat within the Project site (1.62 acres of riparian/riverine habitat will be avoided within the Project site). Unavoidable impacts to 0.42 acre of on site riparian/riverine areas within Drainage 1 will be limited to the construction of a culvert and bridge crossing of Drainage 1 associated with the construction of Arnett Road, one of the two points of ingress/egress into the Project site. Unavoidable impacts to riparian habitat associated with Drainage 1 are also associated with the construction of a water quality basin adjacent to Arnett Road.

Unavoidable off site impacts to 0.002 acre of riverine areas within Drainage 3 along the southern portion of the Project site would be limited to areas of slope grading and storm drain construction associated with improvements to Stable Lanes Road.

An analysis of unavoidable impacts to MSHCP riparian/riverine areas by drainage feature is described further below.

Table 5-1. Impacts to MSHCP Riparian/Riverine Areas

Drainage Feature	Unvegetated Riverine (acres)	Riparian Vegetation (acres)	Total Impact (acres)
1	None	0.42	0.42
2	None	None	None
3	0.002	None	0.002
TOTAL JURISDICTION	0.002	0.42	0.42 (rounded)

5.2 Infeasibility of Avoidance

Volume I, Section 6.1.2 of the MSHCP requires that projects develop avoidance alternatives, if feasible, that would allow for full avoidance of riparian/riverine areas. The complete avoidance of MSHCP riparian/riverine areas by the proposed Project is not feasible. The purpose of the Project is to construct a residential development within Tentative Tract Map 32535. The residential development proposes to develop 81 single-family residential homes and will also include the construction of landscape slopes, driveways, curb, sidewalk and gutter, paseos, storm drain improvements, wet and dry utilities, one infiltration basin, one extended detention basin and various open space lots to accommodate existing vegetation, wetlands and riparian preservation. The infeasibility of avoidance of each impact area is documented below.

Infeasibility of Avoidance, Stable Lanes Road Crossing

Based upon the Project site plans, Stable Lanes Road is a 60-foot wide right-of-way (including 40-feet of proposed pavement and a sidewalk along the southern side). The proposed side slope improvements for this roadway are proposed as a 2:1 maximum slope.

Stable Lanes Road is one of two points of ingress/egress and enters the Project site along its southeastern/eastern boundary and the City has approved the location of the roadway within its

existing right-of-way and alignment. Additionally, the applicant has purchased storm drain and grading easements from the existing property owners.

The stream crossing of Stable Lanes Road is proposed as a 54-inch reinforced concrete pipe with a 54-inch culvert inlet and outlet structure, along with rip rap and an asphalt concrete overside drain and water line. Storm drain improvements are necessary to allow water to be adequately conveyed beneath Stable Lanes Road and to ensure that flooding of the adjacent properties does not occur. This drainage improvement is being accomplished through the construction of the proposed storm drain beneath Stable Lanes Road and its associated culvert structures and inlet/outlet rip rap protection.

During the planning process, the applicant reviewed the option of constructing a con-span crossing over Drainage 3 in order to further minimize impacts to riparian/riverine areas; however, this proposed crossing of Stable Lanes Road is offsite and the construction of a con-span crossing would be considered infeasible. The avoidance of Drainage 3 would require the applicant to purchase and secure additional land to be set aside for storm drain and grading easements in order to construct such a crossing. If constructed, additional slope grading would be necessary, which would result in the need for additional rip rap protection within Drainage 3 on either side of the roadway. In essence, this option would actually increase impacts to riparian/riverine areas within Drainage 3.

As this option would increase overall impacts to Drainage 3, and require the purchase of additional storm drain and grading easements from the off site property owners, it was considered infeasible and eliminated from consideration.

Infeasibility of Avoidance, Arnett Road Crossing and Water Quality Basin

Based upon the Project site plans, Arnett Road has been proposed as a 60-foot wide right-of-way (including up to 40-feet of pavement and sidewalks along both edges). The proposed side slope for this roadway is a 2:1 maximum slope. Arnett Road is considered one of the two points of ingress/egress associated with the Project site.

The stream crossing of Arnett Road (Drainage 1) is proposed as a 42-inch reinforced concrete pipe and five (5)-foot by eight (8)-foot wide reinforced concrete box culvert along with rip rap protection upstream and downstream of the crossing. The proposed Arnett Road crossing includes the construction of a sewer line and water line, as well as a curb inlet catch basin, and gutter depression.

Arnett Road enters the Project site along its northern boundary and ultimately terminates at Crystal Way within the limits of the Project. The City has approved the location and alignment of Arnett Road. Additionally, the applicant and the Elsinore Valley Municipal Water District (EVMWD) have agreed to construct the proposed water and sewer lines within this location in order to minimize potential impacts to riparian/riverine areas within Drainage 1.

Arnett Road is necessary to provide one of the two points of ingress/egress into the proposed development [the second ingress/egress point being Stable Lanes Road] and the water and sewer

lines are needed to provide necessary utility improvements for the development. Additionally, a water quality basin is located immediately east of the proposed Arnett Road alignment. This basin is expected to treat urban runoff and other site flows, in compliance with the Municipal Separate Stormwater Sewer Systems Permit (MS-4) for Riverside County, before being discharged into the natural streambed (Drainage 1).

During the planning process, the applicant reviewed the option of constructing a span crossing over Drainage 1 in order to further minimize impacts to MSHCP riparian/riverine areas; however, avoidance of Drainage 1 in this location is infeasible as the construction of the span crossing would require the applicant to construct a larger bridge than is currently proposed, which would subsequently require a larger box culvert inlet/outlet structure (instead of a 5 x 8 culvert, a 5 x 10 or larger culvert may be necessary), as well as additional rip rap protection both east and west of the proposed Arnett Road bridge, and further upstream within the Drainage 1 streambed. The streambed avoidance would be considered infeasible as the proposed span bridge could be undermined, or subject to erosion, without additional rip rap protection within the drainage. In essence, this option may actually increase impacts to MSHCP riparian/riverine areas.

Additionally, a larger bridge over Drainage 1 would affect the location of the proposed sewer and water lines within the roadway, which have generally been approved within their existing alignment by the EVMWD. Such a change may not be supported by EVMWD and would require the applicant to submit updated site plans to the water district, which could result in several months of unnecessary delays.

Finally, the construction of a larger, span bridge may affect the existing location and design of the water quality basin. The water quality basin is located immediately east of Arnett Road and, and its relocation would not be considered feasible, as a potential design change to the water quality basin may not meet the requirements of the MS-4 Permit.

As this option may increase overall impacts to Drainage 1, may not be supported or approved by the EVMWD, and may not meet water quality requirements, it was considered infeasible and eliminated from consideration.

5.3 Impacts to Habitat Function

The Project will not adversely impact habitat function for riparian species. The riparian habitat, in general, within Drainage 1 represents potentially suitable habitat for riparian species, including the federally and State listed least Bell's vireo, as well as numerous other non-listed, sensitive birds. However, the relatively small amount of riparian habitat proposed for impact within Drainage 1, within the Project development footprint, has a low potential to support bird nests due to the lower quality nesting habitat (more disturbed) located at the periphery of the riparian patch than the more protected interior. Although the Project site supports potentially suitable habitat for the LBV, this species was determined to be absent from the site based on the results of 2013 focused protocol surveys. Additionally, as discussed above, the riparian habitat is not suitable for the SWFL or the cuckoo. Regardless, the client has agreed that impacts to any riparian vegetation would occur outside of the nesting season to ensure that no active bird nests

would be removed. Impacts to foraging habitat for birds with riparian requirements would be minimal due to the proportionately small area of riparian habitat potentially impacted compared to the total available foraging area.

5.4 Mitigation for Permanent Impacts

The proposed Project will result in unavoidable impacts to 0.42 acre of MSHCP riparian/riverine areas, including 0.42 acre of permanent impacts to SCWR habitat and emergent marsh, and 0.002-acre of permanent impacts to unvegetated riverine areas. Unavoidable impacts to 0.42 acre of on site riverine/riparian areas within Drainage 1 will be limited to the construction of a culvert and bridge crossing of Drainage 1, as well as a water quality basin, associated with the extension of Arnett Road, one of the two points of ingress/egress into the Project site. Unavoidable impacts to riparian habitat associated with Drainage 1 are also associated with the construction of a water quality basin adjacent to Arnett Road.

Unavoidable off site impacts to 0.002 acre of riverine areas within Drainage 3 along the southern portion of the Project site would be limited to areas of slope grading and storm drain construction associated with improvements to Stable Lanes Road.

Impacts to riparian/riverine habitat are proposed to be mitigated at a 2:1 ratio. The compensatory mitigation is proposed as follows:

- 1) Through the provision of a one-time fee for 0.84 acre of credits at an approved off site mitigation bank and/or in-lieu fee program;
- 2) Through the establishment, re-establishment, and/or rehabilitation of 0.84 acre of wetland/riparian habitat, a 2:1 ratio, at the Yates Road Property (Tract 36437) located within the Community of Winchester/French Valley. Mitigation would be proposed within the downstream portion of the Charlois Channel. The Yates Road Property is within the same watershed as the Project site, and mitigation established at this site would be considered biologically equivalent or superior and would consist of in-kind habitat as described above (A graphic depicting the location of the potential Yates Road Property mitigation area in the Charlois Channel is attached as Exhibit 7); or
- 3) A combination of mitigation options 1 and 2 above.

6.0 FINDING OF BIOLOGICALLY EQUIVALENT OR SUPERIOR PRESERVATION

The proposed compensatory mitigation described above would support equal or superior values (at a 2:1 ratio) as compared to Project impacts; therefore, the Project will replace lost functions and values, as it pertains to *Volume I, Section 6.1.2* of the MSHCP, and is considered a “biologically equivalent or superior” project in compliance with the MSHCP.

7.0 CERTIFICATION

I hereby certify that the statements furnished above 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.

A handwritten signature in black ink, appearing to read "M. J. C. Reed", is centered within a light gray rectangular box.

Signed: _____

Date: January 15, 2014

s: 0300-33clinb.dbesp.docx

Exhibit 1

Regional Map

Source: ESRI World Street Map



Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013

NORTH RANCH RESIDENTIAL DEVELOPMENT PROPERTY

Regional Map

GLENN LUKOS ASSOCIATES



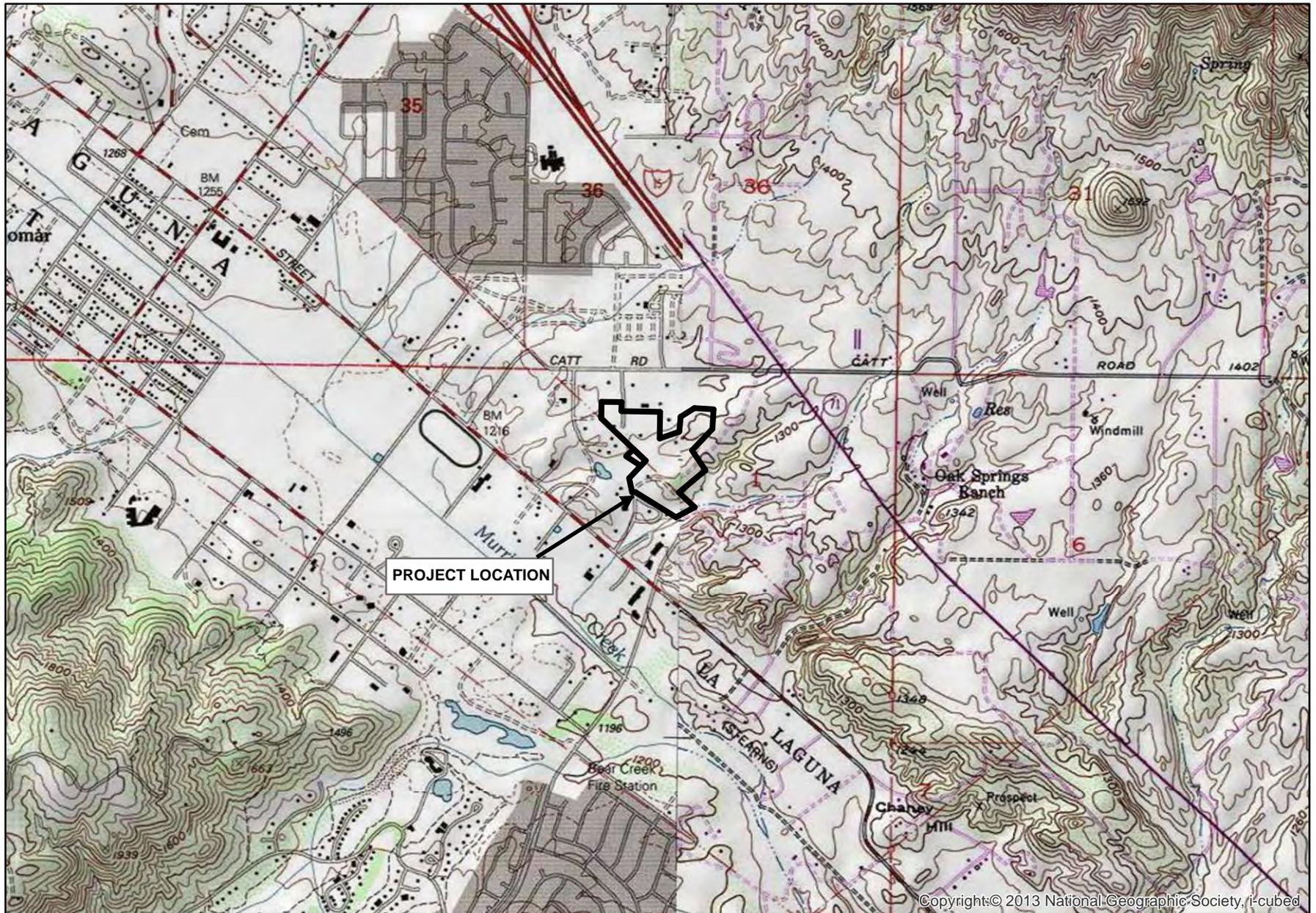
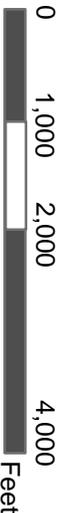
Exhibit 1

N
0
2
4
8
Miles

Exhibit 2

Vicinity Map

Adapted from USGS Murrleta & Wildomar, CA quadrangles



NORTH RANCH RESIDENTIAL DEVELOPMENT PROJECT

Vicinity Map

GLENN LUKOS ASSOCIATES



Exhibit 2

Exhibit 3

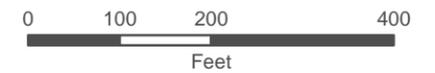
Project Site Plan



Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Legend

-  Project Boundary
-  Site Development Plan



1 inch = 200 feet

**NORTH RANCH
RESIDENTIAL DEVELOPMENT PROJECT**

Project Site Plan

GLENN LUKOS ASSOCIATES



Exhibit 3

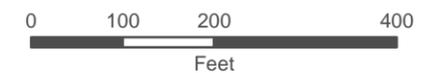
Exhibit 4

Riparian/Riverine Habitat Map



Legend

-  Project Boundary
-  MSHCP Riverine
-  MSHCP Riparian



1 inch = 200 feet

**NORTH RANCH
RESIDENTIAL DEVELOPMENT PROJECT**

Riparian Riverine Habitat Map

GLENN LUKOS ASSOCIATES

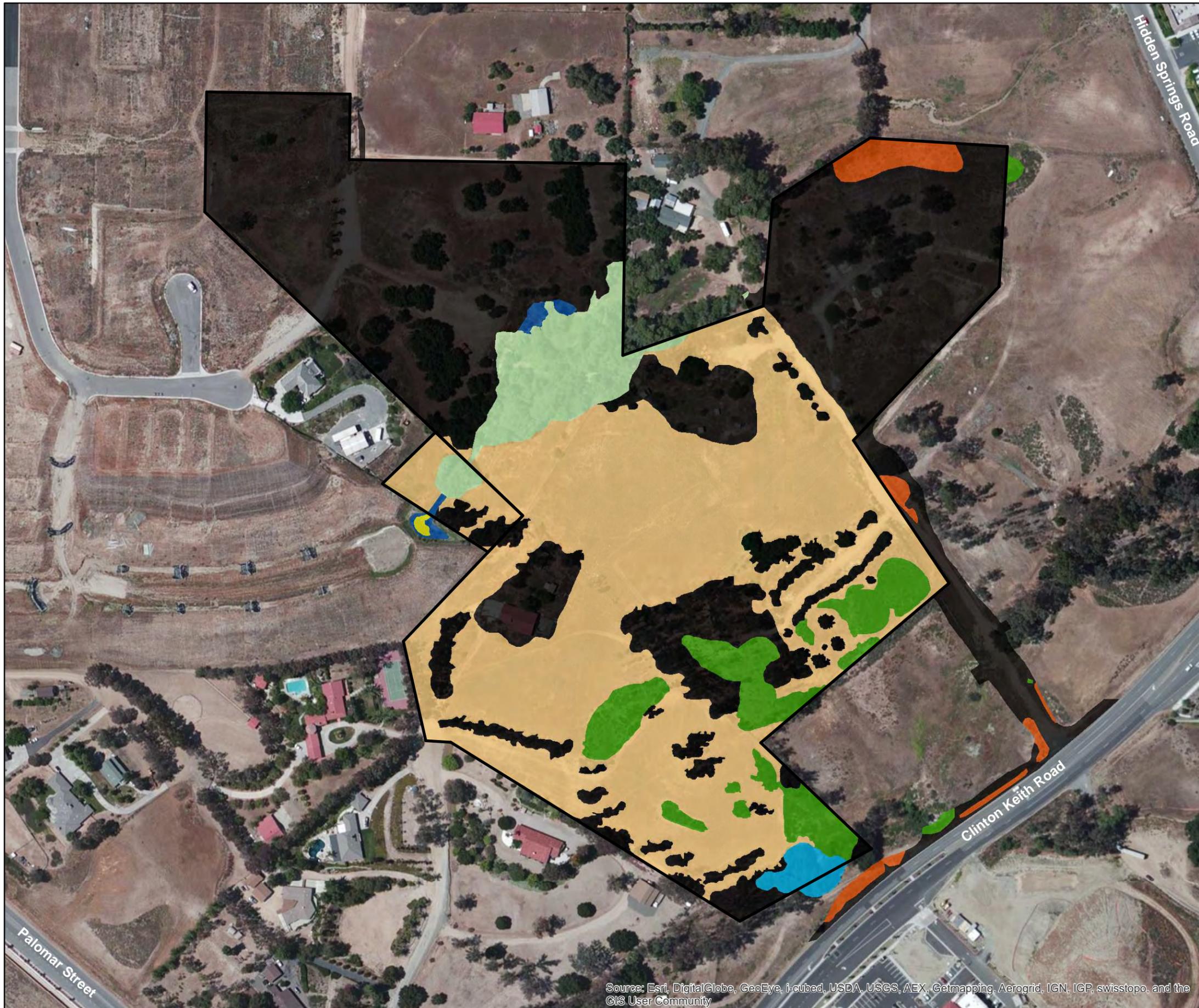


Exhibit 4

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

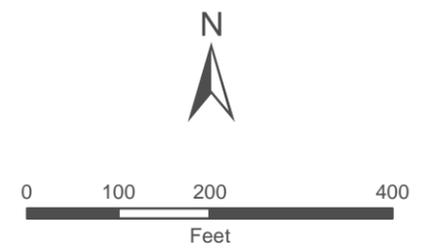
Exhibit 5

Vegetation Map



Legend

-  Project Boundary
-  Alkali Marsh
-  Coast Live Oak Woodland
-  Developed/Disturbed
-  Disturbed Riversidean Sage Scrub
-  Man-made Basin
-  Non-native Grass/Ruderal
-  Riversidean Sage Scrub
-  Southern Cottonwood Willow Riparian



NORTH RANCH RESIDENTIAL DEVELOPMENT PROJECT

Vegetation Map

GLENN LUKOS ASSOCIATES



Exhibit 5

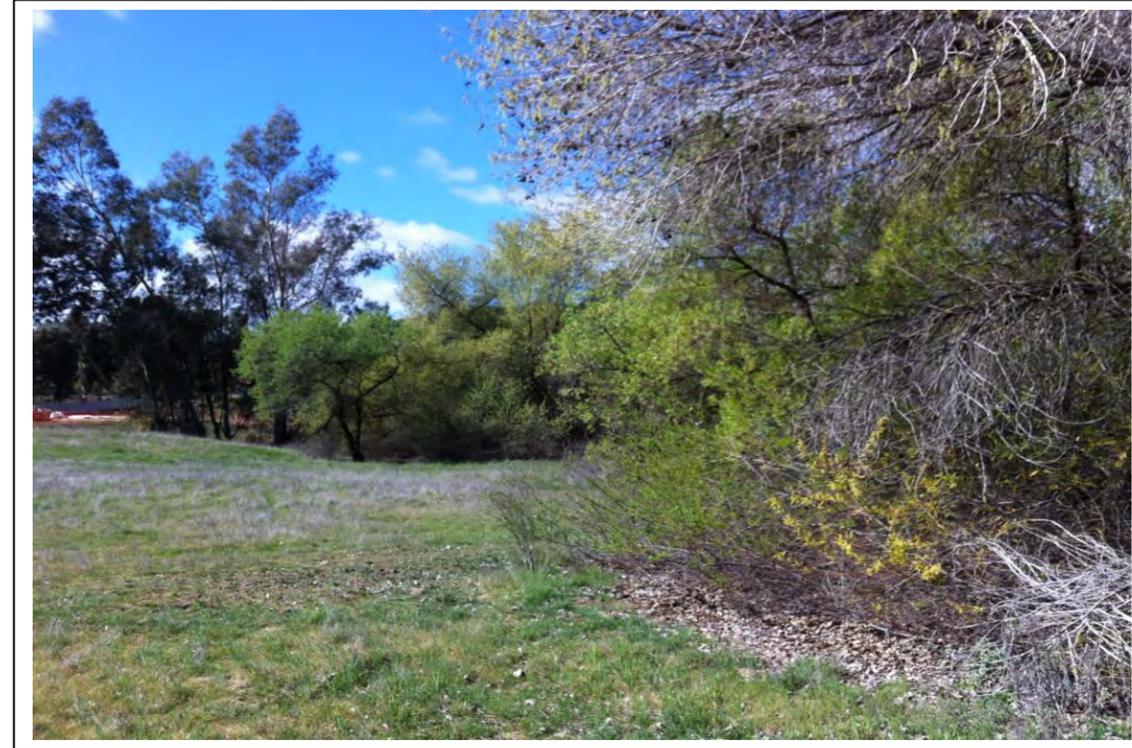
Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Exhibit 6

Site Photographs



Photograph 1: Taken March 6, 2013. View depicting northeastern portion of Drainage 1 looking west. Note the wetland limits as indicated by the presence of Mexican rush.



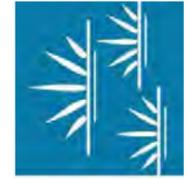
Photograph 2: Taken March 6, 2013, looking southwest. Downstream view depicting the edge of riparian habitat associated with Drainage 1.



Photograph 3: View depicting Drainage 2 looking west.



Photograph 3: Northeasterly view depicting offsite location of Drainage 3 located west of Stable Lanes Way.



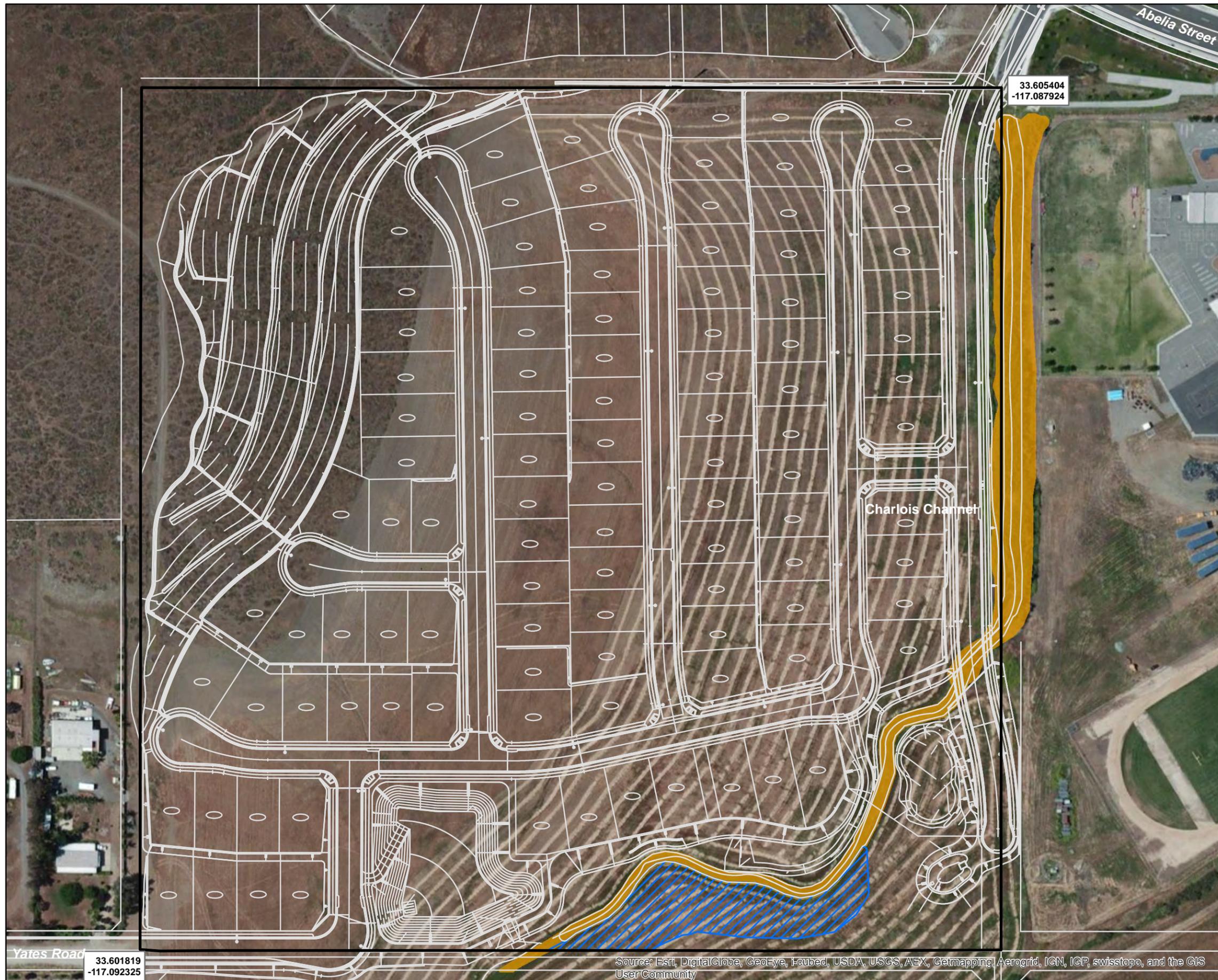
GLENN LUKOS ASSOCIATES

Exhibit 6

TRACT 32535
RESIDENTIAL DEVELOPMENT PROJECT
Site Photographs

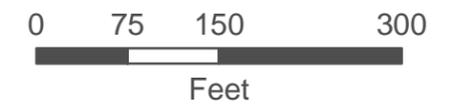
Exhibit 7

Potential Yates Road Mitigation Site Map



Legend

-  Study Area
-  Project Site Plan
-  Potential Yates Road Mitigation Area
-  CDFW Riparian



1 inch = 150 feet

**NORTH RANCH
RESIDENTIAL DEVELOPMENT PROPERTY**

Potential Yates Road Mitigation Area

GLENN LUKOS ASSOCIATES



Exhibit 7

Yates Road
33.601819
-117.092325

Source: Esri, DigitalGlobe, GeoEye, Earthstar, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

33.605404
-117.087924