MSHCP Consistency Analysis / Habitat Assessment Report

for Proposed Condominium Development on CRF / AR Property within LakeShore Village Specific Plan

@

Address TBD Lakeshore Dr., Lake Elsinore, CA 92530
APN: 379-230-001

RDR 2017-01
TTM 37280

CITY OF LAKE ELSINORE
COMMUNITY DEVELOPMENT DEPARTMENT – PLANNING DIVISION

Lake Elsinore City Hall
130 South Main St.
Lake Elsinore, CA 92530

Prepared For:

Hong Guan, LLC
C/O Miao Rui Song
14785 Jeffery Rd. #201
Irvine, CA 92618
Tele: (949) 232-9239

Prepared By:

ARCHON Consulting Co.
Justin Daniel, CEO, Senior Biologist
6852 Lake Ct
San Diego, CA 92111
Main # 951 271 6511
calarchon@gmail.com

Biological Consultant
Justin Daniel

JULY 2017
v. 1.1

07/06/17

JULY 2017

TABLE OF CONTENTS

TABLE OF CONTENTS (cont'd)

CHAPTER 1.0 INTRODUCTION

The primary purpose of this Habitat Suitability Assessment Report (Report) is to summarize the biological data gathered on a 7.50 acre parcel within the Elsinore Area Plan of Western Riverside County that has an active proposal for high density residential development. The report shall also evaluate consistency with the regionally adopted jurisdictional habitat conservation plan (HCP), consider potential impacts to sensitive biological resources, and offer recommended measures to avoid or mitigate these potential impacts. This report analyzes consistency of the proposed Project with the goals and objectives of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP, 2003).

The proposed Project has been submitted under City of Lake Elsinore Planning Dept for review under Residential Design Review (RDR) # 2017-01 & Tentative Tract Map (TTM) # 37280 on parcel: APN # 379 230 001 (Property). The development proposal endeavors to build eleven (11) condominium buildings and one Club House with recreational facilities and ancillary services such as parking, fire access / vehicular circulation, landscaping, decorative security fencing and minor improvement features on the whole of the Property. The Project proposes 85,719 sqft of building footprint over 30% of the Property, and the Project as a whole shall directly impact 100% of the Property.

This report shall address requested habitat assessment determinations for Riparian / Riverine Resources and Vernal Pool Species (WRMSHCP 2003), and related biological resources associated with MSHCP Section 6.1.2 in relation to the Proposed Project and the Property as follows: Least bell's vireo (*Vireo bellii pusillus*), Southwestern willow flycatcher (*Empidonax traillii extimus*), Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), Riverside fairy shrimp (*Strepocephalus woottoni*), Santa Rosa Plateau fairy shrimp (*Linderiella santarosae*), and Vernal Pool fairy shrimp (*Branchinecta lynchi*). Lastly, the report shall address any applicability for nearby biological concerns under the MSHCP.

1.1 Project Property Location & Community

The Property, APN # 379 230 001 (7.50 Ac), is located within the City limits of Lake Elsinore, itself within western Riverside County, California. No address has been yet assigned to the Project development. The Property is considered to be central within the Mixed use Urban Commercial corridor for Lakeshore Dr., 0.32 mile north of Riverside Dr. / Highway 74. The nearest cross street is Gunnerson St, directly across Lakeshore Dr. and whose intersection shall be used as the primary vehicular entry for the Project development. The Property is located within the Lakeshore Village Specific Plan (LVSP 2003), with a frontage zoning of Commercial Residential Flex (CRF) on the northerly 1/4 and zoning covering the southerly 3/4 of the parcel of Attached Residential (AR). The City of Lake Elsinore General Plan 2011 shows that the LVSP lies within Lake View District. Figure 01: Regional & Local Maps – Property Location also shows pertinent info.

The Property's estimated general center point is at coordinates Lat: 33° 41' 10.75"N Long: 117° 22' 21.26" W (33.6863°, -117.3726°) under the NAD 83 geodetic reference system. Situated within the U.S. Geological Survey (USGS) 7.5 minute Lake Elsinore Quadrangle map of Riverside County, California, the Property is located within Township 5 South, Range 5 West, Section 35 (T5S R5W S35). Reference Figure 02: USGS Quad: Lake Elsinore (1988). The Preorpty is located within the MSHCP Elsinore Area Plan, but is not within a defined subunit nor criteria Cell. The nearest existing conservation area is Lake Elsinore shoreline and open waters, 0.84 mile South-East (SE).

Surrounding zoning includes General and Neighborhood Commercial and High to Medium Density Residential. With a few exceptions, the surrounding parcels are built out and occupied. The character of the surrounding community is best described as a sub-urban bedroom and recreational community with a number of vacant, undeveloped properties still remaining. The northern side of the City of Lake Elsinore has a long history of variable density developments, including small lot single family residential, apartment blocks, trailer / mobile home parks, and tract home developments. Population growth and construction trends in the area match those across Western Riverside County over the past thirty years, with an accelerated pace within the past fifteen years. Reference Figure 03: City of Lake Elsinore: Land Use Map.

The local undeveloped areas are mostly a variety of upland non-native communities with a small number of native communities (habitats). The native and naturalized habitats include grasslands, mixed sage scrub, riparian woodland, & alkali playas & alkali scrub, mostly found surrounding Lake Elsinore and within the local hills. The general habitat character shows high disturbance from a long history of frequent and ongoing anthropogenic sources. Non-native plant communities dominate the vegetation and habitats in a mile radius surrounding the Property.

Surrounding parcels are as follows: directly SE of the Property is a vacant field lot APN # 379 230 002, which exhibits disturbed grasslands similar to the Property. Beyond to the SE is a dense single family residential tract development within the LVSP, with commercial buildings on the Lakeshore Dr. frontage. All buildings as described are located within the MB

379 480 block. Across Lakeshore Dr. to the NE is six vacant, undeveloped lots with minor utility improvements in MB 378 306. Directly behind is Ames Ave. and more older single family residential lots behind. Following towards the north, APN # 378 307 002 is vacant and undeveloped, with 378 307 003 built out with a small commercial building. Coming back across Lakeshore Dr. in a counter clock wise fashion are four vacant parcels adjacent to the Property, APNs 379 241 002, 003, 048, and 050. All are undeveloped and have evidence of periodic scraping. An "L" shaped parcel APN # 379 241 059 abuts the Property just behind the block of four vacant lots and contains a building and parking for a daycare center. Just beyond to the NW is a Rite Aid retail store. Adjacent to the West is a developed mobile home park in the remainder of MB 379 241. To the SW of the Property is a medium density residential tract on MB 379 340, fully developed into apartment style condominiums. Reference Figure 04: Aerial Map and Property Features.

Geographically, the Property sits within the generally flat La Laguna valley plain northwest of the inland terminal water body, Lake Elsinore. The valley is bound by the shores of Lake Elsinore to the SE and to the East and NE by a low ridge of SE trending foothills that begin to rise within ¼ mile of the Property. Across these foothills to the NE lies Warm Springs Valley and to the North, the system connects to the Alberhill district and upper reaches of Temescal Creek Wash. Lake Elsinore overflows into a spillway near the east shore, flowing northwards into Temescal Creek. To the West lies the La Laguna valley plain and further West, the eastern foothills of the Santa Ana Mountains with its steep canyons and coastal chaparral covered slopes.

Major water features of note in the region are Lake Elsinore (0.75 mile SE to 1 mile S), Canyon Lake (Railroad Canyon Reservoir on the San Jacinto River–5.35 miles E), and the uppermost reaches of Temescal Creek Wash as it flows northward through Walker Canyon from Warm Springs Valley (1.20 miles E). While tectonic action has influenced geological history in Lake Elsinore, landform features here are generally formed by erosive and sedimentary action. The Property is not considered to be in a fault zone, but is within ½ mile of an unnamed fault in the Elsinore fault zone. The Property is considered susceptible to moderate liquefaction and subsidence.

Other features to mention in regards to the Property location are local roadways and highways. From the Property on Lakeshore Dr., Riverside Dr. / Highway 74 lies nearby to the south. The nearest major intersection with Lakeshore Dr is Machado St. to the NW. Machado St. connects to Lake St, an interior arterial collector that becomes Grand Ave further West. Highway 74 connects the City of Lake Elsinore to San Clemente in Orange County over the Santa Ana Mtns to the West and the further inland communities of Perris and Hemet to the East. Interstate 15 to the east in Warm Spring Valley connects to Lakeshore Dr. via Highway 74, and is a major connector to the Cities of Corona and Riverside to the north and Temecula, Murrieta and San Diego to the south.

1.2 Project Property Description

The Property is best described as a homogeneous low slope field with limited variables in grassland community sub-types. Composition makeup is directly correlated with historical and on-going disturbances and variable soil moisture. While the Property as a whole is vacant and appears at first glance to be undeveloped, man made features are found on and immediately offsite. The first and most prominent feature is a man-made retention basin near the eastern corner of the Property close to Lakeshore Dr. This basin covers just over 9,000 sqft on the Property with a silt basin of about 2,700 sqft. A 24" overflow outlet pipe connects excess water to the local underground MS4 beneath Lakeshore Dr. Historical imagery shows that the entirety of the Property was scraped and graded in 2005, when the retention basin was formed. A very subtle trough was formed paralleling the North Western Property line and directs water towards the retention basin. Another feature on site is a thick, amorphous spread of gravel at Lakeshore Dr., presumably placed to allow for vehicles parking on the site to avoid getting stuck in mud during the wet season.

Offsite, Lakeshore Dr. is fully paved with asphalt, but there is no paved curb, sidewalk, or gutter. The pedestrian right of way along Lakeshore Dr. is a compacted earthen and gravel path with a heavily ruderal character on both sides. Utilities along Lakeshore Dr. include a fire hydrant and a street lighting poles. Utility lines are located underground, including a 60" Stormdrain line, 12" Water line, 15" sewer line and power line. Gunnerson St. directly across from the Property is paved. Almost the whole of the Property is bound by adjacent parcel CMU walls, excepting to the open field parcel to the South, and to the block of four vacant parcels at the northern corner. In each of these exceptions, direct and open access is available with little demarcation of Property boundaries. The only features defining rough Property boundaries here are slight differences in graded elevations that form short ridges between 2" and 24" in slope height.

Soils are frillable and somewhat eroded across the Property, consistent with a flattish field that takes annual disking for fire breaks. Soil composition is a consistent homogeneous native mixture, though it has been graded and scraped over the entirety of the Property surface. All watershed is directed towards an existing on-site retention basin which outlets to the City of Lake Elsinore storm water control system and thence on to Lake Elsinore. The Property is not situated within a Flood Zone. Watershed and onsite hydrology is discussed in detail further in the Report. Further analysis is provided below. See Figure 05: Topography, Soils, & Hydrology.

While most of the plants found thereon were non-native invasives and naturalized stands of non-natives, many examples of locally common native species were also identified. Vegetation communities that can be found on the Property are listed as: Grassland [Disturbed] with sub-association: Non-native grasslands and Urban / Exotic: Ruderal under MSHCP vegetation designations. These are further broken down based on CNPS Phytocoenosis or closely matching Holland code designations as Annual brome grassland (*Bromus madritensis ssp rubens)* Semi-Natural Alliance, Wild oats Grassland (*Avena barbata*) Herbaceous Semi-Natural Alliance, a very small example of Fiddleneck fields (*Amsinckia tessellata)* Herbaceous Alliance, and Non-native grassland: [Disturbed – semi-naturalized] Alkali meadow / Alkali playa grassland (*Bassia hysoppifolia*) Semi-Natural Herbaceous Alliance (CNPS undefined). All vegetation community general edges were able to be mapped, though due to disturbance regimes and cyclical rainfall patterns, are not expected to remain defined year to year as shown per Figure 06: Vegetation Community Map.

Using the local undeveloped lands to provide character, the Property was once most likely valley grassland with little to no shrubby cover correlating to riparian scrub influenced by higher soil moisture from Lake Elsinore and alkali scrub & playas. Extant nearby examples of (partially intact) grasslands, riparian scrub, and native alkali playas include the undeveloped shorelines surrounding Lake Elsinore.

1.3 Proposed Project Description

The proposed Project entails the construction of eleven two-story condominium buildings [for a maximum of 104 residential units therein] spread about the Property, with covered and open parking, landscaped common areas, paved vehicular and pedestrian access, utility amenities, and a large outdoor recreation complex that includes a large playground, swimming pool, and tennis court. Also proposed is the construction of a 6,918 sqft private community clubhouse building nearest Lakeshore Dr. In total, the building footprint will cover 85,719 sqft. Hardscaping covers 127,396 sqft of Parking and driveway. Landscaping and walkway are both combined into a 43,510 sqft area distributed about the Project development. Impermeable surfaces are estimated to cover 89% of the final Property area. The final net Property is to be 6.58 acre following a 0.92 acre Right of Way (RoW) dedication with improvements. Directly offsite improvements include providing a primary driveway On Lakeshore Dr. at the intersection with Gunnerson St. This access to the Property is to be named “Lakeview Manor Dr.” An emergency access driveway on the northern edge of the Property along the vacated Allis St easement is to be named “Lakeview Manor Parkway.” Frontage improvements include new sidewalk, curb gutter, and utility connections, along with landscaping in the setback and dedicated area on Lakeshore Dr. As part of the water quality compliance according to the Project “Preliminary Drainage Report,” the Project shall incorporate underground infiltration basins that overflow to existing 60” stormwater conveyance systems below Lakeshore Dr consistent with 100 year storm models. The Project shall connect to the existing utilities from Lakeshore Dr. as well. On site landscaping shall be implemented on the Project where permeable areas are found, with trees, shrubs, herbaceous, and grasslike plantings consistent with the City of Lake Elsinore Water Efficient Landscape Requirements for the Project type and scope. Permeable areas shown in the Project plan are considered to be 100% impacted and shall be irrigated in accordance with the final approved landscaping set. Finally, the Project also entails construction of boundary fencing and entry monument signage as approved by City of Lake Elsinore Planning. All of the above is referenced in whole or part when the term “Project” is used within the Report. Reference Figure #07: Proposed Project Site Plan.

In total, the Project direct impact area will cover approximately 7.50 acres (+/- 326,500 sqft) on and immediately off the Property, with about 6.58 acres (+/- 286,700 sqft) in the anticipated final Project Footprint on the post-dedication Property. The proposed impermeable areas (On-site footprint) are expected to cover approximately 5.86 acres (+/- 255,100 sqft) within the final net Property area. With the buildings covering 1.97 acres (85,719 sqft) the anticipated Floor Area Ratio (F.A.R.) shall be 0.30. For the purposes of this Report, the Total Project Footprint (Footprint) coverage considered shall be 7.50 acres, equaling the entirety (100%) of the original gross Property. Areas considered to be indirectly impacted by construction and operational activities are immediately adjacent undeveloped parcels [APNs # 379-230-002, 379-241-048, 379-241-050, & 379-241-002], all within or partially within the 100’ extended general survey area. These are to evaluated under such analysis considerations below.

CHAPTER 2.0 METHODOLOGY

2.1 General Habitat Assessment

2.1.1 Literature Review

Prior to the field visit, a literature review was conducted to evaluate known environmental conditions on and around the Property. The literature included: U.S. Department of Agriculture (USDA) Soil Survey (1971) and USDA Natural Resources Conservation Service (NCRS) Web Soil Survey (WSS) Online for geological surface conditions; Riverside County Parcel Report vis a vis Riverside County Transportation and Land Management Agency (RCTLMA) online portals for County parcel data (RCIT - Map My County software); and Riverside County Assessor's Property Information Center online application for legal status, the City of Lake Elsinore General Plan (LEGP 2011), LEGP LakeView District Land Use Plan, and LVSP 2003 for zoning information. The US Geologic Survey (USGS) database was accessed for known hydrological / topographical profiles. Information reviews were used to determine current multi-departmental designations in regards to environmental status and land use. The WRMSHCP was thoroughly reviewed to determine local bioregion information, survey requirements, descriptions of habitat conditions and listed sensitive resources, conservation goals and methods, area plans, and cell group / cell criteria. Geographical Information Systems (GIS) data software was used to map the site in relation to defined criteria cell areas, conservation areas, and defined wildlife cores, corridors and linkages; survey areas for general plant and wildlife species; known Narrow Endemic Plant Species (NEPS) survey areas and Criteria Area Species survey areas. To ensure consistency with the WRMSHCP, each section therein pertaining to the reporting requirements, methodologies, assessment methods, impact evaluation and planning goals was reviewed.

Access and research of available, up-to-date data and maps for known sensitive, rare, or otherwise protected (listed) species included: The California Natural Diversity Database [CNDDB] and RareFind Online application hosted by the California Department of Fish and Wildlife (CDFW), the California Native Plant Society (CNPS) Electronic Inventory, Cornell Lab of Orinthology dynamic mapping software for bird sightings, and the Cal Flora Online Database in cooperation with the University of California, Berkeley were consulted in relation to the Property to determine proximity of locally known listed flora and fauna of any listed and non-listed status. Citations and referenced materials are listed within the appendices of this report. In context to the Property biological resources and proposed Project, each of the above resources and published requirements and considerations have been applied.

In specific terms, the MSHCP requires an assessment to determine the potential impacts / effects of the proposed project on Riparian / Riverine areas and/ or vernal pools. Documentation for the assessment includes mapping and a description of the function and values of the mapped areas with respect to the species listed in the WRMSHCP Section 6.1.2., Protection of Species Associated with Riparian / Riverine Area and Vernal Pools. The WRMSHCP was also reviewed to determine habitat assessment requirements as well as the habitat suitability elements for listed Criteria Area Species (CAS) that are deemed to potentially occur on or near the Property as outlined under Section 6.3.2. Further review was done of the MSHCP, particularly to identify potential issues and considerations for Local Implementation Measures (MSHCP 6.1), Agriculture (MSHCP 6.2) and Database Updates / Need for Surveys (MSHCP 6.3) data gathering, survey and reporting requirements.

Also, review was performed to establish the applicability of any California Environmental Quality Act (CEQA), National Environmental Policy Act (NEPA), CDFW or United States Fish & Wildlife Service (FWS) requirements that may pertain to sensitive biological resources beyond the bounds of implementation agreement of the MSHCP.

2.1.2 Jurisdictional Waters, Riparian/Riverine, Wetlands & Vernal Pools

A precursory review to determine the presence of jurisdictional waters, riparian / riverine, and wetlands areas, including vernal pool habitat, was conducted. Riparian / Riverine habitat is determined initially by referencing USGS map(s) that show known drainage lines in blue, and may be confirmed by vegetation community composition and other geologic and hydrological features during surveys. Jurisdictional waters are defined and attributed by the U.S. Army Corps of Engineers (ACE) and/or the U.S. Environmental Protection Agency (EPA). CEQA guidelines provide authority of the designation to ACE under the Clean Water Act 33 U.S.C. §1251 (CWA), which generally require Section 404 permits for any Projects affecting designated jurisdictional waters. Any pollutant discharged into jurisdictional waters is unlawful unless a permit is granted through the National Pollutant Discharge Elimination System (NPDES). Jurisdictional waters pertain to interstate waters, adjacent waters and tributaries, including any

agricultural ditches, flood plains and significant nexus waters that connect to wetlands, streams or rivers. Seasonally ephemeral vernal pools are considered jurisdictional under the ruling. Federal Emergency Management Agency (FEMA) Flood Maps available via the National Flood Insurance Program (NFIP) show known flood plains that contain known Jurisdictional waters and Riparian / Riverine areas.

An unnamed USGS blue line watercourse is located approximately 0.51 mile directly to the North East of the Property, flowing NE as a minor seasonal tributary to the headwaters of Temescal Creek, where it connects approximately 1.27 miles distant to the NE. This tributary is disconnected topographically from the Property watershed. No USGS mapped blue lines affect, or are affected by the Property watershed. Lake Elsinore itself is considered a jurisdictional, navigable water and the average shoreline during full capacity lies approximately 3/4 of a mile to the SE of the Property. The Property and adjacent parcels do not exhibit any jurisdictional water criteria. The Property watershed is fully controlled via the local storm water drainage system.

Riparian / Riverine resources are geological formations created by dynamic hydrologic actions persistent over time within and adjacent to drainages that interconnect a headwaters spring source or watershed edge to an ocean or terminal lake. A riparian designation denotes habitats characterized by a relatively high source of soil moisture that supports hydrophytic vegetation and / or the persistent presence of flowing water. Riparian / riverine resources also include more intermittently flowing watercourses, that show hydro-logically formed or associated soils and soil formations, but only contain high moisture content following precipitation events. Riparian / Riverine areas are associated with desert arroyos, streambeds, canyons with a significant tributary watershed, open water rivers, dry channels, washes and riparian-associated adjacent habitats. Riparian / Riverine resources are defined under the WRMSHCP as Areas 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. Also, areas with fresh water flow during a portion of the year or year-round, particularly within natural and naturalized drainages. A number of sensitive organisms such as certain amphibians, fish and aquatic or riparian-dependent flora are another positive indicator of riparian / riverine habitat presence.

The Property and adjacent parcels do not display riparian or riverine criteria. Many riparian associated floral species found on the parcel are also known to occur in dry habitats and none were found that are fully dependent on a consistent water source or other riparian conditions. The nearest area that could be considered riparian would be riparian associated woodland near the shores of Lake Elsinore about 2/3 to 3/4 mile SE.

Criteria for wetlands designation follows the CWA and EPA definitions: (a) An area that is covered by shallow water or where surface soil is saturated, either year round or during periods of the year; (b) Where that water coverage has caused a lack of oxygen in the surface soil; and (c) has either no vegetation or plants of a type that have adapted to shallow water or saturated soil. Wetlands designation under the MSHCP are derived from the MSHCP vegetation map and include any open water areas not considered traditionally navigable such as fresh water marsh, bogs, riparian areas, vernal pools, mud flats, salt marshes, naturally occurring and occasionally man made ponds, streams, ditches, canals, and lakes. Applicable areas not previously mapped by the above agencies may still qualify as wetlands when found to fit the criteria.

A portion of the Property was found to exhibit *potential* wetlands formation within the existing retention basin at the eastern corner of the Property near Lakeshore Dr. This engineering retention basin was found to be choked with silt and non-native plant species, many of them invasive. The basin displayed a character similar to a disturbed alkali meadow grassland with evidence of seasonal flooding. Following analysis of soils conditions, extant floral species and cover, and conditions relating to the on-site and local hydrologic regime, it was determined that the retention basin did not display hydric soils, infiltration restriction, or hydrophytic vegetation to classify any portion as even an ephemeral wetland. The nearest definitive wetland is the open waters beyond the variable shoreline of Lake Elsinore, 3/4 mile to the SE.

Criteria for vernal pool designation is based on CDFW descriptions and are defined under similar, but less descriptive terms within the CWA. Vernal pools are temporary wetlands, forming in depressions during the wet season where the hydrologic soil conditions prevent draining of the water into the substrate. As such, vernal pools have particular soil associations, often alkali hardpan soils, exposed bedrock depressions, or within heavy clay depressions. Wide areas with a profound number of such pooling events are known as vernal pool complexes and are linked not only by soil associations and proximity, but similarly adapted species. During drier months, the pools gradually dry and can take on an affiliated or entirely separate character, often with emergent annual grasses as a dominant or co-dominant

species, making dry season determinations difficult or impossible. Specially adapted flora, invertebrates, and a number of native amphibians rely on this ephemeral pooling phenomenon and are associated with the presence of vernal pools. The presence of these species are used as an indicator of the presence of vernal pool habitat, but the final determination of vernal pool status is only met if all conditions above are met: upland depressions that retain water following precipitation events, retentive hydrologic soils that prevent drainage for an extended period of time (in terms of two+ weeks to months), and presence of indicator species. The MSHCP descriptions for vernal pool criteria match the same criteria as CDFW descriptions, but also include a localized list of native indicator vernal pool species.

Soils present on the Property do not allow for restricted drainage. One location was found that water could potentially pool for a significant period of time within the retention basin. Ultimately, no indicator species were observed at the general biological survey performed during 2016-2017 wet season.

2.1.3 General Biological Resources Field Survey

A general biological survey was performed by Justin Daniel, Lead Biologist DBA Archon Consulting Co. The general survey was conducted on May 12, 2017 from 1:00 PM to 4:30 PM. The weather recorded was calm with no precipitation. Previous rainfall was recorded on May 7th, 2017, five days prior to the survey that delivered 0.26 inches of rain to the Lake Elsinore region. Cumulative 2016/17 year to date (YTD) precipitation totals are recorded by the Riverside County Flood Control District at Elsinore NWS Automatic Station #067, 2.55 miles SE. The 2016-2017 wet season rainfall totals for inland Southern California valleys was above average at the survey date, with the local station recording a total of 14.8 inches compared to an average year of 12.45 inches.

The purpose of the general surveys were to catalog and map any vegetation communities on the Property, identify and catalog biological resources (flora & fauna), identify any sensitive vegetation communities, and determine the suitability of the habitat present on the Property in regards to targeted sensitive species of flora and fauna as listed by the CDFW, FWS and MSHCP shown within this report. The physical on-site properties assessed included vegetation composition, soil substrate composition, slope, aspect, general hydrology, and disturbance to the natural landscape. The surveys were conducted during the primary blooming period for most native annual and perennial vascular plant species and during the breeding season for many sensitive wildlife species. All vegetative communities on-site were able to to be characterized and all floral species located on-site were identified to the best knowledge of the biologist conducting the survey. Floral species were identified using a variety of taxonomic indicators including plant morphology, bloom description (if in bloom), scent, texture / contact attributes and occasionally via physical take of a specimen for later analysis. Vegetation surveys were conducted using 2007 CNPS Releve' Protocol standards and in accordance with FWS “Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants.” Field notes and the full CNPS and CDFW Combined 2014 Vegetation Rapid Assessment and Releve' Field Form were taken during the survey and reprinted for clarity following the survey.

Taxonomic designations for floral species observed conform to The Jepson Manual: Vascular Plants of California, second edition and any updated descriptions via The Jepson Herbarium's Eflora Revision 4, an online database updated in December 2016. APPENDIX A: VASCULAR PLANT LIST has a complete compilation of on-site floral observations, updated with data gathered during all vegetation oriented surveys.

The Property was surveyed on foot using perimeter scouting and transects at 30' intervals within the defined survey boundary, established by surveying all areas with permeable soil on and immediately adjacent to the Property within 100’ about the Property lines and any areas of off-site areas with direct impacts. The survey boundary is also established to allow for visual and direct access, where available, for 100% visual coverage of the Property and the Project Impact Areas and about all trees, debris, and fencing. The full General Survey Area (GSA) covers 14.40 acres, but because of denied or restricted access to private parcels in the GSA, the final general survey area totaled approximately 11.20 acres.

During the general survey, wildlife and evidence of wildlife observed on or near the Property was recorded. All wildlife observed were identified at the time of observation by the lead biologist conducting the survey, to the best of their knowledge. Observations of wildlife included visual confirmation using morphological descriptions, auditory cues (such as bird calls or songs), and indicators of presence such as tracks, scat, dropped fur or feathers, skeletal or remains identification (when applicable), burrow structure, insect / seed predation evidence and, if necessary, also revealing potential hiding areas. Wildlife identification protocols follow the general order: (1) quietly observe the survey area from outside the pre-determined survey area with binoculars; (2) carefully enter the survey area, noting evidence of wildlife habitation or transience at each confirmed observation; (3) travel along 30' or smaller transect lines, deviating to provide 100% visual coverage where necessary; (4) collect photographic or physical evidence to substantiate or provide context for

determinations; (5) Check list all observations within field notes. At all times, a "no take" protocol is followed in regards to wildlife. Under such protocol, damage to wildlife or their immediate habitat (such as larders or nests) is avoided in most circumstances. Exceptions may occur if it is determined that no harm will come to the targeted wildlife itself (such as climbing a tree to observe an avian nest with eggs). If positive identification of a species requires take or capture of a species (such as with small mammals), the surveyor shall refrain from doing so, instead listing the genus or best known classification determined of the species, and recommending focused surveys occur should the species fall under a suspected listed or otherwise sensitive criteria. Exceptions to the "no take" protocol may occur where an action is performed to preserve the safety of the surveyor. In every instance this should unfortunately occur, the incident and findings are listed in the field notes and full documentation is provided to all agencies whom require notification. Reference APPENDIX B: WILDLIFE LIST.

Vegetation communities of an associated dominant plant species (Phytocoenosis) on the Property were mapped using aerial photography and correlating field notes, GIS data points, photographs, and sketched maps created during the survey. The plant communities were classified on-site according to descriptions provided in Holland's Preliminary Descriptions of the Terrestrial Natural Communities of California (1996) and using known habitat account descriptions provided within the MSHCP Vol II, Section C. Optional vegetation stand descriptions follow A Manual of California Vegetation (CNPS 2009, 2nd edition) & "Online Vegetation Manual" (CNPS 2015).

Taxonomic descriptions of wildlife follow The American Ornithological Union Checklist (2013) classifications for birds; Center for North American Herpetology (CNAH): Taggart (2013) & Stebbins (2003) for reptiles and amphibians; Wilson and Reeder (2005) & Jones (1992) for mammals, and Gibb & Oseto (2006) and Roth (2009) for arthropods.

CHAPTER 3.0 EXISTING CONDITIONS

3.1 Topography and Soils

The Property is situated entirely over a very gently sloping vacant field, that is shown in historical imagery to have been graded in 2005 to direct runoff to an engineered retention basin present on the Property. Topographically, elevations on the Property range from 1313' to 1304' (400.2 m to 397.5 m) above mean sea level (amsl). From the high point (1313') near the Western Property corner and following a diagonal generally NE towards the retention basin near the Easternmost Corner, the natural low point rests at 1304' amsl at the East corner with Lakeshore Dr. The Property elevations drop approximately nine feet over 920 linear feet for an average slope of just less than 1%. Along the vacant lot adjacent SE Property line, a minor deviation in natural elevation difference shows that the Property was graded to direct runoff NE, though some sheeting water flows ESE onto the adjacent parcel. The Property slope is uniform, excepting a slightly lower set slope paralleling inside the North Western Property line. This slope directs runoff NE in a wide, shallow trough that eventually meets with the retention basin.

Within the retention basin, the top lip has an average elevation of 1305' with a basin floor elevation average of 1300'. A 24" steel outlet pipe with welded inlet cap allows for flood waters topping the inlet to be directed to the local MS4 located below Lakeshore Dr. A significant cutting and soil displacement from recent rains was observed about the standpipe, creating a deeper depression within the basin estimated to bottom out at 1298' amsl, two feet deeper than the basin floor.

Based on a USDA Web Soil Survey, the soils on the Property consist solely of eroded sandy loams. The whole of the area and Property within sit atop Hanford coarse sandy loam, 2 to 8% slopes. Hanford sandy loams are a variable, coarse alluvium derived from granite that are found in flood plains, stream beds, alluvial valleys and river bottoms. Particulate size varies from rough rocks and gravel to fine sand. It is considered very deep and well drained with moderately rapid permeability and negligible to low runoff class. Hanford sandy loams are not considered sensitive under the MSHCP. The primary exposure of the soils reflects a disturbed system, with on site source soils having been graded, but not compacted. All soils on the Property were found to be consistent with the native description provided by the Web Soil survey.

Imported soils and ground features present include patches of thick gravel near Lakeshore Dr., presumed to have been placed to prevent vehicles from getting stuck in the mud during wet weather. Evidence of gravel dispersal was observed across the Property. A few tire ruts and disk furrows were also observed with presence of bare loamy silt therein. The retention basin soils were found to be the same composition as the other sandy loams found on the Property, with a thin 1/4" crust of crusted muddy silt and sand, same as the tire ruts.

3.2 General Hydrology

Hydrology on the Property is almost entirely low slope sheet flow, with most light rain events saturating the surface allowing the permeable areas thereon to infiltrate rainfall into the substrate, or is lost to evaporation. Following rare events where full saturation occurs, water sheets across the Property to exit either across the South Eastern Property line or collect within the on-site retention basin. Water within the retention basin permeates the substrate, evaporates, or potentially overflows to the local storm water drain line via the 24" steel stand pipe during flooding events.

A number of Property adjacent parcels are isolated from affecting, or being affected by, on-site hydrology by topography or engineered features. Surrounding adjacent parcels that are isolated from the Property tributary area are the mobile home development to the North West, the condominium tract to the SouthWest, and the tract home development across parcel 379 230 002 to the South East. All of these areas are separated by tall, continuous CMU walls. The parcels across Lakeshore Dr. are also split from on-site hydrology by the local stormwater system that directs runoff into drainage pipes below the street. These parcels are all of those to the North and NorthEast of the parcel, respectively.

Parcels that provide minor watershed contributions to the Property are APNs 379 241 059, 048, 050, 002, & 003. Collectively, this block of parcels only contributes runoff from a variable setback at the NorthWestern corner of the Property, where they adjoin. This contribution is negligible as the tributary area is an estimated 2,500 sqft. The developed parcel 059 has a fence setback about seven feet from its adjacent property line that demarcates where water on the Property side is directed onto the Property. This tributary area of 700 sqft and the 2500 sqft joins the North Western Property line trough. The majority of the runoff for the remainder of the North adjacent parcels is directed towards Lakeshore Dr.

Parcel APN 379 230 002 receives a small amount of runoff originating on the Property. While the Property is graded to direct the bulk of the on-site watershed, topography shows that runoff moving onto the adjacent vacant parcel then moves towards Lakeshore Dr. in the same fashion as the sheet flow on the Property.

The porous substrate and gently sloping topography generally prevents natural pooling formations on the Property. Soils are frillable, generally loose and not compacted, allowing for permeable infiltration of rainwater into the surface soil. Floristic root growth was possible and observed across the whole of the Property. The Property was completely dry during the general survey. Tire ruts presented slight compaction and recent minor erosion, with indicators that at least shallow water retention present from the fine silt left behind on the surface and evidence of very shallow muddy cracking. Also examined was the floor of the retention basin for indications of hydrologic capture. The basin showed mud cracks (not larger than 1/4" crust), siltation build up, and evidence of higher than normal alkalinity as well as higher salinity. Soils were examined to compare those within the basin to those without and no difference in source composition was determined, showing that the Hanford coarse sandy loam were at least as deep as the lowest point of the basin. No evidence was observed of long term water retention such as hydrophytic vegetation, vernal pool species, hydric soil conditions, or algal crusting. Any standing water on the Property is evidenced to infiltrate the substrate or evaporate completely within a few days. Reference Figure 05: Topography, Soils, & Hydrology.

The storm water control system at Lakeshore Dr. directs runoff to Lake Elsinore, terminus of the San Jacinto watershed. Property watershed is considered to contribute to downstream riparian and wetland resources as a result. The Lake Elsinore overflow connects directly to the Santa Ana Watershed via Temescal Creek Wash paralleling Interstate 15 in Lake Elsinore and then northwards through Temescal Canyon to Corona and on to the Prado Dam / Santa Ana River. The Santa Ana River connects to the Pacific Ocean at Huntington Beach in Orange County. The Property is located within the Santa Jacinto River Watershed under the jurisdiction of the Riverside County Flood Control District.

3.3 Vegetation Communities

The Property and areas immediately offsite consist of a number of distinct and intergrading plant communities under MSHCP vegetation associations: Grassland: Non-native grasslands and Residential / Urban / Exotic: Developed and Disturbed. Areas calculated are based on vegetation community mapping within the 14.40 acre general survey area, which covers an additional 100 foot offset past the Property lines. Each community is determined based on compositions of plant types and geologic, hydrologic and geographic features, with the dominant or co-dominant cover species determining the final interpretive designation. Figure # 06: Vegetation Communities map establishes the generally distinct boundaries between the vegetation communities found within the General Survey Area. Each community is further defined under CNPS Phytocoenosis designations if and where appropriate to better describe the community.

3.3.1 GRASSLAND: Non-native grassland In GSA: 7.94 Ac On Prop: 6.78 Ac
Annual brome grassland (*Bromus madritensis ssp. rubens*) Herbaceous Semi-Natural Alliance
Holland Code 42200: California annual grassland series – Non-native grassland

Across nearly the entirety of the Property, a low community of non-native grasses pervades. While the dominant species represented is Red brome (*Bromus madritensis ssp. rubens*), another common highly invasive non-native grass found here was ripgut brome (*Bromus diandrus*). Intermixed amongst a common coverage of invasive mustard London rocket (*Sisymbrium irio*) and Yellow sweet clover (*Melilotus indicus)* were many more species of non-native grasses including oats (*Avena sps),* Soft chess (*Bromus hordaceus),* Foxtail brome (*B. madritensis),* Cheatgrass (*Bromus tectorum),* Crabgrass (D*igitaria sanguinalis),* Foxtail barley (*Hordeum murinum, & H. m. ssp leporinum),* & Annual beard grass (*Polypogon monspeliensis).* This largely homogeneous mixture is punctuated by a wide dispersal of non-native herbaceous forbs including Pigweed amaranth (*Amaranthus albus*), Oriental mustard (*Sisymbrium orientale*), filaree (*Erodium sps*), puncturevine (*Tribulus terrestris*), Tumbleweed (*Salsola tragus*), Black mustard (*Brassica nigra*), and Flax-leaved horseweed (*Erigeron bonariensis*). Native species found herein are regionally common species known to thrive in disturbed sites including Turkey mullien (*Croton setiger*), Common sunflower (*Helianthus annuus*), pineapple weed (*Matricaria discoidea*), sand pygmyweed (*Crassula connata*), Rattlesnake sandmat (*Euphorbia albomarginata*), Spanish lotus (*Acmispon americanus*), and Jimsonweed (*Datura wrightii*). A notable native species found in a few locations is mulefat (*Baccharis salicifolia*), which is a riparian indicator, though it is also found outside of riparian environments where soil moisture must be sufficient at least until it is established. A small stand of blue gum (*Eucalyptus globulus*) are also found in this community on the Northwestern Property line.

Annual Red brome grasslands are considered invasive by CNPS and are unranked. These non-native annual grasslands contribute to fast moving spread of wildfires and are indicative of areas with degraded habitat value and are spread widely by vehicles and grazing livestock. Red brome grasslands is a common invasive community in California.

3.3.2 GRASSLAND: Non-native grassland In GSA: 0.32 Ac On Prop: <0.01 Ac
Fiddleneck Fields (*Amsinckia tessellata*) Herbaceous Alliance
Holland Code 42300: California annual grassland series - Wildflower field

In one large patch and a few small patches within the general survey area lies a grassland alliance co-dominated by fiddleneck species. Both Common fiddleneck (*Amsinckia intermedia*) and Checker fiddleneck (*A. tessellata*) are found here covering the majority of this small area near the Southern mid point of the Property. The majority of floral coverage is intergrading non-native brome grasses and foxtail barley. Tall non-natives such as london rocket (*Sisymbrium irio*), cheeseweed (*Malva parviflora*), Yellow sweet clover (*Melilotus indicus*) and black mustard (*Brassica nigra*) intermix with a few natives such as Miniature lupine (*Lupinus bicolor*) and turkey mullein (*Croton setiger*). Given the prevalence of non-native plant cover, this community appears to be an example of a highly disturbed native annual grassland and leans heavily towards a designation of non-native grassland under the MSHCP vegetation communities descriptions.

Fiddleneck fields are ranked by CNPS as S4 G4, with state and global stability as generally common, but are under threat from development and drought. Fiddleneck fields are difficult to categorize as valuable as most *Amsinckia* species reseed quickly and tend to do well in areas of high disturbance. They are generally avoided by grazers and recover quickly following disturbance events so that are found widely in Western Riverside County. Overall, the character of the fiddleneck fields on the Property is disturbed, given the co-prevalence of other non-native grasses and annual herbs.

3.3.3 GRASSLAND: Non-native grassland In GSA: 1.46 Ac On Prop: 0.47 Ac
Wild oats grassland (*Brassica sps*) Herbaceous Semi-Natural Alliance
Holland Code 42200: California annual grassland series – Non-native grassland

Forming a rough ring about the Property and SouthEast adjacent vacant lot where disking disturbance is limited, a tall grassland dominated by Slim oat (*Avena barbata*) with about 50% cover, and frequent Red Brome (*Bromus madritensis ssp. rubens*), and ripgut brome (*Bromus diandrus*) was observed. Also commonly found in this perimeter community was Wild oat (*Avena fatua*) and yellow sweet clover (*Melilotus indicus*). Overall, the character of this community was weedy, overgrown, and thick with medium to short cover of non-native grasses and herbs. Occasionally, a shrub or tree such as Gooding's black willow (*Salix gooddingii*), Blue gum (*Eucalyptus globulus*) or mulefat was found in scattered locations, with the Eucalyptus forming a clustered stand. Occasionally found in the dense cover was also fiddlenecks (*Amsinckia sps*), Jointed charlock (*Raphanus sativus*), tumbleweed (*Salsola tragus*), California burclover (*Medicago polymorpha*), and other weedy annuals like mustards (*Brassica sps & Sisymbrium sps*).

Wild oats grasslands are common in Southern California, indicative of waste places, disturbed agricultural fields, rangelands and woodland openings. Due to the wild oats co-prevalence with other invasive non-native grasses, known ability to quickly shade out and out-compete native grasses and herbs for light and water, and increased fire fuel load factor, wild oats grassland are not ranked by CNPS and are considered to be of little value to native ecosystem ecology. In instances where a wide variety of native species are found, wild oats grassland have been found to contribute to wildlife forage and cover. In areas where such grasslands are generally the result of repeated disturbance, they often harbor fast spreading invasive seed banks and contribute to wide proliferation of vermin and cereal crop pathogens.

3.3.4 GRASSLAND: Non-native grassland – Alkali playa In GSA & On Prop: 0.15 Ac
Ruderal alkali meadow (*Bassia hyssopifolia*) Herbaceous Semi-Natural Community
Holland Code [NONE]: Alkali meadow [Disturbed] (See below)

On the slopes and floor of the retention basin on the Property, a generally sparse (<50% cover) herbaceous community was found, dominated by Five horn bassia (*Bassia hyssopifolia*), an invasive species of wetlands, ditches, and alkali areas. Non-native grasses were more dominant on the slopes, intergrading with the other surrounding community. Many other herbaceous species were present here, littered about a flattish basin that displayed cracked and curled sandy mud. These include Spotted spurge (*Euphorbia maculata*), Prickly lettuce (*Lactuca serriola*), Pigweed (*Amaranthus albus*), and annual beard grass (*Polypogon monspeliensis)* amongst sparse instances of other non-native grasses found in other vegetation communities. Native species here were uncommon in number, but were numerous in diversity. Common sunflower (*Helianthus annuus*), turkey mullein (*Croton setiger*), salt heliotrope (*Heliotropium curassavicum*), lowland cudweed (*Gnaphalium palustre*), Red goosefoot (*Chenopodium rubrum),* Nuttall's povertyweed *(Monolepis nuttalliana),* tall cyperus *(Cyperus eragrostis),* Pygmy sandweed *(Crassula connata),* rattlesnake sandmat *(Euphorbia albomarginata),* and saltgrass (*Distichlis spicata*) were found occasionally. On the slopes, saltcedar (*Tamarix ramosissima*), mulefat (*Baccharis*

salicifolia), narrowleaf willow (*Salix exigua*) and saltscale (*Atriplex serenana*) were found, indicative of an environment that has higher soil moisture and a tolerance for higher than normal soil salinity. Water and wind borne trash and debris were also present within the basin, along with presence of clothing and trash that appeared deliberately abandoned.

Overall, the retention basin shows a mixture of dry upland species usually found locally on dry hillside slopes and grasslands along with a few riparian associated species. This indicates the retention basin receives enough water to support plants that require higher soil moisture, but is largely dry during the majority of the year. Classification of the retention basin bottom most closely resembles CNPS phytocoenosis designation of Alkali sacaton grassland (*Sporobolus airoides*) Herbaceous Alliance, but no alkali sacaton grass was found within the community. Local examples of natural alkali playas and sinks about Lake Elsinore and Temescal Valley are generally designated Alkali weed – salt grass playas and sinks (*Distichlis spicata*) Herbaceous Alliance. Ruderal alkali meadow (*Bassia hyssopifolia*) Herbaceous Semi-Natural Alliance is not classified by CNPS and therefore unranked. The closest Holland descriptions place this community within Alkali meadow – saltgrass series under code # 45310, but the only species listing under the species description that is found to fit is saltgrass (*Distichlis spicata*). Overall, the occasional showing of the perennial native grass *Distichlis spicata* does not qualify the basin as a fully defined natural community. The MSHCP places such a community under non-native grassland: Alkali playa. Alkali playa are coupled with vernal pools within the MSHCP Plan Area when they are naturally occurring or have any vernal pool indicator species or other sensitive plants therein. Given that the general survey was conducted tailing the wet season for the region, sensitive and listed annual plant species would have been evident, but none were found. Ultimately, the retention basin has no native community counterpart because of the engineered creation of the retention basin and dominant vegetative composition of non-natives and invasive species.

3.3.5 URBAN / EXOTIC: Ruderal In GSA: 0.51 Ac On Prop: 0.09 Ac
Holland Code [NONE]

Ruderal areas are where weedy annuals and invasive perennial plant species present a disturbed, unnatural character. Within the general survey area, compacted earth and gravel areas along Lakeshore Dr. present a ruderal community. This area shows a prevalence of nonnative cover and general lack of cover (below 30% on average). Pedestrian and vehicular traffic both contribute to ongoing disturbance and soil compaction prevents floristic root growth for all but very hardy plants, usually of tenacious, weedy species. The most common plant type in this community is red brome (*Bromus madritensis ssp. Rubens*), found in patches directly adjacent to the annual non-native grasslands. Also common here are mustards (*Brassica sps, Hirschfeldia incana, & Sisymbrium sps*), puncturevine (*Tribulus terrestris*), and a mixture of other non-native grasses (*Bromus sps, Hordeum sps, & Digitaria sanguinalis*). The only native species observed are hardy to compacted soils and harsh, dry environments: pineapple weed, turkey mullein, and rattlesnake sandmat. These are found sparingly in the area, mostly within the Property boundary. Other non-natives found along the roadside, excluding street trees, are pigweed amaranth (*Amaranthus albus*), sow thistle (*Sonchus oleraceus*), prickly lettuce (*Lactuca serriola*), cheeseweed (*Malva parviflora*), filarees (*Erodium sps*), stinknet (*Oncosiphon piluliferum*), and spotted spurge (*Euphorbia maculata*).

Ruderal communities are indicative of high disturbance areas such as road sides, parking lot edges, abandoned urban lots and unkempt landscaped areas. Ruderal areas seldom harbor listed species or valuable habitat components. Holland, nor CNPS recognizes ruderal areas has having local or regional value and are therefore unranked.

3.3.6 URBAN / EXOTIC: Developed & Landscaping In GSA: 4.10 Ac On Prop: 0.00 Ac
Holland Code [NONE]

Developed areas include buildings, landscaped residential yards, and hardscaping within the general survey boundary. This area is included as an important component of the area calculations, showing the proximity and influence of impermeable areas adjacent to the Property. For the purpose of this report, the developed areas do not show any quantitative examples of plant growth. These include private residences & yards, CMU walls, and the pavement of Lakeshore Dr.

3.4 Jurisdictional Waters & Riparian / Riverine habitats

The Property does not contain jurisdictional waters and a single riparian indicator occurs on the Property itself. This indicator is riparian associated plant species found on the Property. No fully hydrophytic vegetation was observed. The Property watershed does marginally contribute to downstream water resources that support riparian & wetlands habitats, though the pathway for this watershed is via the local storm water line. The Property is not within a mapped flood plain.

In consideration of the riparian associated species found on the Property, all are known to occur in dry upland areas that have saturated soils during a significant portion of the wet season. None were observed to be dependent on year round access to water or soil inundation. Further analysis of the Property shows a definitive lack of channelization, embankment formation, streambed deposition or drainage lines that present riparian dependent species. The retention basin on the Property displays criteria more associated with an ephemeral basin system and is discussed below. Because water on the Property does contribute to downstream riparian and jurisdictional water resources, stormwater must be handled to conform with National Pollutant Discharge Elimination System (NPDES), Riverside County Flood Control (RCFC) and Lake Elsinore Public Works Dept standards.

3.5 Wetlands & Vernal Pools

The Property shows complete coverage of sandy loam soils that are moderately to well drained, and percolate into a deep substrate too quickly for formation of year round or long term seasonal wetlands. Excepting the retention basin and in a few tire ruts, topographic slopes prevent water retention. Within the retention basin and tire ruts found on the Property, evidence of mud cracking showed recent, temporary standing water and soil saturation following rain events. The retention basin, while meant to percolate water into the substrate and water table below, showed evidence of periodic water accumulation, though the basin was completely dry during the general survey. The most recent rain event prior to the general survey was five days earlier on May 7th 2017. Wetlands criteria also requires evidence of a lack of soil oxygen, and no hydric soil was found in any area in the GSA. Additionally, no hydrophytic plant species were observed. The tire ruts did not display any evidence of long term pooling or vernal pool indicator species.

The retention basin showed a character similar to an alkali playa or alkali sink, though no hardpan or clay soils prevent water from complete percolation. Alkali playas are areas most often found in arid climates where soil conditions and topography prevent water runoff, trapping erosive sediment and salts once the water evaporates. Usually, only halophyte vegetation is found therein, though alkali playas can display other salt tolerant species. The MSHCP describes alkali playas in vague terms, placing them under San Jacinto Valley vernal pools type formations, as well as under Grasslands: Alkali playa. The primary difference between the designations is that the alkali playa grasslands are dominated by little barley (*Hordeum intercedens*) and/or annual hairgrass (*Deschampsia danthonioides*); and the vernal pool alkali playas show occurrence of California Orcutt grass (*Orcuttia californica*), little mousetail (*Myosurus minimus ssp. apus*), thread-leaved brodiaea (*Brodiaea filifolia*), Coulter's goldfields (*Lasthenia glabrata ssp. coulteri*), spreading navarretia (*Navarretia fossalis*), Orcutt's brodiaea (*Brodiaea orcuttii*), thread-leaved brodiaea (*Brodiaea filifolia*), Parish brittlescale (*Atriplex parishii*), San Jacinto Valley crownscale (*Atriplex coronata var. notatior*), and smooth tarplant (*Centromadia* [*Hemizonia] pungens* ssp. l*aevis*). None of the species listed above was observed during a period of year when all would have been evident, at least to a species level. The prevalence of non-native annual grasses and other herbaceous species is indicative of Ruderal Alkali meadow as described above.

Given the relatively small tributary area, the retention basin maintains ponding conditions for very short periods of time, though enough time to create a higher soil salinity. Because of the engineered nature of the retention basin, it can be argued that the basin is a developed Property feature. In this case, the basin is partly to somewhat naturalized, with a number of native plant species adapted to such conditions found therein. However, the dominant floral cover in the basin was non-natives, with many invasive species represented. No vernal pool indicators species were observed.

While the retention basin meets a few base criteria for wetland and vernal pool formation, soils are not conducive to wetland formation and no definitive indicator species were observed during the blooming period. Therefore, no wetlands or vernal pool formations are present in the GSA.

3.6 Nesting Birds

Avian nesting habitat occurs on and adjacent to the Property, with potential nesting sites in a few of the local trees, shrubs and grasslands. In particular, eucalyptus trees could support a nest for raptors such as Red tailed hawk (*Buteo jamaicensis*) or birds that prefer tall nesting sites like Western wood-pewee (*Contopus sordidulus).* The willows, tamarisk and mulefat shrubs could provide nesting cover for passerine birds such as song sparrow (*Melospiza melodia),* California towhee *(Pipilo crissalis),* lesser goldfinch *(Spinus psaltria),* or mourning dove *(Zeinaida macroura).* Some the residential properties adjacent to the Property also displays potential nooks, birdhouses, eaves, and trees that could harbor nests of avian species acclimated to urbanized settings including house finch (*Carpodacus mexicanus)* and northern mockingbird *(Mimus polyglottos).* Finally, the property makes for suitable ground nesting habitat for natives like killdeer (*Charadrius vociferus*) and potentially Western meadowlark (*Sturnella neglecta).*

CHAPTER 4.0 MSHCP CONSISTENCY ANALYSIS

4.1 MSHCP Requirements

The Property is located in the Elsinore Area Plan of the WRMSHCP, but is not located within, or adjacent to, any Criteria cells of Cell Groups. The Project Property is not subject to the HANS / ERP process. The nearest designated Conservation Area is 0.84 mile to the SE within the open waters and shoreline of Lake Elsinore. The nearest MSHCP Cell is #4157 approximately ¾ mile north of the Property. No Criteria Cells were determined to be located within a local watershed that contributes to the Property. The Property watershed was determined to contribute partly to downstream open water conservation resources, but does so only through the local stormwater conveyance system. In terms of connectivity and wildlife linkage, the Property is not within a proposed linkage or habitat corridor. The Property is nearly fully surrounded by development and presents a vacant field that is only accessible terrestrially by movement along or across Lakeshore Dr.

The WRMSHCP established habitat assessment requirements for a number of listed riparian associated avian species include Least bell's vireo, Southwestern willow flycatcher, and Western yellow-billed cuckoo and a handful of arthropods including Santa Rosa Plateau fairy shrimp, Riverside fairy shrimp and Vernal Pool fairy shrimp. The Property is not located within the Criteria Area overlay for species with Additional Survey Area requirements (CASSA), nor Narrow Endemic Plant Species (NEPS). Other criteria area species covered by the WRMSHCP, MTBA, or are federally or state listed as endangered or threatened that may occur within five miles of the Property are also addressed below.

For any species above or as listed below that suitable habitat be found on or adjacent to the Property, recommendations shall be made to reduce or eliminate potential impacts to these biological resources as mandated by the WRMSHCP, Endangered Species Act (ESA), and/or MTBA. Following submittal of the HAR to the Riverside County ERPD for review, determinations made by the department for further studies, monitoring, expanded or decreased mitigation requirements, or clarification shall be performed as required to ensure compliance with regulatory rules and actions.

4.2 Habitat Assessments

4.2.1 Riparian / Riverine Habitat

The identification of Riparian / Riverine resources is based on the potential for the habitat to support, or are tributary to habitat that supports, Riparian / Riverine Covered Species. Identified within MSHCP 6.1.2 as "Riparian / Riverine Areas are 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."

The Property does not exhibit any geologic processes or hydrologic regimes associated with riparian functions. Riparian-associated species observed are also capable of growth in dry upland environments. With the exception of about the retention basin, none of these riparian associated plants were found growing in any pattern indicative of riparian, wetland or riverine features. No additional evidence was found of persistent soil moisture. The vegetation community in the retention basin was largely ruderal and heavily disturbed. The basin displays a character described within the MSHCP as a non-native grassland community, further refined to an undefined Ruderal Alkali meadow. Such communities are considered of no habitat value under the MSHCP unless sensitive or listed species are observed therein.

The nearest riparian area to the Property was determined to be a copse of Eucalyptus woodlands just above the waterline and shore of Lake Elsinore, just over a ½ mile SE.

4.2.2 Riparian-associated species – habitat assessments

Least bell's vireo (*Vireo bellii pusillus*)

Least bell's vireo is one of four subspecies of Bell's vireo recognized by the American Ornithologist's Union (AOU). It's known range is entirely within California and northern Baja California, preferring lowland riparian habitat for foraging a breeding. The species is listed as State Endangered (SE) and federally endangered (FE), as as such, suitable riparian habitat where known occurrences of this species exist are protected. Historical distribution of the species has dwindled due to population fragmentation, brown-headed cowbird (*Molothrus ater*) brood parasitism, and loss of breeding habitat due to development, and stream channel degradation (channelizing or invasive species). While they associate primarily with

Willow (*Salix* & *Chilopis*) dominated riparian areas, especially with a thick understory of *Baccharis* species, they are often found in adjacent riparian woodlands, chaparral and sage scrub communities. (Patten UCR 1998) Nests are often within one meter of the ground and within dense shrub cover, most often within stands adjacent to or within riparian corridors. The most frequently used species for nesting include willows (*Salix sp.*), Mulefat or salt marsh baccharis (*Baccharis sp.*), California wild rose (*Rosa californica*), poison oak (T*oxicodendron diversilobum*), mugwort (*Artemesia sp.*) and cottonwood (*Populus sp.*).

The CNDDB lists eight records of Least Bell's Vireo since 1998 within five miles from the Property, the closest two being within the San Jacinto River and an unnamed blue line 1.4 miles to the East in the City of Perris.

No suitable habitat occurs on the Property or in the immediate vicinity. No dense riparian tree canopy is available for nesting. A few riparian-associated persistent emergent trees and shrubs were found on the Property including mulefat, saltcedar, and willows, but these species were distributed sparsely in number and density, preventing suitable nesting availability. The nearest potential suitable habitat is within riparian woodland and scrub near the shores of Lake Elsinore 1/2 to ¾ mile SE, where multiple recent records are found within the CNDDB. This suitable habitat is disconnected from the Property by development. It is determined that Least bell's vireo is Absent.

Southwestern willow flycatcher (*Empidonax traillii extimus*)

This small riparian-associated migratory bird is listed as both State and Federally endangered, due to loss of critical breeding habitat. Found almost exclusively in or adjacent to thick riparian woodland and scrub, this species prefers dense stands of Willows (*Salix sp*), but will also nest in Boxelder (*Acer negundo*), Tamarisk (*Tamarix sp.*), and occasionally in invasive thickets of Russian Olive (*Elaeagnus angustifolia*). Use of riparian areas during migration also occurs frequently. The range of *E. traillii extrimus* covers the southwest of the United States and northern Mexico, from Lake Mead in southern Nevada and Lake Powell in southern Utah to Southern California streams and rivers. While the current range is similar to historical range, the critical breeding habitat in the southwest has been greatly reduced. Also pressuring the species is breeding location competition, predation and brood parasitism from introduced species such as cats and cow birds. (DOI 2013) Nest sites are distinguished by high willow density and low variability in willow patch size or bush height. Occupied nesting sites always have a dense vegetation in the patch interior and in most cases this dense patch occurs within the first 3-4 meters above the ground (USFWS 2001)

No records of sightings within 5 miles are recorded in the CNDDB.

No suitable habitat occurs on or near to the Property for Southwestern willow flycatcher, which prefers dense riparian and riparian adjacent woodlands and thickets. Nearby riparian resources ½ to ¾ mile SE display suitable habitat, but no records of this species exist in the CNDDB within 5 miles of the Property. This species is presumed absent from the Property.

Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*)

The Western yellow-billed cuckoo has a more restrictive range and habitat requirements than its eastern kin, with its exclusive breeding habitat being riparian locations of high canopy Cottonwood- willow communities. It has been noted that these Cottonwood and Willow woodlands need at least 100 m (~330 ft) wide, with a local foraging area 20 hectares minimum for a breeding pair. The distributional range of this species is wide, covering the southwest United States and down into Mexico and Baja California, though this species has been noted along the Pacific coast as far north as British Columbia. The cuckoo is always restricted to the very specific stand types of their preferred habitat during the breeding season. Suitable habitat has decreased dramatically over the past century, leading to a State endangered status and a listing as a candidate for federally endangered status. The largest threat to their habitat are channelization / stream diversion, development of stream beds areas, and introduction of invasive species, including grazing herds of livestock. (BLM 1998) In southern California, records from the CNDDB place the Western yellow-billed cuckoo within coastal watersheds and the Colorado River.

The Western yellow-billed cuckoo is known from only a few locations within the WRMSHCP Plan Area: within the Santa Ana River from Prado Dam into San Bernardino County, the Santa Margarita River near Temecula, and possibly within the San Jacinto River at San Jacinto & Hemet. No instances of the Western yellow-billed cuckoo are found within five miles of the Property ion CNDDB.

No associated habitat occur within or adjacent to the Property. The closest area where the species has been recorded in Riverside County is 19.5 miles to the SE. Western yellow-billed cuckoo is considered absent.

4.2.3 Vernal Pool Habitat

The Property does not support hydrophytic vegetation associated with vernal pool formation and there is no occurrence of vernal pools on the Property, including the shallow tire ruts. No indicator species associated with vernal pools were found. The engineered retention basin on the Property was found to not restrict percolation or standing water for long enough periods to provide suitable vernal pool habitat. Alkali sinks, playas and meadows fall under MSHCP criteria for San Jacinto Valley Vernal Pool when indicator species are found and the pools are naturally formed. The MSHCP also places alkali meadows within the Grassland: valley grassland categorically when the dominant species found are native grasses, and Grassland: non-native grassland when the dominant species is determined to be non-native grasses or forbs, as is the case with this Property. Given the conditions found within the retention basin and the remainder of the Property, no area was found to qualify for vernal pool designation.

4.2.4 Fairy Shrimp

Vernal pools are the primary habitat for fairy shrimp of all types, but are not generally required for the various species' presence. Their life cycle requires periods of inundation as well as dry periods.

Riverside fairy shrimp (*Strepocephalus woottoni*)

Habitats (ephemeral wetlands) that provide space for growth and persistence of Riverside fairy shrimp include areas that generally pond for 2 to 8 months and dry down for a period during the late spring to summer months. Habitats include natural and created pools (usually greater than 12 inches (in) (30 centimeters (cm)) deep) that support these longer inundation periods; some of these habitats are artificial pools (cattle watering holes and road embankments) that have been modified or deepened with berms. Artificial depressions, often associated with degraded vernal pool habitat, are capable of functioning as habitat and can support vernal pool species, including Riverside fairy shrimp (USFWS ECOS Species Profile – Riverside fairy shrimp)

Santa Rosa Plateau fairy shrimp (*Linderiella santarosae*)

Linderiella santarosae is currently known only from vernal pools on the Santa Rosa Plateau Reserve, Riverside County, California. The Santa Rosa Plateau is approximately 300 km southeast of the nearest known populations of Linderiella in southern California in Cahuma Canyon, Santa Barbara County, California. (Thiery & Fugate 1994)

Vernal Pool fairy shrimp (*Branchinecta lynchi*)

The primary constituent elements of critical habitat for vernal pool fairy shrimp (*Branchinecta lynchi*) are habitat components that provide topographic features characterized by mounds and swales and depressions within a matrix of surrounding uplands that result in complexes of continuously, or intermittently, flowing surface water providing for dispersal and promoting hydroperiods of adequate length in the pools, underlying restrictive soil layers that become inundated during winter rains and that continuously hold water for a minimum of 18 days, in all but the driest years. (USFWS ECOS Species Profile – Vernal Pool fairy shrimp 2006)

No criteria are present on-site for the formation of vernal pools or depressions capable of retaining water for enough time to provide habitat for a complete fairy shrimp life cycle (min 18 days). The soils are too well drained to allow for development of any fairy shrimp species and no instances of hardpan soil strata or hydrophytic vegetation were observed. The Property does not contain suitable habitat for Riverside fairy shrimp, Santa Rosa Plateau fairy shrimp, or Vernal Pool fairy shrimp and they are considered Absent from the Property.

4.2.5 Additional Species Covered under the WRMSHCP, ESA, & CESA

The Property may support, at least marginally, a number of species that are listed under the Elsinore Area Plan, however the Property is not located within a defined subunit. A search was made within the CNDDB for listed species by the ESA, CDFW, and MSHCP which have at least one recorded occurrence within 5 miles of the Property. Each species is listed below and evaluated for a potential to occur, at least marginally, on or immediately near the Property. The species with a potential to occur are listed:

TABLE 4: SPECIAL STATUS PLANT SPECIES (with Identified Potential for occurrence on the Property)

SPECIES	STATUS	ASSOCIATED HABITAT	RANGE / DISTRIBUTION	BLOOM PERIOD	OCCURRENCE PROBABILITY*
PLANT SPECIES					
Allium munzii Munz's Onion ALLIACEAE	**FE** **ST** **RARE:** **1B.1** **MSHCP**	Mesic clay soils (Altamont, Alo, Bosanko, Auld) Grasslands, vernal pools, openings in coastal sage scrub, cismontane juniper woodland	**Elev: 300 - 600 m** Known only from 13 extant occurrences restricted to W. Riverside county, CA from Gavilan hills and Meade Valley SE to Bachelor Mtn and the City of Murrieta.	**Mar – May** perennial herb (Bulb)	**Absent.** Soils on the Property are not suitable for presence.
Ambrosia pumila San Diego Ambrosia ASTERACEAE	**FE** **RARE:** **1B.1** **MSHCP**	Gravelly sandy loam, slight alkali sand & clay Disturbed, riverine flood plains, coastal sage scrub, grasslands, vernal pools.	**Elev: 50 – 600 m** Often dormant during dry years, this low rhizomatic species is found in Alberhill, Lake Elsinore and Murrieta Hot springs.	**Apr – July** perennial herb (rhizomatic)	**Moderate.** Found near Alberhill near Lake st., Nichols Rd., and Baker St. Species would have been evident during survey.
Atriplex coronata var. notatior San Jacinto Valley crownscale CHENOPODIACEAE	**FE** **RARE:** **1B.1**	Alkali meadow, alkali sink, freshwater wetlands Riparian, vernal pools, alkali playas and flats	**Elev: 400 – 500 m** Restricted to drainages within the San Jacinto River Watershed: Terra Cotta, Nuevo, Lakeview, Mystic Lake, and Wincester / Hemet.	**Apr – Aug** Annual herb	**Moderate.** Suitable habitat found within retention basin. In-season survey returned no results.
California macrophylla Round-leaved filaree GERANIACEAE	**RARE:** **1B.2** **MSHCP**	Open areas, vertic clay, serpentine soils Grasslands, scrub & shrublands, foothill woodlands	**Elev: < 1200 m** Found from Inland San Diego County along the coastal ranges through the Central Valley. Riverside County: Temecula NW to Lake Mathews & Perris valley.	**Mar – May** Annual herb	**Low.** No proper soils on Property. Single CNDDB record near Baker St., 1 mile East. In season survey found no presence
Calochortus weedii var intermedius Intermediate mariposa lily LILIACEAE	**RARE:** **1B.2** **MSHCP**	Dry rocky & open slopes Grasslands, coastal sage scrub, chaparral	**Elev: < 680 m** From San Gabriel Mtns south through Chino Hills and Santa Ana Mtns to Laguna Niguel. East to Vail Lake.	**Mar – Jul** Perennial herb (bulb)	**Very Low.** Habitat technically suitable, but slope aspect and soil affinity not suitable. Records in Santa Ana Mtns to West.
Centromadia pungens ssp. laevis Smooth Tarplant ASTERACEAE	**RARE:** **1B.1** **MSHCP**	Alkali meadow, alkali scrub, disturbed areas; Grasslands, chenopod scrub, meadows / seeps, playas, riparian woodland, flood plain	**Elev: 50 – 880 m** Most represented in western Riverside County valleys; occurs in small clusters around Southern California. Likely extirpated from Central Valley, possible instances in deserts.	**Apr – Sep** Annual herb	**Moderate.** Habitat suitable within basin and Property. No instances found during in-season general survey.

PLANT SPECIES (cont'd)					
SPECIES	**STATUS**	**ASSOCIATED HABITAT**	**RANGE / DISTRIBUTION**	**BLOOM PERIOD**	**OCCURRENCE PROBABILITY***
Chorizanthe parryi var. parryi Parry's spineflower POLYGONACEAE	**RARE: 1B.1** **MSHCP**	Sandy openings Chaparral, Coastal sage scrub, desert scrub (Creosote & chenopod scrub)	**Elev: 90 – 800 m** Endemic to Inland San Bernardino, Los Angeles and Riverside valleys. North of Temecula to Inland Empire and Pass Area, west along base of Tranverse Range foothills.	**Apr – Jun** Annual herb	**Low.** Not suitable habitat on Property, though three records surround Property within 5 miles. No observations made during in-season general survey.
Chorizanthe polygonoides var. longispina Long-spined spine flower POLYGONACEAE	**RARE: 1B.2** **MSHCP**	Sandy to gravelly soils Grassland, chaparral, coastal sage scrub, meadows, oak woodland, coniferous forest	**Elev: 30 – 1500 m** Found along the coastal range from Corona and Garner Valley in the Peninsular Range south into southern San Diego County.	**Apr – Jul** Annual herb	**Moderate.** Suitable habitat present on Property. Multiple CNDDB records about Terra Cotta & lccal foothills. None observed during in season survey.
Clinopodium [Satureja] chandleri San Miguel savory LAMIACEAE	**RARE: 1B.2** **MSHCP**	Rocky slopes; gabbro & meta volcanic soils Foothill grassland, chaparral, coastal sage scrub, foothill woodland	**Elev: < 1100 m** Santa Ana Mtns south of Trabuco Canyon into N. Baja California along coastal foothills and mountains.	**Mar – Jul** Perennial herb	**Low.** Suitable habitat is met, but slope aspect is not. No observations made during in-season general survey.
Dodecahema leptoceras Slender-horned spineflower POLYGONACEAE	**FE** **SE** **RARE: 1B.1** **MSHCP**	Alluvial fans, sandy or gravel areas Chaparral, coastal sage scrub	**Elev: 200 – 700 m** Mostly occurs along foothills of the Transverse Range from Santa Clarita in LA Cnty east to Whitewater in Riverside Cnty. South to Lake Vail near San Diego Cnty. CA endemic.	**May – Jun** Annual herb	**Absent.** No suitable habitat on Property. Local records over a century old and is assumed to be extirpated.
Dudleya multicaulis Many-stemmed dudleya CRASSULACEAE	**RARE: 1B.2** **MSHCP**	Clay soils; Chaparral, coastal scrub, valley and foothill grassland	**Elev: 20 – 1000 m** Found from the southern foothills of the Transverse Range in Los Angeles County south to around the Santa Ana Mtns in Orange and Riverside Counties to Camp Pendleton in San Diego County.	**Apr – Jul** Perennial herb	**Absent.** Soils are not suitable on the Property. Local records at Alberhill & Terra Cotta. No *Dudleya* found during in-season general survey.
Harpagonella palmeri Palmer's grapplinghook BORAGINACEAE	**RARE: 4.2** **MSHCP**	Dry, barren openings Chaparral, coastal scrub, Valley grassland	**Elev: < 1000 m** From Castaic Lake in Los Angeles Counties' Transverse Range, range covers south in to Baja CA along Coastal Range. Found in Peninsular Range near Julian & Jacumba	**Mar – Apr** Annual herb	**Moderate.** Suitable habitat and conditions. Survey performed just outside of blooming period with no observations recorded.

PLANT SPECIES (cont'd)					
SPECIES	**STATUS**	**ASSOCIATED HABITAT**	**RANGE / DISTRIBUTION**	**BLOOM PERIOD**	**OCCURRENCE PROBABILITY***
Lasthenia glabrata ssp. coulteri Coulter's goldfields ASTERACEAE	**RARE: 1B.1** **MSHCP**	Alkali sink, salt marsh, playas, vernal pools Coastal marsh, riparian, wetlands	**Elev: < 1000 m** Fractured localities from N. Baja, Mexico along coastal areas into Central Valley. Records from N. Central Valley, Joshua Tree Nat' Mon., Channel Islands & S. Sierras	**Apr – May** Annual herb	**Moderate.** Suitable habitat found within retention basin, but no *Lasthenia* species observed. Survey done during blooming period.
Lepechinia cardiophylla Heart-leaved pitcher sage LAMIACEAE	**RARE: 1B.2** **MSHCP**	Hillside slopes and ridges; Chaparral, foothill woodland, closed-cone pine forest	**Elev: 600 – 1200 m** Primary population within Northern hills of Santa Ana Mtns above 2000' amsl. Secondary population found near Ramona in San Diego County.	**Apr – Jul** Shrub Survey: Out of Season	**Absent.** No suitable habitat on the Property.
Lepidium virginicum var. robinsonii Robinson's pepper grass BRASSICACEAE	**RARE: 4.3**	Alluvial terraces, openings Chaparral, Coastal sage scrub,	**Elev: < 885 m** Channel Islands. On mainland, found from San Fernando Valley south from coast to Peninsular Range foothills, into Baja CA.	**Jan – Jul** Annual herb	**Absent.** No suitable habitat found on the Property.
Monardella hypoleuca ssp intermedia Whiteleaf monardella LAMIACEAE	**RARE: 1B.3**	Dry slopes Chaparral, oak woodlands, yellow pine forest, coniferous woodland	**Elev: 200 - 1250 m** Endemic to Santa Ana Mtns from Anaheim Hills South to De Luz in San Diego County.	**Jun – Sep** Perennial herb	**Absent.** No suitable habitat found on the Property.
Orcuttia californica California Orcutt grass POACEAE	**FE** **SE** **RARE: 1B.1** **MSHCP**	Vernal pools Valley grassland, freshwater wetlands, ephemeral riparian ponds	**Elev: < 700 m** Rare in vernal pool complexes in Central Valley. In So Cal, Morrpark, Forest Park, Costa Mesa, Santa Rosa Plateau to Winchester, San Diego & Baja	**Apr – Aug** Annual grass	**Absent.** No suitable habitat on the Property.
Pseudognaphalium leucocephalum White rabbit tobacco ASTERACEAE	**RARE: 2B.2**	Sandy, gravelly benches; dry riparian bottoms Coastal sage scrub, chaparral	**Elev: < 500 m** Core distribution from Ojai in Ventura Cty south along inland Mtn foothills into San Diego Cnty. Also AZ, NM, & MX	**Jul – Oct** Perennial herb	**Absent.** No suitable habitat.
Symphyotrichum defoliatum San Bernardino aster ASTERACEAE	**RARE: 1B.2**	Disturbed areas Grassland, meadows,	**Elev: < 2050 m** From Transverse Range and Mojave Desert south within inland valleys of San Bernardino and Riverside Counties into Baja CA. Also recorded in Lompoc & Lebec.	**Jul – Nov** Perennial herb (Rhizome)	**Low.** Single local record within Orange County Santa Ana Mtns. Habitat suitable on Property.

PLANT SPECIES (cont'd)					
SPECIES	**STATUS**	**ASSOCIATED HABITAT**	**RANGE / DISTRIBUTION**	**BLOOM PERIOD**	**OCCURRENCE PROBABILITY***
Tortula californica California screw moss POTTIACEAE	**RARE: 1B.2**	Sandy soils, rocky areas w/ sandy infill Chenopod scrub, valley and foothill grassland	**Elev: 10 - 1460 m** Sporadic observances from Channel Islands, Bakersfield, Santa Monica Mtns, Santa Ana Mtns, Lakeview Mtns, Lake Elsinore, Tijuana River	**Wet Season** moss	**Low.** Suitable habitat on the Property. No non-vascular plants recorded during survey.

TABLE 5: SPECIAL STATUS WILDLIFE SPECIES (with Identified Potential for occurrence on the Property)

SPECIES	STATUS	ASSOCIATED HABITAT	RANGE / DISTRIBUTION	ACTIVE PERIOD	OCCURRENCE PROBABILITY*
INVERTEBRATE SPECIES					
Branchinecta lynchi Vernal pool fairy shrimp BRANCHINECTIDAE	**FT** **IUCN: EN** **SSC** **MSHCP**	Cool water vernal pools, tire ruts, shallow basins Vernal pool indicator. Grasslands	Endemic to Oregon and California, ranging south to Riverside County through the Central Valley and Coastal valleys and foothills of Central Calif. Riverside Cnty population disjunctive: Santa Rosa Plateau to Winchester.	**Life Cycle: Jan – May** **18-147 days** Late Winter - Spring	**Absent.** No pools or long term standing water occur on Property. No records within 5 miles of Property.
Cicindela senilis frosti Senile tiger beetle CICINDELIDAE	**SSC**	Deep mud flats, alkali salt pans, alkali flats Tidal salt marsh, lagoons, inland alkali marsh	Endemic to inland Southern California, known within Ventura, Los Angeles, Riverside, Orange, & San Diego Counties. Possibly extirpated from coastal counties. In Riverside County, known only from Lake Elsinore area.	**Breeding: Unknown** **Activity:** Year-round	**Absent.** No suitable habitat is found on or near the Property. Retention basin does not hold water or associated hydrophytic species suitable for beetle
Euphydryas editha quino Quino checkerspot butterfly NYMPHALIDAE	**FE** **SSC** **MSHCP**	Open areas and scrub supporting host plants, foothills and plains Grasslands, scrub, chaparral, open woodland	Historical distribution from Los Angeles County to Western Riverside County and south into Baja California, from coast to desert. Extant populations in SW Riverside Cnty and S. San Diego Cnty.	**Life Cycle: Emergence Feb – May** Diurnal	**Absent.** Single record from Sedco Hills area 2002. No host plants (*Plantago erecta*) found on Property. Little forage available.
Linderiella santarosae Santa Rosa Plateau fairy shrimp CHIROCEPHALIDAE	**IUCN: EN** **SSC** **MSHCP**	Southern basalt vernal pools, Vernal pool indicator. Grassland	Restricted to vernal pools atop Santa Rosa Plateau and possible immediate vicinity.	**Life Cycle: Feb – Apr** **~30 - 45 days** Late Winter - Spring	**Absent.** No pools or long term standing water occur on Property. No records within 5 miles of Property.

SPECIES	STATUS	ASSOCIATED HABITAT	RANGE / DISTRIBUTION	ACTIVE PERIOD	OCCURRENCE PROBABILITY*
INVERTEBRATE SPECIES (cont'd)					
Streptocephalus woottoni Riverside fairy shrimp STREPTO-CEPHALIDAE	**FE** **IUCN: EN** **SSC** **MSHCP**	Vernal pools, tire ruts, shallow basins Vernal pool indicator. Grassland ephemeral pools, mesa top pools min 30" depth.	Inland vernal pools and ephemeral basins from Ventura County south into San Diego County west of the peninsular Range. Potentially occurs in Baja California.	**Life Cycle: Jan – Mar** Late Winter - Spring	**Absent.** No pools or long term standing water occur on Property. Single recent record: San Jacinto River inlet to Lake Elsinore 4.25 miles SE
AMPHIBIAN SPECIES					
Spea hammondii Western spadefoot PELODATIDAE	**IUCN: NT** **SSC** **MSHCP**	Open areas w/ sandy or gravelly soils. Vernal pools or ponds without predators. Mixed woodlands, grasslands, CSS, chaparral, flood plains, alkali sinks & playas.	Ranges from Redding south through Central Valley and Central Coast. South of Transverse Range and west of Peninsular Range into Baja California. Below 4500' amsl.	**Breeding:** Jan – May **Torpor**: Burrows during dry seasons. Nocturnal	**Moderate.** Suitable habitat is found on the Property, but basin does not allow pooling suitable for breeding. Record in Temescal Creek along Hwy 74.
REPTILE SPECIES					
Arizona elegans occidentalis California glossy snake COLUBRIDAE	**IUCN: LC** **SSC**	Foothills, rocky areas, washes Chaparral, grasslands, coastal, inland & desert sage scrub	Ranges from Central Valley near Sacramento Delta south to Coastal So Calif in Ventura Cnty, then Coastal ranges into Northern Baja California.	**Breeding: Summer** Year-round	**Moderate.** Suitable habitat on Property and in vicinity. May use the Property for hunting or transience.
Aspidoscelis hyperthra Orangethroat whiptail TELIDAE	**IUCN: LC** **SSC**	Washes, rocky areas, woody perennial shrubs, Chaparral, cismontane woodland, coastal scrub, riparian areas	From Santa Ana River watershed south to western front of Peninsular range into Baja California Del Sur.	**Breeding:** Jun – Jul Year-round Diurnal	**Absent.** No suitable habitat on the Property.
Crotalus ruber Red-diamond rattlesnake VIPERIDAE	**IUCN: LC** **SSC**	Rocky areas, dense vegetation or other cover Chaparral, desert scrub, coastal scrub, dry woodlands, grasslands	From Morongo Valley and Chino Hills south into all of Baja California and west to coast. Eastern most populations edge into Imperial County.	**Breeding:** Mar – May **Torpor**: Cold Months	**Low.** Avoids urban areas, though hunting grounds available on Property.
Phrynosoma blainvilli Coast horned lizard PHRYNOSOMATIDAE	**IUCN: LC** **SSC** **MSHCP**	Open areas near cover, sandy or rocky sites, Calif. harvester ants Chaparral, cismontane woodland, coastal scrub, bluffs, grassland, riparian	From Shasta Lake south through the Central Valley ranging from western face of the Sierras to the Pacific. South into N. Baja California in coastal valleys and foothills.	**Breeding:** May – Jun **Torpor**: During Temperature Extremes	**High.** Habitat is suitable on the Property. Colonies of California harvester ant were observed within the GSA. Many local records

SPECIES	STATUS	ASSOCIATED HABITAT	RANGE / DISTRIBUTION	ACTIVE PERIOD	OCCURRENCE PROBABILITY*
REPTILE SPECIES (Cont'd)					
Salvadora hexalepis virgultea Coast patch-nosed snake COLUBRIDAE	**IUCN: LC** **SSC**	Foothills, rocky areas, washes, plains Chaparral, grasslands, coastal, inland & desert sage scrub	Subspecies known from San Luis Obispo County south to Ensenada in Baja California. Santa Ana Mtns and nearby hill systems, avoiding urban areas.	**Breeding: Summer** Year-round Diurnal	**Low.** Habitat suitable, but species prefers hilly areas with rocky outcrops. Single record in 5 mile radius.
BIRD SPECIES					
Accipiter cooperii Cooper's hawk ACCIPITRIDAE	**IUCN: LC**	Nests in riparian trees, woodlands, canyons, or oaks. Typically 25'+. Cismontane woodland, riparian forest, woodland, montane coniferous forest	Year round across most of temperate Continental United States. Summers in S. Canada and winters in Mexico & Central America.	**Breeding:** Feb – Aug Year-round in Coastal SoCal	**Absent.** Habitat is not suitable on Property.
Agelaius tricolor Tri-colored blackbird ICTERIDAE	**IUCN: EN** **SSC**	Open freshwater, Nests in large colonies in tall dense riparian vegetation Freshwater marsh, swamp, wetlands, wide riparian w/ open waters	Central Valley from Redding south to Bakersfiled and CA Central Coast. In SoCal, coastal freshwater wetlands from Santa Barbara and Santa Clarita south to Tijuana River. Few populations in Baja Calif.	**Breeding: Apr – Jul** Year-round Partially migratory	**Absent.** Habitat not suitable on or near the Property.
Aimophila ruficeps Southern California rufous-crowned sparrow EMBERIZIDAE	**IUCN: LC**	Nests in fabricated cup on or near the ground beneath dense cover. Foothill grasslands, Coastal sage scrub, chaparral, oak woodland, coniferous forest,	Year round in wide bands in coastal and inland CA, across southwest into TX and OK, excepting arid deserts. South into Mexico and Baja California	**Breeding: Spring - Summer** Year-round resident	**Low.** Habitat on Property marginally suitable. Not expected to occur due to disturbances and surrounding urbanized character.
Artemisiospiza belli belli Bell's sage sparrow EMBERIZIDAE	**IUCN: LC** **SSC**	Nests in low shrubs or on the ground, in relatively dense cover. Chaparral, grasslands, coastal, inland & desert sage scrub	Migratory from northern Great Basin into west Rocky Mtns foothills south to Northern Mexico. Found year-round in inland valleys of California and Baja California into N AZ.	**Breeding:** Summer Year-round: California	**Moderate.** Suitable habitat found nearby and on the Property. Shrub density less than ideal on Property.
Athene cunicularia hypungea Burrowing Owl STRIGIDAE	**IUCN: LC** **SSC** **MSHCP: CAS**	Nests and shelters in fossorial burrows, esp. abandoned ground squirrel burrows and badger dens Coastal prairie, grassland, sparse scrub, agricultural, riverine	Summer in Great Basin & Mojave. Year round in coastal CA into Mexico and east into W. Texas. Isolated population in Florida.	**Breeding:** Feb – Aug Year-round Partially migratory	**Low.** Suitable habitat on Property. No indicators or presence recorded during survey.

SPECIES	STATUS	ASSOCIATED HABITAT	RANGE / DISTRIBUTION	ACTIVE PERIOD	OCCURRENCE PROBABILITY*
BIRD SPECIES (cont'd)					
Coccyzus americanus occidentalis Western yellow-billed cuckoo CUCULIDAE	**FT** **SE** **IUCN:** **LC** **MSHCP:** **Riparian**	Nests in thick riparian woodlands and forest, cottonwood – willow alliance preferred. Wide riparian forest and woodland in lower elevations.	Summers to breed in wide rivers of Southern and Eastern US. Rare west of the Rocky Mtns. Overwinters in Mexico.	**Breeding:** Summer Migratory: late spring to early fall in US	**Absent.** No suitable habitat is found on or near the Property. No records within 5 miles of the Property.
Charadrius alexandrinus nivosus Western snowy plover CHARADRIIDAE	**IUCN:** **NT** **SSC**	Nests in depression on dry ground on open beaches Barren beaches, coastal dunes, alkali playas, salt flats, ponds, river bars, reservoir edges	From coastal Oregon down into Baja California. Found at inland freshwater and alkali lakes. Summers at large lakes from Malheur Refuge, Great Salt Lake and into central Mexico Highlands. Gulf of Mexico.	**Breeding: Winter** Migratory Year-round in Calif.	**Absent.** Found occasionally on shorelines of Lake Elsinore. Suitable habitat not found on the Property.
Elanus leucurus White-tailed kite ACCIPITRIDAE	**IUCN:** **LC**	Nests in isolated trees, tree lines or edges of forests. Open grassland, sparse woodland, agricultural areas, marshes, wide riparian, open shrubland	Non-migratory. Coastal and central valleys in West Coast. Separate populations in Mexico, Florida, and South America	**Breeding: Summer** Year-round	**Moderate.** Habitat suitable for foraging and potential nesting locally. Property surrounded by urban developments avoided by white-tailed kite.
Empidonax traillii extimus Southwestern willow flycatcher TYRANNIDAE	**FE** **SE** **MSHCP** **Riparian**	Nests in dense willow or mulefat thickets in riparian areas Riparian woodland & forests	Migratory between Southern Calif, AZ, NM, E. TX and South UT & NV in the summer to Central America in winter months.	**Breeding:** late Spring - Summer Migratory: Summer in So Calif.	**Absent.** Associated habitat is not found on the Property. No records within 5 miles of Property.
Eremophila alpestris actia California horned lark ALAUDIDAE	**IUCN:** **VU** **SSC**	Open areas, shrublands, Valley & foothill grasslands Grassland, Sparse coastal scrub, occasionally sparse woodland	Non-migratory from coastal Humbolt County into Central Valley and Coastal Range into Baja California. West of Peninsular Range in Riverside County.	**Breeding: late Spring - Summer** Year-round Diurnal	**Moderate.** Suitable habitat found on Property. Known locally within Sedco Hills and Canyon Lake. Avoids urban areas.
Icteria virens Yellow-breasted chat PARULIDAE	**IUCN:** **LC**	Nests in dense shrubs, preferring riparian areas Riparian forest, woodland, & scrub, occasionally canyons	Migratory, moving from continental United States, (excepting Great Lakes region) in the summer for breeding, then wintering in Central America.	**Breeding:** Summer Migratory: Summer in So Calif.	**Absent.** No suitable habitat found on or adjacent to Property.

SPECIES	STATUS	ASSOCIATED HABITAT	RANGE / DISTRIBUTION	ACTIVE PERIOD	OCCURRENCE PROBABILITY*
BIRD SPECIES (cont'd)					
Lanius ludovicianus Loggerhead shrike LANIIDAE	**IUCN: LC** **MSHCP**	Nests in thorny shrubs or trees, occasionally brush Open grasslands with some shrubby cover, scrub, agricultural fields, pasture, riparian, open woodland	Non-Migratory in So Cal, partly migratory to breed in Canada & Northern Mid West, winters on Gulf of Mexico. Ranges across southern half of continental US & Great Basin into Southern Mexico & Baja.	**Breeding: late Spring - Summer** Year-round Diurnal	**High.** Suitable habitat and potential nesting on the Property. More common along Temescal Creek Wash & West Lake Elsinore.
Plegadis chihi White-faced ibis THRESKIOR-NITHIDAE	**IUCN: LC** **CDFW: WL** **MSHCP**	Freshwater marsh, shorelines, alkali flats, riparian Marsh, lagoons, tidal inlets, riverine, alkali lakes, agricultural ditches	Distinct ranges between North and South America. Migratory between Great basin in summer to mexico to winter. Found across California; year-round south of the Sierras.	**Breeding: Summer** Year-round Diurnal	**Absent.** No suitable habitat found on Property.
Polioptila californica californica Coastal California gnatcatcher POLIOPTILIDAE	**FT** **IUCN: LC** **SSC** **MSHCP**	Nests in dense, low shrubs, often within canyons near water. Coastal sage scrub, foothills and canyons	Isolated patches of highly suitable sage scrub within Southern California from Transverse Range foothills south along Coastal Range into Baja California.	**Breeding:** Feb – Jul Year-round	**Absent.** Habitat not suitable on the Property. Avoids urban settings.
Vireo bellii pusillus Least Bell's Vireo VIREONIDAE	**FE** **SE** **IUCN: LC** **MSHCP: Riparian**	Nests near the ground in dense brush, especially in riparian scrub Mainly Riparian scrub, woodlands, & forest, Also adjacent scrubland, grassland, chaparral.	Migratory. Breeds during summer in fragmented drainages within Southern California (Santa Barbara, Santa Clara, Ventura, Los Angeles, Orange, San Bernardino, Riverside, and San Diego Counties) Winters in Baja California, Mexico.	**Breeding:** Mar – Aug Migratory: Summer in So Cal	**Absent.** Suitable habitat is not found on the Property or on adjacent parcels.
MAMMAL SPECIES					
Dipodomys stephensi Stephen's kangaroo rat HETEROMYIDAE	**FE** **ST** **IUCN: EN** **MSHCP**	Burrows in sandy soils or uses other fossorial burrows Open grasslands near riverine terraces with little shrubby cover	Endemic to inland Southern California, from San Jacinto valley, along Santa Ana river watershed and into Northern San Diego County.	**Breeding:** Spring **Activity:** Year-round Nocturnal	**Absent.** Marginal habitat, but disconnected from known local instances by urban development and lack of riparian corridor. MSHCP Core goals met.
Lepus californicus bennettii San Diego Black-tailed jackrabbit LEPORIDAE	**IUCN: LC** **SSC** **MSHCP**	Open habitats and sparse shrublands, dry washes Grassland, sage scrub, chaparral, agricultural areas, ruderal pasture, desert scrub	Parent species is widespread across western US. This subspecies is only found in coastal Southern California from Los Angeles County to the mojave desert and into San Diego and Imperial Counties	**Breeding:** All year **Activity:** Year-round Nocturnal	**Moderate.** Property suitable for forage, transience and temporary refuge. Generally avoids urban areas.

* Occurrence probability is in relation to proposed Project footprint (site) & habitats directly impacted by the Project. Probability partly factors in Property as a whole and adjacent parcels, though those areas may yield different determinations.

LEGEND & REFERENCE GLOSSARY	
US. FEDERAL CLASSIFICATIONS LIST	
FE: Federally listed as Endangered	FT: Federally Threatened
CA. STATE CLASSIFICATIONS LIST	
SE: State listed as Endangered	ST: State listed as Threatened
CDFW - California Department of Fish and Wildlife SSC – California Species of Special Concern (Declining populations or vulnerable species native within the state) IUCN – International Union for Conservation of Nature (Establishes a globally rank for sensitivity and vulnerability of species) EX- Presumed extinct EW – Presumed extinct in the wild CR – Critically Endangered EN – Endangered VU – Vulnerable NT – Near Threatened CD – Conservation Dependent LC – Least Concern RARE – Listed and ranked by CNPS and adopted by CDFW for Rare Plant List of California Native Flora.	
MSHCP: Riverside County Multiple Species Habitat Conservation Plan (2003) CAS – Criteria Area Species with Additional Survey Needs Riparian – Denotes a species dependent on riparian habitat	

CHAPTER 5.0 IMPACTS & RECOMMENDED MEASURES

Anticipated impacts to local biological resources are as follows:

TOTAL AREAS: VEGETATION COMMUNITIES ON 7.50 Acre PROPERTY	SENSITIVITY	TOTALS on PROP
<0.01 acre of Grassland: Non-native Grassland – Fiddleneck fields	Not Sensitive	<0.1%
6.78 acre of Grassland: Non-native Grassland - Annual brome Grassland	Not Sensitive	90.4%
0.47 acre of Grassland:Non-native Grassland – Wild oats Grassland	Not Sensitive	6.3%
0.15 acre of Grassland: Non-native Grassland – Ruderal Alkali Meadow	Not Sensitive	2.0%
0.09 acre of Urban / Exotic: Ruderal	Not Sensitive	1.2%
DIRECT IMPACTS ON 7.50 Acre PROPERTY:	**Not Sensitive**	**100.0%**
DIRECT IMPACTS ON 0.10 Acre OFF-SITE		
0.10 acre of Urban / Exotic: Ruderal	**Not Sensitive**	**100.0%**

INDIRECT IMPACTS

Temporary impacts are anticipated during construction including dust, noise, and altered drainage.

No vegetation community impacted as listed above is considered sensitive or critical to assembly for conservation or other meeting or goals pursuant to CEQA, FESA, NEPA, CESA, and the WRMSHCP. As such, no avoidance, superior preservation, or mitigation for vegetation communities themselves is required. Indirect impacts are anticipated to be addressed under other issues addressed as part of the permitting approval process for commercial projects within Riverside County. Those impacts that may affect biological resources are addressed below. The below recommended measures are compliant with and shall be acceptable for providing a less-than-significant impact determination pursuant to CEQA. The Proposed Project shall fulfill the requirements related to biological resources.

5.1 Western Riverside County MSHCP & City of Lake Elsinore Fee Compliance

The Project Property falls within or partially within the WRMSCHP fee area. Payment of any pertaining development mitigation fee(s) shall provide suitable mitigation under CEQA, the National Environmental Policy Act (NEPA), the California Endangered Species Act (CESA), and the Federal Endangered Species Act (FESA) for impacts on species and habitats covered by the MSHCP, pursuant to agreements with the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW), as set forth in the implementing agreement for the WRMSHCP.

The following measure, which is a standard condition required under the WRMSCHP, would reduce project related impacts on species covered under the WRMSHCP to less than significant:

RM-1 The Proposed Project applicant is recommended to pay the development mitigation fees associated with the WRMSHCP in regards the parcel status, if required, which is based on the amount of acreage affected. Fees should be paid to the County of Riverside during the permit approval processing of the Proposed Project. All required MSHCP fees must be paid before the issuance of any building permits.

5.2 Nesting Birds

Under CEQA, the proposed Project may result in potential impacts on nesting bird species that are protected under the California Department of Fish and Wildlife and the Migratory Bird Treaty Act (MBTA). Therefore, it is recommended that clearing and trenching activities avoid the general nesting season (March 1st to August 15th). If clearing and grubbing is to take place during this time frame, the following pre-construction survey shall be implemented to ensure that no significant impacts on nesting birds occur as a result of the Proposed Project.

RM-2 If clearing, trenching, or grading requiring a permit occurs during the nesting season for birds and raptors, a nesting bird survey is recommended to be conducted within 3 days prior to any vegetation disturbance activities. If bird nests are found or there is evidence of nesting behavior inside the immediate impact area, an exclusion buffer, as determined the by a qualified wildlife biologist, should be set in place around the nest and no vegetation disturbance shall be permitted within the exclusion area. For raptor species, this buffer may be as large as a 500 foot radius. A qualified biologist will monitor the nests until it is determined that they are no longer active, at which time construction activity may commence / resume.

5.3 Listed Species with a Potential to Occur

ISSUE: The Property provides potentially suitable habitat for one state and federally listed species: San Diego Ambrosia (Ambrosia pumila) as well as potentially suitable habitat for MSHCP, CDFW, and CNPS species of concern known to occur locally. All of the species shown below are known to inhabit grassland habitats that the Property displays across its entirety. These species are:

HIGH POTENTIAL: Coast horned lizard (*Phrynosoma blainvilli*), Loggerhead shrike (*Lanius ludovicianus)*

MODERATE POTENTIAL: **San Diego Ambrosia (*Ambrosia pumila*)**, San Jacinto Valley crownscale (*Atriplex coronata var. notatior)*, Smooth tarplant (*Centromadia pungens ssp laevis*), Long-spined spine flower (*Chorizanthe polygonoides var. longispina*), Palmer's grapplinghook (*Harpagonella palmeri)*, Coulter's goldfields (*Lasthenia glabrata ssp coulteri*), Western spadefoot *(Spea hammondii)* California glossy snake *(Arizona elegans occidentalis)*, Bell's sage sparrow *(Artemisiospiza belli belli)*, White-tailed kite *(Elanus leucurus)*, California horned lark *(Eremophila alpestris actia)*, and San Diego Black-tailed jackrabbit *(Lepus californicus bennettii)*

LOW to VERY LOW POTENTIAL: Round-leaved filaree (*California macrophylla)*, Intermediate mariposa lily (*Calochortus weedii var intermedius)*, Parry's spineflower (*Chorizanthe parryi var. parryi*), San Miguel savory (*Clinopodium [Satureja] chandleri)*, San Bernardino aster (*Symphyotrichum defoliatum)*, California screw moss (*Tortula californica)*, Red-diamond rattlesnake (*Crotalus ruber*), Coast patch-nosed snake (*Salvadora hexalepis virgultea*), burrowing owl (*Athene cunicularia hypungaea*), and California rufous-crowned sparrow (*Aimophila ruficeps*)

CONSIDERATION: None of the above plant species were observed within the General Survey Area during a time when all would have been evident, if not in full bloom. The list reflects remaining potential inconsideration of having missed a handful of individuals that may have been present in small numbers. Additionally, the Property was once graded in its entirety, likely destroying any then-existing sensitive plant species. Without a suitable seed bank, recovery would not be possible, especially for species that appear to only propagate via rhizomatic spread like San Diego Ambrosia. For terrestrial wildlife and habitat specific avian species, the Property is also surrounded by and isolated from other grassland and upland habitats by development in and about Lake Elsinore. The entirety of the 7.50 acre Property is proposed to be directly impacted by the Project. The Project does not propose to hinder aerial movement of avian species and flying mammals, but does remove suitable habitat available for foraging and potential avian nesting. The Project proposes to remove a portion of suitable habitat for terrestrial land animals. However, the Property does not present an available wildlife corridor. The Project proposes to remove potential habitat for sensitive plant species that may require seed bank and dispersal areas to compete with alterations to climatic factors. The Property displays a disturbed and largely non-native character with many invasive species.

RM-3: No measures are required is this regard to be in compliance with the MSHCP and CEQA. Commenting agencies maintain the prudence to comment on the findings above and provide their own recommendations.

CHAPTER 6.0 SUMMARY / CONCLUSION

CITY OF LAKE ELSINORE PLANNING DEPT REFERENCE #: RDR 2017-01 & TTM 37280

By using data gathered from general habitat assessment surveys for Riparian / Riverine habitats, Least bell's vireo, Southwestern willow flycatcher, Western yellow-billed cuckoo, and three species of listed fairy shrimp, a Habitat Assessment Report was prepared for a collective 7.50 acre Property [APN # 379-230-001] located within the City of Lake Elsinore, a signatory city with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP 2003). Following MSHCP consistency analysis measures and examining the MSHCP Elsinore Area Plan and other general biological information resources; it was determined that the Proposed Project, following recommended measures as outline herein, shall not significantly impact the sensitive biological resources that were found to have suitable habitat in the area. No sensitive biological resources were found on the Property during an in-season general assessment survey. The Property was surveyed under protocols for a multiple species general habitat assessment on May 12, 2017.

The proposed Project aims to construct eleven two-story condominium buildings [104 residential units], a clubhouse building, covered and open parking, landscaped common areas, paved vehicular and pedestrian access, utility amenities, and a large outdoor recreation complex that includes a large playground, swimming pool, and tennis court on Lakeshore Dr, north of Riverside Dr. / Hwy 74. The Project includes also a Right of way dedication of 0.92 acre, with improvements therein as well as within Lakeshore Dr. These improvement shall include providing a primary driveway at the intersection with Gunnerson St., a secondary emergency driveway & apron, new sidewalk, curb, gutter, and utility connections, boundary fencing, entry monument signage, all along with additional landscaping. The Project shall incorporate underground infiltration basins to handle stormwater treatment requirements. The final Property acreage shall equal 6.58 acres. For total impacts, the entirety (100%) of the original 7.50 acre Property shall be considered directly impacted. Impermeable surfaces are estimated to cover 89% of the final Property area.

The Property is located within the Elsinore Area Plan of the MSHCP, but does not lie within any Cell Group or Criteria Cell. Nearby conservation areas and candidate lands for conservation include the open waters and shoreline of Lake Elsinore to the SE, the upper reaches of Temescal Creek as it connects to the outlet of Lake Elsinore to the E, and the hillsides designated for conservation within criteria cells in Terra Cotta and Alberhill to the North. No conservation area or candidate area lies within 0.84 mile of the Property.

The Property is a previously graded vacant urban lot that has semi-naturalized with mostly ruderal, non-native and invasive annual grasses and herbaceous forbs. Native species found therein are locally common floral species, found in scattered locations about the general survey area. The RCTLMA vegetation (2005) designation for the parcel is Developed or Disturbed Land. The Property exhibits the character of a flat valley plain centered within a historically developed and growing urban community. Surrounding lots and land uses are mixed commercial and high and medium density residential. A few vacant lots are found in the vicinity, all with a similar disturbed character. Soils across the entire 14.40 acre General Survey Area are very deep, coarse sandy loams that present a well drained aspect that, when coupled with the graded topography, prevent long standing water retention. The engineered retention basin to which most of the runoff is directed was found to present the same soils as the rest of the Property. After thorough analysis of the flora and hydrologic capacity within the retention basin, and a few tire ruts found, it was determined that no complete criteria for designation of wetlands, riparian / riverine features, jurisdictional waters, or vernal pools are found on the Property. The Property is not located within a designated Flood plain nor represents a significant (mapped) nexus or drainage line. The Property is bound by developments, preventing any direct and through access for any wildlife corridors. It was determined that the habitats thereon have the potential to support a number of MSHCP and CDFW sensitive species, including the potential to support one state and federally listed species. Under the MSHCP, grasslands are considered of value to the habitat they provide to listed species. A handful of native bird, reptile and mammal species were observed and recorded.

The habitats found on and immediately adjacent to the Property includes three distinctive vegetation communities under the MSHCP: Grassland: Non-native grassland, Grassland: Non-native grassland -Alkali playa, and Urban / Exotic: Developed & Ruderal. More specifically, the vegetation communities can be further defined as: Annual brome grassland (*Bromus madritensis ssp rubens)* Semi-Natural Alliance [6.78 Ac], Wild oats Grassland (*Avena barbata*) Herbaceous Semi-Natural Alliance [0.47 Ac], Fiddleneck fields (*Amsinckia tessellata)* Herbaceous Alliance [<0.01 Ac], Non-native grassland: [Disturbed – semi-naturalized] Alkali meadowAlkali playa grassland (*Bassia hysoppifolia*) Semi-Natural Herbaceous Alliance [0.15 Ac], and Ruderal [Disturbed] [0.09 Ac]. For the purpose of the MSHCP conservation goals, no vegetation community within the General Survey Area was found to be sensitive and do not require superior preservation for compliance.

At least marginally suitable habitat was found on the Property for a number of state, federally, and/or MSHCP listed species including, but not limited to Burrowing Owl (*Athene cunicularia hypungaea*), Coast horned lizard (*Phrynosoma blainvilli*), Loggerhead shrike (*Lanius ludovicianus)*, and San Diego Ambrosia *(Ambrosia pumila).*

No suitable habitat was observed for the following species: Least bell's vireo (*Vireo bellii pusillus*), Southwestern willow flycatcher (*Empidonax traillii extimus*), Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), Riverside fairy shrimp (*Strepocephalus woottoni*), Santa Rosa Plateau fairy shrimp (*Linderiella santarosae*), or Vernal Pool fairy shrimp (*Branchinecta lynchi*).

Recommended measures are suggested to mitigate potential impacts of the Project on the natural biological resources of the Property. These are 1) Pay all associated environmental fees including the MSHCP / Development Mitigation Fees as applicable; 2) Conduct a nesting bird survey IF construction is slated to commence during the avian breeding season (February 1st- August 31st); & 3) Respond to any comments, recommendations, or requirements posed by regional, state, or federal wildlife agencies.

Given the conditions found on-site, the above recommended measures within this report are deemed acceptable for providing a less-than-significant impact determination pursuant to CEQA. The Proposed Project shall fulfill the requirements related to biological resources pursuant to CEQA, FESA, NEPA, CESA, and the WRMSHCP.

CHAPTER 7.0 CERTIFICATION

I hereby certify that the statements furnished above and in the attached figures present data and information required for the habitat assessment and that the facts, statements, and information presented in the habitat assessment are true and correct to the best of my knowledge and belief.

Consultant: Justin Daniel, Consulting Biologist

Signed:  Date: 07/06/17

REFERENCES

ACE US Army Corps of Engineers
Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016.
The National Wetland Plant List: 2016 wetland ratings.
Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

AOU. American Ornithological Union.
American Ornithologists' Union Checklist of North American Birds. 2013

Baker, R. J., L. C. Bradley, R. D. Bradley, J. W. Dragoo, M. D. Engstrom, R. S. Hoffmann, C. A. Jones, F. Reid, D. W. Rice, and C. Jones
2003 Revised Checklist of North American Mammals North of Mexico. Occasional Papers, Museum of Texas Tech University 229:1-24.

Baldwin, B. G., D. Goldman, D. Keil, R. Patterson. T.J. Rosatti
The Jepson Manual: Vascular Plants of California, Second Edition
University of California Press 2012, updated online inventory December 2016

Beier, P. and S. Loe, 1992 A Checklist for Evaluating Impacts to Wildlife Movement Corridors.
Wildlife Society Bulletin. 20:434-440.

CALFLORA California Floral Database http://www.calflora.org/
Online botanical reference resource
Cal State University, Berkeley Last accessed June 13, 2017

CEQA California Environmental Quality Act Significance Determination Thresholds. January 2012

CEQA California Environmental Quality Act http://resources.ca.gov/ceqa/
California Natural Resources Agency 2014

CNPS California Native Plant Society http://www.rareplants.cnps.org/
Rare and Endangered Plant Inventory of California (online edition v8-02).
Rare Plant Scientific Advisory Committee, D. P. Tibor, Convening Editor.
Sacramento, California. Rare Plant Program 2015

CNPS Sawyer, John, T. Keeler-wolf, J. Evans
A Manual of California Vegetation, Second Edition 2009
California Native Plant Society

California Invasive Plant Council; 2000. Invasive Plants of California's Wildlands.
Carla C. Bossard, John M. Randall, Marc C. Hoshovsky, University of California Press

CDFW California Natural Diversity Data Base CNDDB, CDFG Natural Heritage Division,
RareFind 3 Application, Sacramento. Last Accessed 06/13/17
http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp

CDFW California Natural Diversity Data Base CNDDB, January 2017
Special Animals List, Periodic Publication. 51 pp.

County of Riverside Assessor/ County Clerk / County Recorder http://pic.asrclkrec.com/
Property Information Center, 2017 accessed 05/17/17

County of Riverside Transportation and Land Management Agency (RCTLMA)
Riverside County GIS service http://mmc.rivcoit.org/MMC_Public/Custom/Default.htm
RCIT: Map My County software accessed 05/17/17

Collins, J.T. & Taggert, T.W. 2009 *Standard Common and Current Scientific Names for North American Amphibians, Turtles, Reptiles and Crocodilians*. 6th edition. CNAH. Kansas.

DOI Department of the Interior
Endangered and Threatened Wildlife and Plants:
Designation of Critical Habitat for Southwestern Willow Flycatcher.
Federal Register Vol 78 No. 2 January 2013 – Rules and Regulations

Gibbs, T.J., C. Y. Osteo
Arthropod Collection and Identification: Laboratory and Field Techniques, First Edition
Associated Press 2005

Google Inc. Google Earth Application https://www.google.com/earth/
Satellite imagery of Property taken 10/21/16. Last accessed 06/06/17.
Historical Imagery used for reference: 04/2014, 03/2011, 06/2006, 12/2005, 01/2004, & 05/1994.

Hall, E. R. 1981 *The Mammals of North America*. 2nd ed. 2 vols. John Wiley & Sons, New York.

Holland, R. F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. Non-game Heritage Program, State of California Department of Fish and Game, Sacramento, CA. 157 pp.

Inglett, P. W., Reddy K. R., Corstanje R. 2005. Encyclopedia of Soils in the Environment. Academic Press. Anaerobic Soils pp. 72-78.

Jennings, M. R. 1994. An Annotated Checklist of the Amphibians and Reptiles of Southern California. California Department of Fish and Game

Laymon, Stephen A. Wildlife Ecologist University of California, Riverside
Bureau of Land Management (BLM) Species Profile – Yellow-billed Cuckoo
Report for West Mojave Planning Area 1998

Oberbauer, T. 1996. *Terrestrial Vegetation Communities in San Diego County Based on Holland's Descriptions*. San Diego Association of Governments, San Diego, CA 6 pp.

Patten, Micheal A. Department of Biology University of California, Riverside
Bureau of Land Management (BLM) Species Profile – Least Bell's Vireo
Report for West Mojave Planning Area 1998

RCFCD Riverside County Flood Control District
Elsinore NWS Auto Station #067, Rainfall Gauge Data YTD 2017 Last accessed June 09, 2017
http://www.floodcontrol.co.riverside.ca.us/GIS.aspx

Roth, O. 2009 Journal of Animal Ecology Vol. 76 issue 2. British Ecological Society.

Stebbins, R. C. 2003. *Field Guide to Western Reptiles and Amphibians*
Houghton Mifflin Co., Boston.

U.S. Department of Agriculture (USDA)
1973 *Soil Survey, Lake Elsinore, California.* Soil Conservation Service and Forest Service.
Roy H. Bowman, ed. Western Riverside County.
Web Soil Survey: http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm

U.S. Geological Service (USGS)
1953 Lake Elsinore Quad, CA 7.5-minute series topographic map Riverside County, CA. Photoinspected 1988.

U.S. Geological Service (USGS)
1954 Alberhill Quad, CA 7.5-minute series topographic map Riverside County, CA. Photoinspected 1988.

USFWS. U.S. Fish and Wildlife Service. 2015
U.S. Endangered, Threatened and Candidate Plant and Animal Species by
State and Lead Region. U.S. Department of the Interior.
United States Fish and Wildlife Service Threatened and Endangered Species System

USFWS Environmental Conservation Online System US Fish and Wildlife Service
Species Profile for Riverside Fairy Shrimp (*Streptocephalus woottoni*)
With all supplemental resources accessed June 2015
http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=K03F

USFWS Environmental Conservation Online System US Fish and Wildlife Service
Species Profile for Santa Rosa linderiella (Fairy Shrimp) (*Linderiella santarosae*)
With all supplemental resources accessed June 2015
http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=K05Q

USFWS Environmental Conservation Online System US Fish and Wildlife Service
Species Profile for Vernal Pool Fairy Shrimp (*Branchinecta lynchi*)
With all supplemental resources accessed June 2015
http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=K03G

Wilson, E. & Reeder, D.M. 2005 *Mammal Species of the World.*
A Taxonomic and Geographic Reference. 3rd edition. Hopkins Univ Press.

WRMSHCP Western Riverside County Multiple Species Habitat Conservation Plan 2003
Dudek & Associates (Prime MSHCP Consultant) County of Riverside.

APPENDIX A VASCULAR PLANT LIST

HABITAT TYPES (ALL DISTURBED)

A = Grassland - NNG:	Annual brome grassland [D] (*Bromus sps)* HS-NA
B = Grassland - NNG:	Fiddleneck fields [D] (*Amsinckia sps)* HA
C = Grassland - NNG:	Wild oats grassland [D] (Avena *barbata)* HS-NA
D = Grassland - NNG:	Alkali Meadow [D] (*Bassia hysoppifolia)* HS-NA
E = Urban / Exotic:	Ruderal / Disturbed

FREQUENCY		COVER
highest	abundant	> 20%
high	frequent	+/-10-20%
moderate	common	+/- 5-10%
less than mod	occasional	+/- 1-5%
few	uncommon	< 1%
single example	rare	

TYPES

A = Annual	P = Perennial	Bi = Biennial	T = Tree	S = Shrub
H = Herbaceous	F = Fern	Br = Bryophyte	Su = Succulent	G = Grass
	E = Evergreen	Aq = Aquatic	D = Deciduous	Nat = Native

Scientific names mostly follow: The Jepson Manual, (2nd ed., 2012, rev 2015), or Flora of Southern CA (Munz, 1974)
Recent adoptions of name changes apply. Both taxa are displayed if applicable.
- exotic plant taxon, + - incidental or peripheral plant sp.

FAMILY/ SCIENTIFIC NAME	COMMON FAMILY / NAMES	Type	A: Annual brome grass	B: Fiddleneck fields	C: Wild oat grass	D: Grassland Alkali Med	E: Ruderal	Nat	Cal IPC/ RARE
AMARANTHACEAE	**Amaranth Family**								
*Amaranthus albus**	Pigweed amaranth	AH	occasional	occasional	uncommon	occasional	uncommon		
AREACACEAE	**Palm Family**								
*Washingtonia robusta**	Mexican fan palm	T	uncommon						Moderate
ASTERACEAE	**Sunflower Family**								
*Baccharis salicifolia**	Mule fat*	S	uncommon		uncommon	uncommon		Y	
*Erigeron bonariensis**	Flax leaved horseweed	AH	occasional		occasional		occasional		
*Helianthus annuus**	Common sunflower	PH	uncommon		uncommon	occasional		Y	
*Gnaphalium palustre**	Lowland cudweed	AH				occasional		Y	
*Lactuca serriola**	Prickly lettuce	AH	uncommon		uncommon	uncommon	uncommon		
*Matricaria discoidea**	Pineapple weed	AH	uncommon				uncommon	Y	
*Oncosiphon piluliferum**	Stinknet	AH	uncommon				uncommon		
*Sonchus oleraceus**	Sow thistle	AH	uncommon				occasional		
BORAGINACEAE	**Borage Family**								
Amsinckia intermedia	Common fiddleneck	AH	uncommon	common	occasional			Y	
Amsinckia menziesii	Small flowered fiddleneck	AH		uncommon	uncommon			Y	
Amsinckia tessellata	Checker fiddleneck	AH	uncommon	common	uncommon			Y	
*Heliotropium curassavicum**	Salt heliotrope	PH				uncommon		Y	

FAMILY/ SCIENTIFIC NAME	COMMON FAMILY / NAMES	Type	A: Annual brome grass	B: Fiddleneck fields	C: Wild oat grass	D: Grassland Alkali Med	E: Ruderal	Nat	Cal IPC/ RARE
BRASSICAEAE	**Mustard Family**								
Brassica nigra	Black mustard	AH	occasional	uncommon	occasional	uncommon	occasional		Moderate
Brassica tournefortii	Saharan mustard	AH			uncommon		uncommon		High
Hirschfeldia incana	Wild mustard	PH	uncommon				uncommon		Moderate
Raphanus sativus	Jointed charlock	AH			occasional				Limited
Sisymbrium irio	London rocket	AH	common	occasional	occasional		occasional		Moderate
Sisymbrium orientale	Indian hedge mustard	AH	occasional	uncommon	uncommon		occasional		
CHENOPODIACEAE	**Goosefoot Family**								
*Atriplex semibaccata**	Australian saltbush	PH				occasional			Moderate
*Atriplex serenana**	Saltscale	AH				uncommon		Y	
*Bassia hyssopifolia**	Five horn bassia	AH				common			Limited
*Chenopodium rubrum**	Red goosefoot	AH	uncommon			uncommon		Y	
*Monolepis nuttalliana**	Nuttall's povertyweed	AH				occasional		Y	
Salsola australis	Russian Thistle	AH			uncommon				Limited
*Salsola tragus**	Tumbleweed	AH	occasional	occasional	occasional	uncommon	occasional		Limited
CRASSULACEAE	**Stonecrop Family**								
*Crassula connata**	Sand pygmyweed	AH	uncommon	uncommon		uncommon		Y	
CYPERACEAE	**Sedge Family**								
*Cyperus eragrostis**	Tall cyperus	PGH			uncommon	uncommon		Y	
EUPHORBIACEAE	**Spurge Family**								
Croton setiger	Turkey-mullein	AH	occasional	uncommon	uncommon	occasional	uncommon	Y	
Euphorbia albomarginata	Rattlesnake sandmat	PH	occasional	uncommon		uncommon	uncommon	Y	
*Euphorbia maculata**	Spotted spurge	AH	occasional	uncommon	uncommon	uncommon	occasional		
Stillingia linearifolia	Narrow leaved stillingia	PH	uncommon					Y	
FABACEAE	**Pea Family**								
*Acmispon americanus**	Spanish lotus	AH	uncommon		uncommon	uncommon		Y	
Lupinus bicolor	Miniature lupine	AH	uncommon	occasional				Y	
*Medicago polymorpha**	California burclover	AH	uncommon		occasional		uncommon		Limited
*Melilotus indicus**	Yellow sweetclover	AH	common	occasional	common	uncommon	occasional		

FAMILY/ SCIENTIFIC NAME	COMMON FAMILY / NAMES	Type	A: Annual brome grass	B: Fiddleneck fields	C: Wild oat grass	D: Grassland Alkali Med	E: Ruderal	Nat	Cal IPC/ RARE
GERANIACEAE	**Geranium Family**								
*Erodium botrys**	Broad leaf filaree	AH	occasional				occasional		
Erodium brachycarpum	Foothill filaree	AH	uncommon				uncommon		
Erodium cicutarium	Long beaked filaree	AH	common	occasional	uncommon		occasional		Limited
Erodium moschatum	Whitestem filaree	AH	uncommon		uncommon		uncommon		
MALVACEAE	**Mallow Family**								
Malva parviflora	Cheeseweed	AH	uncommon	uncommon	uncommon		occasional		
MYRTACEAE	**Myrtle Family**								
Eucalyptus globulus	Blue gum	T	uncommon		uncommon				Moderate
POACEAE	**True Grass Family**								
Avena barbata	Slim oat	PG	occasional		frequent	occasional	uncommon		Moderate
Avena fatua	Wild oats	AG	occasional		common		uncommon		Moderate
Bromus diandrus	Ripgut brome	AG	common	occasional	frequent	uncommon	occasional		Moderate
*Bromus hordaceus**	Soft chess	AG	occasional		uncommon		uncommon		Limited
*Bromus madritensis**	Foxtail brome	AG	occasional	uncommon	occasional		occasional		
Bromus madritensis ssp rubens	Red brome	AG	abundant	occasional	frequent	occasional	frequent		High
Bromus tectorum	Cheatgrass	AG	occasional		uncommon		uncommon		High
*Digitaria sanguinalis**	Crabgrass	AG	uncommon			uncommon	uncommon		
*Distichlis spicata**	Saltgrass	PG	uncommon			occasional		Y	
*Hordeum murinum**	Foxtail barley	AG	occasional	uncommon	occasional	uncommon	occasional		Moderate
Hordeum murinum ssp leporinum	Farmer's foxtail	AG	uncommon		uncommon	uncommon	uncommon		Moderate
*Polypogon monspeliensis**	Annual beard grass	AG	occasional		uncommon	uncommon			Limited
SALICACEAE	**Willow Family**								
*Salix exigua**	Narrowleaf willow	T / S				uncommon		Y	
Salix gooddingii	Gooding's willow	T			rare			Y	
SIMAROUBACEAE	**Quassia Family**								
*Ailanthus altissima**	Tree of heaven	T			uncommon				Moderate

FAMILY/ SCIENTIFIC NAME	COMMON FAMILY / NAMES	Type	A: Annual brome grass	B: Fiddleneck fields	C: Wild oat grass	D: Grassland Alkali Med	E: Ruderal	Nat	Cal IPC/ RARE
SOLANACEAE	**Nightshade Family**								
*Datura wrightii**	Jimsonweed	PH	uncommon					Y	
TAMARICACEAE	**Tamarisk Family**								
*Tamarix ramosissima**	Saltcedar	T / S	uncommon			occasional			High
ZYGOPHYLLACEAE	**Caltrop Family**								
Tribulus terrestris	Puncturevine	AH	occasional	uncommon	uncommon	uncommon	common		

National Wetlands Plant Species (ACE 2016)

* - Species that indicates potential riparian association or ephemeral wetland, but is also found in dry upland habitats

** - Species completely dependent on wetlands or riparian / riverine habitats with at least periodic inundation. These species are ONLY found in hydric soils or are classified as fully aquatic flora.

(vp) – Vernal Pool indicator species

APPENDIX B WILDLIFE LIST

SCIENTIFIC NAME	COMMON NAME	NOTES & ID METHOD	#
CLASS AVES - BIRDS			
ACCIPITRIDAE	**Hawk & Eagle Family**		
Buteo jamaicensis	Red-tailed Hawk	Soaring over local parcels Sight, Separate occasions	2
CATHARTIDAE	**New World Vulture Family**		
Cathartes aura	Turkey Vulture	Gliding over nearby hills and local parcels Sight	1
COLUMBIDAE	**Pigeon & Dove Family**		
Zenaida macroura	Mourning Dove	Perched in local trees in local trailer park Sight & call	2
CORVIDAE	**Jay & Crow Family**		
Corvus brachyrhynchos	American Crow	Flyover nearby Sight & calls	2
EMBERIZIDAE	**New World Sparrow Family**		
Melospiza melodia	Song Sparrow	Couple in mulefat on Property Sight & call	3+
Pipilo crissalis	California Towhee	Foraging on within general survey area Sight	1
FRINGILLIDAE	**Finch Family**		
Carpodacus mexicanus	House Finch	Flock seen in trees in nearby parcels Sight & Calls	12+
Spinus psaltria	Lesser Goldfinch	Small flock perching in local trees Sight & Calls	4
MIMIDAE	**Thrasher & Mockingbird Family**		
Mimus polyglottos	Northern mockingbird	In trees within adjacent parcels Sight & Songs	1
PASSERIDAE	**Old World Sparrow Family**		
Passer domesticus	House Sparrow	Large flock around fringes of Property Sight & call	30+
STURNIDAE	**Starling Family**		
Sturnus vulgaris	European starling	Small flock over Property Sight	5+
TYRANNIDAE	**Tyrant Flycatcher Family**		
Contopus sordidulus	Western wood-pewee	Temporary transience over Property Sight	1
Myiarchus cinerascens	Ash-throated Flycatcher	Flitting about Property foraging Sight	1
Tyrannus verticalis	Western kingbird	About Property foraging & perching Sight	2

SCIENTIFIC NAME	COMMON NAME	NOTES_& ID METHOD	#

CLASS MAMMALIA - MAMMALS

CANIDAE	**Canid Family**		
Canis latrans	**Coyote**	**Scat mound found on Property** **Scat**	**1**
Canis domesticus	**Domestic dog**	**Strays transient through area** **Sight**	**3**
FELIDAE	**Feline Family**		
Felis catus	**Domestic cat**	**Sighted along perimeter block wall** **Sight**	**1**
GEOMYIDAE	**Gopher Family**		
Thomomys bottae	**Botta's pocket gopher**	**Middens founds on adjacent parcel** **Middens**	**1+**
LEPORIDAE	**Rabbit & Hare Family**		
Sylvilagus audubonii	**Desert Cottontail**	**Individuals seen on Property** **Sight & Scat**	**2**
SCIURIDAE	**Squirrel Family**		
Spermophilus beecheyi	**California Ground Squirrel**	**Burrows found in extended survey area** **Active and abandoned Burrows**	**1+** **[3]**

CLASS REPTILIA - REPTILES

IGUANIDAE	**Iguana Family**		
Sceloporus occidentalis	**Western fence lizard**	**Individual on Property** **Sight on perimeter block wall**	**1**

CLASS AMPHIBIA - AMPHIBIANS

No species within this Class were observed during surveys. This does not preclude a representative species from presence upon the subject parcel. Suitability of habitat found upon subject parcel discussed above for any listed species or Species of Concern within report, should any apply.

CLASS INSECTA - INSECTS

FORMICIDAE	**Ant Family**		
Pogonomyrmex barbatus	**Red Harvester Ant**	**Occasional nests found in general survey area Colonies: 4** **Sight**	

CLASS BRANCHIOPODA - BRANCHIOPODS

No species within this Class were observed during surveys. This does not preclude a representative species from presence upon the subject parcel. Suitability of habitat found upon subject parcel discussed above for any listed species or Species of Concern within report, should any apply.

APPENDIX C SITE PHOTOGRAPHS

PHOTO # 01: PROPERTY #1 May 2017 VIEW: SW
From across Lakeshore Dr., looking down the middle of Property with the Santa Ana Mtns forming the backdrop on the horizon. The existing Right of way is unpaved. The Property is a disturbed non-native grassland parcel within the City of Lake Elsinore.

PHOTO # 02: PROPERTY #2 Feb 2017 VIEW: S
From same relative vantage point as Photo #01, showing the retention basin vegetation and the Eastern Property corner. The paved road is Lakeshore Dr., with its lining of ruderal weeds and grasslands beyond. Development fully surrounds the Property and adjacent vacant parcel. The retention basin generally collects the majority of the Property runoff.

PHOTO # 03: PROPERTY #3 **May 2017** **VIEW: S**

From adjacent parcel looking across Northern half of the Property. Non-native grassland with sporadic shrubs and trees.

PHOTO # 04: PROPERTY #4 **May 2017** **VIEW: E**

Property center at NorthEast Property line, looking toward Gunnerson St. intersection and developed hillsides beyond.

PHOTO # 05: PROPERTY #5 **May 2017** **VIEW: W**

Near the NE Property line midpoint, looking toward stand of Eucalyptus trees and local developments. Evidence of tire ruts.

PHOTO # 06: PROPERTY #6 **May 2017** **VIEW: SW**

Near N Property corner, looking down Property line. Vacant overgrown field to right, vacant field of Property to left, stands of blue gum (*Eucalyptus globulus*), saltcedar (*Tamarix ramosissima*), and mustards (*Brassica & Sisymbrium sps*) within *Bromus* grassland.

PHOTO # 07: PROPERTY #7: May 2017 VIEW: SE
From center of Property viewing across width over annual brome grassland, intermixed with red brome, ripgut brome and mustards.

PHOTO # 08: PROPERTY #8 May 2017 VIEW: E
Mid Property viewing back towards Lakeshore Dr. Tumbleweed (*Salsola tragus*), spent common fiddleneck (*Amsinckia intermedia*), skeletal london rocket (*Sisymbrium irio*) and yellow sweet clover (*Melilotus indicus*) rise above abundant red brome.

PHOTO # 09: VEGETATION COMMUNITY #1: Annual brome grassland May 2017
Dominated by red brome (*Bromus madritensis ssp. rubens*), with common ripgut brome (*Bromus diandrus*) in stands. Monotypic community across most of the Property area. Natives found herein were common, adapted to dry upland habitats.

PHOTO # 10: VEGETATION COMMUNITY #2: Wild oats grassland May 2017
Ringing the two vacant parcels were frequent wild oats (*Avena sps*) alongside tumbleweed, mustards, and other invasives.

PHOTO # 11: VEGETATION COMMUNITY #3: Fiddleneck fields grassland May 2017
A contrasting photo showing the Property annual brome grassland and relative Property line at left and fiddleneck fields at right.

PHOTO # 12: VEGETATION COMMUNITY #4: Ruderal Alkali meadow [Disturbed] May 2017
At the bottom of the existing retention basin, native soils have collected salt and turned slightly alkaline, creating an artificial grassland populated by non-native five horn bassia (*Bassia hyssopifolia*), Common sunflower (*Helianthus annuus*), and others.

PHOTO # 13: VEGETATION COMMUNITY #5: Ruderal **May 2017**

Along the roadside of Lakeshore Dr., weedy species grow where they can within a heavily disturbed stretch of right of way.

PHOTO # 14: PROPERTY FEATURES #1: N PL Drainage trough **May 2017**

A view of the Northwest trough that directs run off towards the retention basin. No indication was observed that the sheeting flow is any different here compared to the rest of the Property. Elevation change at right marks the grading separation between parcels.

PHOTO # 15: PROPERTY FEATURES #2: Retention basin #1 May 2017
From the east wide of the basin looking west, the basin outlet pipe is shown center. Erosion has created a deeper cut about the pipe.

PHOTO # 16: PROPERTY FEATURES #3: Retention basin #2 May 2017
From the west side of the basin looking east, the floor of the basin is shown as a flat, distinctive area with little intrusion by the fringing bromes. The main inhibiting agent to many floral species doesn't appear to be lack of soil oxygen, but rather salt buildup.

PHOTO # 17: PROPERTY FEATURES #4: Tire ruts **May 2017**

Near the graveled ruderal area near Lakeshore Dr., a number of shallow tire ruts are found. None are deep or compacted enough to hold rainwater for more than a day or two. The ruts appear recent, formed over the past few months.

APPENDIX D SUPPLEMENTAL ATTACHMENTS

BIOLOGICAL REPORT SUMMARY SHEET

(Must be attached to biological report)

Applicant Name: Hong Guan, LLC Contact: Miao Rui Song Tele: (949) 232-9239

Assessor's Parcel Number(s) (APN): 379-230-001

APN cont. :

Site Location: Section: 35 **Township:** 5 S **Range:** 5 W

Site Address: Address TBD Lakeshore Dr., Lake Elsinore, CA 92530

Related Case Number(s): RDR # 2017-01 & TTM # 37280 **PDB Number:**

Check ITEM(S) Habitat Assessment	*Check ITEM(S)* * Focused Survey	SPECIES or HABITAT OF CONCERN	(Circle whether a potential for significant impact to species or resource exists **)	
		Arroyo Southwestern Toad	Yes	No
X		Drainages/Waters of U.S.	Yes	(No)
		Coachella Valley Fringed-Toed Lizard	Yes	No
		Coastal California Gnatcatcher	Yes	No
		Coastal Sage Scrub	Yes	(No)
		Delhi Sands Flower-Loving Fly	Yes	No
		Desert Pupfish	Yes	No
		Desert Slender Salamander	Yes	No
		Desert Tortoise	Yes	No
		Flat-Tailed Horned Lizard	Yes	No
X		Least Bell's Vireo	Yes	(No)
		Oak Woodlands	Yes	No
		Quino Checkerspot Butterfly	Yes	No
X		Riverside Fairy Shrimp	Yes	(No)
		Santa Ana River Woolystar	Yes	No
		San Bernardino Kangaroo Rat	Yes	No
X		Slender Horned Spineflower	Yes	(No)
X		Stephens' Kangaroo Rat	Yes	(No)
X		Vernal Pools	Yes	(No)

Check ITEM(S) Habitat Assessment	*Check ITEM(S)* * Focused Survey	SPECIES or HABITAT OF CONCERN	(Circle whether a potential for significant impact to species or resource exists **)	
X		Wetlands	Yes	(No)
X		Riparian Habitat	Yes	(No)
X		Burrowing Owl	Yes	(No)
		Bighorn Sheep	Yes	No
		Red-legged Frog	Yes	No
X		Other Southwestern Willow Flycatcher	Yes	(No)
X		Other Western Yellow-billed cuckoo	Yes	(No)
X		Other Vernal Pool, Santa Rosa Plateau fairy shrimp	Yes	(No)
		Other	Yes	No
		Other	Yes	No
		Other	Yes	No

* Focused Survey: a) Survey on a listed species performed per USFWS or CDFG protocol by licensed individual (i.e., CaGn, SKR, QCB), OR b) For non-listed spp., survey performed per protocol recognized by USFWS or CDFG, or other applicable agency (i.e., Burrowing Owl), OR c) For jurisdictional waters, wetlands, & riparian areas, following protocol of U.S.Army Corp of Engineers.

** Species of concern are any unique, rare, endangered, or threatened species; species used to delineate wetlands and riparian corridors; and any hosts, perching, or food plants used by any animals listed as rare, endangered, threatened or candidate species by either State or Federal regulations, or those tracked by the California Department of Fish and Game Natural Diversity Data Base (NDDB).

I declare under penalty of perjury that the information provided on this summary sheet is in accordance with the information provided in the biological report.

Senior Biologist 06/16/17

Signature and Title Date Report Prepared

10(a) Permit Number (if applicable) 10(a) Permit Expiration Date

County Use Only

Received by: _____ **Date:** _____

PD-B# _____ **Related Case #:** _____

LEVEL OF SIGNIFICANCE CHECKLIST
FOR BIOLOGICAL RESOURCES
(Must be attached to report)

APN *: 379-230-001 **Riverside County Case No.*:** _____ **EA Number:**_____

City of Lake Elsinore RDR # 2017-01 & TTM # 37280

Wildlife & Vegetation

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact

(*Check the level of impact that applies to the following questions*)

a) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state conservation plan?

b) Have a substantial adverse effect, either directly or through habitat modifications, on any endangered, or threatened species, as listed in Title 14 of the California Code of Regulations (Sections 670.2 or 670.5) or in Title 50, Code of Federal Regulations (Sections 17.11 or 17.12)?

c) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U. S. Wildlife Service?

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites?

e) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U. S. Fish and Wildlife Service?

f) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act or Section 1600 of the California Fish and Game Code (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

g) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

h) Create any impact which is individually limited, but cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects as defined in Section 15130 (14 Calif. Code of Regs).

* Required

LEVEL OF SIGNIFICANCE CHECKLIST
FOR BIOLOGICAL RESOURCES

Findings of Fact:

City of Lake Elsinore Community Development:Planning Div. - MSHCP Habitat Assessment Report
RDR 2017-01 & TTM 37280
Address TBD Lakeshore Dr., Lake Elsinore, CA 92530 APN: 379-230-001
Proponent: Hong Guan, LLC Contact: Miao Rui Song 14785 Jeffery Rd. #201 Irvine, CA 92618 Tele: (949) 232-9239

Habitat Assessment Report was prepared for a 7.50 acre Property located within the City of Lake Elsinore for compliance w/ the Western Riverside County MSHCP. Following MSHCP consistency analysis measures and by following recommended measures as outlined herein, the Proposed Project shall not significantly impact sensitive biological resources found to have suitable habitat in the area. No sensitive biological resources were found on the Property during the in-season general assessment survey. The Property was surveyed under protocols for a multiple species general habitat assessment on May 12, 2017.

The proposed Project aims to construct condominium buildings, a clubhouse, covered & open parking, landscaping, paved access, minor amenities, and a large outdoor recreation complex on Lakeshore Dr, north of Riverside Dr. / Hwy 74. The Project includes also a Right of way dedication of 0.92 acre, with improvements therein. The Project shall incorporate underground infiltration basins. The final Property acreage shall equal 6.58 acres. For total impacts, the entirety (100%) of the original 7.50 acre Property shall be considered directly impacted. Property is within the Elsinore Area Plan of the MSHCP, but not within any Cell Group or Criteria Cell. No conservation or candidate area lies within 0.84 mile.

The Property is a previously graded vacant urban lot that has semi-naturalized with mostly ruderal, non-native & invasive annual grasses. Native species found therein are locally common floral species. The RCTLMA vegetation (2005) is Developed or Disturbed Land. The Property exhibits the character of a flat valley plain centered within a developed urban community. Surrounding lots and land uses are mixed commercial and high and medium density residential. A few vacant lots are found in the vicinity, all with a similar disturbed character. Soils across the entire General Survey Area are coarse sandy loams that prevent long term water retention. An engineered retention basin on the Property did not contain soils or species or a sensitive nature. No complete criteria for wetlands, riparian / riverine features, jurisdictional waters, or vernal pools are found on the Property. The Property is not within a Flood plain. Bound by developments, wildlife access is limited and not suitable for a corridor. Habitats have the potential to support a number of MSHCP and CDFW sensitive species, including the potential to support one state and federally listed species.

The habitats found in the General Survey Area include Grassland: NNG - Annual brome grassland (*Bromus madritensis ssp rubens*) Semi-Natural Alliance [6.78 Ac], Grassland: NNG - Wild oats Grassland (*Avena barbata*) Herbaceous Semi-Natural Alliance [0.47 Ac], Grassland: NNG - Fiddleneck fields (Amsinckia tessellata) Herbaceous Alliance [<0.01 Ac], Grassland: NNG - Alkali meadow / Alkali playa grassland (*Bassia hysoppifolia*) Semi-Natural Herbaceous Community [0.15 Ac], & Urban / Exotic: Ruderal [0.09 Ac]. No vegetation community was found to be sensitive under the MSHCP.

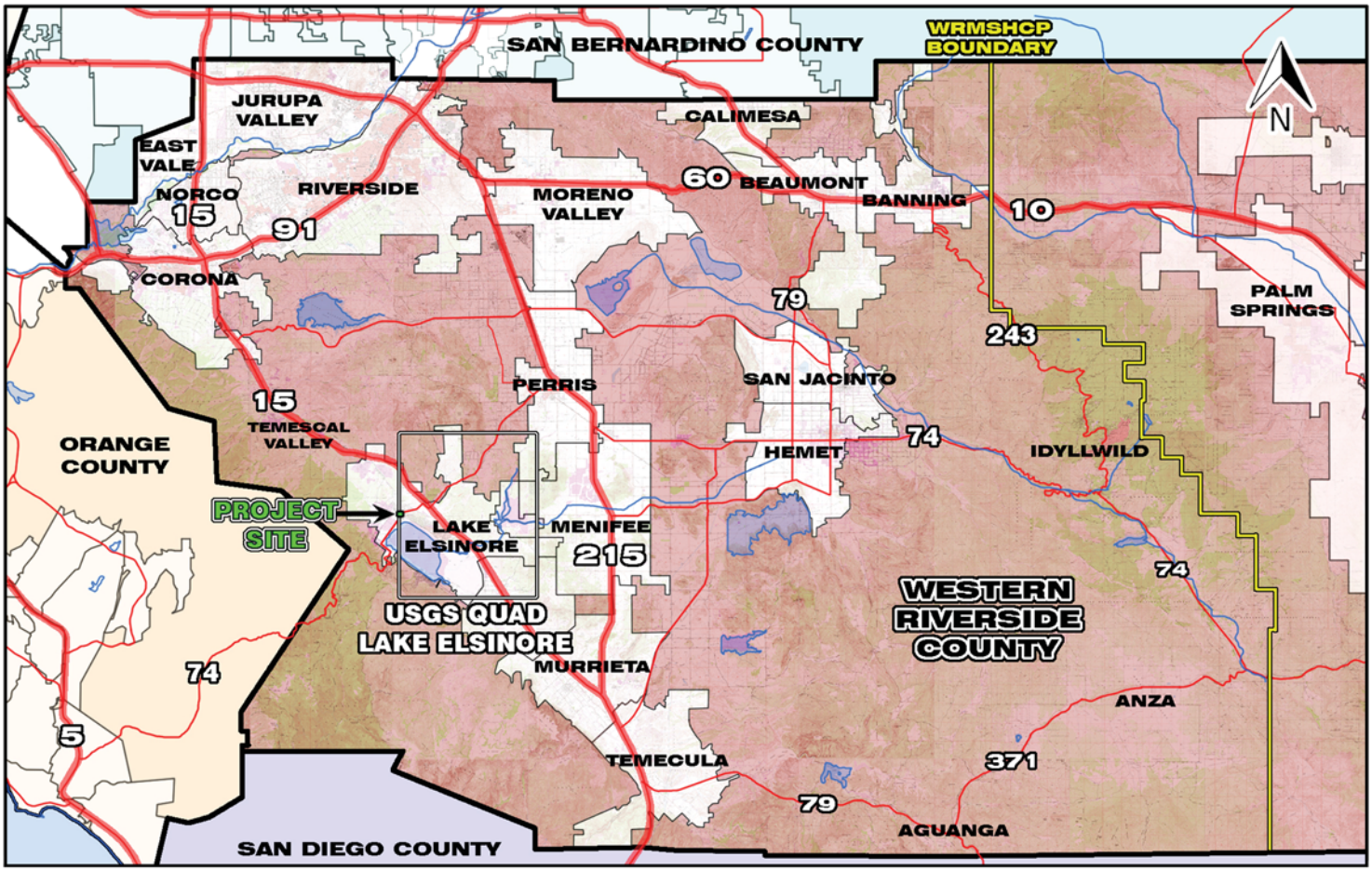
At least marginally suitable habitat was found for a number of state, federally, and/or MSHCP listed species. No suitable habitat was observed for the following species: Least bell's vireo (*Vireo bellii pusillus*), Southwestern willow flycatcher (*Empidonax traillii extimus*), Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), Riverside fairy shrimp (*Strepocephalus woottoni*), Santa Rosa Plateau fairy shrimp (*Linderiella santarosae*), or Vernal Pool fairy shrimp (*Branchinecta lynchi*).

Recommended measures to address potential impacts are 1) Pay all required environmental fees including the MSHCP / DM Fee as applicable; 2) Conduct a nesting bird survey IF construction is slated to commence during the avian breeding season, & 3) Respond to any comments, recommendations, or requirements posed by wildlife agencies. Given the conditions found on-site, the above recommended measures shall be acceptable for providing a less than-significant impact determination pursuant to the MSHCP and CEQA.

County Use Only

Received by:_____ **Date:**_____

PD-B#_____ **Related Case #:**



REGIONAL MAP

LOCAL MAP

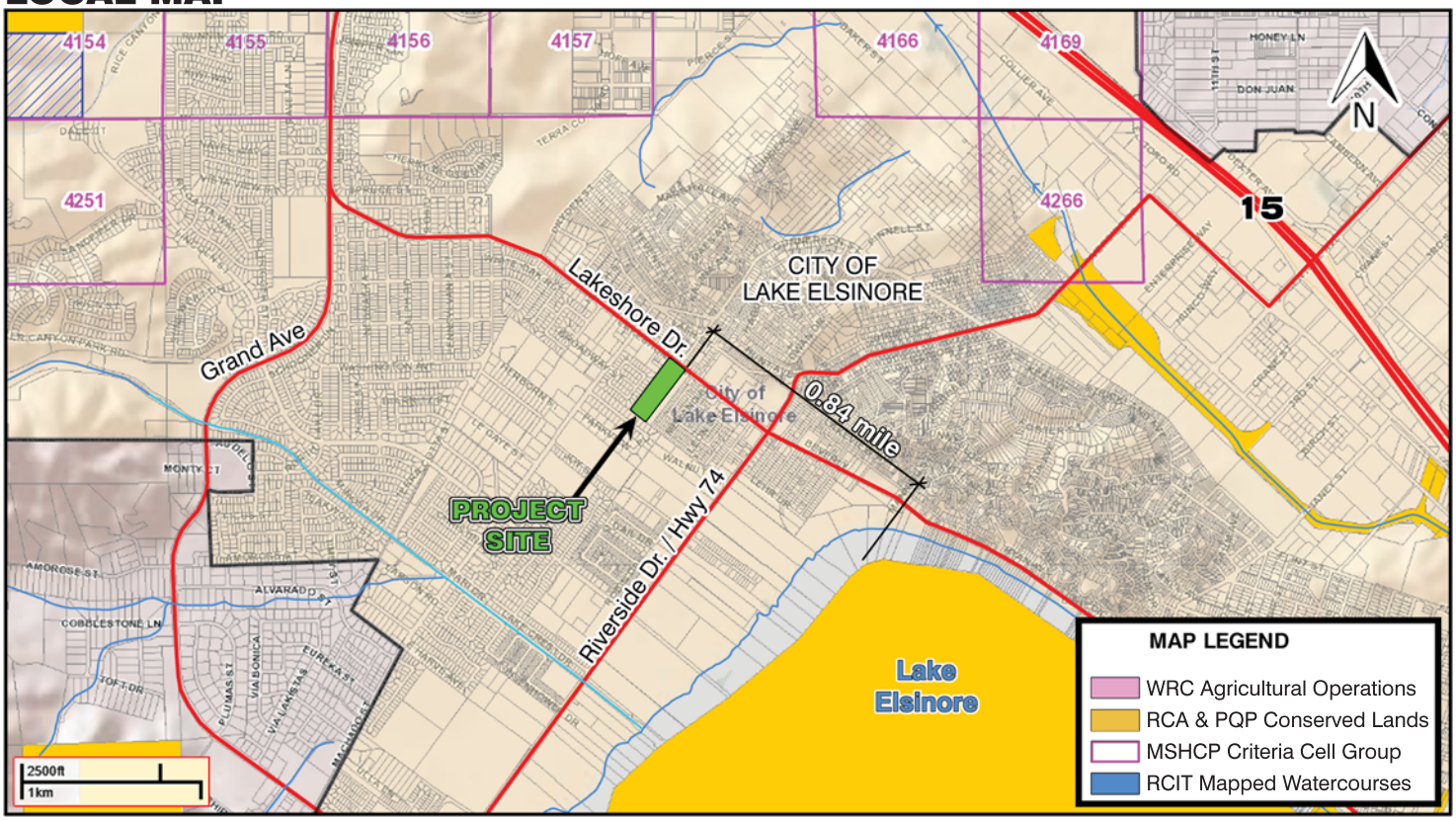


Figure #01:
REGIONAL & LOCAL MAPS - PROPERTY LOCATION

LAKEVIEW MANOR @ LAKESHORE DR.
CITY OF LAKE ELSINORE
PROPONENT: HONG GUAN, LLC
GENERAL BIOLOGICAL RESOURCES REPORT

ARCHON CONSULTING

SOURCE: GOOGLE EARTH APPLICATION, GOOGLE INC., AERIAL TAKEN OCTOBER 21, 2016

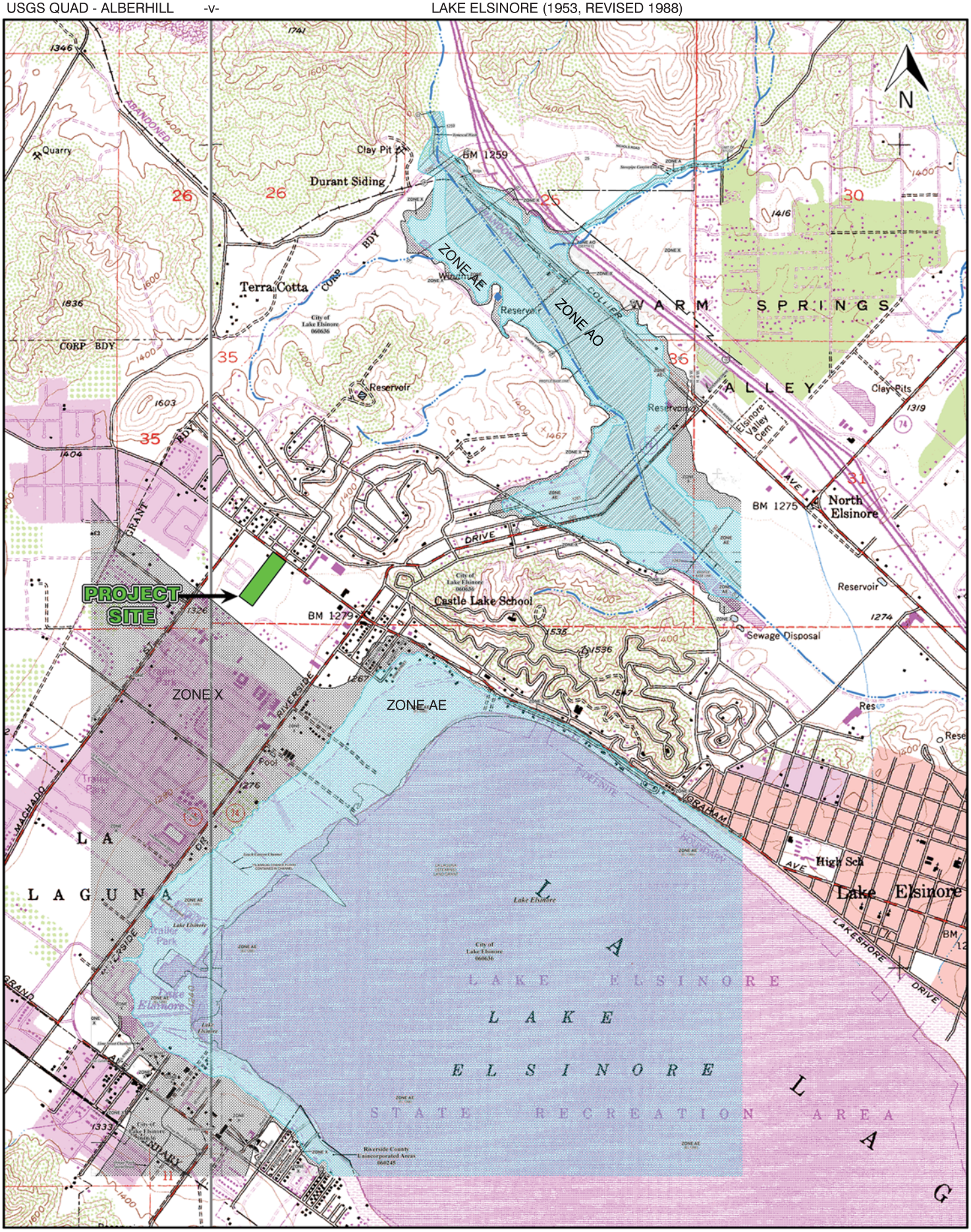


Figure #02:
USGS QUAD:
LAKE ELSINORE (1988)

LAKEVIEW MANOR @ LAKESHORE DR.
CITY OF LAKE ELSINORE
PROPONENT: HONG GUAN, LLC
GENERAL BIOLOGICAL RESOURCES REPORT

ARCHON CONSULTING

SOURCE: USGS 7.5' SERIES - ALBERHILL (1954, REVISED 1988) & LAKE ELSINORE (1953, REVISED 1988)

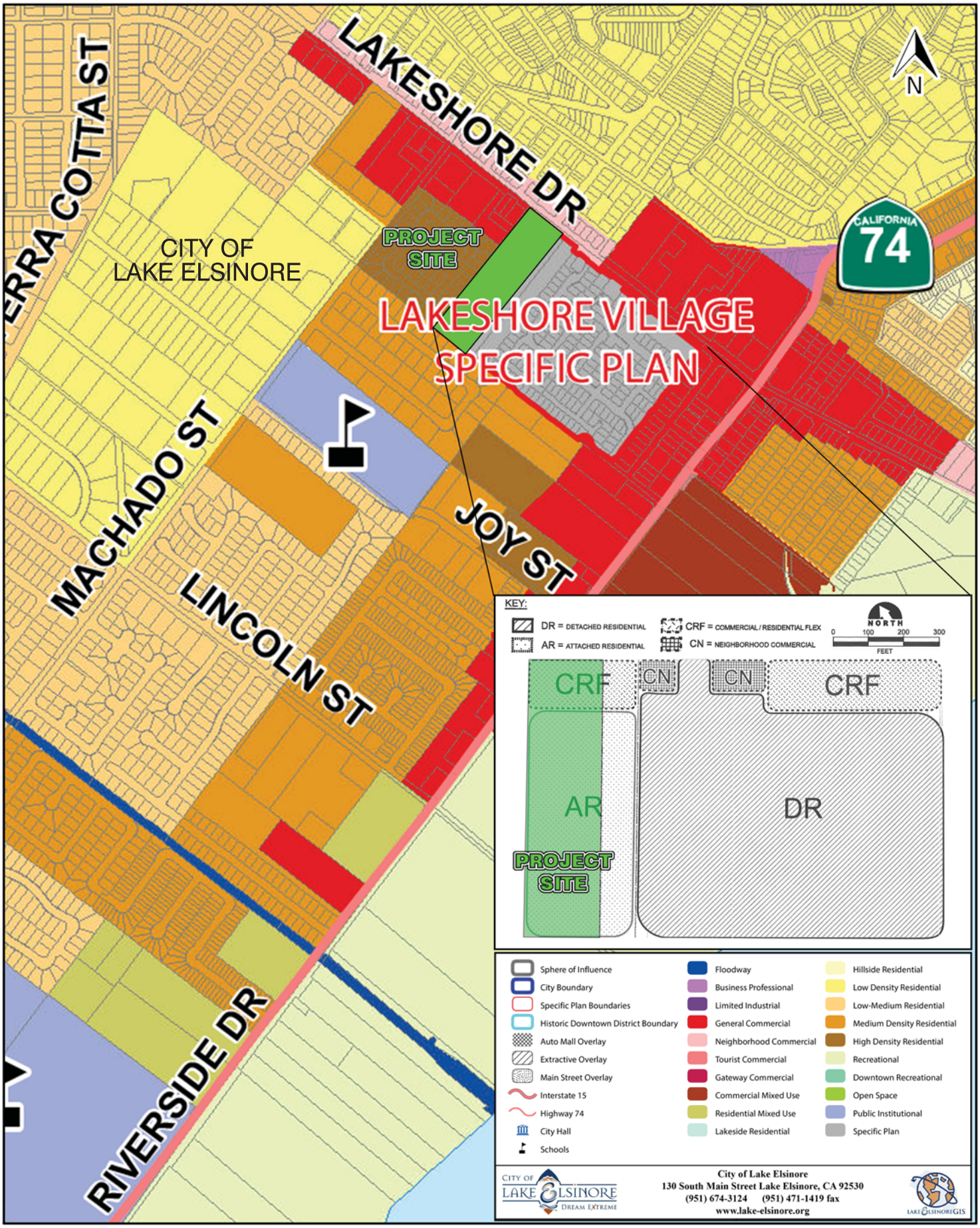


Figure #03:
CITY of LAKE ELSINORE:
LAND USE MAP w/ LAKE SHORE VILLAGE SP

LAKEVIEW MANOR @ LAKESHORE DR.
CITY OF LAKE ELSINORE
PROPONENT: HONG GUAN, LLC
GENERAL BIOLOGICAL RESOURCES REPORT

ARCHON CONSULTING

SOURCE: CITY OF LAKE ELSINORE GENERAL PLAN & LAKESHORE VILLAGE SPECIFIC PLAN 2003

<# - Photo location ref & perspective

Figure #04:
AERIAL MAP & PROPERTY FEATURES

0 100 200 300 400 500 FEET

LAKEVIEW MANOR @ LAKESHORE DR.
CITY OF LAKE ELSINORE
PROPONENT: HONG GUAN, LLC
GENERAL BIOLOGICAL RESOURCES REPORT

ARCHON CONSULTING

SOURCE: GOOGLE EARTH APPLICATION, GOOGLE INC., AERIAL TAKEN OCTOBER 21, 2016

Figure #05:
TOPOGRAPHY, SOILS, & HYDROLOGY

0 100 200 300 400 500 FEET

LAKEVIEW MANOR @ LAKESHORE DR.
CITY OF LAKE ELSINORE
PROPONENT: HONG GUAN, LLC
GENERAL BIOLOGICAL RESOURCES REPORT

ARCHON CONSULTING

SOURCE: GOOGLE EARTH APPLICATION, GOOGLE INC., AERIAL TAKEN OCTOBER 21, 2016

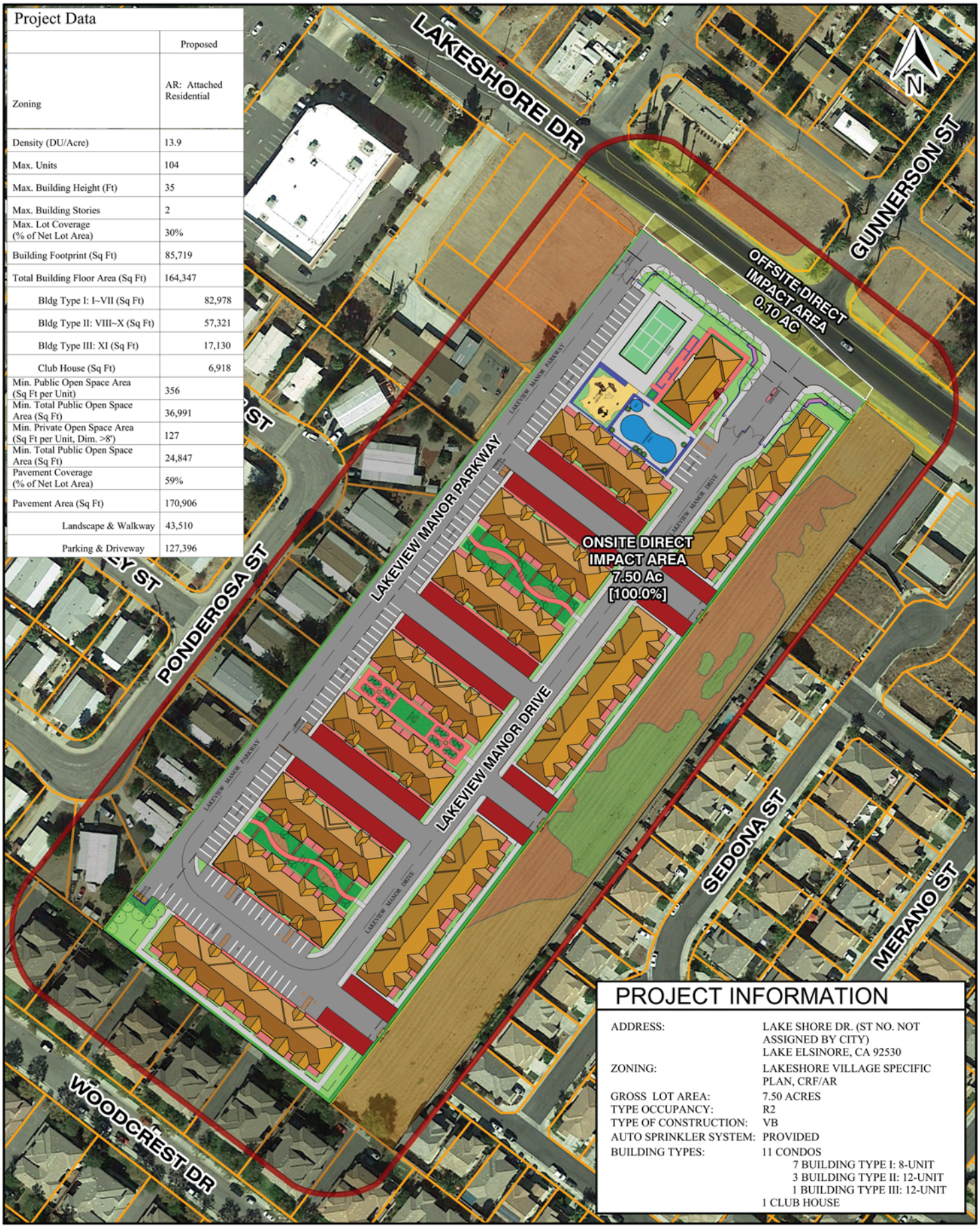
Figure #06: VEGETATION COMMUNITY MAP

0 100 200 300 400 FEET

LAKEVIEW MANOR @ LAKESHORE DR.
CITY OF LAKE ELSINORE
PROPONENT: HONG GUAN, LLC
GENERAL BIOLOGICAL RESOURCES REPORT

ARCHON CONSULTING

SOURCE: GOOGLE EARTH APPLICATION, GOOGLE INC., AERIAL TAKEN OCTOBER 21, 2016



Project Data	
	Proposed
Zoning	AR: Attached Residential
Density (DU/Acre)	13.9
Max. Units	104
Max. Building Height (Ft)	35
Max. Building Stories	2
Max. Lot Coverage (% of Net Lot Area)	30%
Building Footprint (Sq Ft)	85,719
Total Building Floor Area (Sq Ft)	164,347
Bldg Type I: I~VII (Sq Ft)	82,978
Bldg Type II: VIII~X (Sq Ft)	57,321
Bldg Type III: XI (Sq Ft)	17,130
Club House (Sq Ft)	6,918
Min. Public Open Space Area (Sq Ft per Unit)	356
Min. Total Public Open Space Area (Sq Ft)	36,991
Min. Private Open Space Area (Sq Ft per Unit, Dim. >8')	127
Min. Total Public Open Space Area (Sq Ft)	24,847
Pavement Coverage (% of Net Lot Area)	59%
Pavement Area (Sq Ft)	170,906
Landscape & Walkway	43,510
Parking & Driveway	127,396

PROJECT INFORMATION

ADDRESS:	LAKE SHORE DR. (ST NO. NOT ASSIGNED BY CITY) LAKE ELSINORE, CA 92530
ZONING:	LAKESHORE VILLAGE SPECIFIC PLAN, CRF/AR
GROSS LOT AREA:	7.50 ACRES
TYPE OCCUPANCY:	R2
TYPE OF CONSTRUCTION:	VB
AUTO SPRINKLER SYSTEM:	PROVIDED
BUILDING TYPES:	11 CONDOS 7 BUILDING TYPE I: 8-UNIT 3 BUILDING TYPE II: 12-UNIT 1 BUILDING TYPE III: 12-UNIT 1 CLUB HOUSE

0 100 200 300 400 FEET

Figure #07:
PROPOSED
PROJECT SITE PLAN

LAKEVIEW MANOR @ LAKESHORE DR.
CITY OF LAKE ELSINORE
PROPONENT: HONG GUAN, LLC
GENERAL BIOLOGICAL RESOURCES REPORT

ARCHON CONSULTING

SOURCE: GOOGLE EARTH APPLICATION, GOOGLE INC., AERIAL TAKEN OCTOBER 21, 2016