East Highline Reservoir and Intake Channel Project

Supplemental Biological Assessment

prepared for
Imperial Irrigation District
333 East Barioni Boulevard
Imperial, California 92251
Contact: Justina Gamboa-Arce

prepared by
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2215 Faraday Avenue, Suite A
Carlsbad, California 92008

November 2022

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Environmental Scientists | Planners | Engineers
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1 Summary

This Supplemental Biological Assessment was prepared as a supplement to the Biological Resources Report prepared in November 2019 (Dudek 2019) to analyze potential impacts to biological resources that would result from implementation of Imperial Irrigation District's (IID) East Highline Reservoir and Intake Channel Project (i.e., Proposed Action). The intake alignment has been revised and proposed to be relocated to avoid cultural resource constraints within the originally proposed intake route. Rincon biologists conducted a field reconnaissance survey to map the existing vegetation within the newly proposed Alternative Intake Channel in September 2022, and this report reflects the results of vegetation mapping for that area. Vegetation communities were found to be consistent with those described for the area in Dudek 2019.

The purpose of this document is to assess the effects of the Proposed Action on federally protected resources. This report documents the results of focused rare plant and flat-tailed horned lizard (*Phrynosoma mcallii;* FTHL) surveys required pursuant to mitigation measures identified in the 2019 Biological Resources Report within the final proposed Action Area. Focused surveys did not detect special-status plant species or flat-tailed horned lizards within the Study Area. Therefore, the Proposed Action would have "No Effect" on special-status plant species and flat-tailed horned lizard.

2 Introduction

This report was prepared to document the results of focused rare plant and flat-tailed horned lizard (*Phrynosoma mcallii;* FTHL) surveys for Imperial Irrigation District's (IID) East Highline Reservoir and Intake Channel Project (referred to herein as the EHL Reservoir Project), located in southeastern Imperial County, California (Figure 1). A Biological Resources Report was prepared in November 2019 (Dudek 2019) to analyze potential impacts to biological resources that would result from implementation of the EHL Reservoir Project. The Biological Resources Report was based on a literature review and biological surveys conducted in January 2018 including vegetation mapping, a formal jurisdictional delineation, and a habitat assessment. Subsequently, the intake alignment has been revised and proposed to be relocated to avoid cultural resource constraints within the originally proposed intake route. The 2018 survey and 2019 report did not analyze the newly proposed intake alignment area. Therefore, Rincon biologists conducted a field reconnaissance survey to map the existing vegetation within the newly proposed Alternative Intake Channel in September 2022. These results are also presented herein.

The 2019 Biological Resources Report found that no federally protected species were expected to occur on the EHL Reservoir Project site based on a lack of suitable habitats. However, suitable habitat was identified for four special-status plant species and FTHL and the following conservation measures were included for these resources.

Focused Surveys for Special-Status Plants

Focused surveys shall be conducted for special-status plant species the season prior to construction. Focused surveys for special-status plant species shall be conducted by a qualified biologist according to the *California Native Plant Society (CNPS) Botanical Survey Guidelines* (CNPS 2001); *Protocols for Surveying and Evaluating Impacts to Special Status Native Populations and Natural Communities* (California Department of Fish and Game (CDFG) 2009); and *U.S. Fish and Wildlife Service General Rare Plant Survey Guidelines* (*Cypher 2002*). The focused survey shall be conducted during a period when the target species would be observable and identifiable (e.g., blooming period for annuals).

Flat-Tailed Horned Lizard Surveys

Focused surveys shall be conducted prior to the start of ground-disturbing activities between April and September to determine the status of flat-tailed horned lizard on-site. The surveys shall be conducted in accordance to the *Flat-Tailed Horned Lizard Interim Survey Protocol* in order to provide an assessment of flat-tailed horned lizard presence or absence at a specific site. Survey should be conducted between April and September when surface temperatures are between 95 degrees Fahrenheit and 122 degrees Fahrenheit (Flat-tailed Horned Lizard Working Group of Interagency Coordinating Committee 2003).

This report details the methodology and results of focused rare plant and flat-tailed horned lizard surveys conducted in compliance with the conservation measures listed above and provides supplemental analysis regarding effects of the Proposed Action on these resources based on the findings of the focused surveys. The Study Area for the rare plant and FTHL surveys is defined below, and it should be noted that this area differs from the current Action Area based on the new intake alignment which was relocated to the west. Based on IID and Bureau of Reclamation assessments,

additional focused surveys for FTHL and rare plants were not considered to be necessary within the new intake alignment given the disturbed, isolated nature of the areas and areas characterized as agricultural lands under production.

2.1 Proposed Action

The EHL Reservoir Project (i.e., Proposed Action) consists of constructing an agricultural water storage reservoir and intake channel, covering approximately 370 acres, within a 417-acre Project footprint north of the All-American Canal (AAC). The reservoir currently has two design options, a single cell, or split cell design. Both cell design options would equally maximize the operational management of up to approximately 3,400 acre-feet of water without a material difference in water storage volume. The reservoir would have concrete lined embankments and a geo-membrane liner on the base floor and have a maximum water storage depth of up to 11 feet. Water would be gravitationally conveyed from an AAC reach to the proposed reservoir via an open canal intake channel, within a proposed maximum 300-foot-wide right-of-way (approximately 1.3 miles in length and covering approximately 47 acres). The intake channel would serve a dual purpose as a sedimentation basin. Water temporarily stored in the proposed reservoir would be delivered into the EHL Canal to serve downstream agricultural demands through an automated gate outlet with a maximum gravity flow capacity of approximately 1,500 cubic feet per second (cfs).

Two potential staging areas (totaling approximately 35 acres) are anticipated in the northwest and a second staging area immediately north of the site owned by Reclamation within agricultural land currently under production. The reservoir footprint would be constructed over agricultural land owned by IID. Approximately 36 acres of the proposed intake channel and right of way would be constructed on agricultural land and an additional 11 acres would cross federal lands withdrawn to the Bureau of Reclamation. The federally owned land is located at the southern end of the proposed intake channel route from the AAC, which is also federally owned.

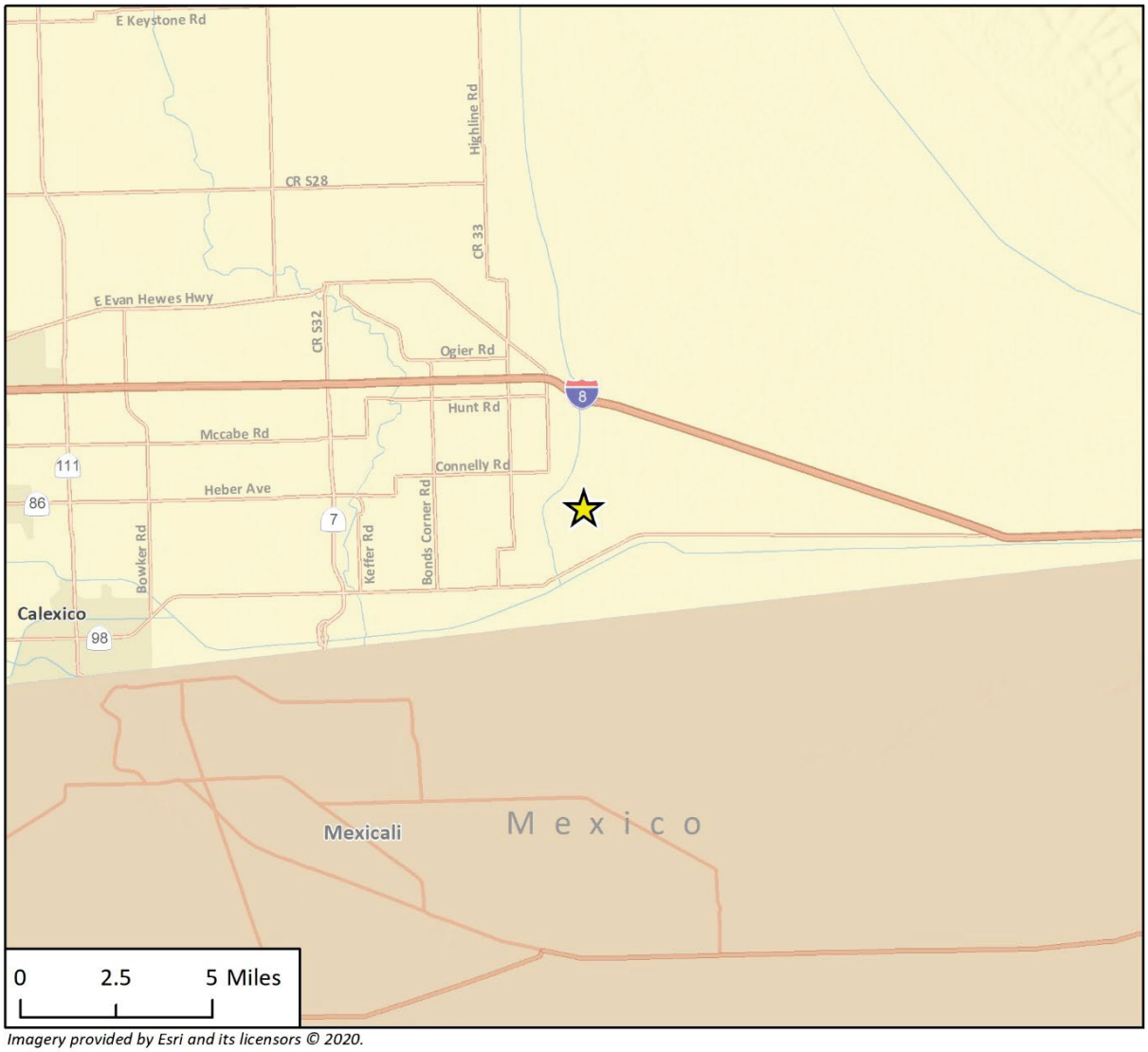
As originally proposed, the intake channel would connect to and run from the north side of the AAC within the proposed 300-foot width of new right-of-way (Original AAC Intake Channel).

In 2021, additional alternate intake channel routes were considered off of an AAC Reach (EHL Alternative Intake Channel). The original basin area was expanded and a new preferred intake alternative was identified (adding portions of APNs: 059-250-008, 059-250-007), and together APN 055-250-020 & 055-310-006 constitute and are described herein as the Action Area (see Figure 2) (consisting of the intake channel initiating directly from the AAC Reach, traversing federal land, and continuing north along the west side of Holdridge Road before connecting to the proposed reservoir basin site and inclusive of the basin site). The EHL Alternative Intake Channel has been identified as the preferred intake alternative for this project and together with the basin area are considered the proposed Action Area in this report.

2.2 Study Area

The Study Area is located in the southern region of Imperial County, California, east of Calexico and southeast of Holtville (Figure 1). It is defined as within five original footprint parcels (Assessor Parcel Numbers (APN) 055-250-020, 059-310-005, 055-310-007, 055-310-006, 059-310-006) owned by IID, cumulatively totaling approximately 556 acres and found on the United States (U.S.) Geological Survey (USGS) Bonds Corner 7.5-minute topographic quadrangle (Figure 2, Figure 3,and Figure 4). The Study Area is located directly east of the East Highline Canal, and directly west of lands

Figure 1 Regional Location



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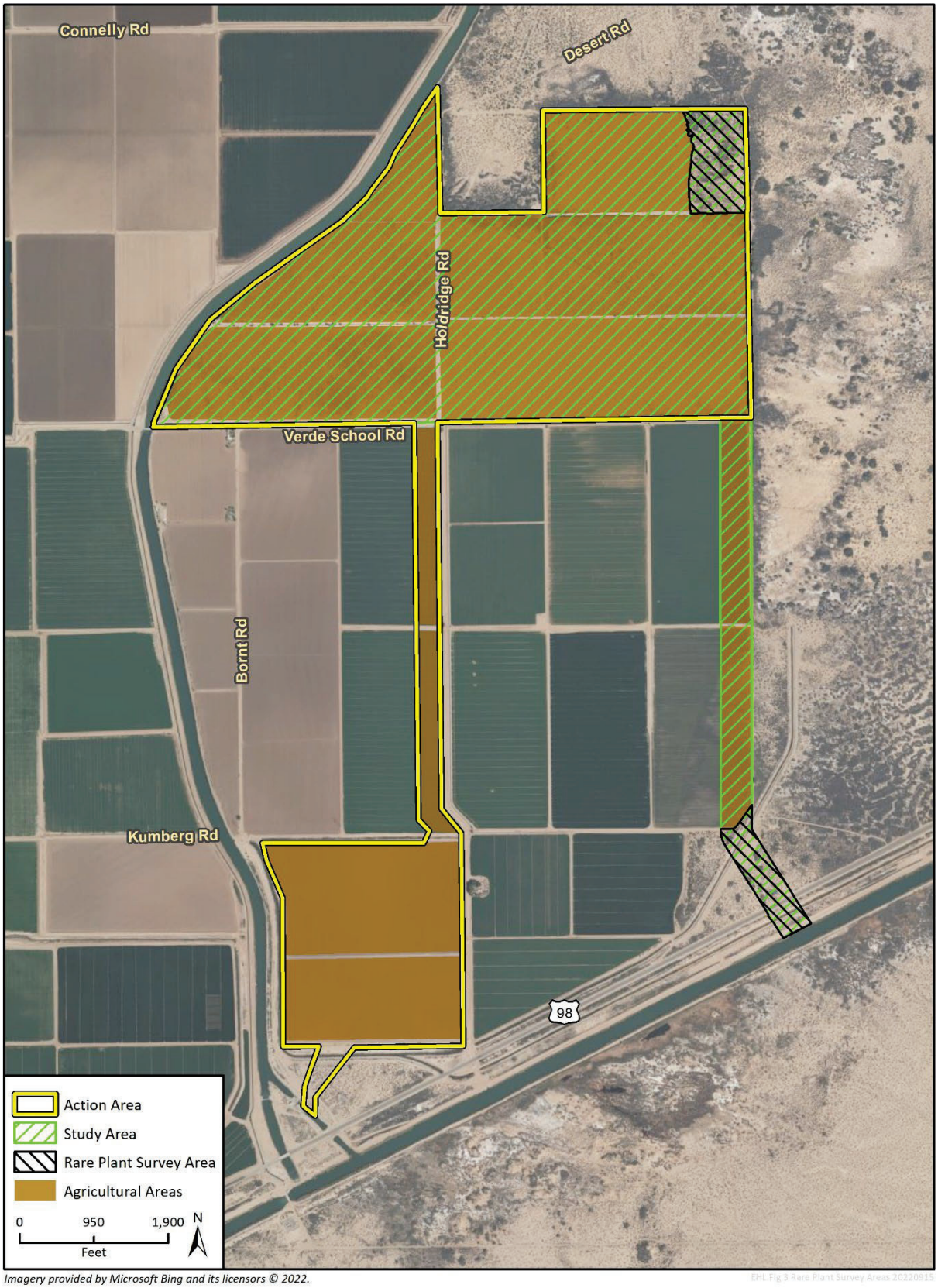
Action Area

N

Fig 1 Regional Location

Figure 2 Action Area

Figure 3 Rare Plant Survey Areas



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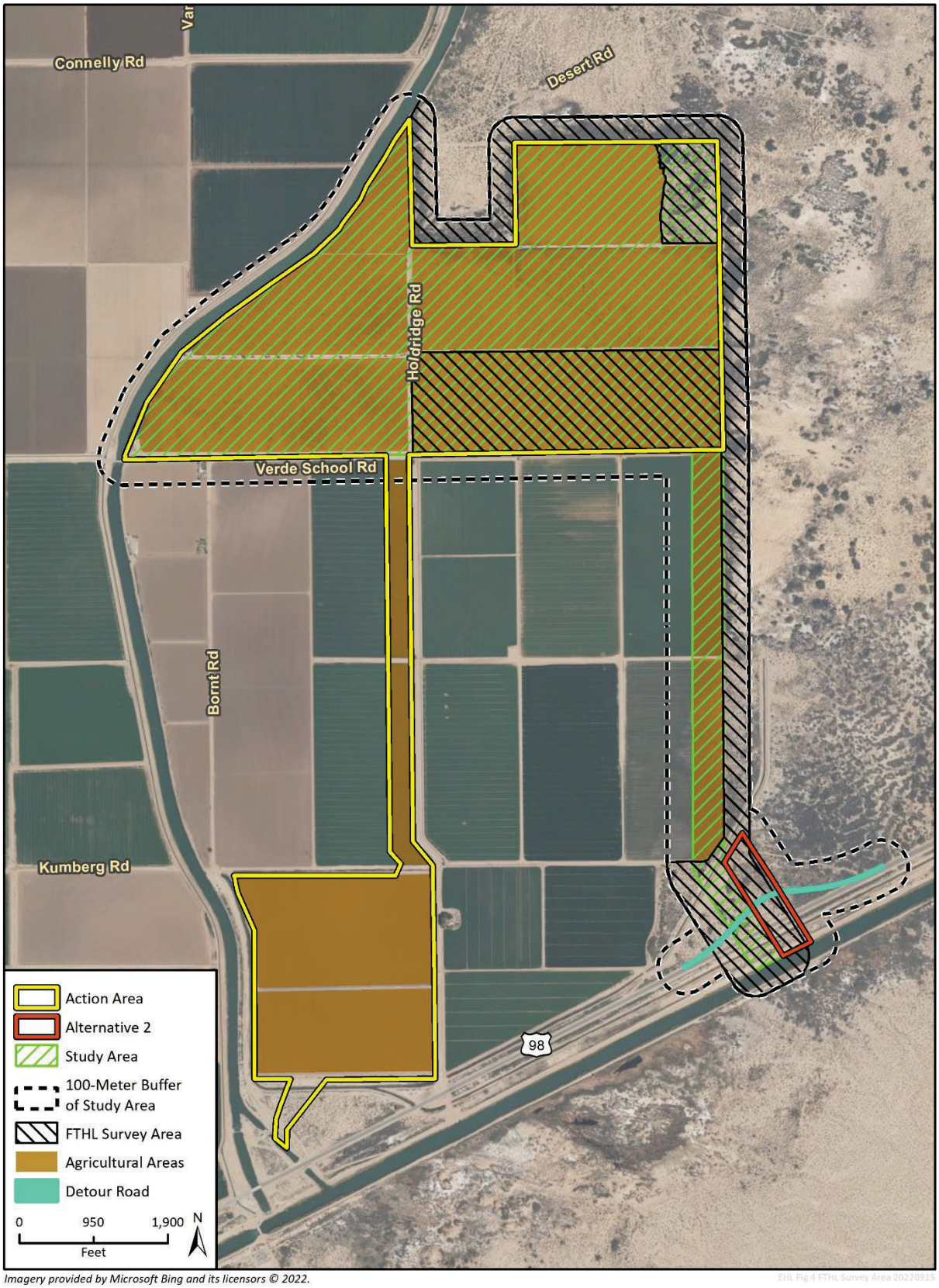
EHL Fig 3 Rare Plant Survey Areas 20220915

Figure 4 Flat-Tailed Horned Lizard (FTHL) Survey Areas



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EHL Fig 4 FTHL Survey Area 20220915

managed by the Bureau of Land Management (BLM). The Study Area incorporates and is north of the AAC, the basin itself is approximately 1.1 miles north of State Highway 98 (SR-98) and approximately 2 miles south of Interstate Highway 8 (I-8). To the east of the Study Area is open and vacant desert land with desert scrub and patches of groundcover managed by the BLM. Agricultural fields surround the Study Area to the northwest, west and south of the basin, with the East Highline Canal directly adjacent to the west of the basin.

2.3 Methodology

This section describes the methodology used to complete focused surveys for rare plants and FTHL for the Study Area and additional vegetation mapping within the Action Area. Refer to Appendix A for representative photographs of the Action Area. The Action Area includes the new EHL Intake Alternative Intake Channel area and the Reservoir Basin area. The Study Area includes previously proposed disturbance areas and intake alternatives which were delineated in 2019 and are no longer described in detail in this supplemental report as they are no longer a part of the Proposed Action. Vegetation mapping, a formal jurisdictional delineation and habitat assessment of the Study Area were conducted by Dudek (Dudek 2019). Rincon biologists conducted rare plant and FTHL surveys within the Study Area and associated buffers. Field surveys were scheduled during the appropriate blooming period to optimize detection of rare plant species with potential to occur within the survey areas.

2.4 Rare Plant Surveys

The Biological Resources Report (Dudek 2019) identified four special-status plant species with moderate potential to occur within the Study Area:

- gravel milk vetch (*Astragalus sabulomum*; CRPR 2B.2) is an annual herb that blooms from February to July
- Abram's spurge (*Euphorbia abramsiana*; CRPR 2B.2) is an annual herb that generally blooms from (August) September to November
- California satintail (*Imperata brevifolia*; CRPR 2B.1) is a perennial grass that blooms between September to May
- Sand food (*Pholisma sonorae*; 1B.2).[1] is a perennial parasitic herb that blooms from April to June

Specifically, these special-status plant species have potential to occur within the portions of the Action Area that are not characterized as agriculture, developed, isolated or disturbed. Therefore, the rare plant survey area was limited to portions of the Study Area that were identified as potentially suitable for the target species which included areas characterized as desert scrub and

[1] **CRPR: California Rare Plant Rank**
1B: Plants Rare, Threatened, or Endangered in California and Elsewhere
2B: Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
4: Plants of Limited Distribution - A Watch List
Threat Rank
0.1 Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
0.2 – Moderately threatened in California (20%–80% occurrences threatened/moderate degree and immediacy of threat)
0.3 – Not very threatened in California (<20% of occurrences threatened/low degree and immediacy of threat or no current threats known)

riparian in the northeast and southeast corners of the Study Area (Figure 3). Only the northeast portion of the Study Area overlaps with the Action Area.

The focused rare plant surveys were conducted by qualified biologists according to the *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (California Department of Fish and Wildlife [CDFW] 2018*), CNPS Botanical Survey Guidelines* (CNPS 2001), *Protocols for Surveying and Evaluating Impacts to Special Status Native Populations and Natural Communities* (CDFG 2009), and *U.S. Fish and Wildlife Service General Rare Plant Survey Guidelines* (Cypher 2002). Surveys involved walking parallel linear transects to achieve 100% visual coverage of the survey area. The plant species encountered during the focused surveys were identified to subspecies or variety, if applicable, to determine sensitivity status. If target species were encountered, the biologists recorded data points demarcating the location of the target species using a global positioning system (GPS) with sub-meter accuracy (i.e., Trimble® GeoXT).

Prior to conducting focused surveys, Rincon visited known reference populations (i.e., known locations of target species) on April 16, 2020, to ensure that surveys were conducted at the appropriate time of year for the target species and that rainfall conditions were adequate to support blooming. The focused rare plant surveys were conducted in April 2020 and September 2022 to adequately capture the blooming period for all four target species (spring and fall blooming).

2.5 Flat-Tailed Horned Lizard Surveys

The Biological Resources Report (Dudek 2019) identified FTHL as having a high potential to occur within the non-agriculture portions of the Study Area. Therefore, the FTHL survey area was limited to all non-agricultural areas within a 100-meter buffer of the Study Area which included the northeast and southeast corners of the Study Area, a fallow agricultural field which had developed potentially suitable sand mounds since it was last utilized for agriculture, and desert scrub adjacent to the north and east of the Study Area (Figure 4).

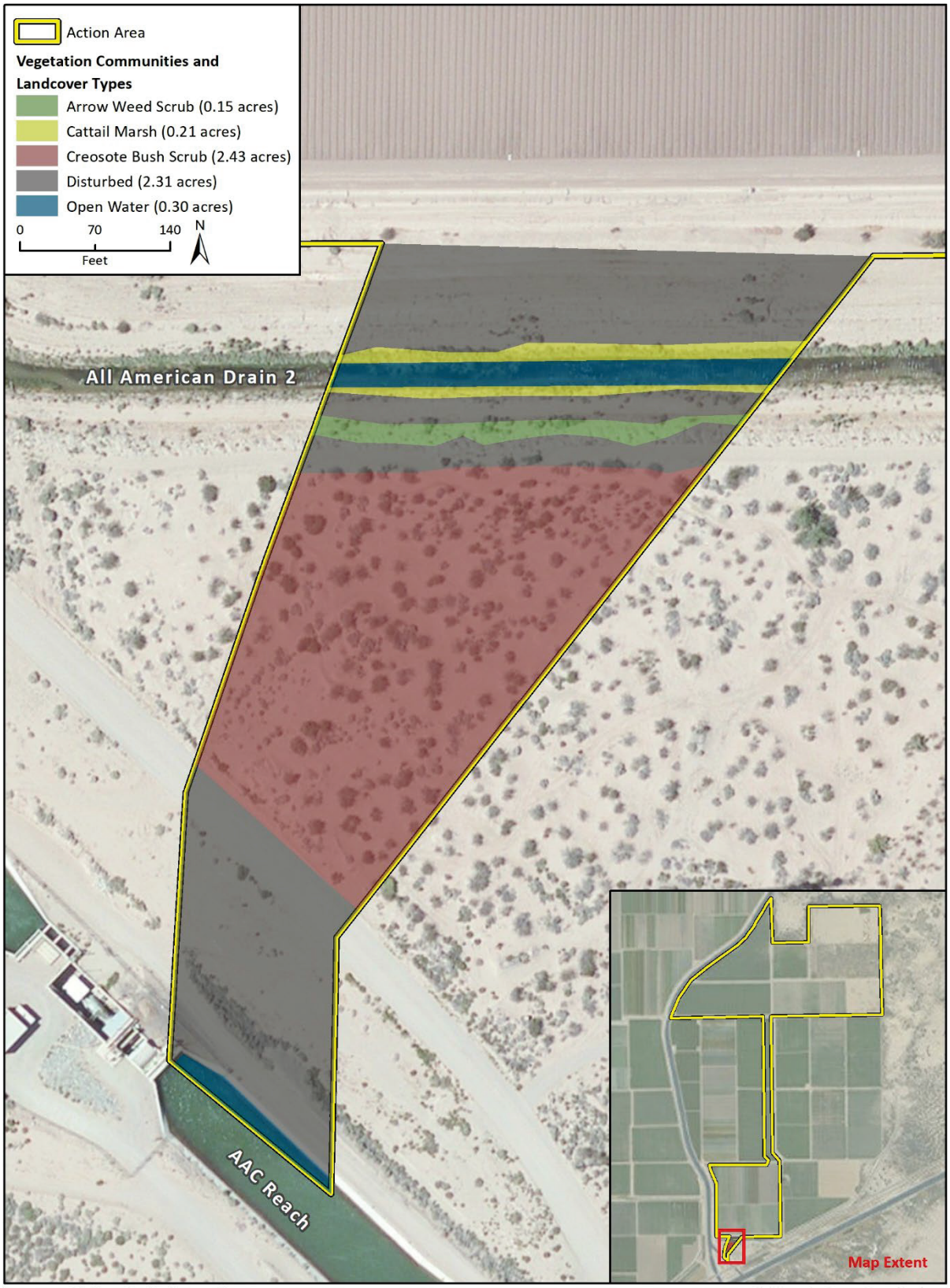
The focused FTHL surveys were conducted in accordance with the *Flat-tailed Horned Lizard Interim Survey Protocol* (Flat-tailed Horned Lizard Working Group of Interagency Coordinating Committee 2003) by qualified investigators trained and experienced in surveying for FTHL and their scat. Both walking and road surveys were conducted as required by the protocol. Walking surveys involved 10-meter linear transects to achieve 100% visual coverage of the survey area. Qualified investigators surveyed for both scat and lizards. Road surveys involved driving all roads in or near the Study Area. Qualified investigators drove slowly (no more than 10 miles per hour) to allow detection of lizards. Portions of the survey area which were inaccessible (i.e., private property within the 100-meter buffer around the Study Area) were surveyed with binoculars from the edge of the Study Area. If FTHL were observed, data including date and time observed, 35-mm color photographs, and (if captured) sex and snout-vent length were recorded for each FTHL observed.

Surveys were conducted between April and September when surface temperatures were between 95 to 122 degrees Fahrenheit. Surveys were not conducted for at least 12 days following heavy rains, hailstorms or strong winds.

2.6 Vegetation Communities and Land Cover Types

On September 8, 2022, Rincon biologists conducted a field reconnaissance survey to map the vegetation communities and landcover within the new Alternative Intake Channel within the Action Area. Vegetation mapping by Rincon Biologists utilized the Natural and semi-natural vegetation community classifications, using the systems provided in *A Manual of California Vegetation, Second Edition* (MCV2; Sawyer et al. 2009), which establishes systematic classifications and definitions of vegetation communities, in conjunction with California Natural Communities List (CDFW 2022b), which provides currently recognized MCV2 alliances and associations. Sensitive vegetation communities were identified in accordance with the CDFW *California Natural Communities List,* which ranks vegetation communities occurring throughout California, and is based in part on global (G) and state (S) rarity ranks (CDFW 2022b). Vegetation communities ranked S1 to S3 are generally considered sensitive, though some communities with other ranks may also be considered sensitive. Refer to Attachment A for representative site photographs and Figure 5 for vegetation communities/landcover types that were mapped for the new Intake Channel Alternative area within the Action Area.

Figure 5 EHL Alternative Intake Area Vegetation Communities and Land Cover



3 Results

This section describes the results of the focused surveys for rare plants and FTHL within the surveyed Action Area. Results from the vegetation mapping to document existing vegetation and community landcovers within the new Alternative Intake Channel portion of the Action Area are presented below and shown in Table 2.

3.1 Rare Plant Surveys

None of the four target species or other special-status plant species were observed during the focused rare plant surveys in April of 2020 and September of 2022. Dominant plant species within the survey area included creosote bush (*Larrea tridentata*), Arabian schismus (*Schismus arabicus*), tamarisk (*Tamarix chinensis*), annual burweed (*Ambrosia acanthicarpa*), alkali goldenbush (*Isocoma acradenia*), arrow weed (*Pluchea sericea*), Russian thistle (*Salsola tragus*) and Bermuda grass (*Cynodon dactylon*). Additionally, the level of disturbance within the survey area was high due unimproved but heavily-traveled dirt roads, off-highway vehicle use, previous agricultural use and invasion of non-native, exotic plant species.

No plant species of the genus *Pholisma*, *Imperata*, or *Astragalus* were found within the Action Area surveyed. One species of the genus *Euphorbia* was found within the Study Area and was identified to species as the common Sonoran sandmat (*Euphorbia micromera*). A complete list of plant species observed during the April 2020 and September 2022 focused surveys is provided in Appendix B. Table 1 below includes a summary of the rare plant surveys conducted for the EHL Reservoir Project Action Area surveyed.

Table 1 Rare Plant Survey Dates and Conditions

Date	Time	Surveyors	Temperature (F)	Wind Speed (mph)	Cloud Cover (%)
April 22, 2020	0900 – 1000 0300 – 0500	Amber Bruno Jared Reed	75 – 81 93 – 95	0 – 7 7 – 9	0
September 8, 2022	0730 – 0900	Jared Reed Angie Harbin	83 – 86	7-10	100

3.2 Flat-tailed Horned Lizard Surveys

No FTHL or scat were observed during the focused surveys. Surveys were conducted in May 2020. Dominant plant species observed within the survey area included creosote bush, Arabian schismus, tamarisk, annual burweed, alkali goldenbush, arrow weed, Russian thistle and Bermuda grass. Additionally, the level of disturbance within the survey area was high due to unimproved but heavily traveled dirt roads, off-highway vehicle use, previous agricultural use and invasion of non-native, exotic plant species. Flat-tailed horned lizard food sources (e.g., harvester ants) were scarce, with only one harvester ant hill detected within the survey area. Therefore, overall habitat quality for FTHL is considered low to moderately suitable depending on the location within the survey area.

Additionally, no known occurrences of flat-tailed horned lizard have been identified within two miles of the Study Area (CDFW 2020). In accordance with *Flat-tailed Horned Lizard Interim Survey*

Protocol (Flat-tailed Horned Lizard Working Group of Interagency Coordinating Committee 2003), the species is considered absent if:

1. No scat or horned lizards are found; and
    a. No flat-tailed horned lizards have been found within two miles of the project site; or
    b. Flat-tailed horned lizard locality record(s) exist within two miles, but the habitat is not continuous or suitable between the locality and project site

Therefore, FTHL are considered absent from the survey area.

Three other lizard species were observed within the survey area during the surveys: Great Basin whiptail (*Cnemidophorus tigris tigris*), common side-blotched lizard (*Uta stansburiana*), and desert banded gecko (*Coleonyx variegatus variegatus*). Kangaroo rat (*Dipodomys* sp.) tracks, which contained long and thick tail drags, were also common throughout the survey area. A complete list of wildlife species observed during the surveys in provided in Appendix C. Table 2 below includes a summary of focused FTHL surveys conducted for the EHL Reservoir Project Action Area.

Table 2 Flat-Tailed Horned Lizard Survey Dates and Conditions

Date	Time	Qualified Investigators	Surface Temperature (F)	Air Temperature (F)	Wind Speed (mph)	Cloud Cover (%)
May 5, 2020	1025 – 1500	Jared Reed	111 – 122	103 – 108	1 – 5	0
	1145 – 1330[1]	Christian Elgabalawi Leslie Yen	119 – 122	105 – 106	5 – 8	0
May 6, 2020	0840 – 1040	Jared Reed	106 – 95	95 – 108	0 – 2	10
	1720 – 1920	Christian Elgabalawi	118 – 95	92 – 89	5 – 10	
May 7, 2020	0815 – 1015	Jared Reed	101 – 122	95 – 108	1 – 5	10 – 5
	1700 – 1930	Christian Elgabalawi	114 – 97	102 – 91	3 – 5	20
May 8, 2020	0800 – 1215	Jared Reed Christian Elgabalawi	95 – 122	89 – 105	0 – 1	25 – 10

[1] Road survey

3.3 Vegetation Mapping

The small portion of the Action Area where the intake channel is proposed to connect to the AAC Reach contains three natural vegetation alliances and associations - creosote bush scrub (*Larrea tridentata,*), cattail marsh (*Typha [angustifolia, domingensis, latifolia* alliance*],* arrow weed thickets *(Pluchea sericea*), a sensitive vegetation alliance, and two other land cover types. These communities and land cover types are mapped within the new intake area as shown on Figure 5 and are described below, with acreages presented in Table 3. The remainder of the Action Area that was not previously assessed by Dudek is considered agricultural land as shown on Figures 3 and 4. Further details regarding these vegetation communities can be found in the 2019 Dudek report as this vegetation mapping effort is considered an amendment to the originally proposed Action Area.

Table 3 Vegetation Communities and Land Cover Types in the EHL Alternative Intake Channel Area

Vegetation Community or Land Cover Type	Global and State Rank	Acreage
Natural Communities [1]		
Cattail Marshes Alliance	G5S5[2]	0.21
Arrow Weed Thicket Alliance	**G4S3**	0.15
Creosote Bush Scrub Alliance	G5S5	2.43
Other Land Cover		
Disturbed Habitat	N/A	2.31
Open Water	N/A[2]	0.30
Total	**N/A**	**5.40**

[1] Vegetation community ranks are from CDFW (2022). CDFW sensitive natural communities are indicated in **bold**.

[2] Indicates alliance is not considered a sensitive resource under CEQA, but is a wetland or aquatic community with protection under CEQA and Clean Water Act

N/A – Not a vegetation community

Natural Vegetation Communities

Cattail Marshes Alliance

Standing water supporting emergent cattail marsh vegetation was observed in the All-American Drain 2 during the site reconnaissance. The cattail marsh alliance (*Typha [angustifolia, domingensis, latifolia*] alliance, covered much of the All-American Drain 2 within the Alternative Intake Channel area, although the density of this vegetation cover likely experiences seasonal fluctuations and more open water is expected in the winter months Therefore, aerial imagery was utilized to assist with mapping the extent of this vegetation community, totaling 0.21 acre, within the Alternative Intake Channel area.

Arrow Weed Thicket Alliance

Arrow weed thickets (scrub) (*Pluchea sericea* alliance), occur just south of the All-American Drain 2 within the Alternative Intake Channel area. The Arrow weed thicket community totals 0.15 acre within the Alternative Intake Channel area.

Creosote Bush Scrub Alliance

Creosote bush scrub alliance (*Larrea tridentata alliance*), occurs between the arrow weed thicket scrub and Bornt Road, totaling 2.43 acres.

Disturbed

This land cover type is not formally recognized as an official vegetation community. Disturbed areas identified within the Alternative Intake Channel area comprising of 2.31 acres. These areas are largely unvegetated, but contain ruderal non-native grasses such as (*schismus barbatus)* and forbs such as mustard *(Brassica* sp).

Agricultural Areas

Agricultural lands characterize most of the Action Area. Agricultural areas cover the Action Area north of the All-American Drain 2, the channel alignment proposed along the west side of Holdridge Road to and inclusive of the reservoir basin site (Figure 4). During the reconnaissance survey, the agriculture fields were observed to be fallow.

Open Water

Open water is mapped within the Alternative Intake Channel area where the intake connects to the AAC Reach. The All-American Drain 2 is also considered an open water habitat, carrying a substantial amount of water year-round.

4 Effects Analysis

This section describes the anticipated direct and indirect effects of the Proposed Action on rare plants and FTHL.

4.1 Rare Plants

As detailed in the Biological Resources Report (Dudek 2019), the Proposed Action may result in both direct impacts (e.g., temporary or permanent alteration of habitat and injury or mortality of individuals) and indirect impacts (e.g., generation of fugitive dust, release of chemical pollutants, introduction of invasive plant species) to special-status plant species, if present in the Study Area. The Report included a conservation measure requiring focused surveys for special-status plant species with potential to occur in the Action Area. The federal land owned by the Bureau of Reclamation (BOR) located within the Action Area did not require IID to conduct additional rare plant surveys, therefore rare plants were not surveyed for within the new Alternative Intake Channel area. Section 3 of this report summarizes the results of the focused surveys for the Action Area, which included spring and fall surveys. Fall surveys were conducted for Abram's spurge on September 8, 2022, during the appropriate blooming period as a required follow up survey to optimize detection of these species with potential to occur. Surveys did not detect special-status plant species within the surveyed Action Area. Due to the negative findings of the focused surveys, no direct or indirect effects to special-status plant species are anticipated as a result of the Proposed Action.

4.2 Flat-tailed Horned Lizard

As detailed in the Biological Resources Report (Dudek 2019), the Proposed Action may result in both direct impacts (i.e., temporary or permanent alteration of habitat and injury or mortality of individuals) and indirect impacts (e.g., generation of fugitive dust, noise and vibration, increased human presence, release of chemical pollutants) to FTHL, if present in the Action Area. The Report included a conservation measure requiring focused surveys for FTHL within non-agricultural portions of the Action Area. The federal land owned by the Bureau of Reclamation (BOR) located within the Action Area did not require IID to conduct additional FTHL surveys, therefore flat-tailed horned lizards were not surveyed for within the new Alternative Intake Channel area and were only surveyed in the Action Area within the Study Area and associated buffers.

Section 3 of this report summarizes the results of the focused surveys which did not detect FTHL within the surveyed Action Area. Due to the negative findings of the focused surveys and lack of known occurrences of FTHL within two miles of the Study Area, FTHL is considered absent from the Action Area. No direct or indirect effects to FTHL are anticipated as a result of the Proposed Action.

5 Conservation Measures

This section describes the conservation measures necessary to avoid and/or minimize direct and indirect effects of the Proposed Action on rare plants and FTHL.

5.1 Rare Plants

Due to the negative findings of the focused rare plant surveys, no direct or indirect effects to special-status plant species are anticipated from the Proposed Action. Therefore, no conservation measures are necessary. As outlined in the conservation measures, if special-status plants are not observed during focused surveys, no additional mitigation is required (Dudek 2019).

5.2 Flat-tailed Horned Lizard

Due to the negative findings of the focused FTHL surveys and lack of known occurrences of FTHL within two miles of the Study Area, FTHL are considered absent from the Action Area and no direct or indirect effects to FTHL are anticipated from the Proposed Action. Therefore, no conservation measures are necessary.

6 Effects Determination

This section provides the effects determination of the Proposed Action on rare plants and flat-tailed horned lizard.

6.1 Rare Plants

Focused surveys did not detect special-status plant species within the surveyed Action Area. Therefore, the Proposed Action would have “No Effect” on special-status plant species.

6.2 Flat-Tailed Horned Lizard

Flat-tailed horned lizards are considered absent from the Action Area. Therefore, the Proposed Action would have “No Effect” on flat-tailed horned lizard.

7 Limitations, Assumptions, and Use Reliance

Rincon prepared this Supplemental Biological Assessment in accordance with professionally accepted biological investigation practices conducted at this time and in this geographic area. The biological investigation is limited by the scope of work performed. In addition, general biological (or protocol) surveys do not guarantee that the organisms are not present and will not be discovered in the future within the site. In particular, mobile wildlife species could occupy the site on a transient basis or re-establish populations in the future. Additionally, plants may not be identifiable outside the normal blooming period and it may not be possible to detect them during surveys. Plants could also become present if environmental conditions change, such as rain events, and dormant individual blooms. Our field studies were based on current industry practices, which change over time and may not be applicable in the future. No other guarantees or warranties, expressed or implied, are provided. The findings and opinions conveyed in this report are based on findings derived from site reconnaissance, review of the California Natural Diversity Database (CNDDB) RareFind5, and specified historical and literature sources. Standard data sources relied upon during the completion of this report, such as the CNDDB, may vary with regard to accuracy and completeness. In particular, the CNDDB is compiled from research and observations reported to CDFW that may or may not have been the result of comprehensive or site-specific field surveys. Although Rincon believes the data sources are reasonably reliable, Rincon cannot and does not guarantee the authenticity or reliability of the data sources it has used. Additionally, pursuant to our contract, the data sources reviewed included only those that are practically reviewable without the need for extraordinary research and analysis.

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9 Certification and List of Preparers

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

Date: November 7, 2022 Signed: 

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Appendix A

Site Photographs

Photograph 1. View of northeast corner of Study Area within rare plant and flat-tailed horned lizard survey areas.

Photograph 2. View of sandy mounds and saltbush in fallow agricultural field within flat-tailed horned lizard survey area.

Photograph 3. View of sandy mounds and bush seepweed scrub within the rare plant survey area in the northeast corner. September 2022.

Photograph 4. View of sandy mounds and alkali goldenbush scrub within the rare plant survey area in the northeast corner.

Photograph 5. View of creosote bush scrub within the new EHL Alternative Intake Channel Area in the southwestern portion of the Action Area.

Photograph 6. View of creosote bush scrub and arrow weed thickets in the EHL Alternative Intake Channel Area the southwest portion of the Action Area.

Photograph 7. View of creosote bush scrub within southwestern portion of the EHL Alternative Intake Channel Area.

Photograph 8. View of cattail marsh within AAC Drain 2 in the southwestern portion of the EHL Alternative Intake Channel Area.

Appendix B

Botanical Species Compendium

Botanical Species Compendium

Scientific Name	Common Name	Status
Abronia villosa	hairy sand verbena	
Achyronychia cooperi	frost mat	
Ambrosia acanthicarpa	annual burweed	
Ambrosia dumosa	white bursage	
Arundo donax	giant reed	
Atriplex canescens	fourwing saltbush	
Atriplex lentiformis	big saltbush	
Avena barbata	slim oat	
Baileya pleniradiat	woolly desert marigold	
Chenopodium murale	nettle leaf goosefoot	
Chylismia claviformis ssp. *yumae*	Yuma clavate fruited primrose	
Cryptantha angustifolia	narrow leaved cryptantha	
Cynodon dactylon	Bermuda grass	
Dalea mollissima	silky dalea	
Eriogonum thomasii	Thomas' buckwheat	
Eucalyptus sp.	eucalyptus	
Euphorbia micromera	Sonoran sandmat	
Geraea canescens	hairy desert sunflower	
Heliotropium curassavicum	salt heliotrope	
Isocoma acradenia	alkali goldenbush	
Lactuca serriola	prickly lettuce	
Larrea tridentata	creosote bush	
Lupin sp.	lupine	
Malva parviflora	cheeseweed	
Mentzelia albicaulis	white stemmed blazing star	
Oligomeris linifolia	leaved cambess	
Palafoxia arida	Spanish needle	
Pectocarya penicillata	winged pectocarya	
Phalaris minor	Mediterranean canarygrass	
Tiquilia plicata	*plicate coldenia*	
Pluchea sericea	arrow weed	
Portulaca oleracea	common purslane	
Prosopis glandulosa	honey mesquite	
Salsola tragus	Russian thistle	
Schismus arabicus	Arabian schismus	
Sisymbrium irio	London rocket	
Sonchus oleraceus	sow thistle	
Sphaeralcea orcuttii	Carrizo mallow	
Tamarix chinensis	tamarisk	

Scientific Name	Common Name	Status
Tiquilia plicata	plicate coldenia	
Tribulus terrestris	puncture vine	
Trifolium sp.	trifolium	
Triticum aestivum	common wheat	
Typha domingensis	narrowleaf cattail	

Appendix C

Wildlife Species Compendium

Wildlife Species Compendium

Scientific Name	Common Name	Status
Birds		
Amphispiza bilineata	black-throated sparrow	
Athene cunicularia	burrowing owl	CDFW SSC[1]
Buteo jamaicensis	red-tailed hawk	
Callipepla gambelii	Gambel's quail	
Chordeiles acutipennis	lesser nighthawk	
Eremophila alpestris	horned lark	CDFW WL[2]
Polioptila melanura	black-tailed gnatcatcher	
Mammals		
Dipodomys spp.	kangaroo rat	
Reptiles		
Cnemidophorus tigris	Great Basin whiptail	
Coleonyx variegatus	desert banded gecko	
Crotalus cerastes laterorepens	Colorado Desert sidewinder	
Uta stansburiana	common side-blotched lizard	

[1] CDFW Species of Special Concern

[2] CDFW Watch List

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