



September 21, 2022

Tracy Zinn
T&B Planning
3200 El Camino Real, Suite 100
Irvine, CA 92602

SUBJECT: Results of a Focused Desert Tortoise Survey Conducted for the Antelope Valley Commerce Center Project, Located in the City of Palmdale, Los Angeles County, California.

Dear Ms. Zinn:

This letter report documents the results of a focused desert tortoise (*Gopherus agassizii*) survey conducted by Glenn Lukos Associates, Inc. (GLA) for the Antelope Valley Commerce Center Project (the “Project”), located in the City of Palmdale, Los Angeles County, California. GLA biologists conducted the focused survey on April 26 and May 20, 2022, in accordance with the 2018 U.S. Fish and Wildlife Service (USFWS) Mojave Desert Tortoise Pre-project Survey Protocol. No desert tortoise or diagnostic tortoise sign were detected during the surveys.

1.0 SITE LOCATION AND DESCRIPTION

The Antelope Valley Commerce Center Project is located in the City of Palmdale, Los Angeles County, California [Exhibit 1 – Regional Map] and is within Sections 1, 2, 35, and 36, Townships 6 and 7 North, and Range 12 West of the Lancaster West and Lancaster East, California U.S. Geological Survey 7.5-minute quadrangle maps [Exhibit 2 – Vicinity Map]. The Project is located primarily south of East Avenue M, north of the Palmdale Regional Airport, east of the Sierra Highway, and west of 15th Street.

Project Description

The proposed Project consists of a commercial logistics center development, associated infrastructure, utilities, road extensions/widenings, and landscape areas. Primary access to the Project will be provided from the north by East Avenue M.

Existing Conditions

The Project site is currently undeveloped and does not contain structures [Exhibit 3 – Aerial Map]. Land uses surrounding the Project site include commercial, light industrial, and undeveloped lands to the north; research and development facilities to the east; the Palmdale Regional Airport to the south; and rail lines and the Sierra Highway to the west. Topography at the Project site is generally flat, gently sloping from west to east, with elevations from 2,543 feet (ft.) above mean sea level (amsl) in the west to 2,485 ft. amsl in the east.

The Project site is vegetated with the *Ephedra nevadensis* – *Lycium andersonii* – *Grayia spinosa* shrubland alliance, *Ericameria nauseosa* shrubland alliance, *Yucca brevifolia* woodland alliance, and disturbed/developed areas [Exhibit 4 – Vegetation Map].

Approximately 94.48 acres of the Project site are vegetated with the *Ephedra nevadensis* – *Lycium andersonii* – *Grayia spinosa* shrubland alliance. Within the Project site, this vegetation community is dominated by Nevada ephedra (*Ephedra nevadensis*), hopsage (*Grayia spinosa*), and Cooper's box thorn (*Lycium cooperi*). Approximately 189.90 acres of the Project site are vegetated with the *Ericameria nauseosa* shrubland alliance. Within the Project site, this vegetation community is dominated by rubber rabbitbrush (*Ericameria nauseosa*), with other shrub species such as sweetbush (*Bebbia juncea*), winter fat (*Krascheninnikovia lanata*), and white bur-sage (*Ambrosia dumosa*) present. Approximately 50.39 acres of the Project site are vegetated with the *Yucca brevifolia* woodland alliance. Within the Project site, this vegetation community is dominated by western Joshua tree (*Yucca brevifolia*) and cheesebush (*Ambrosia salsola*). The remaining 30.35 acres of the Project site consist of disturbed/developed lands, which are comprised by the existing East Avenue M, dirt access roads, and additional areas disturbed by unauthorized activities such as illegal dumping.

2.0 METHODOLOGY

GLA biologists Chris Waterston, David Smith, Jeff Ahrens, Stephanie Cashin, and Zack West conducted focused surveys for the desert tortoise for all suitable habitat areas within the Project site. Surveys were conducted in accordance with the 2018 USFWS Mojave Desert Tortoise Pre-project Survey Protocol, which for “small project areas” (less than 500 acres) requires 10 m wide belt transects to cover the entire Action Area, which is defined to be any lands subject to ground-disturbing activities associated with the Project, and coincides with the Project site for the purposes of this report [Exhibit 5 – Desert Tortoise Survey Map].

Focused surveys were conducted on April 26 and May 20, 2022. Pursuant to the 2018 survey guidelines, the surveys were conducted when air temperatures were most conducive to desert

tortoise activity. Air temperature was measured at 5 centimeters above ground surface, in an area of full sun, and did not exceed 102° F. Any evidence that suggests that desert tortoise might occupy the Project site (e.g., scat, burrows, carcasses, courtship rings, drinking depressions, etc., in addition to live tortoises with a mean carapace length of greater than 180mm) was carefully surveyed for. Table 2-1 summarizes the desert tortoise survey visits.

Table 2-1. Summary of Desert Tortoise Surveys

Survey Date	Biologist	Start/End Time	Start/End Temperature (°F)	Wind Speed (mph)	Cloud Cover
4/26/2022	DS, JA, SC, ZW	07:30-15:00	64-86	2-4	Mostly Clear
5/20/2022	CW, DS	06:15-12:00	61-84	8-15	Mostly Clear

CW = Chris Waterston, DS = David Smith, JA = Jeff Ahrens, SC = Stephanie Cashin, ZW = Zack West

3.0 RESULTS

No desert tortoise or diagnostic sign were detected during the focused survey.

Wildlife species detected at the Project site included American crow (*Corvus brachyrhynchos*), common raven (*Corvus corax*), loggerhead shrike (*Lanius ludovicianus*), Say's phoebe (*Sayornis saya*), lesser nighthawk (*Chordeiles acutipennis*), horned lark (*Eremophila alpestris*), European starling (*Sturnus vulgaris*), house finch (*Haemorrhous mexicanus*), mourning dove (*Zenaida macroura*), northern mockingbird (*Mimus polyglottos*), ladder-backed woodpecker (*Dryobates scalaris*), black-throated sparrow (*Amphispiza bilineata*), sage sparrow (*Artemisiospiza belli*), yellow-rumped warbler (*Setophaga coronata*), cactus wren (*Campylorhynchus brunneicapillus*), red-tailed hawk (*Buteo jamaicensis*), black-tailed jackrabbit (*Lepus californicus*), white-tailed antelope ground squirrel (*Ammospermophilus leucurus*), California ground squirrel (*Otospermophilus beecheyii*), coyote (*Canis latrans*), and domestic dog (*Canis familiaris*).

If you have any questions, please contact me at zwest@wetlandpermitting.com or at (949) 340-6490.

Tracy Zinn
T&B Planning
September 21, 2022
Page 4

Sincerely,

GLENN LUKOS ASSOCIATES, INC.

A handwritten signature in black ink, appearing to read 'Zack West', with a stylized, flowing script.

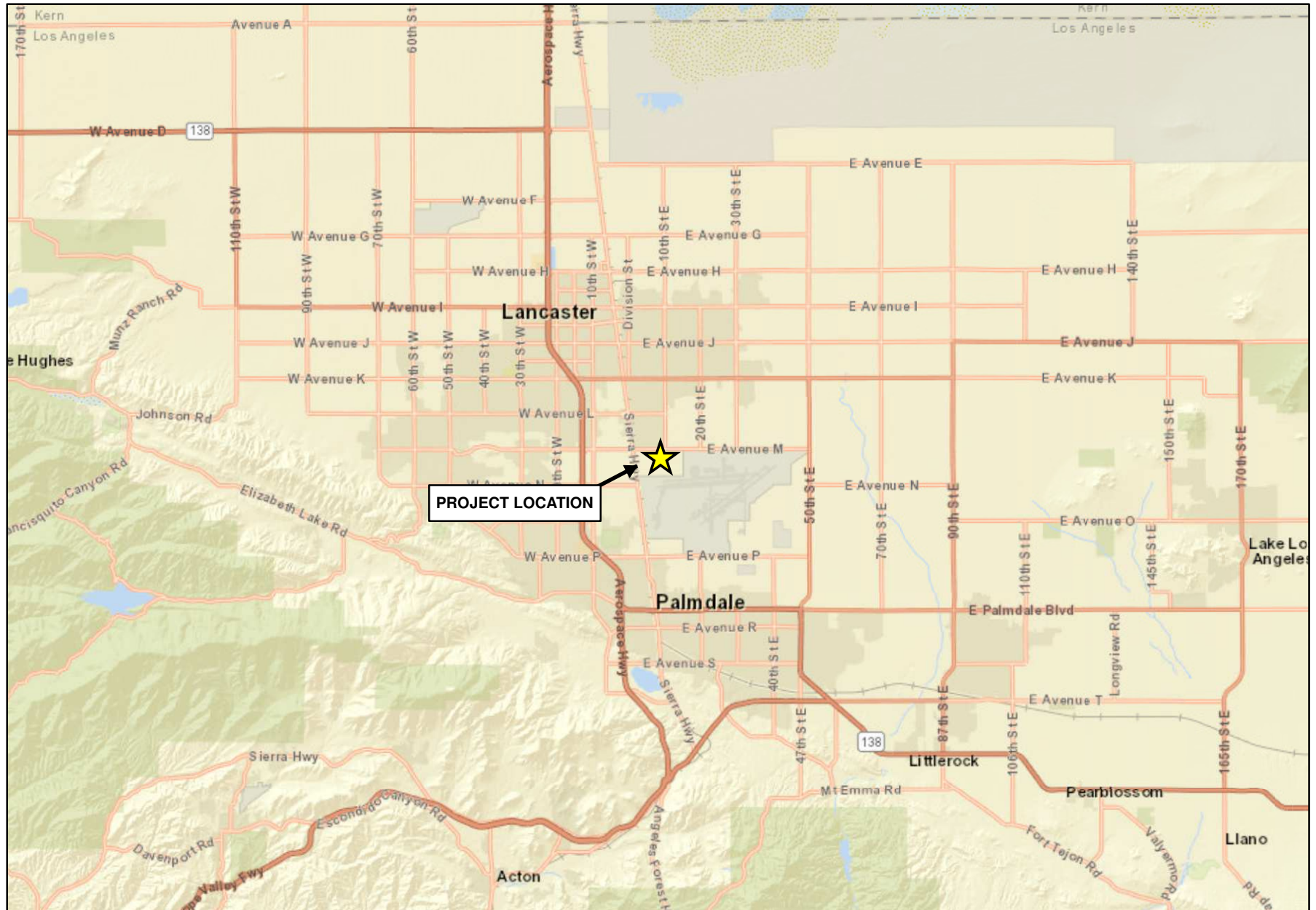
Zack West
Principal Biologist/Senior Regulatory Specialist

p:0849-83.a.bio.rpt.dt

Source: ESRI World Street Map



0
2
4
8
Miles



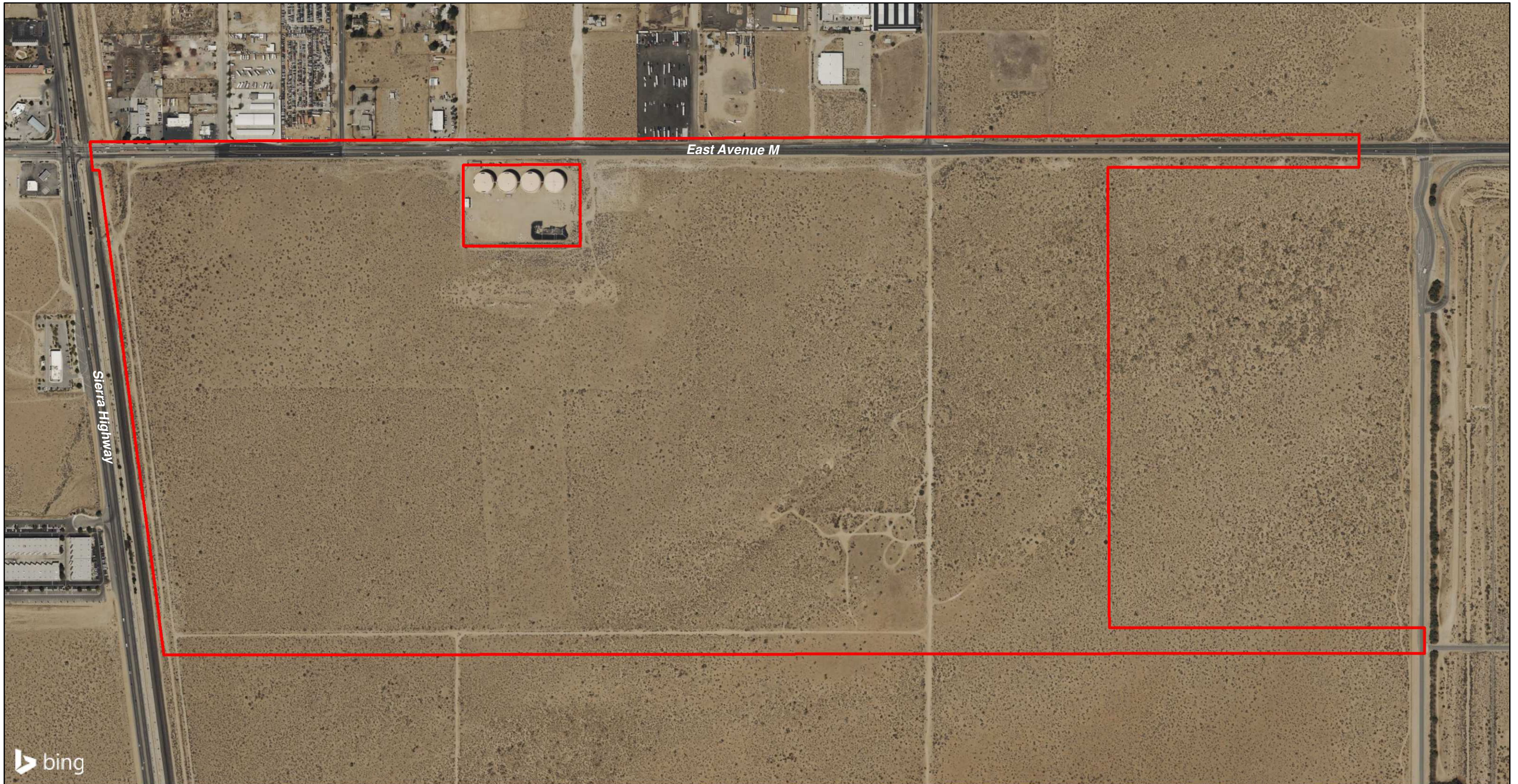
ANTELOPE VALLEY COMMERCE CENTER

Regional Map

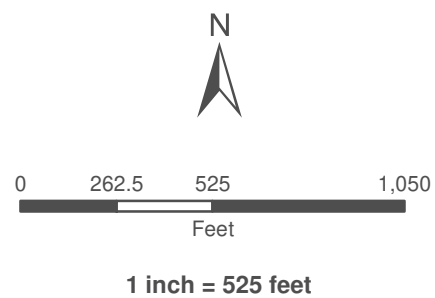
GLENN LUKOS ASSOCIATES

Exhibit 1





 Project Site



Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: XX, GLA
Date Prepared: September 12, 2022

**ANTELOPE VALLEY
COMMERCE CENTER**

Aerial Map

GLENN LUKOS ASSOCIATES


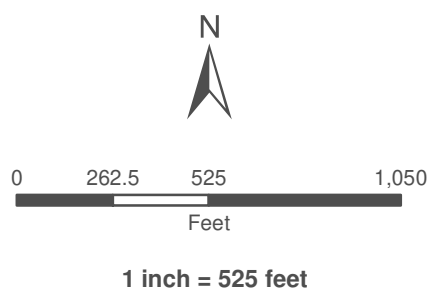


Exhibit 3



- Project Site
- Disturbed/Developed - 30.35 ac.
- Ephedra nevadensis - Lycium andersonii - Grayia spinosa Shrubland Alliance - 94.58 ac.
- Ericameria nauseosa Shrubland Alliance - 189.90 ac.
- Yucca brevifolia Woodland Alliance - 50.39 ac.



Coordinate System: State Plane 5 NAD 83
 Projection: Lambert Conformal Conic
 Datum: NAD 1983 2011
 Map Prepared by: K. Kartunen, GLA
 Date Prepared: September 12, 2022

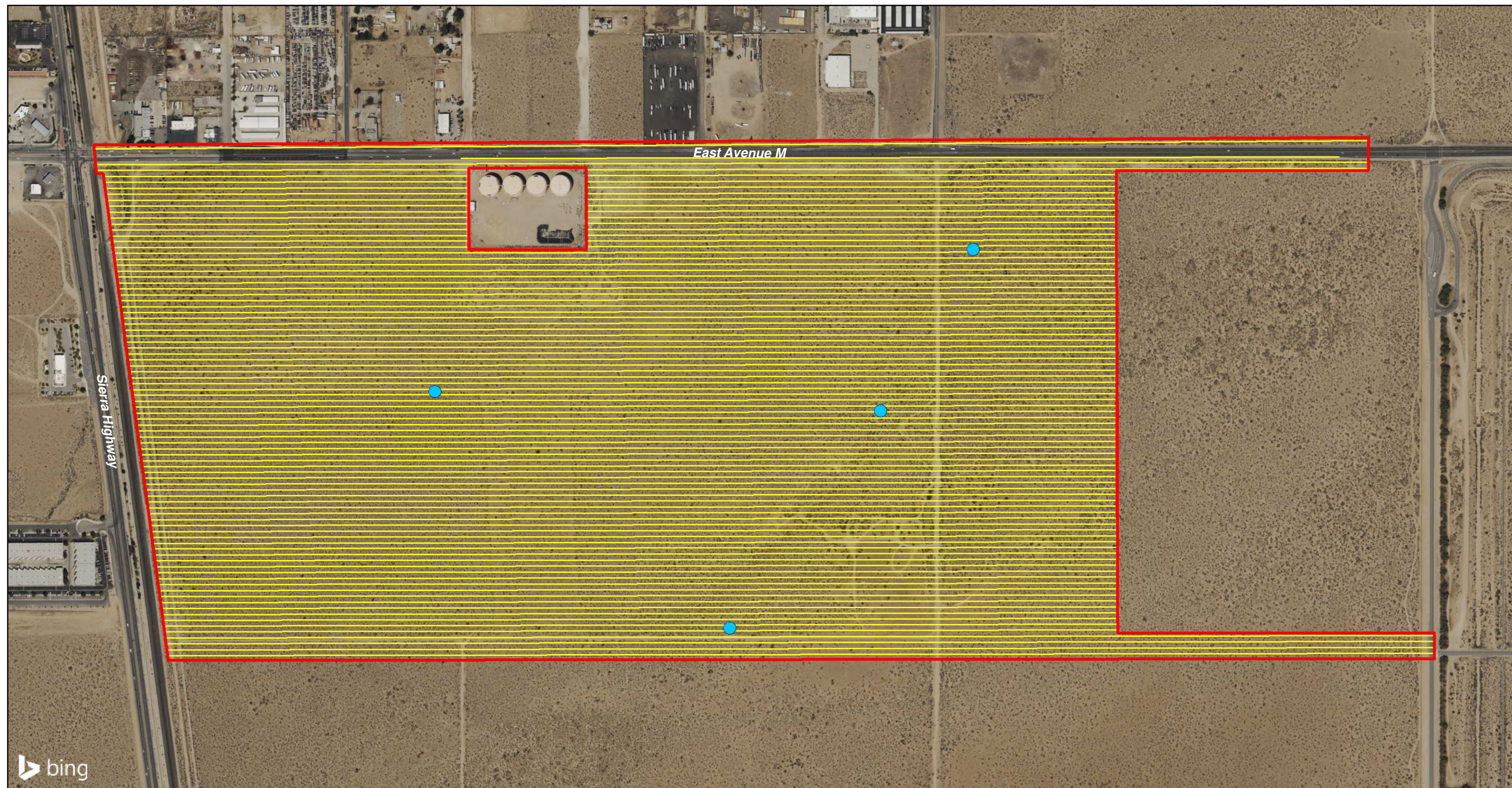
**ANTELOPE VALLEY
COMMERCE CENTER**

Vegetation Map

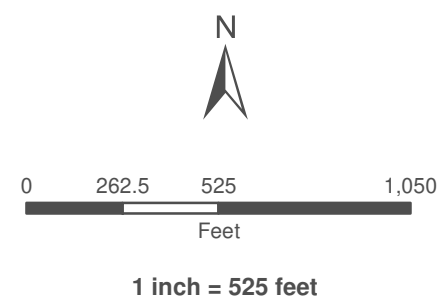
GLENN LUKOS ASSOCIATES

Exhibit 4

X:\0363-THE REST\0849-83ANTV\849-83_GIS\Vegetation\GIS\849-83_Vegetation.mxd



- Project Site
- Survey Transect
- Potentially Suitable Burrow – No Sign Observed



Coordinate System: State Plane 5 NAD 83
 Projection: Lambert Conformal Conic
 Datum: NAD 1983 2011
 Map Prepared by: XX, GLA
 Date Prepared: September 16, 2022

**ANTELOPE VALLEY
COMMERCE CENTER**

Desert Tortoise Survey Map

GLENN LUKOS ASSOCIATES

Exhibit 5

X:\0363-THE REST\0849-83ANTV\849-83_GIS\TortoiseGIS\849-83_DT.mxd



Photograph 1: View of the *Ephedra nevadensis* – *Lycium andersonii* – *Grayia spinosa* shrubland alliance within the Project site.



Photograph 2: View of the *Ericameria nauseosa* shrubland alliance within the Project site.



Photograph 3: View of the *Yucca brevifolia* woodland alliance within the Project site.



APPENDIX A: FLORAL COMPENDIUM

The floral compendium lists species identified on the project site. Taxonomy follows the Jepson Manual (Baldwin et. al 2012) and, for sensitive species, the California Native Plant Society's Rare Plant Inventory (Tibor 2001). Common plant names are taken from Baldwin (2012), Hickman (1993), Munz (1974), and Roberts et al (2004). A † denotes a special-status species. A * denotes a non-native species.

Scientific Name

Common Name

GYMNOSPERMS

CONE-BARING PLANTS

EPHEDRACEAE

Ephedra nevadensis

Ephedra Family

Nevada ephedra

MAGNOLIOPHYTA

FLOWERING PLANTS

MONOCOTYLEDONS

MONOCOTS

AGAVACEAE

†*Yucca brevifolia*

Agave Family

western Joshua tree

POACEAE

**Schismus barbatus*

Grass Family

common Mediterranean grass

DICOTYLEDONS

DICOTS

ASTERACEAE

Ambrosia dumosa

Ambrosia salsola

Bebbia juncea

Chaenactis fremontii

Ericameria nauseosa

Eriophyllum pringlei

Eriophyllum wallacei

Lasthenia gracilis

Layia glandulosa

Malacothrix glabrata

Sunflower Family

white bur-sage

cheesebush

sweetbush

Fremont's pincushion

rubber rabbitbrush

Pringle's woolly sunflower

Wallace's woolly daisy

common goldfields

white layia

desert dandelion

BORAGINACEAE*Amsinckia tessellata**Cryptantha sp.**Nama demissum***Borage Family**

devil's lettuce

cryptantha

purple mat

BRASSICACEAE**Brassica tournefortii***Sisymbrium altissimum***Mustard Family**

Sahara mustard

tumble mustard

CHENOPODIACEAE*Atriplex canescens**Grayia spinosa**Krascheninnikovia lanata***Salsola tragus***Goosefoot Family**

hoary saltbush

hopsage

winter fat

Russian thistle

LAMIACEAE*Salvia carduacea**Scutellaria mexicana***Mint Family**

thistle sage

bladder-sage

LOASACEAE*Mentzelia albicaulis***Loasa Family**

White-stemmed stickleaf

NYCTAGINACEAE*Mirabilis laevis***Four O'clock Family**

desert wishbone-bush

ONAGRACEAE*Chylismia brevipes ssp. brevipes***Evening Primrose Family**

golden suncup

POLEMONIACEAE*Eriastrum sapphirinum***Phlox Family**

sapphire woollystar

SOLANACEAE*Lycium cooperi***Nightshade Family**

Cooper's box thorn

ZYGOPHYLLACEAE*Larrea tridentata***Caltrop Family**

creosote bush

APPENDIX B: FAUNAL COMPENDIUM

Vertebrates identified in the field by sight, calls, tracks, scat, or other signs are cited according to the nomenclature of Collins (1997) for amphibians and reptiles, AOU (1998) for birds, and Jones et al. (1992) for mammals. Species were noted by direct observation, call identification, or detection of tracks, scat, or other diagnostic signs.

LEGEND

- † Denotes special-status species
* Denotes non-native species

TERRESTRIAL VERTEBRATES

REPTILES

PHRYNOSOMATIDAE

Sceloporus uniformis

Uta stansburiana elegans

Spiny Lizards

yellow-backed spiny lizard

common side-blotched lizard

TEIIDAE

Aspidoscelis tigris tigris

Whiptails

Great Basin whiptail

XANTUSIIDAE

Xantusia vigilis

Night Lizards

Great Basin whiptail

VIPERIDAE

Crotalus scutulatus

Vipers

Mojave green rattlesnake

BIRDS

ACCIPITRIDAE

Buteo jamaicensis

Hawks

red-tailed hawk

ALAUDIDAE

Eremophila alpestris actia

Larks

California horned lark

CAPRIMULGIDAE

Chordeiles acutipennis

Goatsuckers

Lesser nighthawk

COLUMBIDAE

**Columba livia*

Zenaida macroura

CORVIDAE

Corvus brachyrhynchos

Corvus corax

EMBERIZIDAE

Amphispiza bilineata

Artemisiospiza belli

FRINGILLIDAE

Haemorhous mexicanus

LANIIDAE

†*Lanius ludovicianus*

MIMIDAE

Mimus polyglottos

PARULIDAE

Setophaga coronata

STURNIDAE

**Sturnus vulgaris*

TROGLODYTIDAE

Campylorhynchus brunneicapillus

TYRANNIDAE

Sayornis saya

Pigeons and Doves

rock pigeon

mourning dove

Jays and Crows

American crow

common raven

Sparrows, Buntings, Warblers, and Relatives

black-throated sparrow

sage sparrow

Finches

house finch

Shrikes and Vireos

loggerhead shrike

Thrashers

northern mockingbird

Wood-warblers

yellow-rumped warbler

Starlings

European starling

Wrens

cactus wren

Tyrant Flycatchers

Say's phoebe

MAMMALS**CANIDAE**

**Canis familiaris*

Canis latrans

Foxes, Wolves, and Allies

domestic dog

coyote

LEPORIDAE

Lepus californicus

Rabbits and Hares

black-tailed jackrabbit

SCIURIDAE

Ammospermophilus leucurus leucurus

Otospermophilus beecheyi

Squirrels

white-tailed antelope ground squirrel

California ground squirrel