

6th Street and Spear Avenue
Affordable Housing Project

Biological Resources
Assessment
Technical Report

El Centro, California

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TABLE OF CONTENTS

Executive Summary

1.0	<i>Introduction</i>	5
	1.1 <i>Location</i>	5
	1.2 <i>Project Description</i>	5
	1.3 <i>Possible Applicable Environmental Regulations</i>	5
	1.3.1 <i>State of California</i>	5
	1.3.2 <i>Federal</i>	6
2.0	<i>Biological Survey Methodologies</i>	7
	2.1 <i>Field Surveys</i>	7
	2.1.1 <i>General Biological Survey</i>	7
	<i>Table 1: Field Survey Schedule</i>	7
	2.1.2 <i>Jurisdictional Delineation</i>	7
	2.2 <i>Literature Review</i>	8
3.0	<i>Existing Conditions</i>	8
	3.1 <i>Topology and Soils</i>	8
	3.2 <i>Vegetation</i>	8
	3.2.1 <i>Vegetation Community</i>	8
	<i>Table 2: Vegetation</i>	9
	3.2.2 <i>Agriculture</i>	9
	3.2.3 <i>Vegetation</i>	9
	3.3 <i>Wildlife</i>	9
	3.3.1 <i>Invertebrates</i>	9
	3.3.2 <i>Amphibians</i>	9
	3.3.3 <i>Reptiles</i>	9
	3.3.4 <i>Birds</i>	9
	3.3.5 <i>Mammals</i>	10
	3.3.6 <i>Fish</i>	10
	3.4 <i>Sensitive Biological Resources</i>	10
	3.4.1 <i>Special Status Species</i>	
	<i>Table 3: Special Status Wildlife Species</i>	
	<i>with Potential to Occur in Project</i>	10
	3.4.2 <i>Riparian Habitat or Sensitive Natural Communities</i>	11
	3.4.3 <i>Jurisdictional Waters</i>	11
	3.4.4 <i>Habitat Connectivity and Wildlife Corridors</i>	11
	3.4.5 <i>California Desert Conservation Area</i>	11
4.0	<i>Proposed Project Impact</i>	11
	4.1 <i>Impacts to Special Status Species</i>	11
	4.1.1 <i>Biological Resources</i>	12
	<i>Table 4 Biological Resources</i>	12
	4.1.2 <i>Sensitive Wildlife</i>	12
	4.1.2.1 <i>Burrowing Owl</i>	12
	4.1.2.2 <i>MBTA Nesting</i>	12
	4.2 <i>Impact to Riparian Habitat or Sensitive Natural</i>	

	<i>Communities</i>	13
4.3	<i>Impact to Jurisdictional Waters</i>	13
4.4	<i>Impact to Wildlife Movement and Activities</i>	13
4.5	<i>Impact to Airports</i>	14
4.6	<i>CEQA Impacts</i>	14
	<i>Table 5: Expected Impacts</i>	14
5.0	<i>Recommended Avoidance, Minimization and Mitigation Measures</i>	14
5.1	<i>Sensitive Wildlife</i>	14
	5.1.1 <i>Burrowing Owl</i>	14
	5.1.2 <i>Migratory Birds and Non-migratory Species</i>	15
	5.1.3 <i>Invasive Plants</i>	16
6.0	<i>Works Referenced</i>	16

Appendices

<i>Appendix A</i>	<i>Sensitive Botanical and Zoological Species (CNDDDB/CNPS)</i>
<i>Appendix B</i>	<i>Photographs</i>
<i>Appendix C</i>	<i>Species Found Onsite and Vicinity</i>
<i>Appendix D</i>	<i>FEMA/Soil Maps</i>
<i>Appendix E</i>	<i>Qualifications</i>

Figures

<i>Figure 1</i>	<i>Project Location Map</i>
<i>Figure 2</i>	<i>Biological Resources Map</i>

Executive Summary

General biological surveys were conducted on November 15, 2022 within the proposed site. The approximately 12.90 acres of the project site is located within City of El Centro, CA.

No federal or state botanical or zoological endangered or threatened species were found within the project site areas or buffer survey zone during this survey.

Burrowing owls, a California Species of Special Concern, were not found on project site.

Invasive species were found in several areas.

1.0 Introduction

1.1 Location

The project site is located within the City of El Centro. A vacant lot and South Fourth Street (SR 86) and commercial developed property to east; a motel, gas station and Wake Street to the north; South Sixth Street and residential to west and a vacant lot; West Lancaster Road and new construction of a California Highway Patrol office to the south. On the U.S. Geological Survey: 1:24,000-scale, 7.5- minute El Centro, California topographic quadrangle.

1.2 Project Description

The applicant, Chelsea Investment Corporation, proposes to develop a 288-unit affordable housing project on a 12.90-acre parcel (APN 053- 740-040). The parcel is zoned CT-Tourist Commercial and will require a rezone to R3 - Multiple Family Residential to accommodate the project. A General Plan Amendment from Tourist Commercial to High Density Residential is also necessary to achieve consistency with the General Plan. A tentative subdivision map is also proposed to create a total of 5 parcels. Four parcels will accommodate each project phase with one parcel dedicated for a stormwater retention basin.

The project would be constructed in four phases on Parcels 1-4. Each phase would provide 72 units in three buildings (24 units per building). Each building would provide seven one-bedroom/one bathroom, eleven two-bedroom/one bathroom and six three bedroom/two bathroom units in three stories with eight units per floor. A total of 520 parking spaces would be provided for the entire project. A 2,133 square foot community building and 193 square foot laundry facility would be constructed for each phase. A stormwater retention basin would be located within Parcel 5 along the western site boundary.

Each phase would include development of community amenities including a sport court, barbeque area, open space/turf area and tot lot.

1.3 Possible Applicable Environmental Regulations

1.3.1 State of California

California Environmental Quality Act (CEQA) Title 14 CA Code of Regulations 15380 requires that endangered, rare or threatened species or subspecies of animals or plants be identified within the influence of the project. If any such species are found, appropriate measures should be identified to avoid, minimize or mitigate to the extent possible the effects of the project.

Native Plant Protection Act CDFG Code Section 1900-1913 prohibits the taking, possessing, or sale within the stare of any plant listed by CDFG as rare, threatened or

endangered. Landowners may be allowed to take these species if CDFG is notified at least 10 days prior to plant removal or if these plants are found within public right of ways.

CA Fish and Game Codes 3503, 3503.5, 3513 protect migratory birds, bird nests and eggs including raptors (birds of prey) and raptor nests from take unless authorized by CDFG.

CA Fish and Game Code Section 1600, as amended regulates activities that substantially diverts or obstructs the natural flow of any river, stream or lake or uses materials from a streambed. This can include riparian habitat associated with watercourses.

State of CA Fully Protected Species identifies and provides additional protection to species that are rare or face possible extinction. These species may not be taken or possessed at any time except for scientific research or relocation for protection of livestock.

Porter-Cologne Water Quality Control Act, as amended is administered by the State Water Resource Control Board (SWRCB) to protect water quality and is an avenue to implement CA responsibilities under the federal Clean Water Act. This act regulates discharge of waste into a water resource.

1.3.2 Federal

National Environmental Policy Act (NEPA: 42 United States Code (U.S.C.) 4321 et seq) established national environmental policy and goals for the protection, maintenance and enhancement of the environment. A process is available for implementation goals within federal agencies. NEPA requires federal agencies to consider the environment in processing proposed actions.

Endangered Species Act (ESA) of 1973 (16 U.S.C. 1531-1544) protects federal listed threatened and endangered species from unlawful take (harass, harm, pursue, hunt, shoot, kill, wound, collect, capture, trap or attempt to do so) or significantly modify habitat. If a proposed project would jeopardize a threatened or endangered species, then a Section 7 consultation with a federal agency could be required.

Migratory Bird Treaty Act (50 Code Federal Regulations (CFR) 10.13) is a federal statute with several foreign countries to protect species that migrate between countries. Over 850 species are listed and may not be disrupted during nesting activities. It is illegal to collect any part (nest, feather, eggs, etc) of a listed species, disturb species while nesting or offer for trade or barter any listed species or parts thereof.

Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c) protects bald and golden eagles from take (harass, harm, pursue, hunt, shoot, kill, wound, collect, capture, trap or attempt to do so) or interference with breeding, feeding or sheltering activities.

Clean Water Act, 1972 (CWA 33 U.S.C. 1251 et seq.) regulates discharges into waters of the U.S. EPA is given the responsibility to implement programs to prevent pollution.

2.0 BIOLOGICAL SURVEY METHODOLOGIES

The purpose of the studies was to determine the inventory of biological resources at the time of the survey; the possibility of the existence of endangered, threatened, sensitive or species of concern within project area: map habitats, and ascertain the probability of the presence of sensitive species on site.

2.1 Field Surveys

2.1.1 General Biological Survey

The survey was intended to assess presence or the potential for species to occur based on habitat suitability.

California Natural Diversity Database (CNDDDB), California Native Plant Society database (CNPS), United States Fish and Wildlife Service (USFWS)/Carlsbad office Sensitive Species list, FEMA Flood Map, USDA Soil Maps, field guides, personal contacts and other methods were utilized to ascertain potential for sensitive species on the site.

Pedestrian biological surveys of the approximately 12.9 acre project area and buffer zones, where possible, to document vegetation and animals were conducted by biologists Glenna Barrett, and Marie Barrett as indicated in Table 1: Field Survey Schedule. The surveys were conducted to develop an inventory of species (plant and animal) present at the time of the surveys, map vegetative communities, if present and ascertain the potential for occurrence of sensitive, endangered or threatened species within the project area and vicinity.

Table 1: Field Survey Schedule

Date	Surveyors	Survey Time	Weather
11/15/22	Glenna Barrett/Marie Barrett	0830-0945	59-64°F/25-0% cloud cover/4 mph
Total all surveyors		2 hrs 30 minutes	

Garmin GPS, binoculars, thermometer, anemometer and digital cameras were used.

2.1.2 Jurisdictional Delineation

No washes and ephemeral washes were observed on site.

2.2 Literature Review

Potential occurrence for endangered, threatened, sensitive, species of concern and noxious weeds was determined by perusal of appropriate data bases which included:

- CA Natural Diversity Database (CNDDDB)
- CA Native Plant Society (CNPS) Rare Plant Program
- USFWS Bird Species of Conservation Concern
- USFWS Critical Habitat for Threatened & Endangered Species Website
- CA Food and Agriculture Department Noxious Weed Information Project
- USDA Soil maps
- FEMA Flood map

3.0 Existing Conditions

3.1 Topography and Soils

This area is located in Imperial County and is found in the middle part of the county. Landforms are Alluvium derived from mixed and/or eolian deposits derived from mixed. Drainage is moderately well drained and depth to water table is typically greater than 80 inches.

The elevation on this site varies from approximately -31 feet to -33 feet.

Soils found in this site include: 114: Imperial silty clay wet

Map Unit Description:

114—Imperial silty clay, wet

Map Unit Setting

National map unit symbol: h8zn

Elevation: -230 to 200 feet

Mean annual precipitation: 0 to 3 inches

Mean annual air temperature: 72 to 75 degrees F

Frost-free period: 300 to 350 days

Farmland classification: Farmland of statewide importance

3.2 Vegetation

3.2.1 Vegetation Community

Vegetation has been divided into communities that are groups of plants that usually coexist within the same area. This area is considered the Colorado Desert and native vegetation would be creosote bush-brittle bush scrub (*Larrea tridentate-Encelia farinosa* Shrubland Alliance). (*A Manual of California Vegetation*, 2009, Sawyer/Wolf). Rainfall

was reported as 1.10 inches in September which as sufficient to promote germination on site.

Table 2: Vegetative Communities

Parcels	Acreage	Description	Vegetative Communities
	12.90	This area is a vacant lot with sparse ruderal vegetation	Ruderal

3.2.2 Agriculture

No agricultural crops are growing on this site. This is a vacant lot with no signs of agricultural cultivation. Soils at this site include: Farmland of statewide importance. Soil maps found in Appendix.

3.2.3 Vegetation

Vegetation on site is primary ruderal species (listed in Appendix C).

3.3 Wildlife

3.3.1 Invertebrates

This project site is a vacant lot with no expected invertebrates.

3.3.2 Amphibians

Reliable moisture is a requirement for a portion of amphibian life cycle. The project site is a vacant lot. No amphibians were observed on site. Due to the lack of reliable available water, none would be expected.

3.3.3 Reptiles

The project site is a vacant lot. Reptiles utilize habitat dependent upon their dietary requirements. Some species diet includes vegetation while others consume insects. All require vegetation for shelter. Sparse vegetation is available on site and is not a reliable habitat for reptiles.

3.3.4 Birds

Bird species diversity varies with seasons, variety and quality of vegetative communities.

Birds were observed in the vicinity. List of species observed is found in Appendix C.

3.3.5 Mammals

Signs of mammals were observed on sites but were assumed to be coyotes, rabbits.. Bats are not expected; roosting sites are not available. The mammals that were found are identified in Appendix C.

3.3.6 Fish

The project site is a vacant lot. There are no water sources on site; no fish would be expected.

3.4 Sensitive Biological Resources

3.4.1 Special Status Species

Special-Status Species	Legal Status	Found	Potential for Occurrence
Flat-tailed horned lizard (FTHL)	Federal: None State: Protected, Species of Special Concern	No	None on site – Highly disturbed acreage. No FTHL, scat or tracks were identified in the general biological survey. This area is not within a FTHL Management Area
Colorado fringe toed lizard	Federal: Threatened State: Endangered	No	None on site – Primarily found in wind-blown sand areas. Agricultural acres with no wind blown sand areas.
Burrowing owl	Federal: None State: CSC	No	Low on site but burrowing possible in conveyance system (canals/drains)
Gila Woodpecker <i>Melanerpes uropygialis</i>	CDFW: Endangered	No	Very low on site – Highly disturbed acreage with sparse available nesting opportunities; sparse palm trees
Le Conte's thrasher <i>Toxostoma lecontei</i>	CDFW: Species of Concern	No	Very low on site –no available nesting opportunities
Loggerhead shrike <i>Lanius ludovicianus</i>	CDFW: Species of Concern	No	Very low on site; no suitable habitat No prey was observed

Yuma Ridgeway rail	Fed: Endangered	No	None on site. Lives in freshwater and brackish marshes; Prefers dense cattails, bulrushes, and other aquatic vegetation. Nests in riverine wetlands near upland, in shallow sites dominated by mature vegetation, often in the base of a shrub. Prefers denser cover in winter than in summer. Very shy. No habitat not on site.
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3.4.2 Riparian Habitat or Sensitive Natural Communities

Based upon the level of disturbance or habitat conversion within adjacent areas, vegetative communities are considered rare or sensitive. Rare vegetation types that are converted and degraded can disrupt the integrity of the ecological functions of natural environments. This can lead to the loss of sensitive plant species and a resulting decrease in biodiversity. Wetland or riparian habitat communities are considered sensitive by CDFW.

3.4.3 Jurisdictional Waters

Wetlands and other “waters of the United States” that are subject to Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act are under the jurisdiction of the U.S. Army Corp of Engineers (ACOE).

3.4.4 Habitat Connectivity and Wildlife Corridors

The ability for wildlife to freely move about an area and not become isolated is considered connectivity and is important to allow dispersal of a species to maintain exchange genetic characteristics; forage (food and water) and escape from predation.

3.4.5 California Desert Conservation Area (CDCA)

This project is not within or immediately adjacent to an Area of Critical Environmental Concern (ACEC) of the CDCA.

4.0 Proposed Project Impact

The proposed impacts are summarized in this section.

4.1 Impact to Special Status Species

If this project has a substantial adverse effect, either directly or through habitat modification or elimination, on any plant or animal species that is considered endangered, threatened, candidate for listing or special status species either through

federal or state regulations, this project would be considered to have a significant impact.

4.1.1 Biological Resources

No special status and priority plants or animals were observed. The approximately 12.9 acres are highly disturbed and no adverse impact is expected either directly or through habitat modification 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 Wildlife or U.S. Fish and Wildlife Service when avoidance, minimization and mitigation recommendations are followed.

Biological resources found are listed in Table 4 and Figure 4 Biological Resources Map.

Table 4 Biological Resources

Location	Description	Recommendations
1. Ruderal vegetation	Sparse, throughout site	MBTA surveys prior to construction

4.1.2 Sensitive Wildlife

4.1.2.1 Burrowing Owl

Construction Impact.

While no burrowing owl (BUOW) were observed during surveys, a preconstruction BUOW survey should be performed within 14 days and 24 hours prior to construction by qualified biologists as BUOW are found throughout Imperial County.

BUOW could potentially utilize burrows in nearby canal or drain ditch banks adjacent to the project. There is no abundance of prey (insects) that could support BUOW presence. There is potential that there would be direct and/or indirect impacts to this species if construction occurs during the active nesting period of February to end of August. Ground disturbance from heavy equipment, which may potentially impact the BUOW, if present, would be considered significant and could require mitigation. Impacts to this species would be considered significant, if present.

Section 5 discusses avoidance, minimization and mitigation requirements for burrowing owls found on site or in vicinity during construction.

4.1.2.2 MBTA Nesting

Construction Impact

Bird nesting could occur within vacant lots. Ground nesting species, such as lesser nighthawk, and killdeer could use the area.

If construction is planned to begin during nesting season (generally February 1 through August 31), the project area and a 500 foot buffer area should be surveyed within 3-5 days of start of construction to determine presence/absence of nesting. If nests are found, an appropriate buffer zone for the species should be maintained during construction until juveniles have fledged.

Operations and Maintenance Indirect Impact

Electrocution

Electrical components are not found within the project and would not be expected to impact avian populations.

4.2 Impact to Riparian Habitat or Sensitive Natural Communities

The distribution of riparian plant species is largely driven by hydrological and soil variables and riparian plant communities frequently occur in relatively distinct zone along streamside elevational and soil textural gradients.

There is no riparian habitat found on site, therefore this project will not have a substantial adverse effect on any riparian habitat.

4.3 Impact to Jurisdictional Waters

There are no wetlands found on site; therefore this project will have no impact on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

No established washes and ephemeral washes were observed on site. FEMA Map # 06025C1725C rated this area as a Zone X: Areas determined to be outside the 0.2% annual chance floodplain. FEMA map found in Appendix.

4.4 Impact to Wildlife Movement and Nursery Sites

This project is a vacant lot surrounded by commercial and residential development. The proposed project will not interfere with the currently restricted movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

4.5 Impact to Airports

This project has no components that will attract avian populations that would impact airports. It is approximately 4.6 miles from Imperial Airport, CA, which is the closest airport. No impact upon airports is expected.

4.6 CEQA Impacts

Possible CEQA significant impacts that could include the following within the parameters of this project:

Table 5: Expected Impacts

Area	Endangered/threatened/ Species of Concern Habitat	Riparian Habitat	Wetlands	Wildlife Corridors	Local Ordinances	Waters of the U.S.
12.9 acres	None with avoidance/ minimization/ mitigation measures	No	No	No	No	No

5.0 Recommended Avoidance, Minimization and Mitigation Measures

5.1 Sensitive Wildlife

5.1.1 Burrowing Owl

Avoidance Measures

A preconstruction survey should be performed prior to initiating ground disturbance. Report should be submitted to the appropriate agency.

Since BUOW have been located within the vicinity, it is recommended that construction foremen and workers and onsite employees be given worker training by a qualified biologist regarding burrowing owl that would include the following:

- Description of BUOW
- Biology
- Regulations (CDFW/USFWS)
- Wallet card with picture/guidelines for protecting owl and wildlife
- Notification procedures if owl (dead, alive, injured) is found on or near site

A sign in should be obtained and the training materials and sign in sheet should be submitted to appropriate agency.

Minimization Measures

To avoid direct or indirect impacts to BUOW, surveys for this species should be conducted to determine if this species is present within the survey area. If BUOW is present, mitigation will be required. Minimization measures could include preconstruction surveys within 14 days and 24 hours of start of ground breaking activities and worker training.

Mitigation Measures

1. If occupied burrows are found on site, the burrows shall be passively relocated by a qualified biologist outside of nesting season and an appropriate number of artificial burrows shall be installed. If possible, these burrows shall be installed as close as possible to the passively relocated burrows
2. If not in the active construction areas, the occupied burrows can be sheltered in place with appropriate materials
3. If occupied burrows are sheltered, a biological monitor shall monitor areas of active construction This biologist will ensure that the project complies with these mitigation measures and will have the authority to halt activities if they are not in compliance. The biologist will inspect the construction areas periodically for the presence of BUOWs.
4. If work is stopped for longer than 14 days, area will be resurveyed prior to restart of construction.

5.1.2 Migratory Birds and Non-migratory Bird Species

If construction is scheduled to begin during nesting season (February-August), a survey for nesting birds should be performed within 3-5 days of groundbreaking activities. Dependent upon species found, appropriate buffer zones will be established by a qualified biologist. Buffer zones will be established for active nests and these nests will be monitored by qualified biologist until young have fledged.

If work is stopped for longer than 7 days during nesting bird season, area will be resurveyed prior to restart of construction.

It is recommended that construction foremen and workers and onsite employees be given worker training by a qualified biologist regarding nesting birds that would include the following:

- Description of birds covered under MBTA and likely to be found on project
- Biology
- Regulations (CDFW/USFWS)

- Notification procedures if bird (dead, alive, injured) is found on or near site

A sign in should be obtained and the training materials and sign in sheet should be submitted to appropriate agency.

A biologist should be consulted immediately if a dead or injured bird is found on site.

5.1.3 Invasive Plants

Any saltcedar or russian thistle found on site should be removed in a manner that will not distribute plant seeds or plant material. Use of covered trailers to remove invasive species to an approved landfill is recommended.

Equipment brought onsite should be clean to prevent importing invasive species to site.

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APPENDIX A
SENSITIVE BOTANICAL AND
ZOOLOGICAL SPECIES
(CNDDDB/CNPS) SPECIES

APPENDIX A
SENSITIVE BOTANICAL AND ZOOLOGICAL SPECIES (CNDDDB/CNPS/USFWS LISTS)
EI Centro Quadrangle (Nine Quad Search) October, 2022

BOTANICAL SPECIES	STATUS ¹	DESCRIPTION OF SPECIES	HABITAT	OBSERVATION/ SITE POTENTIAL
Chaparral sand-verbena <i>Abronia villosa var aurita</i>	State: S2.2 (not very threatened); CNPS list: 1B.2 (rare, threatened in Ca; fairly endangered in Ca.)	Likes full sun, and sandy soil. Sand-verbena has gray foliage with pinkish purple flowers, and the flowers are fragrant. It does not tolerate weeds and needs bare ground. 80-1600m (263-5249ft)	Chaparral, Coastal Shrub, and desert dunes/sandy areas.	No habitat; none observed
Sand Food <i>Pholisma sonora</i>	State: 1B.2	its fleshy stem extending up to two meters-six feet below the surface and emerging above as a small rounded or ovate form	It is a parasitic plant which attaches to the roots of various desert shrubs such as wild buckwheats, ragweeds, pluchias, and <i>Tiquilia plicata</i> and <i>T. palmeri</i> to obtain nutrients.	No habitat; none observed
Mud Nama <i>Nama stenocarpum</i>	State: S2.2 (not very threatened)	Size: 0.26 - 1.3 ft tall	This tiny annual herb grows on the muddy embankments of ponds and lakes. It is also reported to utilize river embankments.	No habitat; none observed

BOTANICAL SPECIES	STATUS ¹	DESCRIPTION OF SPECIES	HABITAT	OBSERVATION/ SITE POTENTIAL
Gravel Milk-Vetch <i>Astragalus sabulorum</i>	State: S2.2 (not very threatened)	Annual Perennial Growth Habit: Forb/herb Native Status: L48 N	Found in sandy or gravelly areas; 100-650feet.; flowers between Feb-Jul	No habitat; none observed
California satintail <i>Imperata brevifolia</i>	CNDDDB Ranks G2, S2.1; CNS: 2.1	This plant can be weedy or invasive. Grass or grass-like plant, including grasses (Poaceae), sedges (Cyperaceae), rushes (Juncaceae), arrow-grasses (Juncaginaceae), and quillworts (Isoetes).	It is native to the southwestern United States from California to Texas and northern Mexico, where it grows in arid regions where water is available.	No habitat; none observed
Hairy Stickleaf <i>Mentzelia hirsutissima</i>	CNDDDB Ranks G3, S2S3; CNPS: 2.3	Annual to shrub; hairs needle-like, stinging, or rough	Creosote Bush Scrub	No habitat; none observed

BOTANICAL SPECIES	STATUS ¹	DESCRIPTION OF SPECIES	HABITAT	OBSERVATION/ SITE POTENTIAL
Brown turbans <i>Malperia tenuis</i>	CNDDDB Ranks G4, S1.3; CNPS: 2.3	is recognized by its annual duration, linear leaves densely arranged along stems or concentrated near bases of stems, loosely arranged heads, and pappi of two kinds of scales.	Sonoran Desert Scrub is the general habitat for Brown Turbans. Near Ocotillo it grows on arid slopes with shallow soils, rocky surface rubble with few large boulders, and little competition from shrubs.	No habitat; none observed
Pink Fairy Duster <i>Calliandra eriophylla</i>	CNDDDB Ranks G5, S2S3; CNPS: 2.3	Fairy Duster is a low, densely branched shrub 8 to 48 inches high. The leaves are formed by 2-to-4 pairs of 1/4-inch, oblong leaflets. It is a member of the Pea Family (Fabaceae) which includes acacias and mimosas.	Open hillsides, sandy desert washes and slopes below 5,000 feet.	No habitat; none observed

BOTANICAL SPECIES	STATUS¹	DESCRIPTION OF SPECIES	HABITAT	OBSERVATION/ SITE POTENTIAL
Abrams's Spurge <i>Chamaesyce abramisiana</i>	CNPS list: 2	Annual herbaceous blooms Sept/Nov. Common spurge in area has large purple spot and is prostrate; Abram's is not as colorful.	Sonoran Desert Shrub	No habitat; no Abrams's spurge found.
Parish's desert-thorn <i>Lycium parishii</i>	CNPS list: 2B.3	Perennial shrub	Coastal shrub, Sonoran Desert scrub	No habitat; none observed
ZOOLOGICAL SPECIES	STATUS¹	DESCRIPTION OF SPECIES	HABITAT	OBSERVATION/ SITE POTENTIAL
Birds				
Yuma Ridgeway rail <i>Rallus longirostris yumanensis</i>	Fed: Endangered Ca: Threatened	A chickenlike marsh bird with a long, slightly drooping bill and an often upturned tail. Light brownish with dark streaks above. Rust-colored breast; bold, vertical gray and white bars on the flanks; white undertail coverts	Lives in freshwater and brackish marshes. Prefers dense cattails, bulrushes, and other aquatic vegetation. Nests in riverine wetlands near upland, in shallow sites dominated by mature vegetation, often in the base of a shrub. Prefers denser cover in winter than in summer. Very shy.	None observed or heard; Cattails not found; no suitable habitat on site or in adjacent drains.

ZOOLOGICAL SPECIES	STATUS ¹	DESCRIPTION OF SPECIES	HABITAT	OBSERVATION/ SITE POTENTIAL
Burrowing Owl <i>Athene cunicularia</i>	CDFW: SC Species of Concern	Small raptors that nest in burrows that have been borrowed from other species in open grassland areas. Have adapted well in Imperial County using canals/drains/ditches to establish burrows and foraging for insects in agricultural fields	Open, dry annual or perennial grasslands; deserts & scrublands	None observed; no sign observed. There are water conveyance structures that could encourage BUOW burrows
Mountain plover <i>Charadrius montanus</i>	CDFW: SC Species of Concern	The mountain plover is 8 to 9.5 inches (20 to 24 cm) long and weighs about 3.7 ounces (105 grams). Its wingspread is 17.5 to 19.5 inches (44.5 to 49.5 cm). Both sexes are of the same size. It has no band across the breast. The upperparts are sandy brown and the underparts and face are whitish. There are black feathers on the forehead and a black stripe from each eye to the bill (the stripe is brown and may be indistinct in winter); otherwise the plumage is plain.	It breeds in the high plains of North America from extreme southeastern Alberta and southwestern Saskatchewan to northern New Mexico and the Texas panhandle, as well as an isolated site in the Davis Mountains of West Texas. About 85 percent of the population winters in the San Joaquin and Imperial Valleys in California. Its winter range also extends along the U.S.-Mexican border, more extensively on the Mexican side. The mountain plover needs about 70 acres of territory for breeding, and about 25 acres for survival in non-breeding times.	No habitat

ZOOLOGICAL SPECIES	STATUS ¹	DESCRIPTION OF SPECIES	HABITAT	OBSERVATION/ SITE POTENTIAL
Northern harrier <i>Circus hudsonius</i>	CDFW: SC Species of Concern	The northern harrier is 41–52 cm (16–20 in) long with a 97–122 cm (38–48 in) wingspan. It resembles other harriers in having distinct male and female plumages. The sexes also differ in weight, with males weighing 290 to 400 g (10 to 14 oz), with an average of 350 g (12 oz), and females weighing 390 to 750 g (14 to 26 oz), with an average of 530 g (19 oz). Among standard measurements, the wing chord is 32.8 to 40.6 cm (12.9 to 16.0 in), the tail is 19.3 to 25.8 cm (7.6 to 10.2 in) and the tarsus is 7.1 to 8.9 cm (2.8 to 3.5 in). It is relatively long winged and long tailed, having the longest wing and tail relative to its body size of any raptor occurring in North America.	This medium-sized raptor breeds on moorland, bogs, prairies, farmland coastal prairies, marshes, grasslands, swamps and other assorted open areas. A male will maintain a territory averaging 2.6 km ² (1.0 sq mi), though male territories have ranged from 1.7 to 150 km ² (0.66 to 57.92 sq mi).	No habitat.

ZOOLOGICAL SPECIES	STATUS ¹	DESCRIPTION OF SPECIES	HABITAT	OBSERVATION/ SITE POTENTIAL
<p>Vermillion flycatcher</p> <p><i>Pyrocephalus rubinus</i></p>	<p>CDFW: SC Species of Concern</p>	<p>Length: 5 inches. The adult male has a Bright red cap, throat and underparts; with a Black eyeline, nape, back, wings, and tail. The Immature male similar to female but has variable amount of red on underparts. The female and immature has Brown upperparts with White underparts with faint streaks on breast with an undertail coverts tinged pink The adult male Vermilion Flycatcher is very distinctive. The female and immatures are more nondescript but the streaking on the breast and pink tinge to the undertail coverts distinguish them from other flycatchers.</p>	<p>Frequents streams and ponds in arid areas; agricultural areas</p>	<p>No favorable habitat; None observed.</p>

ZOOLOGICAL SPECIES	STATUS ¹	DESCRIPTION OF SPECIES	HABITAT	OBSERVATION/ SITE POTENTIAL
Summer tanager <i>Piranga rubra</i>	CDFW: SC Species of Concern	Adults have stout pointed bills and measure 17 cm (6.7 in) in length and 29 g (1.0 oz) in weight. Adult males are rose red and similar in appearance to the hepatic tanager, although the latter has a dark bill; females are orangish on the underparts and olive on top, with olive-brown wings and tail. As with all other birds, all red and orange colorations are acquired through their diet.	Their breeding habitat is open wooded areas, especially with oaks, across the southern United States, extending as far north as Iowa. These birds migrate to Mexico, Central America and northern South America. This tanager is an extremely rare vagrant to western Europe.	No habitat; none observed
ZOOLOGICAL SPECIES	STATUS ¹	DESCRIPTION OF SPECIES	HABITAT	OBSERVATION/ SITE POTENTIAL
Crissal Thrasher <i>Toxostoma crissale</i>	CDFW Species of Concern	A large thrasher found in the Southwestern United States to central Mexico. The bird grows to 32 cm (12.5 inches) and has a deeply curved bill. It can be found near water in dense underbrush, and in the low desert near canyon chaparral; seldom flies in the open.	Dense vegetation along streams/washes in mesquite/willows/arrowweed	L None observed; no habitat

Gila Woodpecker <i>Melanerpes uropygialis</i>	Fed: - CDFW Endangered	Bill black to grayish black with dark red to reddish hazel eyes. About 9.3 inches long with brownish green or bluish legs and feet. Black and white barring on back male has red cap on head. Buff-brown face, neck and breast with barred rump and central tail feathers.	Uncommon to resident in southern California along the Colorado River, and locally near Brawley. Occurs mostly in desert riparian and desert wash habitats. Cottonwoods and other desert riparian trees, shade trees, and date palms supply cover.	L No suitable habitat
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ZOOLOGICAL SPECIES	STATUS ¹	DESCRIPTION OF SPECIES	HABITAT	OBSERVATION/ SITE POTENTIAL
	CDFG: Species of	The loggerhead shrike is a medium-	The bird requires an open habitat with an	

<p>Loggerhead shrike <i>Lanius ludovicianus</i></p>	<p>Special Concern</p>	<p>sized passerine. "Loggerhead" refers to the relatively large size of the head as compared to the rest of the body. It measures approximately 9 inches from bill to tail. The wing and tail length are about 3.82 and 3.87 inches long, respectively. It weighs on average 50 grams, with a range of 45-60 grams for a healthy adult shrike. The adult plumage of the loggerhead shrike is grey above with a white to pale grey breast and black tarsi and feet. The bird possesses a black mask that extends across the eyes to its bill.</p>	<p>area to forage, elevated perches, and nesting sites. They are often found in open pastures or grasslands and appear to prefer red-cedar and hawthorn trees for nesting. The hawthorn's thorns and the cedar's pin-like needles protect and conceal the shrike from predators.</p>	<p>No habitat; sparse prey observed; none observed</p>
<p>ZOOLOGICAL SPECIES</p>	<p>STATUS¹</p>	<p>DESCRIPTION OF SPECIES</p>	<p>HABITAT</p>	<p>OBSERVATION/ SITE POTENTIAL</p>
<p>California Black Rail</p>	<p>CDFW: Threatened</p>	<p>The smallest of all rails, the black rail is slate-colored, with a</p>	<p>Most commonly occurs in tidal emergent wetlands dominated by</p>	<p>L</p>

<p><i>Laterallus jamaicensis coturniculus</i></p>		<p>black bill, red eyes and a white-speckled back. The legs are moderately long and the toes are unwebbed. The sexes are similar.</p>	<p>pickleweed or in brackish marshes with bulrushes in association with pickleweed. In freshwater, usually found in bulrushes, cattails, and saltgrass and in immediate vicinity of tidal sloughs. Typically occurs in the high wetland zones near upper limit of tidal flooding, not in low wetland areas with considerable annual or daily fluctuations in water levels. Nests are concealed in dense vegetation, often pickleweed, near upper limits of tidal flooding</p>	<p>None observed; no habitat on site</p>
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ZOOLOGICAL SPECIES	STATUS ¹	DESCRIPTION OF SPECIES	HABITAT	OBSERVATION/ SITE POTENTIAL
<p>Leopard frog</p> <p><i>Lithobates yavapaiensis</i></p>	<p>Species of concern</p>	<p>Tan, gray-brown or light gray-green to green above; yellow below. Vague upper lip stripe, tuberculate skin. Dark network on rear of thighs; yellow groin color often extends onto rear of belly and underside of legs. Male will exhibit a swollen and darkened thumb base.</p>	<p>Find in desert grassland and in woodlands. Uses permanent water sources, stays near water. Breed Feb-April. Bullfrogs are predators</p>	<p>L</p> <p>Not expected on site..</p>
<p>Sonoran Desert toad</p> <p><i>Incillius alvarius</i></p>	<p>CDFW: SC</p>	<p>Large: 7.5 inches or more in length. Smooth, typically olive-green/brown skin, cranial crests, and prominent, elongated glands on both sides of the back of the head (parotoid glands) and on the hind legs. Young toads have small dark, orange-tipped spots on the back. Larger tadpoles are gray or brown with a rounded tail tip, and grow to about 2.25 inches.</p>	<p>Sonoran Desert scrub, semi-desert grasslands. Can be tied to permanent water, such as major rivers or the edges of agriculture. May be found many miles from water, particularly during the summer monsoons. Most Sonoran Desert toads are found at night during the monsoon season, but they may emerge a month or more before the summer rains begin, particularly in areas of permanent water. Can be found in rodent burrows or underground retreats.</p>	<p>L</p> <p>None observed. No habitat present on site.</p>

ZOOLOGICAL SPECIES	STATUS ¹	DESCRIPTION OF SPECIES	HABITAT	OBSERVATION/ SITE POTENTIAL
Northern leopard frog <i>Lithobates pipiens</i>	CDFW: SC	2-3½ inches long and has randomly distributed black spots on its back, sides, and legs. Each spot is surrounded by a light halo. The background colors of the frog can range from gold to green. Gold or brown dorsolateral ridges often stand out in contrast. White belly with no other markings	NLF needs permanent water for overwintering, floodplains and marshes for breeding, and wet meadows and fields for foraging	L No habitat on site or nearby
Flat-tailed horned lizard <i>Phrynosoma mcallii</i>	CNDDDB Rank: G3; S2 CDFG: SC	A small (up to 87 mm or 3.4" from snout to vent), exceptionally flat and wide lizard with a long (for a horned lizard) broad, flat tail and a dark stripe running down the middle of the back.	occupy a small range in the Sonoran Desert of southwestern California, southwestern Arizona, and extreme northern Mexico.	L No sandy habitat
Colorado Desert fringe-toed lizard <i>Uma notata</i>	CNDDDB Rank: G3, S2; CDFG: SC	2 3/4 to 4 4/5 inches long from snout to vent (7 - 12.2 cm). (Stebbins 2003) The tail is about the same length as the body.	Sparsely-vegetated arid areas with fine wind-blown sand, including dunes, flats with sandy hummocks formed around the bases of vegetation, washes, and the banks of rivers. Needs fine, loose sand for burrowing.	L No sandy habitat

ZOOLOGICAL SPECIES	STATUS ¹	DESCRIPTION OF SPECIES	HABITAT	OBSERVATION/ SITE POTENTIAL
American Badger <i>Taxidea taxus</i>	CDFW: Species of Concern	Burrowing animals that feed on ground squirrels, rabbits, gophers and other small animals. Prefer grasslands, agricultural areas.	Found in drier open areas with friable soils	L None seen; no burrows observed with badger characteristics observed. Not expected because of low prey opportunity
Pocketed free-tailed bat <i>Nyctinomops femorosaccus</i>	CNDDDB Rank: G4, S2S3; CDFG: SC	A small fold, or "pocket" in the wing membrane of the free-tailed bat, near its knee, gives this bat its common name. Pocketed free-tailed bats have large ears and long wings, and fly rapidly, generally pursuing insects on the wing. They eat many kinds of insects, but seem to prefer small moths.	It occurs in the arid lowlands of the desert Southwest, and primarily roosts in crevices in rugged cliffs, slopes, and tall rocky outcrops.	L No nesting habitat

ZOOLOGICAL SPECIES	STATUS ¹	DESCRIPTION OF SPECIES	HABITAT	OBSERVATION/ SITE POTENTIAL
Western Mastiff Bat <i>Eumops perotis californicus</i>	CNDDDB Rank: G5T4, S3; CDFW: SC	Eumops perotis can be distinguished from all other North American molossid (free-tail) species based on size. With a forearm of 73-83 mm, it is North America's largest species.	In California, the E. perotis is most frequently encountered in broad open areas. Generally, this bat is found in a variety of habitats, from dry desert washes, flood plains, chaparral, oak woodland, open ponderosa pine forest, grassland, montane meadows, and agricultural areas.	L Low prey opportunity
Western Yellow bat <i>Lasiurus xanthinus</i>	CDFW: Species of Concern	Consumes small to medium-sized, night flying insects. Yellow color/short ears.	Roosts in leafy vegetation the deserts of the southwestern United States. Roosts among the dead fronds of palm trees and cottonwoods	L Not expected; no palms and no cottonwood trees found on site some palms found adjacent to site.
Big free tailed bat <i>Nyctinomops macrotis</i>	CDFW: Species of Concern	Body length of 5 1/8 to 5 3/4", with a 17" wingspan, which makes it bigger than other free tailed bats. Fur is reddish brown to dark brown, with hairs white at base. Tail extends past membrane at least an inch. Big ears are joined at base and extend out over face like a hat. Eats mostly moths, some crickets, grasshoppers, ants, various other insects.	Lives in rocky areas of desert scrub or coniferous forests. During day roosts in crevices on cliff faces.	L None seen. Not expected; no roosting habitat.

ZOOLOGICAL SPECIES	STATUS ¹	DESCRIPTION OF SPECIES	HABITAT	OBSERVATION/ SITE POTENTIAL
Yuma hispid cotton rat <i>Sigmodon hispidus eremicus</i>	CDFW: Species of Concern	Small furry mammal	are among the most widely distributed species of rodents, occurring contiguously in grassland and savanna settings from Virginia, Nebraska, and Arizona in North America (Cameron and Spencer 1981) to Venezuela in South America (Voss 1992).	No habitat; none observed
California leaf-nosed bat <i>Macrotus californicus</i>	CDFW: Species of Concern	The California leaf-nosed bat weighs between 12 and 20 <u>grams</u> , has a wingspan of over 30 centimeters and a body length of over 6 centimeters, and is brown in color. As its name implies, it has a triangular fleshy growth of skin, called a noseleaf, protruding above the nose.	can be found in Sonoran and Mojave Desert scrub habitats in the Colorado River valley in southern California, Nevada and Arizona, and throughout western Mexico. It is non-migratory and does not hibernate. Its natural habitat is hot deserts.	No habitat; none observed
Pallid bat <i>Antrozous pallidus</i>	CDFW: Species of Concern	Pallid bats have a head and body length of approximately 2.75 inches (6.2-7.9 cm), forearm length of approximately 2.1 inches (4.5-6 cm), ^[5] a tail of approximately 1.75 inches (3.9-4.9 cm), and a wingspan of 15-16 inches (38-40 cm). ^[6] ^[7] They weigh 14-25 grams.	ranges from western Canada to central Mexico.	No habitat; none observed

ZOOLOGICAL SPECIES	STATUS ¹	DESCRIPTION OF SPECIES	HABITAT	OBSERVATION/ SITE POTENTIAL
Palm Springs pocket mouse <i>Perognathus longimembris bangsi</i>	CDFW: Species of Concern	Small heteromyid rodent with length of about 110 to 151 mm and weight from 8 to 11 g. There are usually two small patches of lighter hairs at the base of the ear. There is no a tail-crest, and an unlobed antitragus in the outer ear.	Creosote scrub, desert scrub, and grasslands, with loosely packed or sandy soils with sparse to moderately dense vegetative cover. <i>P. l. bangsi</i> occurs only in the Coachella Valley, where substantial agricultural and urban/suburban conversion of habitat, especially in the valley floor, has occurred over the last century. The species occurs only in native habitats.	L Not found in area; No habitat

Special Status Species that Occur in Imperial County (USFWS)

Common Name Scientific Name	Status ¹ Federal/CDFG /CNPS	DESCRIPTION OF SPECIES	Habitat	Suitability Of Habitat In Survey Area
Plants				
Peirson's milk-vetch <i>Astragalus magdalenae</i> var. <i>peirsonii</i>	T/E/1B	Silvery, short-lived perennial plant that is somewhat broom like in appearance. A member of the pea and bean family, it can grow to 2.5 feet tall and is notable among milkvetches for its greatly reduced leaves. Peirson's milkvetch produces attractive, small purple flowers, generally in March or April, with 10 to 17 flowers per stalk. It yields inflated fruit similar to yellow-green pea pods with triangular beaks.	Desert dune habitats. In California, known from sand dunes in the Algodones Dunes system of Imperial County. Was known historically from Borrego Valley in San Diego County and at a site southwest of the Salton Sea in Imperial County	L None observed. No dune habitat

Common Name Scientific Name	Status ¹ Federal/CDFG /CNPS	DESCRIPTION OF SPECIES	Habitat	Suitability Of Habitat In Survey Area
Birds				
California brown pelican <i>Pelecanus occidentalis</i>	E/E/- No longer endangered	Large size and brown color. Adults weigh approximately 9 pounds, and have a wingspan of over 6 feet. They have long, dark bills with big pouches for catching and holding fish. Pelicans breed in nesting colonies on islands without mammal predators. Roosting and loafing sites provide important resting habitat for breeding and non-breeding birds.	Open water, estuaries, beaches; roosts on various structures, such as pilings, boat docks, breakwaters, and mudflats	L None observed. No open water onsite
Southwestern willow flycatcher <i>Empidonax traillii extimus</i>	E/-/-	Small; usually a little less than 6 inches in length, including tail. Conspicuous light-colored wingbars. Lacks the conspicuous pale eye-ring of many similar <i>Empidonax</i> species. Overall, body brownish-olive to gray-green above. Throat whitish, breast pale olive, and belly yellowish. Bill relatively large; lower mandible completely pale. The breeding range of <i>extimus</i> includes Arizona and adjacent states.	At low elevations, breeds principally in dense willow, cottonwood, and tamarisk thickets and in woodlands, along streams and rivers. Migrants may occur more widely. Prefers riparian willow/cottonwood but will use salt cedar thickets	L None Observed. No suitable tamarix thickets or available water for habitat

Common Name Scientific Name	Status ¹ Federal/CDFG /CNPS	DESCRIPTION OF SPECIES	Habitat	Suitability Of Habitat In Survey Area
Yuma clapper rail <i>Rallus longirostris yumanensis</i>	E/T/-	A chickenlike marsh bird with a long, slightly drooping bill and an often upturned tail. Light brownish with dark streaks above. Rust-colored breast; bold, vertical gray and white bars on the flanks; white undertail coverts. Very shy.	Lives in freshwater and brackish marshes. Prefers dense cattails, bulrushes, and other aquatic vegetation. Nests in riverine wetlands near upland, in shallow sites dominated by mature vegetation, often in the base of a shrub. Prefers denser cover in winter than in summer..	L None observed or heard; no suitable habitat; surveys did not find cattail habitat
Yellow-billed cuckoo <i>Coccyzus americanus</i>	C/E/-	Medium-sized cuckoo with gray-brown upperparts and white underparts. Eye-rings are pale yellow. Bill is mostly yellow. Wings are gray-brown with rufous primaries. Tail is long and has white-spotted black edges. Sexes are similar.	Found in forest and open woodlands, especially in areas with dense undergrowth, such as parks, riparian woodlands, and thickets	L None observed; no habitat on site

Common Name Scientific Name	Status ¹ Federal/CDFG /CNPS	DESCRIPTION OF SPECIES	Habitat	Suitability Of Habitat In Survey Area
Bald eagle <i>Haliaeetus leucocephalus</i>	T, PD/E/-	The distinctive white head and tail feathers. Beak and eyes yellow. Bald Eagles are about 29 to 42 inches long, can weigh 7 to 15 pounds, and have a wing span of 6 to 8 feet.	Found on shores, lake margins, and near large rivers. Nests in large trees. Winters at lakes, reservoirs, river systems, and some rangelands and coastal wetlands (breeding range is mainly in mountainous habitats near reservoirs, lakes and rivers, mainly in the northern two-thirds of California)	L None observed; no habitat
Least tern <i>Sterna antillarum</i>	E/E/-	Small tern. During breeding, black cap ending at white forehead. Short white eyestripe. Bill yellow with black tip. Back light gray. Underside white. Black leading edge to wing. In nonbreeding plumage has black eyestripe extending to back of head, white top of head, and black bill. Size: 21-23 cm (8-9 in) Wingspan: 48-53 cm (19-21 in) Weight: 30-45 g (1.06-1.59 ounces)	Shallow areas of estuaries, lagoons, and at the joining points between rivers and estuaries	L None observed; no habitat

Common Name Scientific Name	Status ¹ Federal/CDFG /CNPS	DESCRIPTION OF SPECIES	Habitat	Suitability Of Habitat In Survey Area
Least Bell's Vireo <i>Vireo bellii pusillus</i>	E/E/-	Drab gray to green above and white to yellow below. It has a faint white eyering and two pale wingbars; has pale whitish cheeks and forehead and greenish wings and tail. longer tail and subtle wingbars. The song is a varied sequence of sharp, slurred phrases that typically end with an ascending or descending note.	Formerly a common and widespread summer resident below about 2,000 feet in western Sierra Nevada. Also was common in coastal southern California, from Santa Barbara County south, below about 4,000 feet east of the Sierra Nevada. Prefers thickets of willow, and other low shrubs afford nesting and roosting cover	L None observed; no habitat on site. Thickets are not present
Mountain plover <i>Charadrius montanus</i>	FPT/SC/-	Medium-sized plover with pale brown upperparts, white underparts, and brown sides. Head has brown cap, white face, and dark eyestripe. Upperwings are brown with black edges and white bars; underwings are white. Tail is brown-black with white edges. Sexes are similar.	Avoids high and dense cover. Uses open grass plains, plowed fields with little vegetation, and open sagebrush areas. Likes to follow livestock grazing or burned off fields.	L None observed; not expected

Common Name Scientific Name	Status ¹ Federal/CDFG /CNPS	DESCRIPTION OF SPECIES	Habitat	Suitability Of Habitat In Survey Area
Black rail <i>Laterallus jamaicensis coturniculus</i>	-/T/-	The smallest of all rails, the black rail is slate-colored, with a black bill, red eyes and a white-speckled back. The legs are moderately long and the toes are unwebbed. The sexes are similar.	Most commonly occurs in tidal emergent wetlands dominated by pickleweed or in brackish marshes with bulrushes in association with pickleweed. In freshwater, usually found in bulrushes, cattails, and saltgrass and in immediate vicinity of tidal sloughs. Typically occurs in the high wetland zones near upper limit of tidal flooding, not in low wetland areas with considerable annual or daily fluctuations in water levels. Nests are concealed in dense vegetation, often pickleweed, near upper limits of tidal flooding	L None observed; no habitat
Raptors				
Peregrine Falcon <i>Falco peregrinus</i>	D/E/-	Large, powerful falcon; pointed winged falcon silhouette. Strong shallow wingbeats may dive at speeds up to 100 mph. Dark with dark hooded effect. Blue gray below with narrow bars Long-winged, long tailed hawk. Habitually flies low over open fields and marshes watching and listening for prey such as rodents and birds. (I observed Harrier with a white faced ibis as prey). Perches low or on ground. Low slow flight.	Most often found along coastlines or marshy habitats. Nest in cliffs and have been known to nest in tall buildings	L None observed. No waterfowl for prey or cliffs/tall buildings for nesting

Common Name Scientific Name	Status ¹ Federal/CDFG /CNPS	DESCRIPTION OF SPECIES	Habitat	Suitability Of Habitat In Survey Area
Northern Harrier <i>Circus cyaneus</i>	-/SC/-	Blue gray above pale reddish below; small size. Tip of tail squared off. Nesting occurs in dense tree stands which are cool, moist, well shaded and usually near water. Hunt in openings at the edges of woodlands and also brushy pastures.	Marshes, open fields. Nests in reeds	L Not observed on site; no habitat.
Sharp-shinned Hawk <i>Accipiter striatus</i>	-/SC/-	Gray and white with black on shoulders and under bend of wing. Graceful flyer. Adults have bright red eyes. Medium size hawk; about 15 inches long and about 12 ounces. Males pale with rufous shoulders and thigh feathers. White tail washed with rufous. Wide head wings in shallow v when soaring.	Sharp-shinned hawks may appear in woodland habitats during winter and migration periods and are often common in southern California in the coastal lowlands and desert areas; winters in woodlands and other habitats except alpine, open prairie and bare desert	L Not observed; no habitat
White tailed Kite <i>Elanus leucurus</i>	/E/		Found in open country; like to perch on treetop. May be seen hovering prior to attack of a rodent.	L None observed; no habitat

Common Name Scientific Name	Status ¹ Federal/CDFG /CNPS	DESCRIPTION OF SPECIES	Habitat	Suitability Of Habitat In Survey Area
Ferruginous hawk <i>Buteo regalis</i>	/SC/		Found in arid to semiarid regions, as well as grasslands and agricultural areas in southwestern Canada, western United States, and northern Mexico.	L None observed; no habitat
Mammals				
Bighorn sheep <i>Ovis canadensis</i>	E/E/-	Sheep have short hair which is light gray to grayish brown, except around their stomachs and rump, where it is creamy white. Their tails are about four inches long. Full-grown rams weigh between 180 and 240 pounds,	Desert Bighorn sheep occupy a variety of plant communities, ranging from mixed-grass hillsides, shrubs. Avoids dense vegetation	L None observed; no habitat

Common Name Scientific Name	Status ¹ Federal/CDFG /CNPS	DESCRIPTION OF SPECIES	Habitat	Suitability Of Habitat In Survey Area
Reptiles and Amphibians				
Desert tortoise <i>Gopherus agassizii</i>	T/T/-	A herbivore that may attain a length of 9 to 15 inches in upper shell (carapace) length. The tortoise is able to live where ground temperature may exceed 140 degrees F because of its ability to dig underground burrows and escape the heat. At least 95% of its life is spent in burrows. Their shells are high-domed, and greenish-tan to dark brown in color. Desert tortoises can grow from 4–6" in height and weigh 8–15 lb (4–7 kg) when fully grown. The front limbs have heavy, claw-like scales and are flattened for digging. Back legs are more stumpy and elephantine	Dry, flat, and gravelly or sandy ground in desert shrub communities where annual and perennial grasses are abundant. Frequent habitats with a mix of shrubs, forbs, and grasses	L None observed; habitat not favorable

Common Name Scientific Name	Status ¹ Federal/CDFG /CNPS	DESCRIPTION OF SPECIES	Habitat	Suitability Of Habitat In Survey Area
Flat-tailed horn lizard <i>Phrynosoma mcallii</i>	PT/-/-	Closely related to Desert horned lizard (scat indistinguishable); only found in Imperial, Riverside County, Ca and Yuma area, Az. Small round lizard with distinguishing round spots on back. Diet of ants; needs sandy soil, shade bushes to survive.	Desert washes/sandy areas with vegetative cover. Diet of ants	L No habitat; none observed
Fish				
Desert pupfish <i>Cyprinodon macularius</i>	E/E/-	Small, silvery-colored fish with 6 to 9 dark bands on its sides. Grows to a full average length of only 2.5 inches; develop quickly, sometimes reaching full maturity within 2 to 3 months. Although their average life span is 6 to 9 months, some survive more than one year. Pupfish have a short, scaled head with an upturned mouth. The anal and dorsal fins are rounded with the dorsal sometimes exhibiting a dark blotch. The caudal fin is convex at the rear.	Springs, seeps, and slow-moving drains directly draining into Salton Sea in Salton Sink basin and backwaters and sloughs of the Colorado River	L None observed; no habitat

Common Name Scientific Name	Status ¹ Federal/CDFG /CNPS	DESCRIPTION OF SPECIES	Habitat	Suitability Of Habitat In Survey Area
Razorback Sucker <i>Xyrauchen texanus</i>	Fed/CA: Endangered	One of the largest suckers in North America, can grow to up to 13 pounds and lengths exceeding 3 feet. The razorback is brownish-green with a yellow to white-colored belly and has an abrupt, bony hump on its back shaped like an upside-down boat keel	Colorado River	L None observed; no habitat

USFWS Birds of Conservation Concern

Common Name	Species Name	Habitat	Potential Onsite	Region 8 Imperial County	National Rating
Bald Eagle	<i>Haliaeetus leucocephalus</i>	Nests on tall trees or on cliffs in forested areas near large bodies of water. Winters in coastal areas, along large rivers, and large unfrozen lakes.	Low Not expected. No tall trees; not observed in area	X	X
Swainson's Hawk	<i>Buteo swainsoni</i>	Breeds in open country such as grassland, shrubland, and agricultural areas. Usually migrates in large flocks often with Broad-winged Hawks. Winters in open grasslands and agricultural areas of Southern America.	Low May migrate through. Not observed in area		X
Peregrine Falcon	<i>Falco peregrinus</i>	Inhabits open wetlands near cliffs for nesting. Also uses large cities and nests on buildings.	Low No open wetlands or nesting area.	X	X
Black Rail	<i>Laterallus jamaicensis</i>	Nests in high portions of salt marshes, shallow freshwater marshes, wet meadows, and flooded grassy vegetation.	Low No salt or freshwater marshes; no vegetation	X	X

Common Name	Species Name	Habitat	Potential Onsite	Region 8 Imperial County	National Rating
Snowy Plover	<i>Charadrius alexandrinus</i>	Barren to sparsely vegetated sand beaches, dry salt flats in lagoons, dredge spoils deposited on beach or dune habitat, levees and flats at salt-evaporation ponds, river bars, along alkaline or saline lakes, reservoirs, and ponds.	Low No habitat; not observed	X	X
Mountain Plover	<i>Charadrius montanus</i>	Breeds on open plains at moderate elevations. Winters in short-grass plains and fields, plowed fields, and sandy deserts.	Low on site	X	X
Black Oystercatcher	<i>Haematopus bachmani</i>	Rocky seacoasts and islands, less commonly sandy beaches.	Low No habitat; not observed	X	X
Solitary Sandpiper	<i>Tringa solitaria</i>	Breeds in taiga, nesting in trees in deserted songbird nests. In migration and winter found along freshwater ponds, stream edges, temporary ponds, flooded ditches and fields, more commonly in wooded regions, less frequently on mudflats and open marshes.	Low No habitat; not observed		X

Common Name	Species Name	Habitat	Potential Onsite	Region 8 Imperial County	National Rating
Lesser Yellowlegs	<i>Tringa flavipes</i>	Breeds in open boreal forest with scattered shallow wetlands. Winters in wide variety of shallow fresh and saltwater habitats.	Low No habitat; not observed		X
Upland Sandpiper	<i>Bartramia longicauda</i>	Native prairie and other dry grasslands, including airports and some croplands.	Low No habitat; not observed		X
Whimbrel	<i>Numenius phaeopus</i>	Breeds in various tundra habitat, from wet lowlands to dry heath. In migration, frequents various coastal and inland habitats, including fields and beaches. Winters in tidal flats and shorelines, occasionally visiting inland habitats.	Low	X	X
Long-billed Curlew	<i>Numenius americanus</i>	Nests in wet and dry uplands. In migration and winter found on wetlands, grain fields, lake and river shores, marshes, and beaches.	Low	X	X
Short-billed Dowitcher	<i>Limnodromus griseus</i>	Breeds in muskegs of taiga to timberline, and barely into subarctic tundra. Winters on coastal mud flats and brackish lagoons. In migration prefers saltwater tidal flats, beaches, and salt marshes. Also found in freshwater mud flats and flooded agricultural fields.	Low	X	X

Common Name	Species Name	Habitat	Potential Onsite	Region 8 Imperial County	National Rating
Aleutian Tern	<i>Sterna aleutica</i>	Nest on flat vegetated islands on or near the coast. Vegetation includes dwarf-shrub tundra, grass and sedgemeanows, and coastal marsh. Migration and winter habitat not known, probably pelagic.	Low No habitat; not observed		X
Least Tern	<i>Sterna antillarum</i>	Seacoasts, beaches, bays, estuaries, lagoons, lakes and rivers, breeding on sandy or gravelly beaches and banks of rivers or lakes, rarely on flat rooftops of buildings.	Low No habitat; not observed		X
Gull-billed Turn	<i>Sterna nilotica</i>	Breeds on gravelly or sandy beaches. Inters in salt marshes, estuaries, lagoons and plowed fields, along rivers, around lakes and in freshwater marshes.	Low No habitat; not observed		X
Black Skimmer	<i>Rynchops niger</i>	Breeds in large colonies on sandbars and beaches. Forages in shallow bays, inlets, and estuaries.	Low No habitat; not observed	X	X
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	Open woodlands with clearings, orchards, dense scrubby vegetation, mainly cottonwood, willow, and adler, often along water.	Low No habitat; not observed	X	X
Black Swift	<i>Cypseloides niger</i>	Nests on steep ledges on cliffs or canyons. Migrates and winters over coastal lowlands.	Low No habitat	X	X

Common Name	Species Name	Habitat	Potential Onsite	Region 8 Imperial County	National Rating
Costa's Hummingbird	<i>Calypte costae</i>	Primarily low deserts and arid brushy foothills, but also chaparral and coastal sage scrub closer to the coast. Often visits ornamental plantings and feeders in desert communities. In migration and winter frequents a wider variety of habitats, occasionally ranging into pine-oak woodlands in adjacent mountains.	Low	X	X
Calliope Hummingbird	<i>Stellula calliope</i>	Open montane forest, mountain meadows, and thickets of willow and alder. In migration and winter also in chaparral, oak and pine-oak woodlands, deserts, and gardens.	Low No habitat; not observed	X	X
Rufous Hummingbird	<i>Selasphorus rufus</i>	Breeds in a variety of forested habitats where flowers are found. Frequents montane meadows and just about anywhere else with flowers or feeders during migration. Winters primarily in pine and pine-oak forests in Mexico, but most birds wintering farther north are attracted either to flowers or feeders in gardens.	Low No habitat; not observed –		X

Common Name	Species Name	Habitat	Potential Onsite	Region 8 Imperial County	National Rating
Allen's Hummingbird	<i>Selasphorus sasin</i>	Breeds in coastal sage scrub, chaparral, and riparian corridors within coastal forests. In Mexico winters in forest edge and scrub clearings with flowers. The resident population on the mainland of southern California is largely restricted to suburban neighborhoods where feeders and flowers are plentiful.	Low No habitat; not observed.	X	X
Lewis's Woodpecker	<i>Melanerpes lewis</i>	Breeds in open arid conifer, oak, and riparian woodlands: rare in coastal areas. Winters in breeding habitat, and oak savannas, orchards, and even in towns.	Low No habitat; not observed	X	X
Olive-sided Flycatcher	<i>Contopus cooperi</i>	Montane and northern coniferous forests, at forest edges and openings such as meadows, and at ponds and bogs. Winters at forest edges and clearings where tall trees or snags are present.	Low No habitat; not observed	X	X
Willow Flycatcher	<i>Empidonax trailii</i>	Breeds in moist, shrubby areas, often with standing or running water. Winters in shrubby clearings and early successional growth.	Low No habitat on site; not observed	X	X
Loggerhead Shrike	<i>Lanius ludovicianus</i>	Open or brushy areas.	Low No prey base available on site	X	X

Common Name	Species Name	Habitat	Potential Onsite	Region 8 Imperial County	National Rating
Bell's Vireo	<i>Vireo bellii</i>	Dense, low, shrubby vegetation generally early successional stages in riparian areas, brushy fields, young second-growth forest or woodland, scrub oak, coastal chaparral, and mesquite brushlands, often near water in arid regions.	Low No habitat; not observed	X	X
Gray Vireo	<i>Vireo vicinior</i>	Found in desert scrub, mixed oak-juniper and pinyon-juniper woodlands, dry chaparral, and thorn scrub in hot, arid mountains and high-plains.	Low No habitat; not observed	X	X
LeConte's Thrasher	<i>Toxostoma lecontei</i>	Desert scrub, mesquite, tall riparian brush and, locally, chaparral.	Low No habitat; not observed	X	X
Yellow Warbler	<i>Dendroica petechia</i>	Breeds in wet, deciduous thickets, especially in willows and adler. Also in shrubby areas, old fields, gardens and orchards. In southern Florida and farther south, found in mangroves.	Low No habitat; not observed	X	
Common Yellowthroat	<i>Geothlypis trichas</i>	Thick vegetation from wetlands to prairies to pine forests. Frequently near water.	Low No habitat; not observed	X	
Rufous-winged Sparrow	<i>Aimophila carpalis</i>	Found in flat areas of tall desert grass mixed with brush and cactus, and thorn scrub.	Low No habitat; not observed		X

Common Name	Species Name	Habitat	Potential Onsite	Region 8 Imperial County	National Rating
Brewer's Sparrow	<i>Euphagus cyanocephalus</i>	Found in a variety of habitats, but prefers open, human-modified areas, such as farmland, fields, residential lawns, and urban parks.	Low No habitat; not observed	X	X
Black-chinned Sparrow	<i>Spizella atrogularis</i>	Arid brushland, commonly in tall and fairly dense sagebrush, and dry chaparral. Often in rocky, rugged country from sea level to around 8,900 ft (2700m).	Low No habitat; not observed	X	X
Tricolored Blackbird	<i>Agelaius tricolor</i>	Breeds in marsh vegetation, particularly cattails, near grain fields, riparian scrubland, and forests, but always near water. Dairies and feedlots also commonly used for foraging. Urban and suburban areas occasionally utilized, particularly park lawns. Cultivated lands also suitable for foraging. Large night-time roosts form during nonbreeding season in cattail marshes near foraging grounds.	Low No habitat; not observed	X	X
Lawrence's Goldfinch	<i>Carduelis lawrencei</i>	Prefers dry interior foothills, mountain valleys, open woodlands, chaparral, and weedy fields. Often found near isolated water sources such as springs and cattle troughs.	Low No habitat; not observed	X	X

CNPS Species or Community Level	
G1 = Less than 6 viable element occurrences (EOs) OR less than 1,000 individuals OR less than 2,000 acres.	
G2 = 6-20 EOs OR 1,000-3,000 individuals OR 2,000-10,000 acres.	
G3 = 21-80 EOs OR 3,000-10,000 individuals OR 10,000-50,000 acres.	
G4 = Apparently secure; this rank is clearly lower than G3 but factors exist to cause some concern; i.e., there is some threat, or somewhat narrow habitat.	
G5 = Population or stand demonstrably secure to ineradicable due to being commonly found in the world.	
State Ranking	
The state rank (S-rank) is assigned much the same way as the global rank, except state ranks in California often also contain a threat designation attached to the S-rank.	The R-E-D Code contains information on Rarity, Endangerment, and Distribution, ranked as a 1, 2, or 3 for each value (as below). This code was originally known as the R-E-V-D Code (through the 3rd edition 1980), and the V (Vigor) was removed in the 4th edition (1984).
S1 = Less than 6 EOs OR less than 1,000 individuals OR less than 2,000 acres	R - Rarity
S1.1 = very threatened	1 – Rare, but found in sufficient numbers and distributed widely enough that the potential for extinction is low at this time
S1.2 = threatened	2 – Distributed in a limited number of occurrences, occasionally more if each occurrence is small
S1.3 = no current threats known	3 – Distributed in one to several highly restricted occurrences, or present in such small numbers that it is seldom reported
S2 = 6-20 EOs OR 1,000-3,000 individuals OR 2,000-10,000 acres	E - Endangerment
S2.1 = very threatened	1 – Not very endangered in California
S2.2 = threatened	2 – Fairly endangered in California
S2.3 = no current threats known	3 – Seriously endangered in California
S3 = 21-80 EOs or 3,000-10,000 individuals OR 10,000-50,000 acres	D - Distribution
S3.1 = very threatened	1 – More or less widespread outside California
S3.2 = threatened	2 – Rare outside California
S3.3 = no current threats known	3 – Endemic to California
S4 = Apparently secure within California; this rank is clearly lower than S3 but factors exist to cause some concern; i.e. there is some threat, or somewhat narrow habitat. NO THREAT RANK.	
S5 = Demonstrably secure to ineradicable in California. NO THREAT RANK.	

Sources: CDFW/CNDDDB 2022, California Wildlife 2022; CNPS 2022; USFWS, 2022

State/CDFW:	¹Status: Federal:
E = Listed as an endangered species; or previously known as “rare, fully protected”	E = Listed as an endangered species
T = Listed as a threatened species	T = Listed as a threatened species
SC = species of special concern (designation intended for use as a management tool and for information; species of special concern have no legal status (www.dfg.ca.gov/wildlife/species/ssc/birds.html))	C = Candidate for listing
CNPS (California Native Plant Society):	D = Delisted
1B = Rare, threatened, or endangered in California or elsewhere	PD = Proposed for delisting/PT = Proposed for threatened status
2= Plants rare, threatened,or endangered in Ca, but more common elsewhere	
3=Plants about which more information is needed	
Habitat Suitability Codes: H = Habitat is of high suitability for this species M = Habitat is of moderate suitability for this species L = Habitat is of low suitability for this species	

APPENDIX B PHOTOGRAPHS

PHOTOGRAPHS



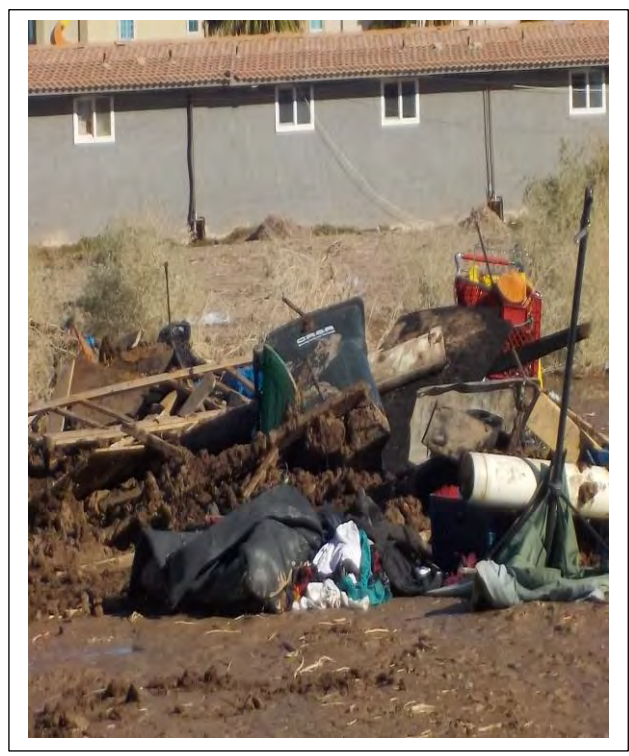
1. Site looking north; water pipe to commercial construction to south



2. Site looking to south; residential area in background – ruderal vegetation on site



3. Looking south; residential housing off site



4. Looking north; trash pile on site; motel off site



5. Looking north from western boundary of site; 6th Street



6. NW corner facing west at Sixth Street and doctors office complex



7. Northwest corner facing east on project site; vacant lot with ruderal vegetation



8. Trash pile found on site



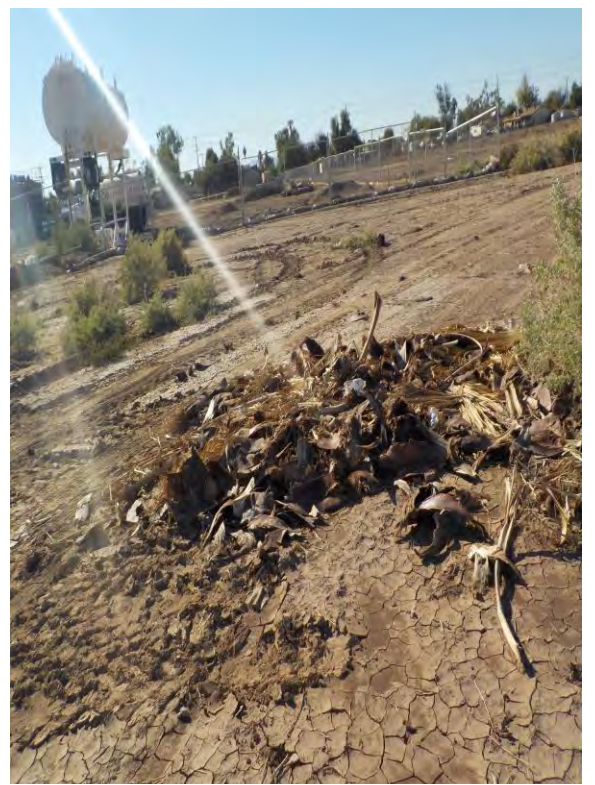
9. Saltbush found on site



10. 5 hook bassia



11. Typical weedy vegetation found on site. No emerging plants observed



12. Yard trimmings dumped on site; Ca. Highway Patrol station construction to left

APPENDIX C
SPECIES FOUND ONSITE
AND VICINITY

VEGETATION OBSERVED ON THE PROJECT SITE:

Common name	Scientific name	Cal-IPC Rating*
5 hook bassia	<i>Bassia hyssopifolia</i>	Limited
Goosefoot	<i>Chenopodium.sps.</i>	None
Quail bush	<i>Atriplex lentiformis</i>	None
4 wing Salt bush	<i>Atriplex canescens</i>	None
Saltcedar	<i>Tamarix sp.</i>	Ca Noxious Weed Cal-IPC rating: High *

*High – These species have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment. Most are widely distributed ecologically.

Limited – These species are invasive but their ecological impacts are minor on a statewide level or there was not enough information to justify a higher score. Their reproductive biology and other attributes result in low to moderate rates of invasiveness. Ecological amplitude and distribution are generally limited, but these species may be locally persistent and problematic.

ANIMALS/INVERTEBRATES OBSERVED ON SITE

Common name	Scientific name
Mourning dove	<i>Zenaida macroura</i>
Canine tracks	<i>unknown</i>
Dragonfly	<i>Unknown</i>

APPENDIX D
FEMA/SOIL
MAPS

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations (BFEs)** and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' NAVD 88. Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations shown in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations tables should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The projection used in the preparation of this map was Universal Transverse Mercator (UTM) zone 11. The horizontal datum was NAD 83, GRS1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. Base flood elevations shown on this FIRM may be converted to the Imperial County datum, in NAVD88, by adding 1000 feet. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov> or contact the National Geodetic Survey at the following address:

NGS Information Services
 NOAA, NNGS12
 National Geodetic Survey
 SSMC-3, #9202
 1315 East-West Highway
 Silver Spring, MD 20910-3282

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at <http://www.ngs.noaa.gov>.

Base map information shown on this FIRM was derived from U.S. Geological Survey Digital Orthophoto Quadrangles produced at a scale of 1:12,000 from photography dated 1992 or later.

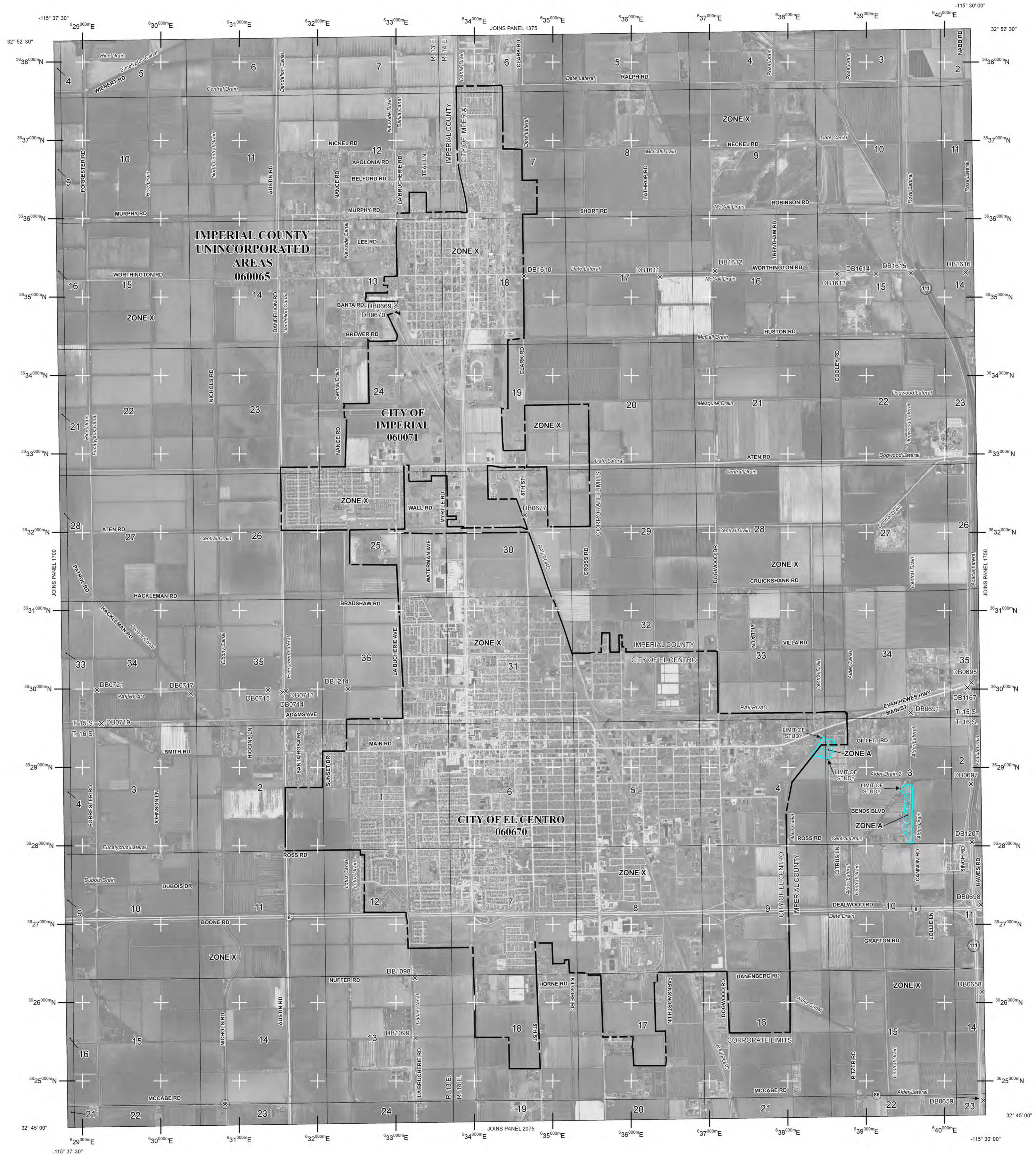
This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

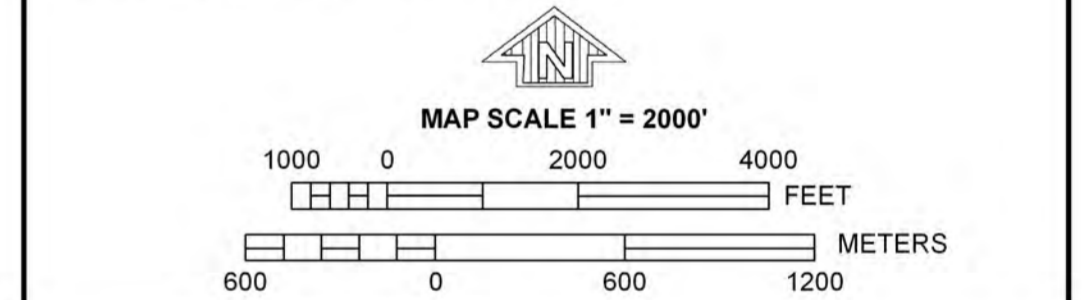
Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, an accompanying Flood Insurance Study Report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at <http://www.msc.fema.gov>.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call 1-877-FEMA MAP (1-877-336-2627) or visit the FEMA website at <http://www.fema.gov>.



LEGEND

- SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD
- The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equal or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.
- ZONE A** No base flood elevations determined.
- ZONE AE** Base flood elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no base flood elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no base flood elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); base flood elevations determined.
- FLOODWAY AREAS IN ZONE AE
- The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.
- OTHER FLOOD AREAS
- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.
- OTHER AREAS
- ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D** Areas in which flood hazards are undetermined, but possible.
- COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS
- OTHERWISE PROTECTED AREAS (OPAs)
- CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.
- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Base Flood Elevation line and value; elevation in feet*
- Base Flood Elevation value where uniform within zone; elevation in feet*
- (EL 987)
- *Referenced to the North American Vertical Datum of 1988
- Cross section line
- Transsect line
- 97° 07' 30", 32° 22' 30"
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 1000-meter Universal Transverse Mercator grid values, zone 11
- 5000-foot grid ticks: California State Plane coordinate system, VI zone (FPSZONE 0406), Lambert Conformal Conic.
- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5
- River Mile
- MAP REPOSITORY
- Refer to listing of Map Repositories on Map Index
- EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP: September 26, 2008
- EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL:
- For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.
- To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 1725C

FIRM FLOOD INSURANCE RATE MAP IMPERIAL COUNTY, CALIFORNIA AND INCORPORATED AREAS

PANEL 1725 OF 2300
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL SUFFIX
IMPERIAL COUNTY UNINCORPORATED AREAS	060065	1725 C
EL CENTRO, CITY OF	060670	1725 C
IMPERIAL, CITY OF	060071	1725 C

Notice to User: The Map Number shown below should be used when placing map orders. The Community Number shown above should be used on insurance applications for the subject community.

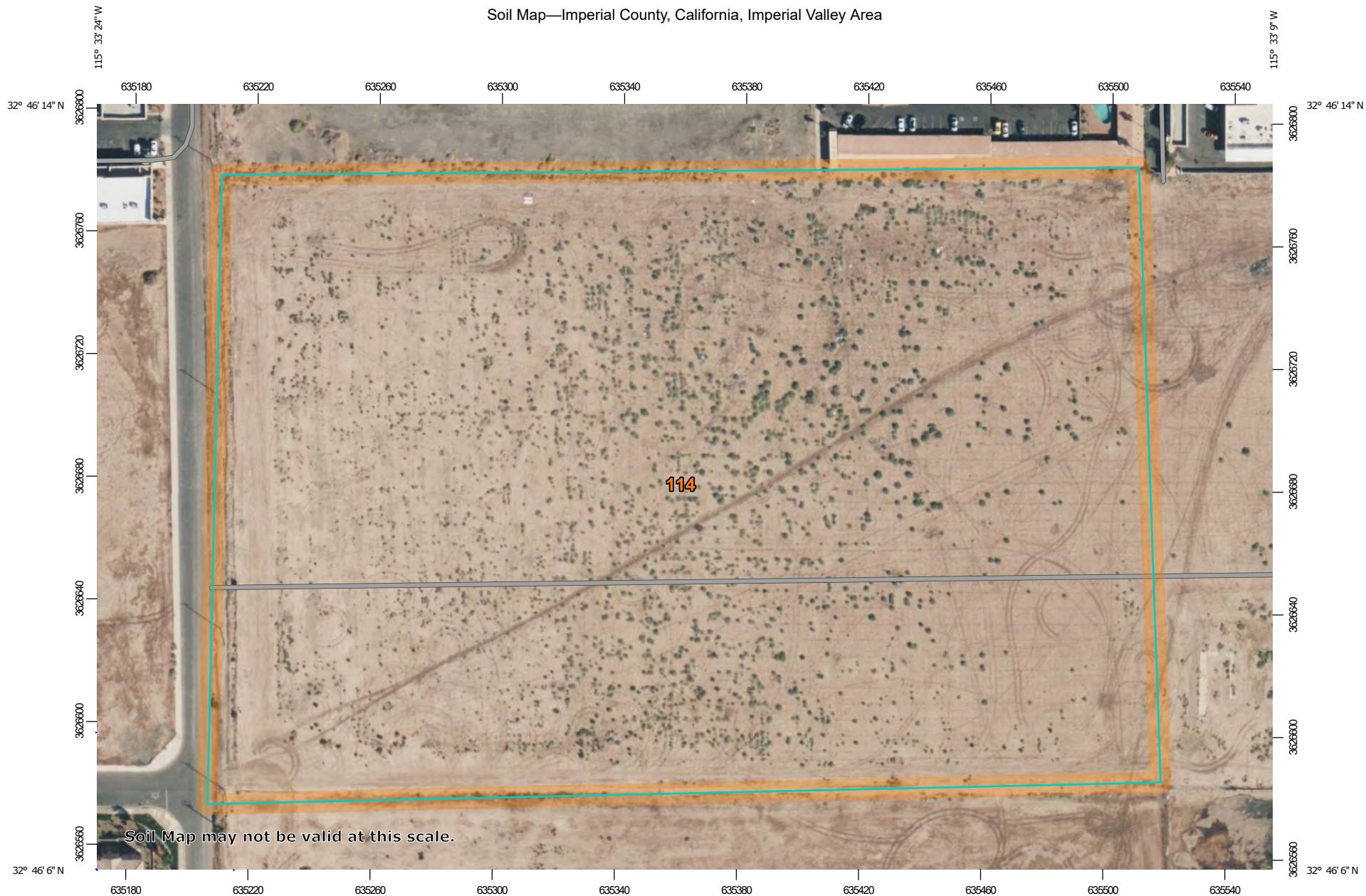
MAP NUMBER 06025C1725C

EFFECTIVE DATE SEPTEMBER 26, 2008

Federal Emergency Management Agency

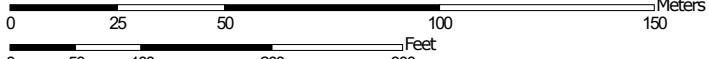


Soil Map—Imperial County, California, Imperial Valley Area



Soil Map may not be valid at this scale.

Map Scale: 1:1,760 if printed on A landscape (11" x 8.5") sheet.



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

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

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

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

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

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

Soil Survey Area: Imperial County, California, Imperial Valley Area

Survey Area Data: Version 14, Sep 1, 2022

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

Date(s) aerial images were photographed: Mar 17, 2021—May 22, 2021

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
114	Imperial silty clay, wet	15.4	100.0%
Totals for Area of Interest		15.4	100.0%

APPENDIX E Qualifications

GLENNA MARIE BARRETT

PO Box 636 Imperial, California 92251 (760) 425-0688
glennabarrett@outlook.com

PROFILE

Organized and focused individual, adept at implementing multifaceted projects while working alone or as an integral part of a team. Skilled in client/employee communications, report preparation, program analyses and development. Cost conscious, safety oriented and empathetic. A strong communicator with excellent interpersonal skills, which allows development of rapport with individuals on all levels.

A sound professional attitude, strong work ethic and pride in personal performance.

WORK EXPERIENCE

Senior Biologist Barrett's Biological Surveys, Imperial County, CA April 2016-currently.

Principal Biological Consultant, Barrett Enterprises. Imperial, CA December 2001 - currently. Compile information and complete local, state, and federal government forms; such as conditional use permits, reclamation plan applications, Financial Assurance Cost Estimates, zone changes, CEQA, Environmental Evaluation Committee responses, and 501 (c)(3) tax exemption applications. Act as liaison between local businesses and local, state, and federal government agencies. Certified to survey for Flat-Tailed Horned Lizards in California and Arizona. Certified to survey the Desert Tortoise.

Kruger- Environmental Compliance Coordinator (ECC) for Seville Solar Complex for a 626-acre solar farm in Imperial County, CA. Compiled and submitted data and reports for APCD such as equipment lists and man hours, water hours for dust suppression; Planning reports such as weekly monitoring reports and scheduling with the third party monitor for work on BLM land; Assisted in writing the Emergency Response Action Plan; CDFW quarterly reports for the Incidental Take Permit for the Flat Tail Horned Lizard (FTHL), CNDDDB reports, FTHL Observation Data Sheets, site tours and any other information required by CDFW; Agriculture Commissioner's Office quarterly reports; provided the hazardous reporting information for the CERS online reporting system; assisted writing the FTHL ITP; trained new hires; contacted various local businesses for different on-call services; also provided any updates for plans and schedules necessary throughout the life of the project; etc. (January 2015- March 2016).

Grant writing experience: Awarded two grants for BUOW educational programs for \$15,000 each from Imperial Valley Community Foundation. Awarded \$35,700 for a total of \$75,000 with matching funds to establish the Imperial Valley Small Business Development Center with the Imperial Regional Alliance. Awarded \$450,000 from the California Public Utilities Commission for a broadband connectivity initiative in Imperial County with Imperial Regional Alliance and Imperial Valley Economic Development Corporation (IVEDC).

FIELD EXPERIENCE

Ms. Barrett has done the field work and contributed to the required reports for the following projects:

- **8ME-Burrowing Owl/MBTA/Avian Mortality Monitoring and training for the Mount Signal Solar Projects** in Calexico, CA (April 2010-currently)
- **Salton Sea Species Conservation Habitat Project** - Imperial County, CA: Nov 2020 -current monitoring construction for desert pupfish, Ridgway Rails and other species. Found both species on site and consulted with agencies for protective measures.
- **Burrtec- FTHL/MBTA Surveys** in Salton City, CA: Team leader for eight people to complete a pre-construction site sweep for 320 acres in Imperial County. 2014-2022
- **Applied Biological Consulting- Approved Biological Monitor on DPV2:** The 500kV transmission line traverses approximately 153 mi from Bythe, CA to Menifee in Riverside County, CA. Crossing private,

state and Federal lands, such as the Bureau of Land Management [BLM], U.S. Forest Service [USFS]. Desert tortoise, nesting birds, fringe toed lizard, flat tailed lizard (November 2011 to May 31, 2013)

- **Chandi Group**, Conduct Habitat Assessment Survey (as outlined in Western Riverside Multispecies Habitat Conservation Plan: Burrowing Owl/Narrow Endemic Species) within the City of Jurupa Valley, Riverside County, 2015

EDUCATION AND TRAINING

Received Bachelor of Science in Business Administration with a focus on Management, along with Economics and Leadership minors, December 2000. Humboldt State University, Arcata, CA.

Special Status/listed species observed/ identified, surveyed, monitored and/or relocated: Mohave desert tortoise, Coachella valley milkvetch, Desert kit fox, Mountain lion, Coachella valley fringe toed lizard, Mohave fringe toed lizard, Stephen's kangaroo rat, Mohave ground squirrel, Coast horned lizard, Flat-Tail Horned lizard, Burrowing Owl.

Extensive knowledge in southwestern United States, non-migratory and migratory avian biology and ecology. Strong knowledge of common Flora and Fauna communities associated with Southern California and surrounding environs. CEQA, NEPA, California Endangered Species Act (CESA) and Federal Endangered Species Act (ESA) knowledge gained through work experience. I have excellent analytical skills, multi-tasking and writing abilities. My past work experience has provided me with many years of hands on experience working with and managing others to find practical solutions to solve problems and achieve common goals.

CERTIFICATIONS/ WORKSHOPS

- Desert Pupfish Training CA Department of Fish and Wildlife Sharon Keeney, Summer/Fall 2019-21
- Introduction to Plant Identification CA Native Plant Society June. 2019
- FTHL Workshop, 2008 El Centro BLM office.
- Yuma Clapper Rail Training Colorado River Yuma Bird Festival AZ Game and Fish 2008
- USFW Desert Tortoise Egg Handling Desert Tortoise Council Survey Techniques Workshop Certificate, 2008 and 2010.
- Anza Borrego State Park Wildflower Identification Workshop, 2010.
- Southwest Willow Flycatcher Workshop Kernville, CA, 2010.
- SCE TRTP Construction Monitoring Training Class and WEAP Redlands, CA 2011.
- DPV2 Construction Monitoring Training Class and WEAP Santa Ana, CA 2011.
- Helicopter flight trained on DPV2, 2012.
- Certified to handle/ move venomous snakes on DPV2, 2012.
- Bat monitoring with Ms. Pat Brown BLM El Centro, CA Office, 2010.
- Salton Sea International Bird Festival 2007 Coordinator
- Mountain Plover/ Long-billed Curlew surveys, L.A. Museum of Natural History
- Presented at the Fourth Annual BUOW Symposium in Pasco, Washington, 2014.
- Board Member- Colorado River Citizens Forum, 2014-2016.
- BUOW Educational outreach grantee from IVCF, interacting with IID, IVROP, ICFB, Ag Commissioner's Office, 2015.
- Friends of the Sonny Bono National Wildlife Refuge, Member 2015

MARIE S. BARRETT
mariebarrett@roadrunner.com

2035 Forrester Road, El Centro, CA 92243 (760) 352 4159

LICENSES/CERTIFICATES/TRAINING

Flat Tailed Horn Lizard Surveyor CDFW/BLM

Burrowing Owl Surveyor (CDFW/USFWS)

USFW Desert Tortoise Egg Handling Desert Tortoise Council Survey Techniques Workshop
Certificate

BCI Bat Conservation and Management Workshop (Acoustic) Certificate

Southwestern Willow Flycatcher Workshop Kernville, CA 2010

Yuma Clapper Rail Training Colorado River Yuma Bird Festival AZ Game and Fish 2008

CAREER HISTORY

Barrett's Biological Surveys, El Centro, California *BIOLOGIST* 3/95 -present

Have performed numerous (over 40,000 acres) surveys involving varied wildlife including burrowing owl and plant species and written reports and biological assessments. Certified to perform Flat Tailed Horned Lizard Surveys; completed Desert Tortoise workshops; approved to handle desert tortoise (American Girl Mine/BLM project, 1/2013). Work closely with governmental agencies such as Bureau of Land Management, State Office of Mining Reclamation, California Department of Fish and Wildlife. **Biological:** Over 150 days spent in field monitoring/surveying for FTHL; 98 days in field monitoring/surveying for desert tortoise and 40,000 acres surveyed for burrowing owl; 3 IID Burrowing owl surveys with AECOM (2011/12- 275 hrs). Wrote Imperial Irrigation District (IID) Artificial Burrow Installation Manual (2009). Over 25 active burrowing owl burrows passively relocated and 50 artificial burrows installed. Volunteered for desert tortoise work (20 hrs) with Dr. Jeff Lovich. Projects: 8Minute Mt. Signal Solar 4500 acres. Preconstruction surveys/construction monitoring and BUOW Post construction monitoring; Biological reports. 2010-2020 Black Mt. MetTower Installation: desert tortoise survey and monitoring approved by BLM, El Centro office.

Monitoring: Salton Sea Species Conservation Habitat Project Nov 21-present: preconstruction surveys and monitoring; 8ME-Burrowing Owl/MBTA/Avian Mortality Monitoring and training for the Mount Signal Solar Projects in Calexico, CA (April 2010-currently); Salton City Burrtec Landfill FTHL/MBTA monitoring/clearance 2010-2022; Superior Redi Mix: FTHL surveys, Oat Pit Environmental Assessment/surveying/monitoring, El Centro, 2009-21. SDG&E La Rosite Pole Replacement FTHL Monitoring 2012-2013(410 hrs); Imperial County Department of Public Works: 6 Bridge biological assessments/reports and applicable permitting (2018-present)/Brawley Solid Waste Site Reclamation Mitigation 2015-16/Gateway of Americas Lift Station 32: Biological Assessment/Report 2016/On Call Environmental Services:2011-16; All American Aggregates, FTHL surveys, 8Minute USFWS Authorized desert tortoise biologist: American Girl Mine and Mesquite Mine. **Wetlands and Vegetation:** Participated as member of the Citizens's Congressional Task Force on New River to develop constructed wetlands criteria for 4 constructed wetlands. Performed biological/vegetative habitat surveys on each wetlands; cooperated with developing water quality and habitat criteria. Wrote a grant and obtained monies for outreach to over 2000 local students. Developed signage for the Shank Road Wetlands to explain and demonstrate the actions of wetlands. Performed Bombay Beach habitat assessment for ECORP , Sept 2021 for proposed habitat enhancements in the Bombay Beach area.

Citizens' Congressional Task Force on the New River, Brawley, Ca PROGRAM

COORDINATOR 1/98 - present

Assisted with design, construction, planting and monitoring of four constructed wetlands in Imperial County. Responsible for coordinating activities relating to student and public outreach education to promote the water quality and habitat opportunities of constructed wetlands systems on New River and Alamo River.

Imperial Valley College, Imperial, California ENVIRONMENTAL MANAGEMENT PROJECT COORDINATOR 9/95-12/99

Responsible for establishing an Environmental Technology curriculum, presenting public forums, short courses and certificate courses in hazardous materials and safety areas. In conjunction with Division Chairman, established a budget for 96-98 program and obtained funding of \$131,000 based on 95-96 program performance. Established short courses that trained over 700 people in hazardous materials safety programs. Compiled a survey of employers, which provided direction for the program.

VOLUNTEER ORGANIZATIONS

CALIFORNIA NATIVE PLANT SOCIETY: Imperial Valley Coordinator, 2006-2022.

SALTON SEA INTERNATIONAL BIRD FESTIVAL: Coordinator: 2001-2010. Organized bird festival in the Imperial Valley that attracted over 300 birders.

COLORADO RIVER WATER QUALITY CONTROL BOARD: Board member Dec 05-Sept 06.

DESERT WILDLIFE UNLIMITED: Lifetime member; serve on Citizens Congressional Task on New River

EDUCATION

University of Arizona, Tucson, Arizona

Masters of Science Degree – AGRICULTURAL EDUCATION

Thesis: Survey and training protocol for documenting burrowing owls and habitat in Imperial County, California

California State Polytechnic College, Kellogg-Voorhis Campus, Pomona, California

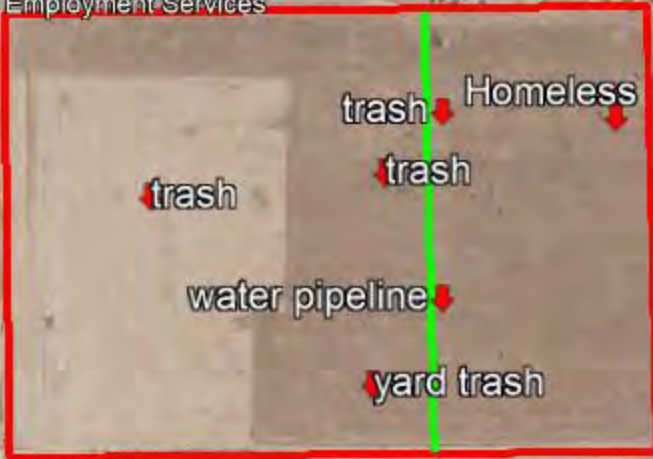
Bachelor of Science Degree.- AGRICULTURAL BIOLOGY, Entomology option

Imperial Valley College, Imperial, California *Associate of Science Degree. AGRICULTURE*

**FIGURE 1
PROJECT LOCATION MAP**



Figure 1 — Vicinity Map - Project Site



Apartment Complex
Biological map

Building Construction

