

Appendix C:
Biological and Aquatic Resources Constraints Analysis



MEMORANDUM

To: Mr. Ruben Salas, Kimley-Horn
From: Ian Hirschler, Rocks Biological Consulting
Date: October 5, 2021
Subject: Gateway 8 Development Project – Biological and Aquatic Resources Constraints Analysis

This memorandum provides a summary of a preliminary biological and aquatic resources and constraints analysis conducted by Rocks Biological Consulting (RBC) for the proposed Gateway 8 Development Project (project). The approximately 20-acre survey area is in the City of San Bernardino, California. The survey area is located north of E Norman Road, west of S Foisy Street and east of S Lena Road (Figure 1).

This memorandum discloses potentially significant biological and aquatic resources and constraints/mitigation considerations (Section 4) and potential permits/approvals that may be required (Section 5) for the development of the project site based on the desktop analysis and field survey conducted by RBC.

1 LITERATURE REVIEW

This section summarizes the preliminary review RBC conducted to analyze biological and aquatic resources throughout the survey area prior to the field assessment.

1.1 BIOLOGICAL RESOURCES

The review of background information for biological resources included documented observations of special-status plant and wildlife species, natural communities, and habitats of concern in California with the potential to occur within the survey area. This review included a query of sensitive resources within one mile from the project according to the following databases:

- California Natural Diversity Database (CNDDDB)¹ (Figure 2A)
- United States Fish and Wildlife Service (USFWS) Special-Status Species and Critical Habitat Database² (Figure 2B)
- USFWS Information for Planning and Consultation (IPaC) database³

¹ California Department of Fish and Wildlife (CDFW). 2021. Special Animals, April 2021. California Natural Diversity Data Base (CNDDDB).

² United States Fish and Wildlife Service (USFWS). 2021. Special-status Species and Critical Habitat.

³ IPaC: Information for Planning and Consulting, Powered by ECOS – the Environmental Conservation Online System. Website <https://ecos.fws.gov/ipac/> (accessed May 23, 2021).

- The California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants of California Electronic Inventory⁴

1.2 AQUATIC RESOURCES

RBC reviewed the United States Geological Survey (USGS) National Hydrography Dataset (NHD)⁵ and the USFWS National Wetland Inventory (NWI)⁶ (Figure 3) for areas within the survey area that may be potentially jurisdictional under the United States Army Corps of Engineers (Corps) pursuant to Section 404 of the Clean Water Act (CWA), the State Water Resources Control Board (SWRCB)/Regional Water Quality Control Board (RWQCB) pursuant to Section 401 of the CWA and the Porter-Cologne Water Quality Control Act (Porter-Cologne), and the California Department of Fish and Wildlife (CDFW) pursuant to Section 1602 of the California Fish and Game Code.

2 METHODS

On September 16, 2021, RBC senior biologist Ian Hirschler conducted a field survey of the approximately 20-acre survey area (project site plus 50-foot buffer) that included vegetation mapping, a general biological survey, habitat assessments for special-status species including, but not limited to burrowing owl (*Athene cunicularia*; BUOW), Delhi Sands flower-loving fly (*Raphiomidas terminatus abdominalis*), and San Bernardino kangaroo rat (*Dipodomys merriami parvus*; SBKR), and a constraints-level wetland/non-wetland waters of the U.S. jurisdictional assessment. Focused or protocol surveys for special-status species were not conducted during the field survey.

Vegetation was mapped to determine the type and condition of habitats/land uses that occur within the survey area. Habitats were classified based on the dominant and characteristic plant species in accordance with vegetation community classifications outlined in *A Manual of California Vegetation*⁷ and *Preliminary Descriptions of the Terrestrial Natural Communities of California*⁸.

The survey area was also assessed for potentially jurisdictional Corps, SWRCB/RWQCB, and CDFW aquatic resources. Areas with depressions, drainage patterns, wetland vegetation, or riparian vegetation within the survey area were assessed for *potential* jurisdictional status only, with focus on the presence of defined channels, soils, and hydrology. A formal jurisdictional delineation was not conducted during the survey, therefore, conclusive determinations of the jurisdictional limits of aquatic resources within the survey area (if present) are not provided in this memo.

⁴ California Native Plant Society (CNPS), Rare Plant Program. 2021. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Accessed September, 2021. <http://www.rareplants.cnps.org>

⁵ U.S. Geological Survey (USGS). 2021. The National Map, Advanced Viewer. U.S. Department of Interior. Accessed August 2021. <https://viewer.nationalmap.gov/advanced-viewer/>

⁶ U.S. Fish and Wildlife Service (USFWS). 2021. National Wetlands Inventory website. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. Last accessed August 2021. <http://www.fws.gov/wetlands/>

⁷ Sawyer, John O., et al. 2009. *The Manual of California Vegetation*. Second edition, California Native Plant Society Press.

⁸ Holland, R. F. 1986. *Preliminary descriptions of the terrestrial natural communities of California*. State of California, The Resources Agency, Department of Fish and Game.

3 BIOLOGICAL AND AQUATIC RESOURCES

The following includes a discussion of potential biological and aquatic resources within the survey area based on RBC's preliminary literature review, constraints-level aquatic resources assessment, vegetation mapping, general biological survey, and special-status species habitat assessments.

Please note that the findings outlined in this memo regarding aquatic and biological resources are based on the currently applicable agency regulations and guidance. Determinations outlined in this section are subject to change given the uncertainty of future regulatory changes.

3.1 SITE CONDITIONS AND VEGETATION COMMUNITIES

The survey area ranges in elevation between 1,015 to 1,040 feet above mean sea level (amsl). The survey area is primarily composed of a large detention basin as well as several small homes and disturbed lots (Figure 4). Most of the survey area, including the detention basin that covers the eastern half of the site supports disturbed habitat dominated by sparse occurrences of tumbleweed (*Salsola australis*), sunflower (*Helianthus* sp.), puncture vine (*Tribulus terrestris*), and common lamb's quarters (*Chenopodium album*). This disturbed habitat shows signs of frequent human usage, including the presence of vehicle tracks. Developed habitat in the form of paved surfaces and residential development also occurs within the survey area, as well as non-native grassland. The non-native grassland does not show signs of frequent direct disturbance, but it is relatively small and isolated from other occurrences of native and naturalized habitat within the landscape. The survey area is surrounded by developed habitat on all sides, although small patches of disturbed habitat also occur between the developed areas.

3.2 SPECIAL-STATUS SPECIES

The potential for special-status species to occur within the survey area is based on habitat suitability and documented occurrences (e.g., CNDDDB and USFWS records). Due to the disturbed and developed nature of the survey area, the potential for special-status wildlife species to occur on site is negligible.

No federally or state-listed as threatened or endangered plants were observed during the field survey, and none have potential to occur on site. The following listed plant species have been documented within one mile of the survey area:

- marsh sandwort (*Arenaria paludicola*; federally endangered [FE] and state endangered [SE])
- salt marsh bird's-beak (*Chloropyron maritimum* ssp. *maritimum*; FE, SE)
- slender-horned spineflower (*Dodecahema leptoceras*; FE, SE)
- Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum*; FE, SE)
- Gambel's water cress (*Nasturtium gambelii*; FE and state threatened [ST])

However, these species have no potential to occur on site due to the lack of suitable habitat. Additionally, no other special-status plant species were observed during the survey, and none have potential to occur. Six additional plant species with a California Rare Plant Rank (CRPR) were listed on the CNDDDB within one mile of the survey area; however, none have potential to occur due to the lack of suitable habitat and the overall developed and disturbed nature of the survey area.

No federally or state-listed as threatened or endangered wildlife species were observed during the field survey, and none have potential to occur within the survey area. The following listed wildlife species have been documented within one mile of the survey area:

- Delhi Sands flower-loving fly (FE, SE)
- San Bernardino kangaroo rat (candidate SE species)
- Least Bell's vireo (*Vireo bellii pusillus*; FE, SE)
- Southern California steelhead (*Oncorhynchus mykiss irideus*; FE)
- Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*; federally threatened [FT] and SE)

However, these species have no potential to occur within the survey area due to the lack of suitable habitat.

The project is located within the County of San Bernardino Biotic Resources Overlay Zone⁹. Specifically, the project is located within the County's Burrowing Owl Overlay Zone. No individual BUOW, suitable burrows, or active sign for BUOW were observed within the survey area. Additionally, BUOW has not been documented within one mile of the survey area according to the CNDDDB query. No other special-status species were observed during the field survey and none have potential to occur within the survey area.

USFWS Critical Habitat for SBKR, southwestern willow flycatcher (*Empidonax extimus traillii*; FE and SE) and Santa Ana sucker (*Catostomus santaanae*; FT) occurs within one mile of the survey area but not within the survey area.

3.3 WILDLIFE CORRIDORS AND HABITAT CONSERVATION PLANS/NATURAL COMMUNITIES CONSERVATION PLANS

The site is not within a functioning wildlife corridor, or an active or planned Habitat Conservation Plan (HCP) or Natural Communities Conservation Plan (NCCP).

3.4 POTENTIAL FEDERAL AND STATE JURISDICTIONAL AQUATIC RESOURCES

Based on the constraints-level assessment, the potentially jurisdictional aquatic resource documented on site includes one detention basin within the eastern portion of the survey area, as shown on Figure 5, in an area mapped as disturbed habitat. The culverts located within the detention basin appeared to allow for flows both into and out of the detention basin. Some of the culverts along the basin's southern boundary may release flows into the concrete rip-rap area south of the basin; however, they do not appear to convey flows away from the survey area (i.e., no downstream activity). No standing water was observed within the detention basin during the constraints-level assessment. Section 10 navigable waters of the U.S. do not occur within the survey area based on field observations.

Based on the lack of hydrophytic vegetation and wetland hydrology indicators in the detention basin, the feature is not anticipated to meet the appropriate wetland parameters to qualify as a

⁹ San Bernardino County. 2012. Biotic Resources Overlay Zone Map.

wetland waters of the U.S./State per the Corps and the SWRCB/RWQCB or associated wetlands potentially jurisdictional by the CDFW. The detention basin would also not qualify as non-wetland waters of the U.S. per the Corps as the detention basin did not display an observable ordinary high water mark (OHWM) and the detention basin appeared to be excavated in uplands (i.e., did not relocate natural drainages or excavated tributaries) based on the field assessment and a review of Google Earth aerial imagery. Specifically, the detention basin was constructed on site between December 2005 and March 2007, presumably to manage stormwater runoff associated with surrounding development.¹⁰ Thus, based on the current pre-2015 definition of “waters of the U.S.,” which was further defined by the 2001 *Solid Waste Agency of Northern Cook County* (SWANCC) decision and the 2006 *Rapanos* decisions, the detention basin should be considered a ditch “excavated wholly in and draining only uplands” that does “not carry a relatively permanent flow of water.”¹¹

The detention basin would also likely not qualify as non-wetland waters of the State by the SWRCB/RWQCB as the basin is a maintained artificial structure which functions as localized stormwater runoff conveyance with no downstream connectivity and which does not provide/has no impact on beneficial uses (e.g., agricultural supply, freshwater supply, or groundwater recharge). The detention basin would also likely not qualify as streambed jurisdictional per the CDFW, as the detention basin did not display an observable bed and bank, lacked association with a natural feature/streambed, and did not support wildlife habitat.

Please note that a formal, project-specific aquatic resources delineation and reporting per Corps, SWRCB/RWQCB, and CDFW standards and guidelines and further coordination with the Corps, SWRCB/RWQCB, and CDFW would be required to receive a determination from the regulatory agencies of their concurrence with the findings related to potential aquatic resources on site (i.e., that the survey area does not support jurisdictional aquatic resources).

4 CONSTRAINTS AND MITIGATION CONSIDERATIONS

4.1 BIOLOGICAL RESOURCES

4.1.1 SENSITIVE HABITAT

No sensitive habitat occurs within the project; therefore, project development is not constrained by the presence of sensitive habitat.

4.1.2 SPECIAL-STATUS SPECIES

There is no potential for special-status plant species to occur on site due the lack of suitable habitat and the overall developed nature of the survey area and therefore, surveys and permits are likely not required for potential impacts on special-status plants resulting from the project.

¹⁰ Google Earth Pro V 7.3.4.8248. 2021. Rialto, California. 34°04'56.24"N,117°16'22.27"W. Eye alt 1811 feet. Image Google. Last accessed September 2021

¹¹ U.S. Environmental Protection Agency. 2008. Clean Water Act Jurisdiction Following the Supreme Court's Decision in *Rapanos v. United States* and *Carabell v. United States*. December 2.

There is no potential for federally or state-listed as endangered or threatened species to occur on site. The survey area is located within the County of San Bernardino's Burrowing Owl Overlay Zone but has low potential to support burrowing owl. Two pre-construction take avoidance surveys for burrowing owl will be required in accordance with the CDFW *Staff Report on Burrowing Owl Mitigation*¹². One survey is required no less than 14 days prior to construction activities and the second survey must take place within 24 hours of construction activity. If BUOW is observed on site, the owl(s) should be avoided and further coordination with CDFW may be required.

The project has potential to impact nesting bird species within the survey areas including ground-nesting species such as California horned lark (*Eremophila alpestris actia*), mourning dove (*Zenaida macroura*), or killdeer (*Charadrius vociferus*). To avoid impacts on nesting birds, if construction activities must take place during the breeding season (February 15 to August 31), a pre-construction nesting bird survey should be conducted ten days prior to any ground disturbing activities or vegetation removal resulting from the project.

Federal and state Incidental Take Permits for listed species are likely not required for the development of the project. With the implementation of the mitigation measures previously listed, impacts on special-status species will likely be avoided.

4.1.3 WILDLIFE CORRIDORS AND HCPS/NCCPS

The survey area is not within a functioning wildlife corridor or an active HCP or NCCP. The project is not constrained by wildlife corridors or active/planned HCPs or NCCPs.

4.2 AQUATIC RESOURCES

4.2.1 PERMITTING

The proposed project is not expected to impact jurisdictional aquatic resources as such features were not documented on site (See Section 3.4). Therefore, permitting through the Corps, RWQCB, and CDFW is not expected to be required for the proposed project. A formal, project-specific aquatic resources delineation and reporting per Corps, SWRCB/RWQCB, and CDFW standards and guidelines and further coordination with the Corps, SWRCB/RWQCB, and CDFW would be required to receive a determination from the regulatory agencies of their concurrence with the findings related to potential aquatic resources on site (i.e., that the survey area does not support jurisdictional aquatic resources).

5 PERMITTING MATRIX

The permitting matrix below outlines the necessary federal, state, and local permits and approvals potentially required for the project. The estimated timelines for potential permits are included in Table 1 for informational purposes only. Table 1 displays potential permits and approvals related to aquatic resources only; permits are not anticipated for potential impacts on biological resources resulting from the project.

¹² CDFW. 2012. Staff Report on Burrowing Owl Mitigation.

Table 1 was developed based on RBC’s understanding of current agency regulations and permitting processes. The proposed timelines provided below are *approximate* agency timelines for processing once applicable forms/application are submitted (including an appropriate mitigation proposal and plan for the applicable resource) and assumption that minimal regulatory changes will occur after forms/application submittal. Timelines should be considered for project planning purposes and vary based on impacts, proposed mitigation methods, and project complexity.

Table 1. Potential Permits and Approvals Related to Aquatic Resources

Agency	Regulation	Applicability	Estimated Timeline
Federal			
Corps	Clean Water Act Section 404 Authorization	Permitting not anticipated. No Corps-jurisdictional aquatic resources are anticipated to occur on site. An AJD could provide an official determination that the detention basin is not Corps-jurisdictional under the current definition of waters of the U.S.	Although permitting not anticipated, 3 to 6 months if an AJD is pursued
State			
CDFW	Fish and Game Code Section 1602	Permitting not anticipated. No CDFW-jurisdictional aquatic resources are anticipated to occur on site.	Although permitting not anticipated, 3 to 12 months
SWRCB or RWQCB	Clean Water Act Section 401 and/or Porter-Cologne Water Quality Control Act	Permitting not anticipated. No SWRCB/RWQCB-jurisdictional aquatic resources are anticipated to occur on site.	Although permitting not anticipated, 6 months to 18 months

Please don’t hesitate to contact me at (619) 701-6798 regarding any questions or concerns related to this memo.

Sincerely,



Ian Hirschler, Senior Biologist

Attachments

Figure 1 – Project Location

Figure 2A – CNDDDB Plants and Wildlife

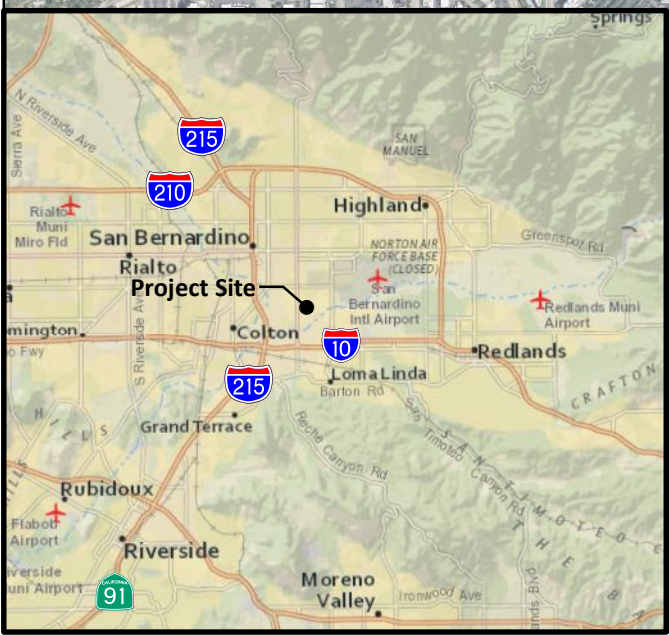
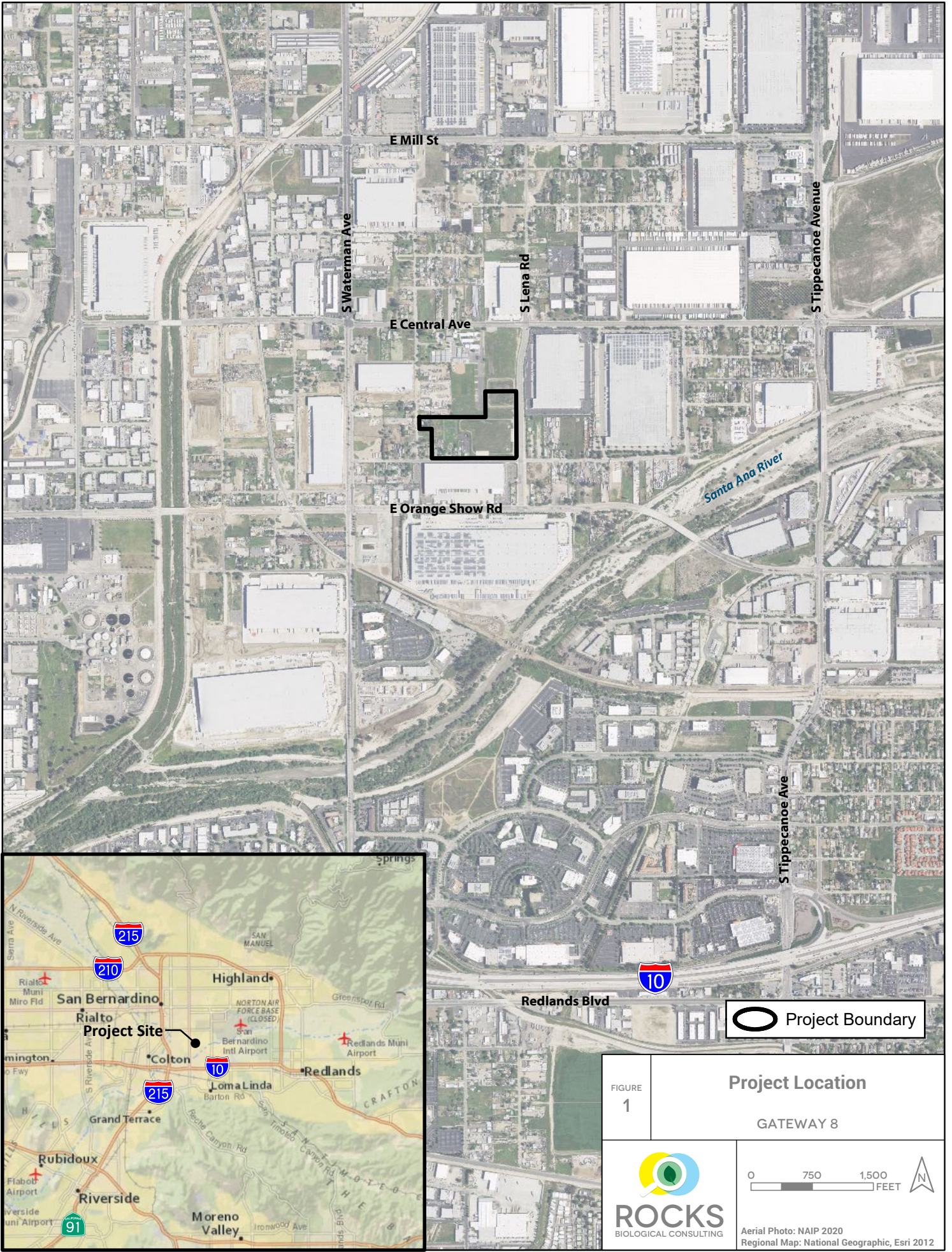
Figure 2B – USFWS Plant and Wildlife

Figure 3 – NWI and NHD



Figure 4 – Biological Resources

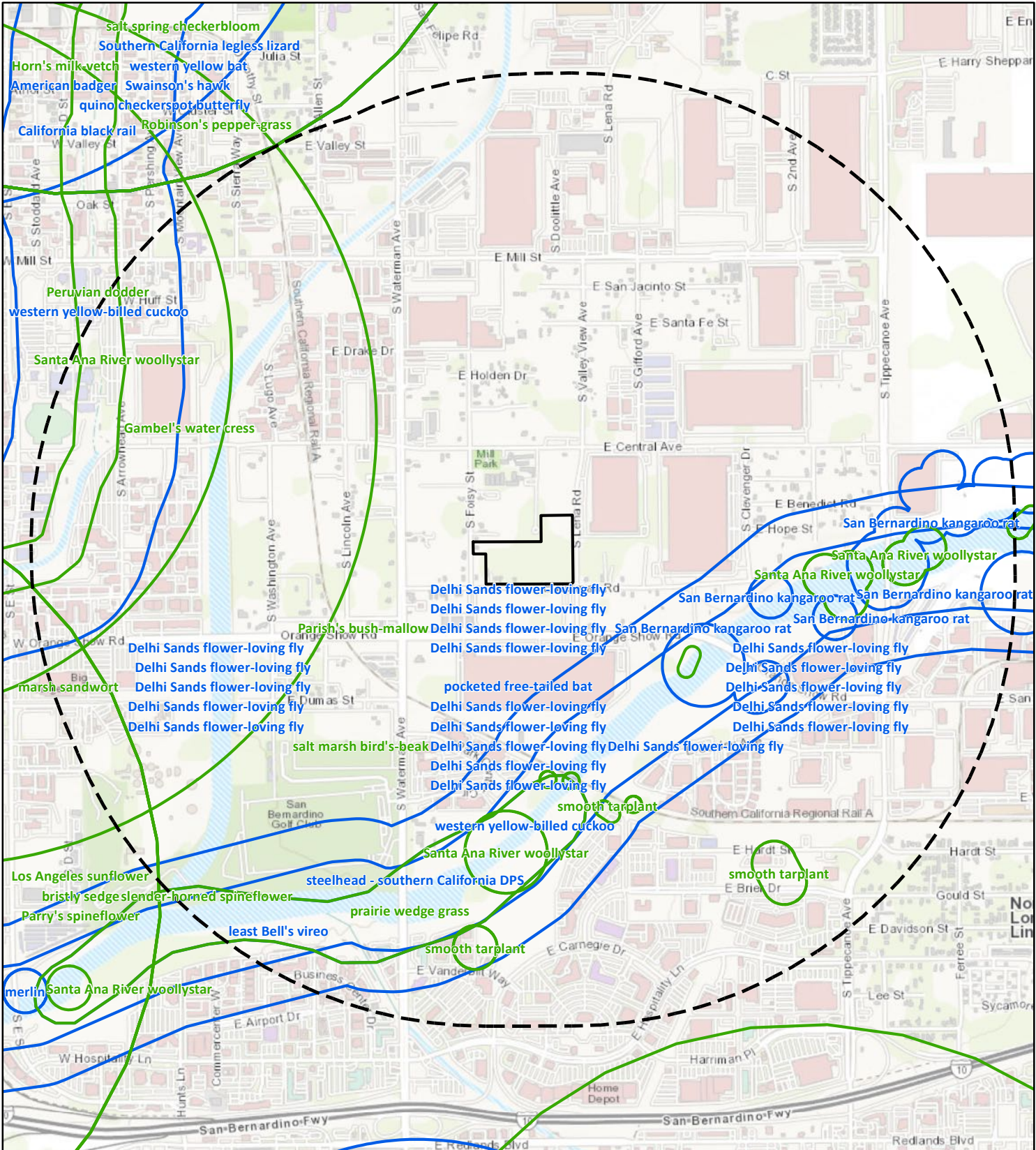
Figure 5 – Estimated Potential Aquatic Resource Boundaries

Attachment A – Site Photographs



 Project Boundary

<p>FIGURE 1</p>	<p>Project Location</p> <p>GATEWAY 8</p>
	<p>0 750 1500 FEET </p> <p>Aerial Photo: NAIP 2020 Regional Map: National Geographic, Esri 2012</p>



Legend

- Project Boundary
- 1-mile Buffer
- CNDDB Plant Species Locations
- CNDDB Wildlife Species Locations

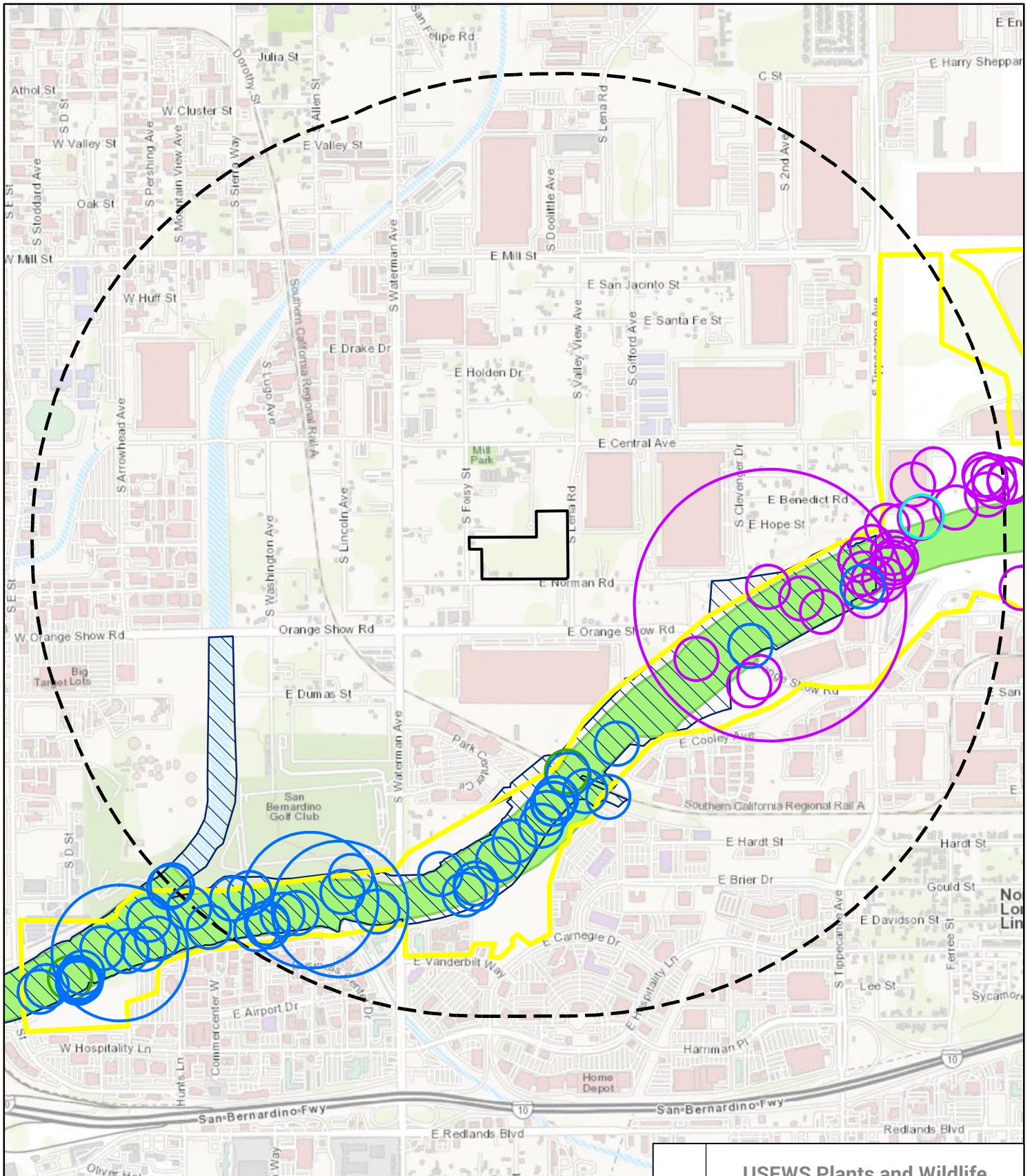
FIGURE 2A

CNDDB Plants and Wildlife

GATEWAY 8

0 800 1,600 FEET

Base Map: Esri Topographic Map
Source: CDFW












 Project Boundary	USFWS Species Locations
 1-mile Buffer	 Least Bell's Vireo
Critical Habitat	 Los Angeles pocket mouse
 San Bernardino Kangaroo Rat	 San Bernardino kangaroo rat
 Southwestern Willow Flycatcher	 Santa Ana River woolly-star
 Santa Ana Sucker	

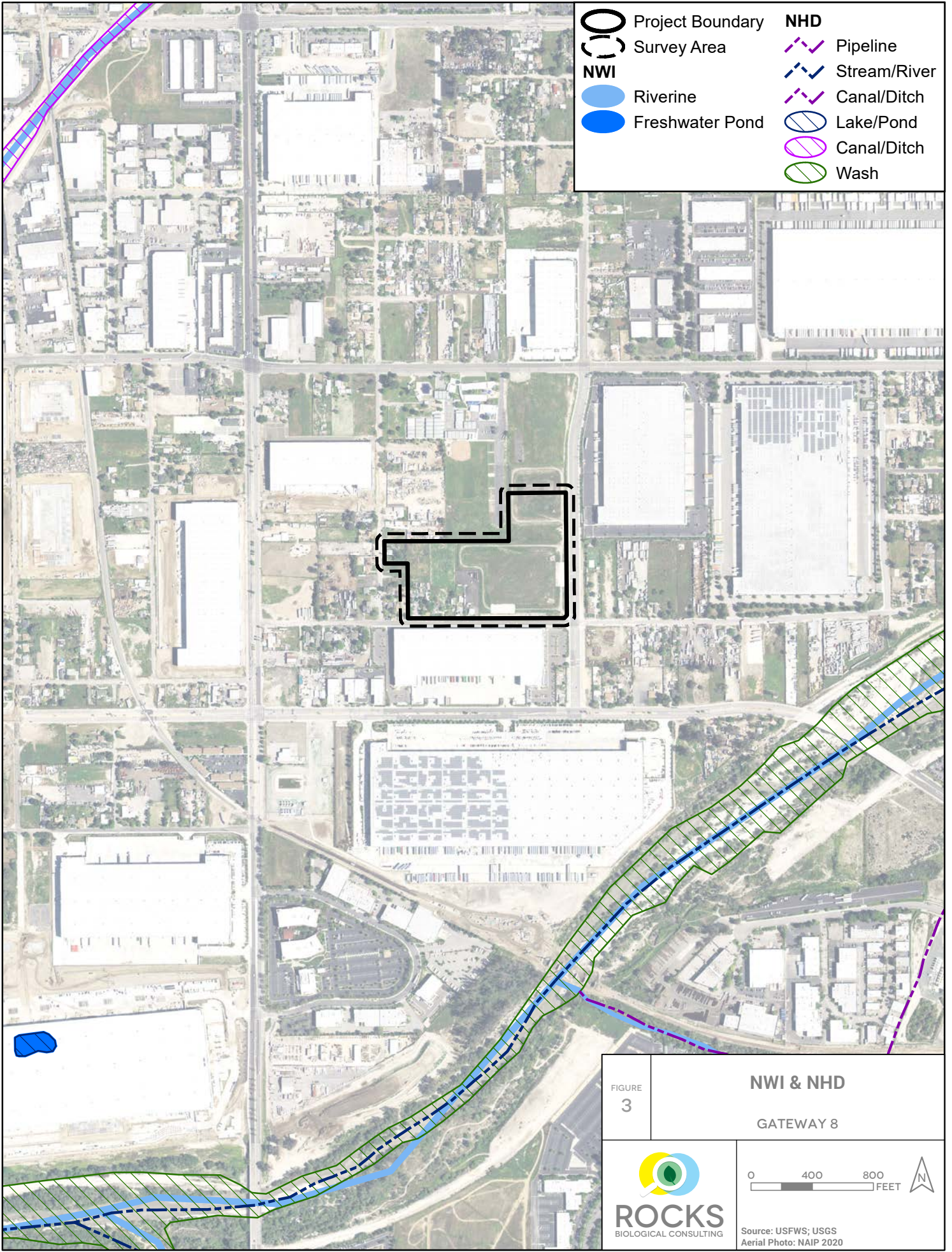
FIGURE
2B

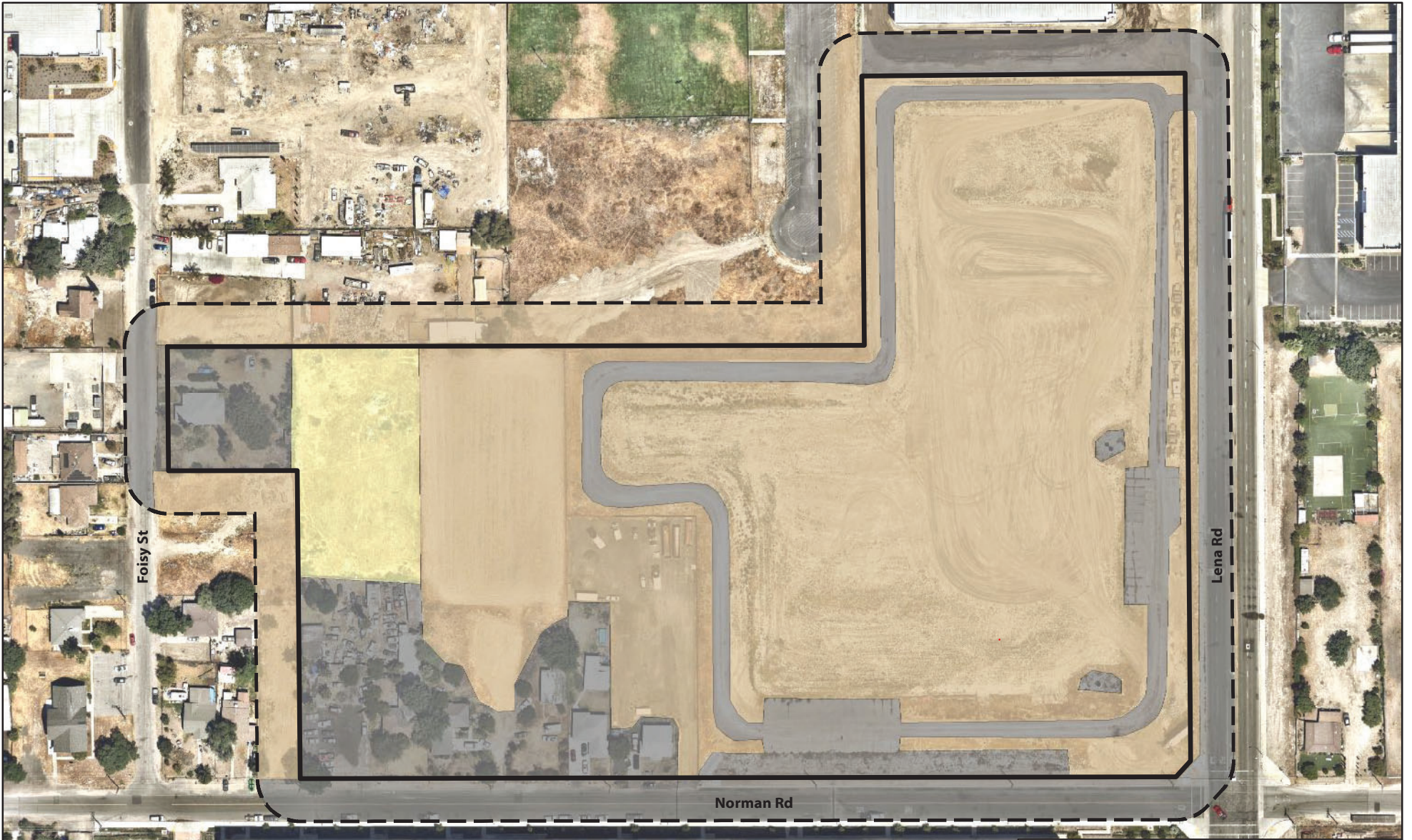
USFWS Plants and Wildlife

GATEWAY 8



Base Map: Esri Topographic Map
Source: USFWS










-  Project Boundary
-  Survey Area
- Vegetation**
-  Non-native Grassland
-  Disturbed Habitat
-  Developed

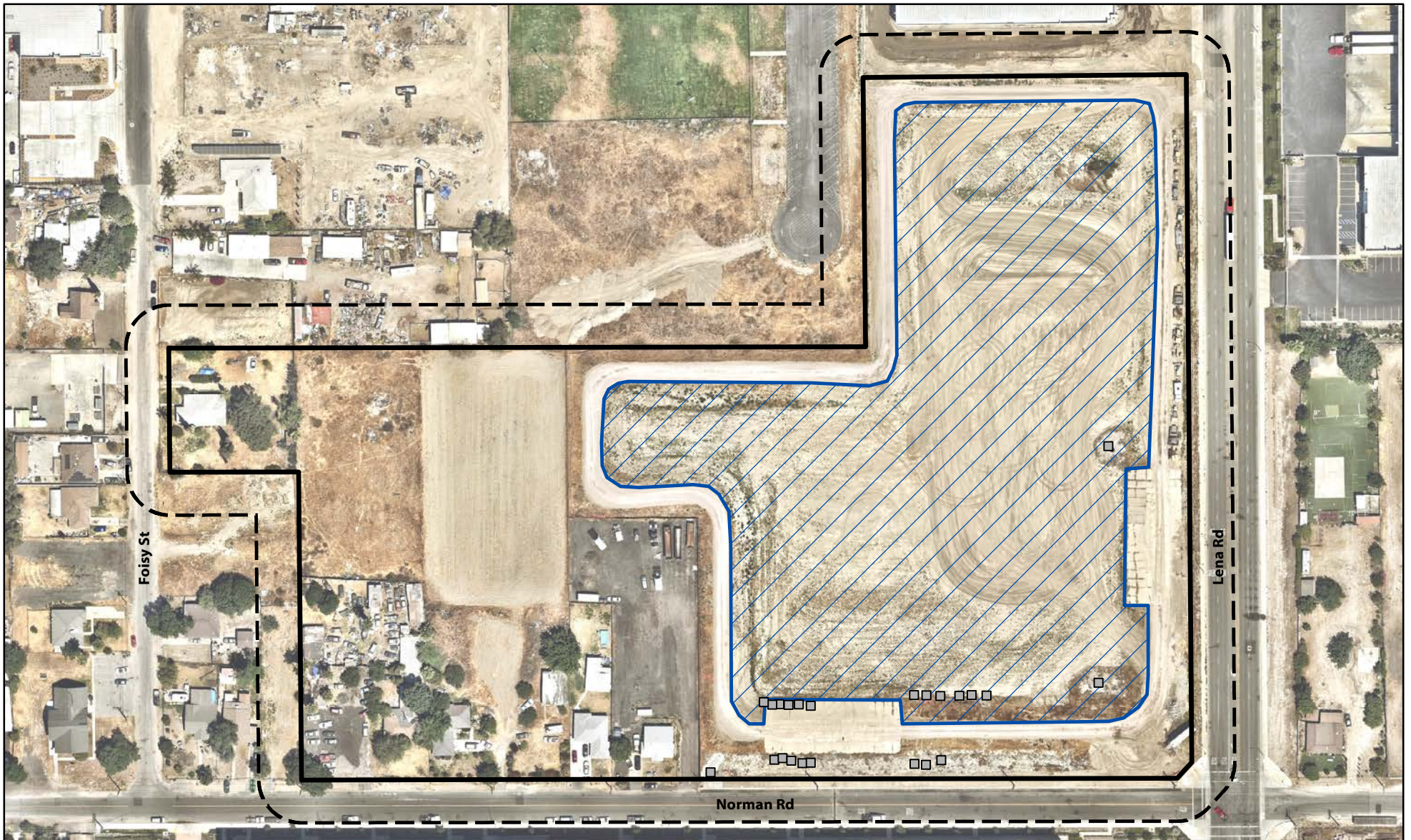
FIGURE
4




Biological Resources


GATEWAY 8



Aerial Photo: Nearmap 2021



-  Project Boundary
-  Survey Area
-  Culvert

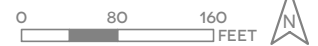
 Detention Basin ¹

¹ Based on constraints-level analysis. All observed aquatic resources are not anticipated to be Corps-, SWRCB/RWQCB-, or CDFW-jurisdictional. Formal aquatic resources delineation, including data collection and associated aquatic resources delineation report (ARDR), and further consultation with Corps, SWRCB/RWQCB, and CDFW would be required to receive a determination of concurrence with such findings.

FIGURE
5

**Estimated Potential
Aquatic Resource Boundaries**

GATEWAY 8



Aerial Photo: Nearmap 2021

Attachment A

Site Photographs – September 16, 2021



Photo 1. View of the project site from the northern boundary facing south.



Photo 2. View of disturbed land and non-native grassland lots within the project site, facing west.



Photo 3. View of a developed roadway around a disturbed basin, facing north.



Photo 4. View from within the basin facing south.



Photo 5. View of Foisy Street facing south from the northwest corner of the project site.



Photo 6. View facing east of rip-rap spillway along the southern project boundary.



Photo 7. View of disturbed lot and developed housing along the southern project boundary, facing west.



Photo 8. View of the project site facing north from the southern boundary.