Appendix D
Jurisdictional Delineation

ESA

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Project Dimensions
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SUBJECT: Jurisdictional Delineation of Golf Course Drainage and Water Storage Features at Royal Vista Golf Course Located in Rowland Heights, Los Angeles County, California.

Dear Mr. Conk:

This letter report summarizes our preliminary findings of U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (Regional Board), and California Department of Fish and Wildlife (CDFW) jurisdiction for the above-referenced property.[1]

The Royal Vista Golf Course (Project site) in Rowland Heights, Los Angeles County [Exhibit 1], comprises approximately 75.23 acres and contains two blue-line drainages as depicted on the U.S. Geological Survey (USGS) topographic map Yorba Linda, California [dated 1964 and photorevised in 1981]) [Exhibit 2]. On March 1 and April 21, 2021, November 3, 2022, and January 25, 2023, regulatory specialists of Glenn Lukos Associates, Inc. (GLA) examined the Project site to determine the presence and potential limits of (1) Corps jurisdiction pursuant to Section 404 of the Clean Water Act, (2) Regional Board jurisdiction pursuant to Section 401 of the CWA and Section 13260 of the California Water Code (CWC), and (3) CDFW jurisdiction pursuant to Division 2, Chapter 6, Section 1600 of the Fish and Game Code. The enclosed aerial maps depict the areas of potential Corps, Regional Board, and CDFW jurisdiction [Exhibits 3A, 3B, 3C]. A Soils Map is enclosed as Exhibit 4, photographs to document the topography, vegetative communities, and general widths of the golf course features are provided as Exhibit 5, historic topographic maps are enclosed as Exhibits 6A and 6B and historic aerial images are provided as Exhibits 7A/7B and 8A/8B. Wetland data sheets are attached as Appendix A.

Potential Corps jurisdiction at the Project site totals approximately 0.26 acre, of which 0.04 acre consist of federal wetlands.

[1] This report presents our best effort at estimating the subject jurisdictional boundaries using the most up-to-date regulations, written policy, and guidance from the regulatory agencies. Only the regulatory agencies can make a final determination of jurisdictional boundaries.

Potential Regional Board jurisdiction at the Project site totals approximately 0.36 acre, of which 0.04 acre consists of State wetlands. Of the total 0.36 acre, 0.26 acre, including 0.04 acre of State wetlands, is coincident with Corps jurisdiction. The remaining 0.10 acre represents Regional Board jurisdiction only.

Potential CDFW jurisdiction at the Project site totals approximately 0.42 acre, of which approximately 0.10 acre consists of vegetated riparian habitat.

I. METHODOLOGY

Prior to beginning the field delineation, a color aerial photograph, a topographic base map of the property, the previously cited USGS topographic map, and a soils map were examined to determine the locations of potential areas of Corps, Regional Board, and CDFW jurisdiction. Suspected jurisdictional areas were field checked for evidence of stream activity and/or wetland vegetation, soils and hydrology. Where applicable, reference was made to the 2008 Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (OWHM Manual)[2] to identify the width of Corps jurisdiction, and suspected federal wetland habitats on the site were evaluated using the methodology set forth in the U.S. Army Corps of Engineers 1987 Wetland Delineation Manual[3] (Wetland Manual) and the 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Supplement (Arid West Supplement).[4] Reference was also made to the 2019 State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (State Board Wetland Definition and Procedures) to identify suspected State wetland habitats.[5] While in the field, the potential limits of jurisdiction were recorded with a sub-meter Trimble GPS device in conjunction with a color aerial photograph using visible landmarks. Other data were recorded onto wetland data sheets.

[2] U.S. Army Corps of Engineers. 2008. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States
[3] Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, U.S. Army Engineer Waterways Experimental Station, Vicksburg, Mississippi.
[4] U.S. Army Corps of Engineers. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
[5] State Water Resources Control Board. 2019. State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State.

The National Cooperative Soil Survey (NCSS) has mapped the following soil types as occurring in the general vicinity of the project site:

Urban land-Sorrento-Arbolado complex, 2 to 9 percent slopes

The Sorrento series consists of very deep, well drained soils that formed in alluvium mostly from sedimentary rocks. Sorrento soils are on alluvial fans and stabilized floodplains and have slopes of 0 to 15 percent. The Arbolado series is classified as fine, spolic, smectitic, thermic Entic Haploxerolls that consist of very deep, well drained soils that formed in human-transported materials (HTM) that originate from alluvium derived from sedimentary sources. Arbolado soils are in high density urban residential and recreational areas. Vegetation is mostly non-native and ornamental in urban areas and annual grasses and forbs in natural areas.

Counterfeit-Urban land complex, 10 to 35 percent slopes, terraced

The Counterfeit series consists of very deep soils that formed from human transported material (HTM) which originated from material weathered from calcareous sedimentary rocks. Counterfeit soils are for recreation, commercial and residential development in urban areas. Vegetation consists of ornamental plants, lawns, trees, shrubs, and annual grasses. Counterfeit-Urban land complex is distributed throughout Southern California hills and low mountains.

II. JURISDICTION

A. <u>Army Corps of Engineers</u>

Pursuant to Section 404 of the Clean Water Act, the Corps regulates the discharge of dredged and/or fill material into waters of the United States. The term "waters of the United States" is defined in Corps regulations at 33 CFR Part 328.3(a) as:

> *(1) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;*
> *(2) All interstate waters including interstate wetlands;*
> *(3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect foreign commerce including any such waters:*

(i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
(ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
(iii) Which are used or could be used for industrial purpose by industries in interstate commerce...

(4) All impoundments of waters otherwise defined as waters of the United States under the definition;
(5) Tributaries of waters identified in paragraphs (a) (1)-(4) of this section;
(6) The territorial seas;
(7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) (1)-(6) of this section.
(8) Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with the EPA.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 123.11(m) which also meet the criteria of this definition) are not waters of the United States.

In the absence of wetlands, the limits of Corps jurisdiction in non-tidal waters, such as intermittent streams, extend to the OHWM which is defined at 33 CFR 328.3(e) as:

...that line on the shore established by the fluctuation of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

1. Wetland Definition Pursuant to Section 404 of the Clean Water Act

The term “wetlands” (a subset of “waters of the United States”) is defined at 33 CFR 328.3(b) as “those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support...a prevalence of vegetation typically adapted for life in saturated soil conditions.” In 1987 the Corps published the Wetland Manual to guide its field personnel in determining jurisdictional wetland boundaries. The methodology set forth in the Wetland Manual and the Arid West Supplement generally require that, in order to be considered a wetland, the vegetation, soils, and hydrology of an area exhibit at least minimal hydric characteristics. While the Wetland Manual and Arid West Supplement provide great detail in methodology and allow

for varying special conditions, a wetland should normally meet each of the following three criteria:

- More than 50 percent of the dominant plant species at the site must be hydrophytic in nature as published in the most current national wetland plant list;

- Soils must exhibit physical and/or chemical characteristics indicative of permanent or periodic saturation (e.g., a gleyed color, or mottles with a matrix of low chroma indicating a relatively consistent fluctuation between aerobic and anaerobic conditions); and

- Whereas the Wetland Manual requires that hydrologic characteristics indicate that the ground is saturated to within 12 inches of the surface for at least five percent of the growing season during a normal rainfall year, the Arid West Supplement does not include a quantitative criteria with the exception for areas with "problematic hydrophytic vegetation", which require a minimum of 14 days of ponding to be considered a wetland.

2. Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al.

Pursuant to Article I, Section 8 of the U.S. Constitution, federal regulatory authority extends only to activities that affect interstate commerce. In the early 1980s the Corps interpreted the interstate commerce requirement in a manner that restricted Corps jurisdiction on isolated (intrastate) waters. On September 12, 1985, the U.S. Environmental Protection Agency (EPA) asserted that Corps jurisdiction extended to isolated waters that are used or could be used by migratory birds or endangered species, and the definition of "waters of the United States" in Corps regulations was modified as quoted above from 33 CFR 328.3(a).

On January 9, 2001, the Supreme Court of the United States issued a ruling on *Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al.* (SWANCC). In this case the Court was asked whether use of an isolated, intrastate pond by migratory birds is a sufficient interstate commerce connection to bring the pond into federal jurisdiction of Section 404 of the Clean Water Act.

The written opinion notes that the court's previous support of the Corps' expansion of jurisdiction beyond navigable waters (*United States v. Riverside Bayview Homes, Inc*.) was for a wetland that <u>abutted</u> a navigable water and that the court did not express any opinion on the question of the authority of the Corps to regulate wetlands that are not adjacent to bodies of open water. The current opinion goes on to state:

> *In order to rule for the respondents here, we would have to hold that the jurisdiction of the Corps extends to ponds that are not adjacent to open water. We conclude that the text of the statute will not allow this.*

Therefore, we believe that the court's opinion goes beyond the migratory bird issue and says that no isolated, intrastate water is subject to the provisions of Section 404(a) of the Clean Water Act (regardless of any interstate commerce connection). However, the Corps and EPA have issued a joint memorandum which states that they are interpreting the ruling to address only the migratory bird issue and leaving the other interstate commerce clause nexuses intact.

3. Rapanos v. United States and Carabell v. United States

On June 5, 2007, the EPA and Corps issued joint guidance that addresses the scope of jurisdiction pursuant to the Clean Water Act in light of the Supreme Court's decision in the consolidated cases *Rapanos v. United States* and *Carabell v. United States* ("Rapanos"). The chart below was provided in the joint EPA/Corps guidance.

For sites that include waters other than Traditional Navigable Waters (TNWs) and/or their adjacent wetlands or Relatively Permanent Waters (RPWs) tributary to TNWs and/or their adjacent wetlands, as set forth below, the Corps must apply the "significant nexus" standard.

For "isolated" waters or wetlands, the joint guidance also requires an evaluation by the Corps and EPA to determine whether other interstate commerce clause nexuses, not addressed in the SWANCC decision are associated with isolated features on project sites for which a jurisdictional determination is being sought from the Corps.

The Corps and EPA will assert jurisdiction over the following waters:

- Traditional navigable waters.
- Wetlands adjacent to traditional navigable waters.
- Non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months).
- Wetlands that directly abut such tributaries.

The Corps and EPA will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with a TNW:

- Non-navigable tributaries that are not relatively permanent.
- Wetlands adjacent to non-navigable tributaries that are not relatively permanent.

- Wetlands adjacent to but that do not directly abut a relatively permanent non-navigable tributary.

The agencies generally will not assert jurisdiction over the following features:

- Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent or short duration flow).
- Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water.

The agencies will apply the significant nexus standard as follows:

- A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters.
- Significant nexus includes consideration of hydrologic and ecologic factors.

B. Regional Water Quality Control Board

The State Water Resource Control Board and each of its nine Regional Boards regulate the discharge of waste (dredged or fill material) into waters of the United States[6] and waters of the State. Waters of the United States are defined above in Section II.A and waters of the State are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code 13050[e]).

Section 401 of the CWA requires certification for any federal permit or license authorizing impacts to waters of the U.S. (i.e., waters that are within federal jurisdiction), such as Section 404 of the CWA and Section 10 of the Safe Rivers and Harbors Act, to ensure that the impacts do not violate state water quality standards. When a project could impact waters outside of

[6] Therefore, wetlands that meet the current definition, or any historic definition, of waters of the U.S. are waters of the state. In 2000, the State Water Resources Control Board determined that all waters of the U.S. are also waters of the state by regulation, prior to any regulatory or judicial limitations on the federal definition of waters of the U.S. (California Code or Regulations title 23, section 3831(w)). This regulation has remained in effect despite subsequent changes to the federal definition. Therefore, waters of the state includes features that have been determined by the U.S. Environmental Protection Agency (U.S. EPA) or the U.S. Army Corps of Engineers (Corps) to be "waters of the U.S." in an approved jurisdictional determination; "waters of the U.S." identified in an aquatic resource report verified by the Corps upon which a permitting decision was based; and features that are consistent with any current or historic final judicial interpretation of "waters of the U.S." or any current or historic federal regulation defining "waters of the U.S." under the federal Clean Water Act.

federal jurisdiction, the Regional Board has the authority under the Porter-Cologne Water Quality Control Act to issue Waste Discharge Requirements (WDRs) to ensure that impacts do not violate state water quality standards. Clean Water Act Section 401 Water Quality Certifications, WDRs, and waivers of WDRs are also referred to as orders or permits.

1. State Wetland Definition

The State Board Wetland Definition and Procedures define an area as wetland as follows: *An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.*

The following wetlands are waters of the State:

1. *Natural wetlands;*
2. *Wetlands created by modification of a surface water of the state;*[7] *and*
3. *Artificial wetlands*[8] *that meet any of the following criteria:*
    - *a. Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration;*
    - *b. Specifically identified in a water quality control plan as a wetland or other water of the state;*
    - *c. Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape; or*
    - *d. Greater than or equal to one acre in size, unless the artificial wetland was constructed, and is currently used and maintained, primarily for one or more of the following purposes (i.e., the following artificial wetlands are not waters of the state unless they also satisfy the criteria set forth in 2, 3a, or 3b):*
        - *i. Industrial or municipal wastewater treatment or disposal,*
        - *ii. Settling of sediment,*
        - *iii. Detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial stormwater permitting program,*

[7] "Created by modification of a surface water of the state" means that the wetland that is being evaluated was created by modifying an area that was a surface water of the state at the time of such modification. It does not include a wetland that is created in a location where a water of the state had existed historically, but had already been completely eliminated at some time prior to the creation of the wetland. The wetland being evaluated does not become a water of the state due solely to a diversion of water from a different water of the state.
[8] Artificial wetlands are wetlands that result from human activity.

iv. Treatment of surface waters,
v. Agricultural crop irrigation or stock watering,
vi. Fire suppression,
vii. Industrial processing or cooling,
viii. Active surface mining – even if the site is managed for interim wetlands functions and values,
ix. Log storage,
x. Treatment, storage, or distribution of recycled water, or
xi. Maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits); or
xii. Fields flooded for rice growing.[9]

All artificial wetlands that are less than an acre in size and do not satisfy the criteria set forth in 2, 3.a, 3.b, or 3.c are not waters of the state. If an aquatic feature meets the wetland definition, the burden is on the applicant to demonstrate that the wetland is not a water of the state.

C. <u>California Department of Fish and Wildlife</u>

Pursuant to Division 2, Chapter 6, Sections 1600-1603 of the California Fish and Game Code, the CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife.

CDFW defines a stream (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." CDFW's definition of "lake" includes "natural lakes or man-made reservoirs." CDFW also defines a stream as "a body of water that flows, or has flowed, over a given course during the historic hydrologic regime, and where the width of its course can reasonably be identified by physical or biological indicators."

[9] Fields used for the cultivation of rice (including wild rice) that have not been abandoned due to five consecutive years of non-use for the cultivation of rice (including wild rice) that are determined to be a water of the state in accordance with these Procedures shall not have beneficial use designations applied to them through the Water Quality Control Plan for the Sacramento and San Joaquin River Basins, except as otherwise required by federal law for fields that are considered to be waters of the United States. Further, agricultural inputs legally applied to fields used for the cultivation of rice (including wild rice) shall not constitute a discharge of waste to a water of the state. Agricultural inputs that migrate to a surface water or groundwater may be considered a discharge of waste and are subject to waste discharge requirements or waivers of such requirements pursuant to the Water Board's authority to issue or waive waste discharge requirements or take other actions as applicable.

It is important to note that the Fish and Game Code defines fish and wildlife to include all wild animals, birds, plants, fish, amphibians, invertebrates, reptiles, and related ecological communities including the habitat upon which they depend for continued viability (FGC Division 5, Chapter 1, section 45 and Division 2, Chapter 1 section 711.2(a) respectively). Furthermore, Division 2, Chapter 5, Article 6, Section 1600 et seq. of the California Fish and Game Code does not limit jurisdiction to areas defined by specific flow events, seasonal changes in water flow, or presence/absence of vegetation types or communities.

III. RESULTS

The Project site occurs within a portion of the Royal Vista Golf Course which has operated as an active golf course since it was built in 1962. Prior to 1962, the site was primarily utilized for agricultural cultivation. Ten features occur on the golf course and were examined to determine the extent of potential Corps, Regional Board, and CDFW jurisdiction. The features are referred to herein as Concrete Ditch 1, Earthen Drainage Ditch, Eastern Earthen V-Ditch, Southern Concrete V-Ditch, Basin/Pit, East Walnut Drive Roadside Ditch, East Walnut Drive V-Ditch, Central Concrete V-Ditch, Golf Course Irrigation Pond 1, and Golf Course Irrigation Pond 2. Photos of these features are depicted on Exhibit 5 – Site Photographs.

A. <u>Corps Jurisdiction</u>

Potential Corps jurisdiction associated with the Project site totals approximately 0.26 acre of which 0.04 acres consist of jurisdictional wetlands. A total of 2,457 linear feet of stream is present. Corps jurisdiction associated with the site includes five features: Concrete Ditch 1, Earthen Drainage Ditch, Eastern Earthen V-Ditch, Southern Concrete V-Ditch, and Basin/Pit. These features meet the criteria defined in Corps regulations at 33 CFR Part 328.3(a) for waters of the U.S. (WOTUS) and as such, are subject to potential Corps jurisdiction under Section 404 of the CWA.

Table 1 below summarizes potential Corps jurisdictional waters associated with the Project site. A description of the potential Corps jurisdictional features associated with the Project site is outlined below. The boundaries of Corps jurisdiction are depicted on the enclosed jurisdictional delineation map [Exhibit 3A].

Table 1: Summary of Potential Corps Jurisdiction

Golf Course Feature Name	Potential Corps Non-Wetland Waters (acres)	Potential Corps Jurisdictional Wetlands (acres)	Total Potential Corps Jurisdiction (acres)	Length (linear feet)
Concrete Ditch 1	0.02	0.00	0.02	233
Earthen Drainage Ditch	0.00	0.04	0.04	245
Eastern Earthen V-Ditch	0.02	0.00	0.02	493
Southern Concrete V-Ditch	0.17	0.00	0.17	1,448
Basin/Pit	0.003	0.00	0.003	40
TOTAL[10]	**0.22**	**0.04**	**0.26**	**2,457**

1. Concrete Ditch 1

Potential Corps jurisdiction associated with Concrete Ditch 1 totals approximately 0.02 acre, none of which consists of jurisdictional wetlands. Concrete Ditch 1 begins onsite through a buried pipe culvert located approximately 200 feet northeast of the northeast corner of the club house parking lot. The ditch is a re-aligned feature that was constructed within a segment of an historic ephemeral drainage that existed prior to golf course development [Exhibit 7A]. The concrete ditch conveys drainage input from Colima Road and runoff from golf course irrigation. This feature extends across the site in a northerly direction for approximately 233 linear feet before being diverted underground through a buried drain pipe that runs adjacent to the westerly edge of Golf Course Irrigation Pond 1 (described below) before draining to a nearby storm drain inlet just northwest of the pond. Flows originating from this feature ultimately drain into the Earthen Drainage Ditch, approximately 750 feet to the northwest. The OHWM averages four feet wide as exhibited by defined concrete channel banks and water marks. The concrete ditch is largely unvegetated with scattered cobbles and is depicted on Exhibit 5, Photograph 1.

2. Earthen Drainage Ditch

Potential Corps jurisdiction associated with the Earthen Drainage Ditch totals approximately 0.04 acre, all of which consists of jurisdictional wetlands. The earthen ditch is located near the northwest corner of the golf course immediately east of Bella Vista Drive. This feature is an incised earthen drainage that enters the site from a pipe culvert and extends for approximately 245 linear feet until it discharges into a storm drain inlet at East Walnut Drive South (Exhibit 5, Photograph 6).

[10] Total may not equal sum of individual parts due to rounding error,

The Earthen Drainage Ditch exhibits an OHWM ranging from five to nine feet wide as indicated by shelving and presence of litter and debris. All portions of the drainage within the OHWM consist of potential wetlands. The culvert that discharges to the feature carries flows from Concrete Ditch 1 through an underground pipe that runs to the west of Golf Course Pond 1 and under the golf course maintenance facility before discharging to the ditch. The ditch supports largely non-native invasive vegetation including yellow-flag iris (*Iris pseudacorus*, OBL), Mexican fan palm (*Washingtonia robusta*, FACW), Brazilian pepper (*Schinus terebinthifolia*, FAC), and castor bean (*Ricinus communis*, FACU). Native vegetation associated with this feature includes southern cattail (*Typha domingensis*, OBL). The presence of wetland hydrology was indicated by standing water, and wetland soil indicators included hydrogen sulfide odor, black histic soil, and long duration inundation. Wetland data sheets are provided as Appendix A.

3. Eastern Earthen V-Ditch

Potential Corps jurisdiction associated with the Eastern Earthen V-Ditch totals approximately 0.02 acre, none of which consists of jurisdictional wetlands. The Eastern Earthen V-Ditch runs along a perimeter wall in the northeastern portion of the golf course immediately north of Colima Road for approximately 493 linear feet. This feature was constructed in the approximate location of one of the two blue-line drainages mapped within the Project site [Exhibit 6B]. The v-ditch originates where a concrete culvert, which presumably drains the adjacent residential tract, discharges to the ditch as depicted on Exhibit 5, Photographs 9 and 10. The v-ditch carries water for approximately 500 feet to the north where it is collected in another concrete culvert that presumably enters the storm drain system. The v-ditch is unvegetated and does not carry relatively permanent flows; however, since the Eastern Earthen V-Ditch appears to be a re-alignment of a historic ephemeral drainage, it may be considered a WOTUS that is subject to regulation under Section 404 of the CWA.

4. Southern Concrete V-Ditch

Potential Corps jurisdiction associated with the Southern Concrete V-Ditch totals approximately 0.17 acre, none of which consists of jurisdictional wetlands. The v-ditch is south of Colima Road and originates at the southeast corner of the site, as depicted on Exhibit 3A. This feature collects nuisance flows from the adjacent residential tract. The shallow concrete v-ditch is generally coincident with the alignment of a blue-line drainage that is depicted on Exhibit 6B and carries water to the north for approximately 1,448 feet where it ultimately terminates into a culvert that enters the storm drain system. The northern portion of the concrete v-ditch is depicted on Exhibit 5, Photograph 12. The OHWM averages five feet wide and extends to the edge of the concrete banks, which are unvegetated. Since this feature appears to be a re-alignment of a historic ephemeral drainage, it may be considered a WOTUS that is subject to regulation under Section 404 of the CWA.

5. Basin/Pit

Potential Corps jurisdiction associated with the Basin/Pit totals approximately 0.003 acre, none of which consists of jurisdictional wetlands. This feature is located immediately south of Colima Road, near the eastern end of the golf course as depicted on Exhibit 3 and was constructed as a storm water collection feature or catch basin. The feature exhibits an OHWM averaging three feet wide as evidenced by changes in soil characteristics and supports non-native upland vegetation as depicted on Exhibit 5, Photograph 11. This feature is located immediately downstream of the Southern Concrete V-Ditch, which appears to be a re-aligned water, and drains into the storm drain system. As such, this feature may be considered a WOTUS that is subject to regulation under Section 404 of the CWA.

<u>Non-Jurisdictional Features</u>

Golf Course Irrigation Pond 1

Golf Course Irrigation Pond 1 is located approximately 550 feet from the northeast corner of the club house parking lot, as depicted on Exhibit 3 and Exhibit 5, Photograph 2, and covers approximately 0.57 acre with a perimeter wall of concrete and wood. The golf course irrigation pond is a regularly maintained feature that was constructed in uplands prior to the existence of the blue-line drainage depicted on the 1964 USGS Topographic Map [Exhibit 6B]. The irrigation storage pond is unvegetated except for a clump of non-native palm trees at the southwest corner. The feature is one of two ponds that stored irrigation water for the golf course and was regularly maintained by the introduction of domestic water, which was pumped into the irrigation storage pond intermittently for several decades. However, Golf Course Irrigation Pond 1 was drained in July 2022 and as such, it is no longer in use. In the absence of irrigation water, the pond is dry except for a small amount of accumulated rain water as a result of recent storm events. Furthermore, this pond is considered an isolated feature and does not input from any upstream drainages, As noted above, a buried pipe that conveys flow from the Concrete Ditch 1 (described above) just south of the pond runs adjacent to the westerly edge of Golf Course Irrigation Pond 1 and does not drain into the pond itself. Thus, Golf Course Irrigation Pond 1 does not meet current definitions of WOTUS and would likely be excluded as an "*artificial pond created by excavating and/or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing*" according to the preamble to the 1986 CWA Regulations.

Golf Course Irrigation Pond 2

Golf Course Irrigation Pond 2 is located approximately 500 feet from the northeast corner of the club house parking lot, as depicted on Exhibit 3 and Exhibit 5, Photograph 8, and covers approximately 0.45 acre. Golf Course Irrigation Pond 2 was constructed in uplands and is not an impoundment of a natural drainage course. The storage pond is unvegetated except for a clump of southern cattail. The feature is the second of two ponds at the Project site that have historically stored irrigation water for the golf course and is maintained by introduction of domestic water, which is pumped into the irrigation storage pond. Thus, the Golf Course Irrigation Pond 2 does not meet current definitions of WOTUS and would likely be excluded as an "*artificial pond created by excavating and/or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing*" according to the preamble to the 1986 CWA Regulations.

East Walnut Drive Roadside Ditch

The East Walnut Drive Roadside Ditch is located along the eastern edge of East Walnut Drive and collects runoff from the street and receives discharge from the East Walnut Drive V-Ditch. The roadside ditch is generally unvegetated, drains wholly upland areas, and discharges into a storm drain inlet as depicted on Exhibit 5, Photographs 4 and 5. A buried irrigation pipe located adjacent to the ditch was observed leaking during the field assessments, resulting in artificial stream flow indicators in the southern portion of the ditch averaging three feet wide. At such time that the golf course terminates operation and/or repairs the leaky pipe, the source of water that reaches the southern portion of this feature would be permanently eliminated. Thus, while a portion of this feature currently exhibits defined stream flow indicators, it is considered an *"artificially irrigated area which would revert to upland if the irrigation ceased."* According to the preamble to the 1986 regulations, this type of feature generally is not considered a WOTUS. Thus, this feature does not meet the definition of WOTUS, and has been excluded as "*a ditch excavated wholly in and draining only uplands that does not carry a relatively permanent flow of water*" under the Rapanos Guidance.

East Walnut Drive V-Ditch

The East Walnut Drive V-Ditch is a man-made engineered concrete v-ditch within the northwest portion of the golf course that collects golf course runoff and carries it for approximately 719 feet westward to a roadside ditch that is immediately adjacent to and east of East Walnut Drive South. This feature was constructed in uplands and contains no vegetation as depicted on Exhibit 3 and Exhibit 5, Photograph 3. The East Walnut Drive V-Ditch does not connect to natural flow from another drainage upstream and does not convey relatively permanent flow of water. As

such, the ditch does not meet the definition of WOTUS, and thus has been excluded as "*a ditch excavated wholly in and draining only uplands that does not carry a relatively permanent flow of water*" under the Rapanos Guidance.

Central Concrete V-Ditch

The Central Concrete V-Ditch is located in the central portion of the golf course immediately north of Colima Road and west of Tierra Siesta [Exhibits 3A – 3C]. The concrete v-ditch is a man-made engineered concrete v-ditch that was constructed in uplands and originates at a culvert which presumably drains the adjacent residential tract. This feature is within the central portion of the golf course and extends for approximately 310 feet to the north where it is collected in a concrete culvert. The concrete v-ditch is unvegetated as depicted on Exhibit 5, Photograph 13. This feature does not connect to natural flow from another drainage upstream and does not convey relatively permanent flow of water. As such, the ditch does not meet the definition of WOTUS, and thus has been excluded as "*a ditch excavated wholly in and draining only uplands that does not carry a relatively permanent flow of water*" under the Rapanos Guidance.

B. Regional Water Quality Control Board Jurisdiction

Regional Board jurisdiction at the Project site totals approximately 0.36 acre, of which 0.04 acre consists of State wetlands. Of the total 0.36 acre, 0.26 acre, including 0.04 acre of State wetlands, is coincident with Corps jurisdiction. The remaining 0.10 acre represents Regional Board jurisdiction only.

As noted above, Concrete Ditch 1, Earthen Drainage Ditch, Eastern Earthen V-Ditch, Southern Concrete V-Ditch, and Basin/Pit are subject to potential Corps jurisdiction under Section 404 of the CWA. As such, these features are also subject to Regional Board jurisdiction under Section 401 of the CWA and do not need to be analyzed separately under Section 13260 of the CWC.

Additional features subject to Regional Board jurisdiction include East Walnut Drive V-Ditch, East Walnut Drive Roadside Ditch, and Central Concrete V-Ditch. Although these features are not subject to Corps or Regional Board jurisdiction under Sections 404 or 401 of the CWA, these features convey surface flow with the potential to support beneficial uses, and as such, may be regulated separately by the Regional Board under Section 13260 of the CWC.

Table 2 below summarizes Regional Board jurisdictional waters associated with the Project site. A description of the Regional Board jurisdictional drainage features associated with the Project site is outlined below. The boundaries of Regional Board jurisdiction are depicted on the enclosed jurisdictional delineation map [Exhibit 3B].

Table 2: Summary of Regional Board Jurisdiction

Golf Course Feature Name	Non-Wetland Waters of the State (acres)	Wetland Waters of the State (acres)	Total Regional Board Jurisdiction (acres)	Length (linear feet)
Waters of the U.S./State				
Concrete Ditch 1	0.02	0.00	0.02	233
Earthen Drainage Ditch	0.00	0.04	0.04	245
Eastern Earthen V-Ditch	0.02	0.00	0.02	493
Southern Concrete V-Ditch	0.17	0.00	0.17	1,448
Basin/Pit	0.003	0.00	0.003	40
Waters of the State Only				
East Walnut Drive Roadside Ditch	0.03	0.00	0.03	465
East Walnut Drive V-Ditch	0.05	0.00	0.05	719
Central Concrete V-Ditch	0.02	0.00	0.02	305
TOTAL	**0.32**	**0.04**	**0.36**	**3,947**

1. Concrete Ditch 1

Regional Board jurisdiction associated with this feature is identical to that of Corps jurisdiction and does not need to be addressed separately under Section 13260 of the CWC (Porter Cologne).

2. Earthen Drainage Ditch

Regional Board jurisdiction associated with this feature is identical to that of Corps jurisdiction and does not need to be addressed separately under Section 13260 of the CWC (Porter Cologne).

3. Eastern Earthen V-Ditch

Regional Board jurisdiction associated with this feature is identical to that of Corps jurisdiction and does not need to be addressed separately under Section 13260 of the CWC (Porter Cologne).

4. Southern Concrete V-Ditch

Regional Board jurisdiction associated with this feature is identical to that of Corps jurisdiction and does not need to be addressed separately under Section 13260 of the CWC (Porter Cologne).

5. Basin/Pit

Regional Board jurisdiction associated with this feature is identical to that of Corps jurisdiction and does not need to be addressed separately under Section 13260 of the CWC (Porter Cologne).

6. East Walnut Drive Roadside Ditch

Regional Board jurisdiction associated with East Walnut Drive Roadside Ditch totals approximately 0.03 acre (465 linear feet), none of which consists of State wetlands. The East Walnut Drive Roadside Ditch is located along the eastern edge of East Walnut Drive and collects runoff from the street and receives discharge from the East Walnut Drive V-Ditch. The roadside ditch is generally unvegetated, drains wholly upland areas, and discharges into a storm drain inlet as depicted on Exhibit 5, Photographs 4 and 5. A buried irrigation pipe located adjacent to the ditch was observed leaking during the field assessments, resulting in artificial stream flow indicators in the southern portion of the ditch averaging three feet wide. At such time that the golf course terminates operation and/or repairs the leaky pipe, the source of water that reaches the southern portion of this feature would be permanently eliminated. Roadside ditches and artificially irrigated areas which would revert to uplands if the irrigation ceased are not considered WOTUS; however, since this feature conveys brief surface flow with the potential to support beneficial uses, it may be considered a water of the State that is subject to Section 13260 of the CWC (Porter Cologne).

7. East Walnut Drive V-Ditch

Regional Board jurisdiction associated with East Walnut Drive V-Ditch totals approximately 0.05 acre, none of which consists of State wetlands. The East Walnut Drive V-Ditch is a man-made engineered concrete v-ditch within the northwest portion of the golf course which collects golf course runoff and carries it for approximately 719 feet westward to a roadside ditch that is immediately adjacent to and east of East Walnut Drive South. This feature was constructed in uplands and contains no vegetation as depicted on Exhibit 3 and Exhibit 5, Photograph 3. The East Walnut Drive V-Ditch does not connect to natural flow from another drainage upstream and does not convey a relatively permanent flow of water. Although this feature is not considered a WOTUS, it supports occasional and brief surface flow with the potential to support beneficial uses, and as such, may be considered a water of the State that is subject to Section 13260 of the CWC (Porter Cologne).

8. Central Concrete V-Ditch

Regional Board jurisdiction associated with Central Concrete V-Ditch totals approximately 0.02 acre, none of which consists of State wetlands. The Central Concrete V-Ditch is a man-made engineered concrete v-ditch within the central portion of the golf course which collects golf course runoff and carries it for approximately 310 feet to the north where it is collected in a concrete culvert. The concrete v-ditch is unvegetated as depicted on Exhibit 5, Photograph 13. This feature does not connect to natural flow from another drainage upstream and does not convey relatively permanent flow of water. Although this feature is not considered a WOTUS, it supports occasional and brief surface flow with the potential to support beneficial uses, and as such, may be considered a water of the State that is subject to Section 13260 of the CWC (Porter Cologne).

Non-Jurisdictional Features

Golf Course Irrigation Pond 1

Golf Course Irrigation Pond 1 is located approximately 550 feet from the northeast corner of the club house parking lot, as depicted on Exhibit 3 and Exhibit 5, Photograph 4, and covers approximately 0.57 acre with a perimeter wall of concrete and wood. The golf course irrigation pond was constructed prior to the existence of the blue-line drainage depicted on the 1964 USGS Topographic Map [Exhibit 6B]. The storage pond is unvegetated except for a clump of non-native palm trees at the southwest corner. The feature was one of two ponds that stored irrigation water for the golf course and it was maintained by the introduction of domestic water, which was pumped into the irrigation storage pond. However, Golf Course Irrigation Pond 1 was drained in July 2022 and is no longer in use. What little water it may have received from Concrete Ditch 1 no longer reaches the pond as flows from Concrete Ditch 1 have been diverted to the east of Golf Course Irrigation Pond 1 via buried pipe. In the absence of irrigation water, the pond is dry except for a small amount of accumulated rain water as a result of recent storm events. Pursuant to the Procedures: **Artificial, constructed lakes and ponds created in dry land such as** farm and stock watering ponds, **irrigation ponds**, and settling basins are not considered waters of the State unless they also satisfy the criteria set forth in 2, 3a, or 3b of the Procedures. As the pond is less than one acre in size and was created for the purposes of irrigation and the settling of sediment, it meets the exclusion criteria identified in 3(d)(v) and is not subject to regulation under Section 13260 of the CWC.

Golf Course Irrigation Pond 2

Golf Course Irrigation Pond 2 is located approximately 500 feet from the northeast corner of the club house parking lot, as depicted on Exhibit 3 and Exhibit 5, Photograph 5, and covers approximately 0.45 acre. Golf Course Irrigation Pond 2 was constructed in uplands and is not an impoundment of a natural drainage course. The storage pond is unvegetated except for a clump

of southern cattail (*Typha domingensis*, OBL). The feature is the second of two ponds at the Project site that have historically stored irrigation water for the golf course and is maintained by introduction of domestic water, which is pumped into the irrigation storage pond. Pursuant to the Procedures: **Artificial, constructed lakes and ponds created in dry land such as** farm and stock watering ponds, **irrigation ponds**, and settling basins are not considered waters of the State unless they also satisfy the criteria set forth in 2, 3a, or 3b of the Procedures. As the pond is less than one acre in size and was created for the purposes of irrigation and the settling of sediment, it meets the exclusion criteria identified in 3(d)(v) and is not subject to regulation under Section 13260 of the CWC.

C. CDFW Jurisdiction

CDFW jurisdiction associated with the Royal Vista Golf Course totals approximately 0.42 acre and includes all areas within Corps and/or Regional Board jurisdiction. A total of 3,947 linear feet of stream is present. CDFW jurisdiction associated with the site includes eight features: Concrete Ditch 1, Earthen Drainage Ditch, Eastern Earthen V-Ditch, Southern Concrete V-Ditch, Basin/Pit, East Walnut Drive Roadside Ditch, East Walnut Drive V-Ditch, and Central Concrete V-Ditch. These features exhibit stream flow indicators with the potential to support aquatic resource, and as such, are subject to potential CDFW jurisdiction under Sections 1600-1603 of the Fish and Game Code.

Table 3 below summarizes CDFW jurisdictional waters associated with the Project site. A description of the CDFW jurisdictional features associated with the Project site is outlined below. The boundaries of CDFW jurisdiction are depicted on the enclosed jurisdictional delineation map [Exhibit 3C].

Table 3: Summary of CDFW Jurisdiction

Golf Course Feature Name	CDFW Non-Riparian Stream (acres)	CDFW Riparian Stream (acres)	Total CDFW Jurisdiction (acres)	Length (linear feet)
Concrete Ditch 1	0.02	0.00	0.02	233
Earthen Drainage Ditch	0.00	0.10	0.10	245
Eastern Earthen V-Ditch	0.02	0.00	0.02	493
Southern Concrete V-Ditch	0.17	0.00	0.17	1,448
Basin/Pit	0.01	0.00	0.01	40
East Walnut Drive Roadside Ditch	0.03	0.00	0.03	465
East Walnut Drive V-Ditch	0.05	0.00	0.05	719

Central Concrete V-Ditch	0.02	0.00	0.02	305
TOTAL	**0.32**	**0.10**	**0.42**	**3,947**

1. Concrete Ditch 1

CDFW jurisdiction associated with Concrete Ditch 1 totals approximately 0.02 acre, none of which consists of riparian habitat. Concrete Ditch 1 begins approximately 200 feet northeast of the northeast corner of the club house parking lot and originates where a concrete culvert discharges to the approximately 4-foot-wide concrete drainage ditch. The Concrete Ditch 1 is a man-made, engineered feature. The concrete ditch extends to the north for 233 linear feet before it discharges to a concrete drainpipe that extends underground for approximately 750 feet to the northwest, and flows into the Earthen Drainage Ditch. This feature is unvegetated with scattered cobbles as depicted on Exhibit 5, Photograph 1.

2. Earthen Drainage Ditch

CDFW jurisdiction associated with the Earthen Drainage Ditch totals approximately 0.10 acre, all of which consists of riparian habitat. The Earthen Drainage Ditch is located near the northwest corner of the golf course immediately east of Bella Vista Drive. This feature originates where a culvert discharges to the ditch, which extends for approximately 245 linear feet until it discharges to the storm drain inlet depicted on Exhibit 5, Photograph 7.
The Earthen Drainage Ditch is a man-made drainage feature which supports largely non-native invasive vegetation including Yellow-flag iris (*Iris pseudacorus*), Mexican fan palm (*Washingtonia robusta*), Brazilian pepper (*Schinus terebinthifolia*), and castor bean (*Ricinus communis*). The Earthen Drainage Ditch also supports native southern cattail (*Typha domingensis*).

3. Eastern Earthen V-Ditch

CDFW jurisdiction associated with the Eastern Earthen V-Ditch totals approximately 0.02 acre, none of which consist of vegetated riparian habitat. The Eastern Earthen V-Ditch runs along a perimeter wall in the northeastern portion of the golf course immediately north of Colima Road for approximately 493 linear feet [Exhibit 3C]. The v-ditch originates where a concrete culvert, which drains the adjacent residential tract, discharges to the ditch as depicted on Exhibit 5, Photographs 9 and 10. The v-ditch carries flows for approximately 500 feet to the north where it is collected in another concrete culvert that enters the storm drain system.

4. Southern Concrete V-Ditch

CDFW jurisdiction associated with the Southern Concrete V-Ditch totals approximately 0.17 acre, none of which consists of vegetated riparian habitat. The Southern Concrete V-Ditch is south of Colima Road and originates at the southeast corner of the site, as depicted on Exhibit

3C. This shallow concrete v-ditch receives nuisance flows from the adjacent residential tract and carries the nuisance flows and irrigation runoff to the north for approximately 1,448 feet where it ultimately discharges into a culvert that enters the storm drain system. The northern portion of the concrete v-ditch is depicted on Exhibit 5, Photograph 12.

5. Basin/Pit

CDFW jurisdiction associated with Basin/Pit totals 0.01 acre, none of which is riparian. This feature is located immediately south of Colima Road, near the eastern end of the golf course as depicted on Exhibit 3 and was constructed as a storm water collection feature or catch basin. The feature exhibits flow indicators averaging three feet wide as evidenced by changes in soil characteristics. This feature is located immediately downstream of the Southern Concrete V-Ditch, which appears to be a re-aligned water, and drains into the storm drain system. This feature supports non-native upland vegetation including English ivy (*Hedera helix*) and common morning glory (*Ipomoea purpurea*) as depicted on Exhibit 5, Photograph 11.

6. East Walnut Drive Roadside Ditch

CDFW jurisdiction associated with East Walnut Drive Roadside Ditch totals approximately 0.03 acre (465 linear feet), none of which is riparian. The East Walnut Drive Roadside Ditch is located along the eastern edge of East Walnut Drive and collects runoff from the street and receives discharge from the East Walnut Drive V-Ditch. The roadside ditch is generally unvegetated, drains wholly upland areas, and discharges into a storm drain inlet as depicted on Exhibit 5, Photographs 4 and 5. A buried irrigation pipe located adjacent to the ditch was observed leaking during the field assessments, resulting in artificial stream flow indicators in the southern portion of the ditch averaging three feet wide.

7. East Walnut Drive V-Ditch

CDFW jurisdiction associated with East Walnut Drive V-Ditch totals approximately 0.05 acre, none of which is riparian. The East Walnut Drive V-Ditch is a man-made engineered concrete v-ditch within the northwest portion of the golf course which collects golf course runoff and carries it for approximately 719 feet westward to a roadside ditch that is immediately adjacent to and east of East Walnut Drive South. This feature was constructed in uplands and contains no vegetation as depicted on Exhibit 3 and Exhibit 5, Photograph 3.

8. Central Concrete V-Ditch

CDFW jurisdiction associated with Central Concrete V-Ditch totals approximately 0.02 acre, none of which is riparian. The Central Concrete V-Ditch is a man-made engineered concrete v-

ditch within the central portion of the golf course which collects golf course runoff and carries it for approximately 310 feet to the north where it is collected in a concrete culvert. The concrete v-ditch is unvegetated as depicted on Exhibit 5, Photograph 13.

<u>Non-Jurisdictional Features</u>

Golf Course Irrigation Ponds 1 and 2

Golf Course Irrigation Ponds 1 (drained) and 2 consist of water storage reservoirs and do not meet the definition for lake. Section 1602 does not define the term "lake"; however, it is clear that the irrigation ponds are not "lakes" under the ordinary meaning of the term or under technical guidance on which CDFW often relies and as addressed in some detail below:

California courts have held that, in the absence of a statutory definition, "[t]he dictionary is a proper source to determine the usual and ordinary meaning of words in a statute."[11] The "relevant dictionary definitions are those extant before or at least near in time to the statutory or contractual usage."[12] At the time the California legislature enacted Section 1602 in 1961, *Black's Law Dictionary* defined a "lake" based, in part, according to size:

> "[a] *considerable* body of standing water in a depression of land or expanded part of a river . . . ; or a body of water of *considerable size* surrounded by land. . . ."[13]

The legal advisor for the California Department of Fish and Game (now CDFW) relied on the *Black's Law Dictionary* (5th ed.) definitions in a 1990 memorandum explaining the legal advisor's opinion and analysis to be used in the interpretation of certain definitional issues in applying the Fish and Game Code.[14] Notably, CDFW's legal advisor Toffoli acknowledged that, "[f]or the purposes of analyzing the close factual case, size is to be considered in the context of other local bodies of water."[15]

CDFW has recognized the U.S. Fish and Wildlife Service's (USFWS) Classification of Wetlands and Deepwater Habitats (Classification) as "the most biologically valid of those definitions and

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[11] *Siskiyou Cty. Farm Bureau v. Dep't of Fish & Wildlife* (2015) 237 Cal.App.4th 411, 433, quoting *Humane Society of U.S. v. Superior Court* (2013) 214 Cal.App.4th 1233, 1251.

[12] *Siskiyou Cty.*, 237 Cal.App.4th at 433-434.

[13] *Black's Law Dictionary*, p. 1018 (4th ed. 1951) (emphasis added).

[14] Eugene V. Toffoli, Legal Advisor, Attachment to Memorandum Regarding Jurisdictional Issues in the Application of Fish and Game Code Sections 1601 and 1603 (July 2, 1990), at 4-5, quoting *Back's Law Dictionary* (5th ed.).

[15] *Id.*, at 5.

classification systems presently utilized in California."[16] The Classification defines a "lake" or Lacustrine System as wetlands and deep-water habitats that are:

(1) situated in a topographic depression or a dammed river channel;
(2) lack trees, shrubs, persistent emergents, emergent mosses or lichens with greater than 30 percent areal coverage; and
(3) **cover an area of at least eight hectares (20 acres), are at least two meters deep at low water, or have an active wave-formed or bedrock shoreline feature that makes up all or part of the boundary.**

Moreover, CDFW's 1992 Field Guide appears to distinguish "lakes" from "ponds" or "detention basins." The Field Guide, for example, defines "detention basin" as "[a] pond designed as a sediment trap."[17] As these features are not considered rivers, streams, or lakes, they are not subject to CDFW jurisdiction under Sections 1600-1603 of the Fish and Game Code.

If you have any questions about this letter report, please contact Velvet Park at (949) 340-2522 or via email at vpark@wetlandpermitting.com.

Sincerely,

GLENN LUKOS ASSOCIATES, INC.

Velvet Park
Regulatory Specialist

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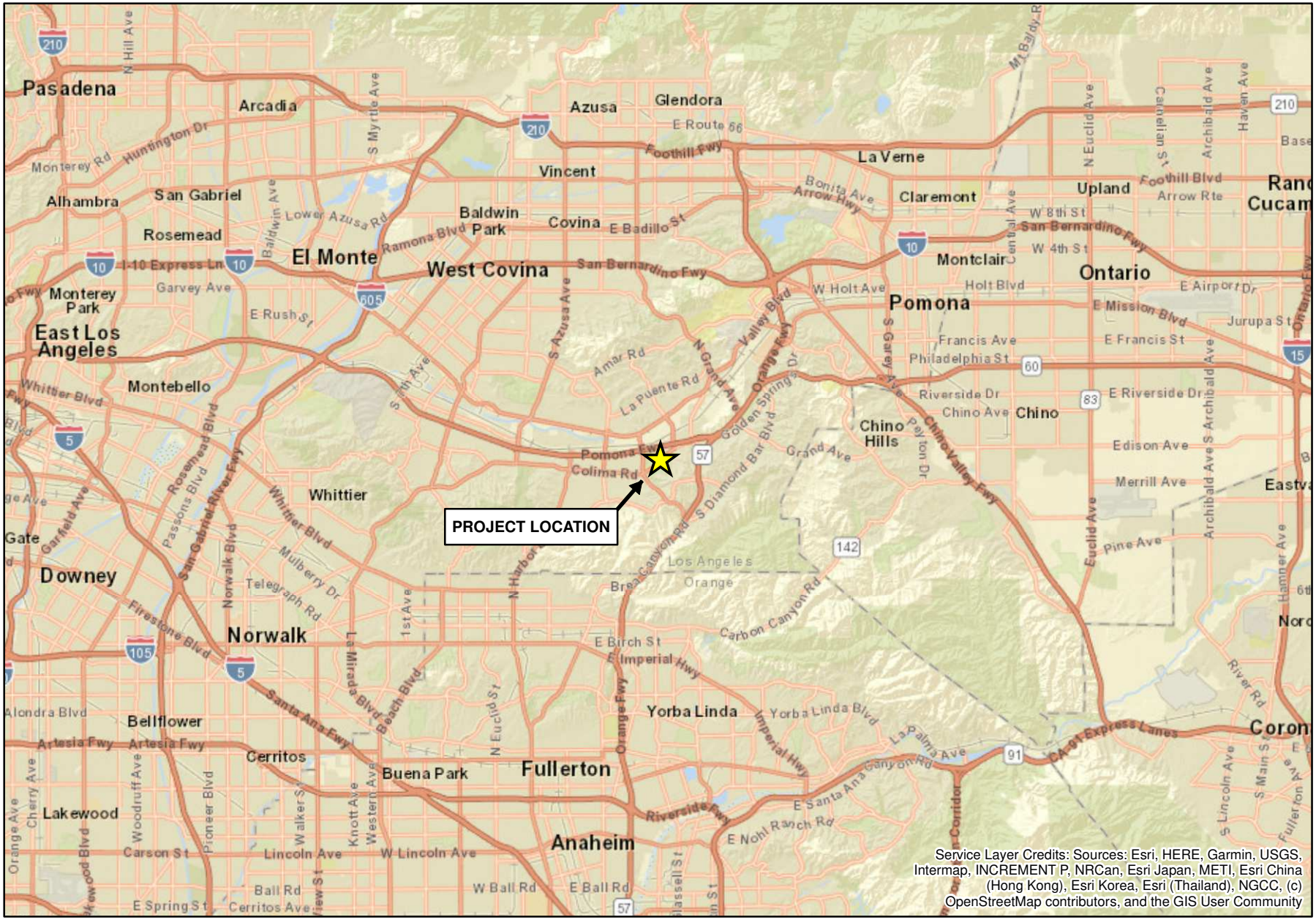
[16] Department of Fish and Game Recommended Wetland Definition, Mitigation Strategies, and Habitat Value Assessment Methodology, available at http://www.fgc.ca.gov/policy/p4misc.aspx#WETLANDS.

[17] Department of Fish and Game, *A Field Guide to Lake and Streambed Agreements* (Jan. 1992), App. A [Glossary] at 4.

Source: ESRI World Street Map



N

0 2 4 8 Miles

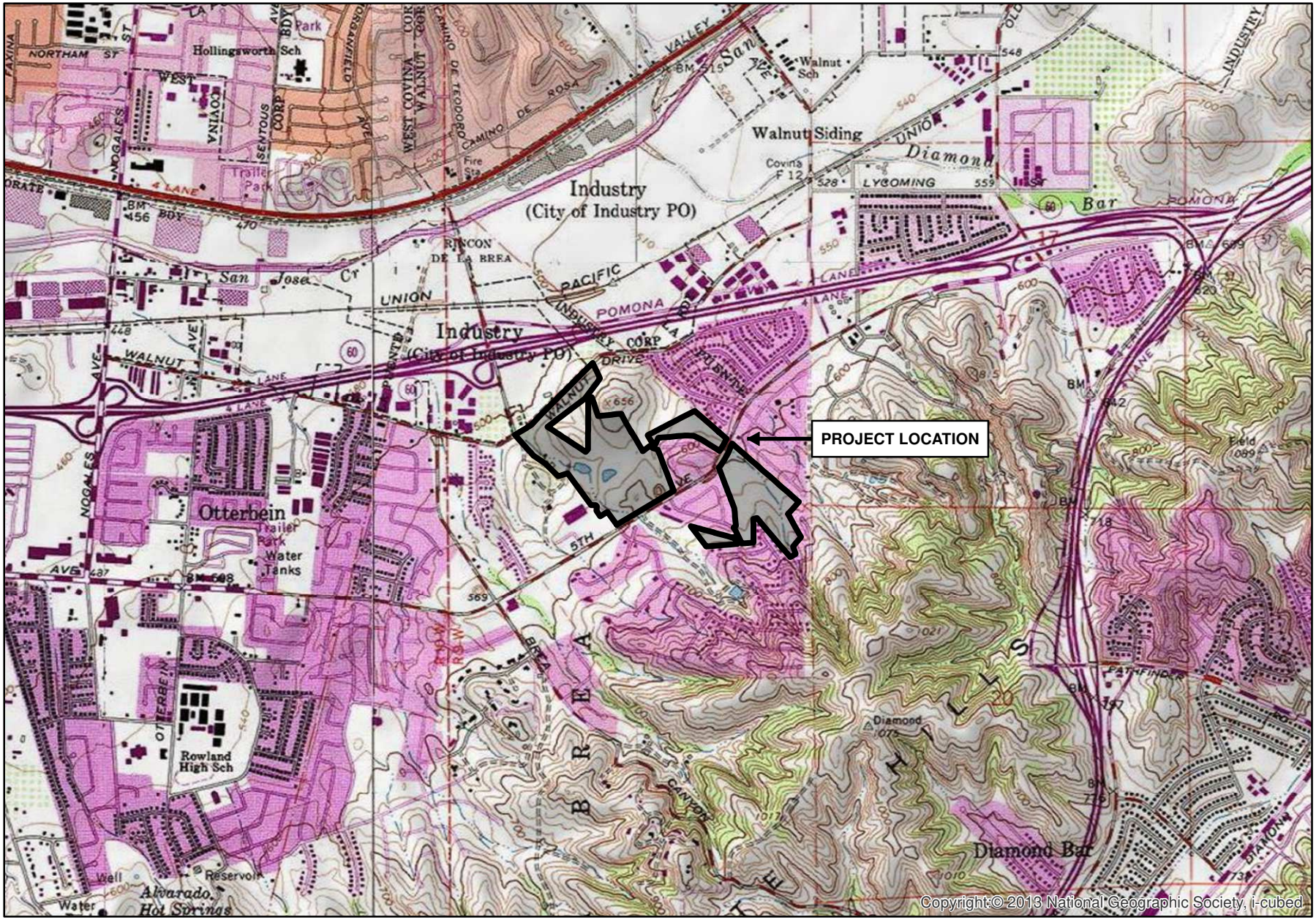
ROYAL VISTA GOLF COURSE

Regional Map

GLENN LUKOS ASSOCIATES

Exhibit 1

Adapted from USGS Yorba Linda, CA quadrangle



N

0 1,000 2,000 4,000 Feet

ROYAL VISTA GOLF COURSE

Vicinity Map

GLENN LUKOS ASSOCIATES

Exhibit 2

Approximate Project Site

Potential Wetland Waters of the U.S

Potential Non-Wetland Waters of the U.S.

Non-Jurisdictional Feature (Excluded from Waters of the U.S.)

Width of Jurisdiction in Feet

Wetland Sampling Point (SP)

Photo Location

N

0 175 350 700
Feet

1 inch = 350 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: B. Gale, GLA
Date Prepared: March 7, 2023

ROYAL VISTA GOLF COURSE

Corps Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 3A

X:\0363-THE REST\1086-08ROYA\1086-8_GIS\DelineationGIS\REV1\1086-8_JD_REV1_Corps.mxd

Approximate Project Site

Potential Wetland Waters of the U.S./State

Potential Non-Wetland Waters of the U.S./State

Potential Non-Wetland Waters of the State

Non-Jurisdictional Feature (Excluded from Waters of the U.S./State)

Wetland Sampling Point (SP)

Photo Location

N

0 175 350 700
Feet

1 inch = 350 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: B. Gale, GLA
Date Prepared: March 7, 2023

ROYAL VISTA GOLF COURSE

RWQCB Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 3B

X:\0363-THE REST\1086-08ROYA\1086-8_GIS\DelineationGIS\REV1\1086-8_JD_REV1_RWQCB.mxd

Approximate Project Site

Potential CDFW Riparian

Potential CDFW Non-Riparian Stream

Non-Jurisdictional Feature

Photo Location

N

0 175 350 700

Feet

1 inch = 350 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: B. Gale, GLA
Date Prepared: March 7, 2023

ROYAL VISTA GOLF COURSE

CDFW Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 3C

X:\0363-THE REST\1086-08ROYA\1086-8_GIS\DelineationGIS\REV1\1086-8_JD_REV1_CDFW.mxd

Approximate Project Site

1136 Urban land-Sorrento-Arbolado complex, 2 to 9 percent slopes

1232 Counterfeit-Urban land complex, 10 to 35 percent slopes, terraced

N

0 250 500 1,000
Feet

1 inch = 500 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: B. Gale, GLA
Date Prepared: April 26, 2021

ROYAL VISTA GOLF COURSE

Soils Map

GLENN LUKOS ASSOCIATES

Exhibit 4

X:\0363-THE REST\1086-08ROYA\1086-8_GIS\SoilsGIS\1086-8_Soils.mxd

Photograph 1: Concrete Ditch 1 look north toward Golf Course Irrigation Pond 1 in upper left corner.

Photograph 2: Golf Course Irrigation Pond 1

Photograph 3: East Walnut Drive Concrete V-Ditch constructed in upland looking toward East Walnut Drive.

Photograph 4: : Upstream view of East Walnut Drive Roadside Ditch facing northeast along East Walnut Drive.

GLENN LUKOS ASSOCIATES

Exhibit 5 – Page 1

ROYAL VISTA GOLF COURSE

Site Photographs

Photograph 5: Downstream view of East Walnut Drive Roadside Ditch facing southwest along East Walnut Drive.

Photograph 6: Storm drain outlet collecting runoff from Earthen Drainage Ditch and East Walnut Drive Roadside Ditch .

Photograph 7: Earthen Drainage Ditch at northwest corner of golf course.

Photograph 8: Golf Course Irrigation Pond 2.

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Exhibit 5 – Page 2

ROYAL VISTA GOLF COURSE

Site Photographs

Photograph 9: Eastern Earthen V-Ditch showing lack of vegetation.

Photograph 10: Outfall that discharges to Eastern Earthen V-Ditch.

Photograph 11: Excavated Basin/Pit with non-native vegetation.

Photograph 12: Southern Concrete V-Ditch showing lack of vegetation.

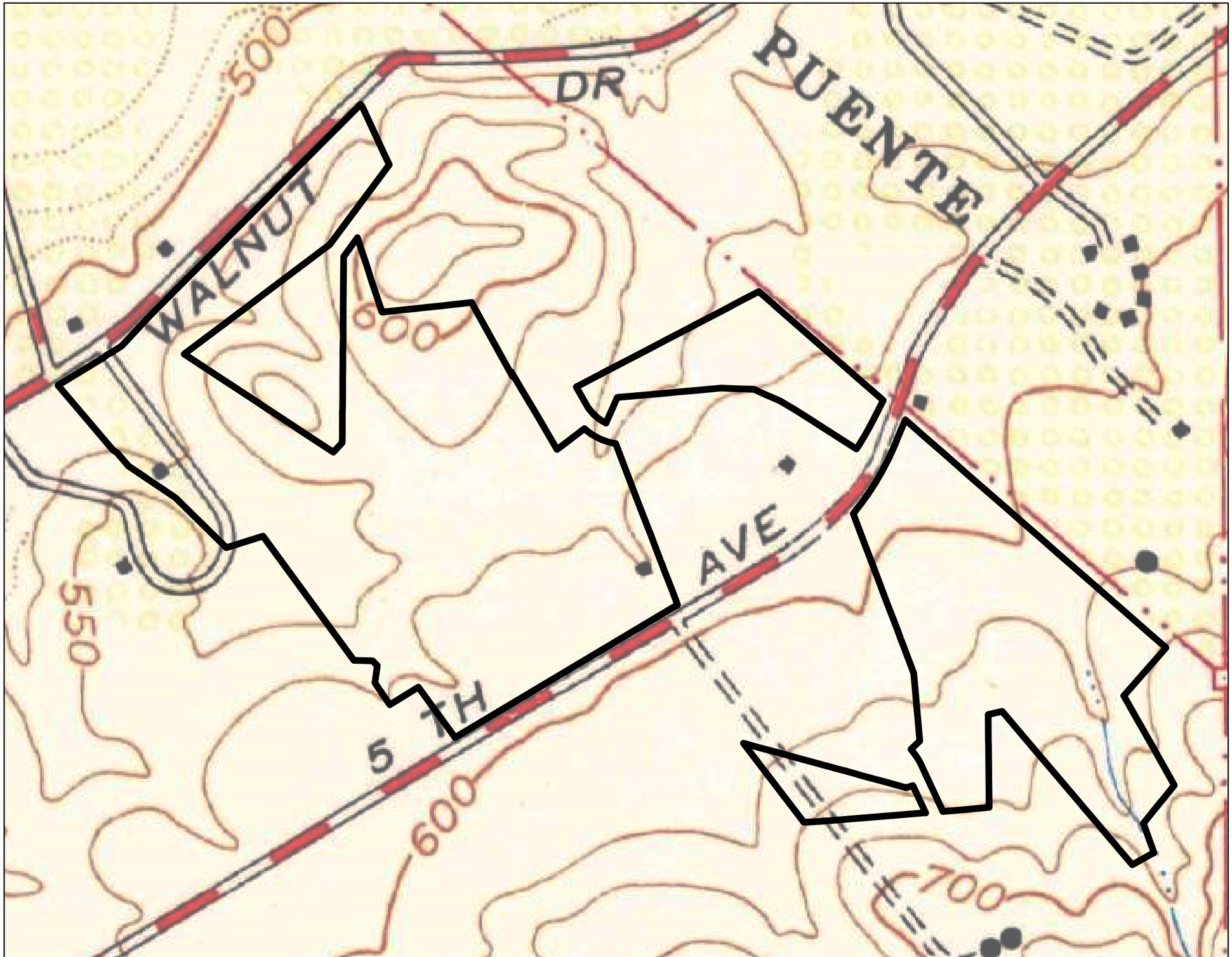
GLENN LUKOS ASSOCIATES

Exhibit 5 – Page 3

ROYAL VISTA GOLF COURSE

Site Photographs

Photograph 13: Central Concrete V-Ditch showing lack of vegetation.



Approximate Project Site

N

0 175 350 700
Feet

1 inch = 350 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: B. Gale, GLA
Date Prepared: July 30, 2021

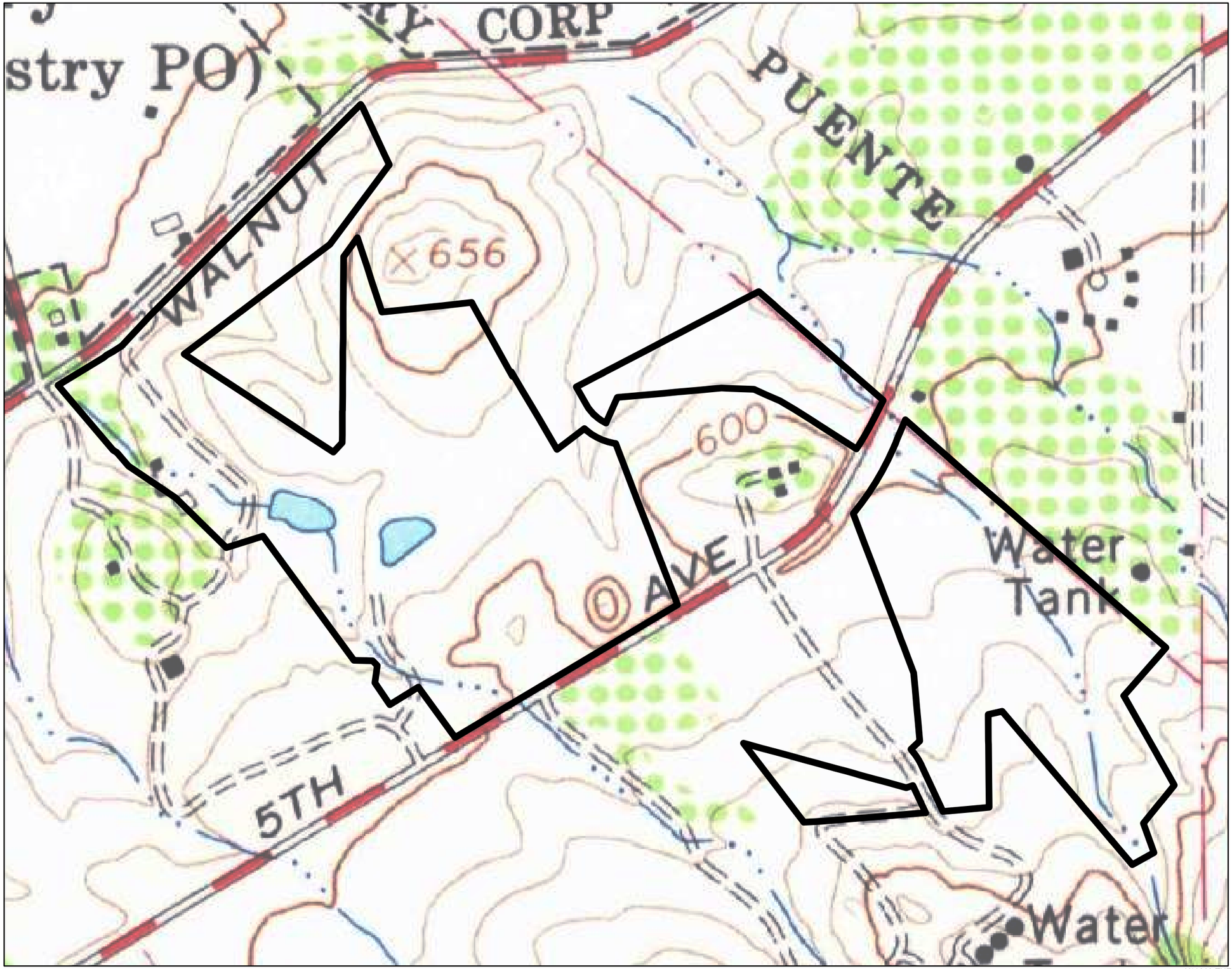
ROYAL VISTA GOLF COURSE

Historic USGS Topo Map (1950)

GLENN LUKOS ASSOCIATES

Exhibit 6A

X:\0363-THE REST\1086-08ROYA\1086-8_GIS\DelineationGIS\1086-8_JD_HistoricalTopo1950.mxd



Approximate Project Site

N

0 175 350 700
Feet

1 inch = 350 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: B. Gale, GLA
Date Prepared: July 30, 2021

ROYAL VISTA GOLF COURSE

Historic USGS Topo Map (1964)

GLENN LUKOS ASSOCIATES

Exhibit 6B

X:\0363-THE REST\1086-08ROYA\1086-8_GIS\DelineationGIS\1086-8_JD_HistoricalTopo1964.mxd

Approximate Project Site

N

0 175 350 700
Feet

1 inch = 350 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: B. Gale, GLA
Date Prepared: March 4, 2023

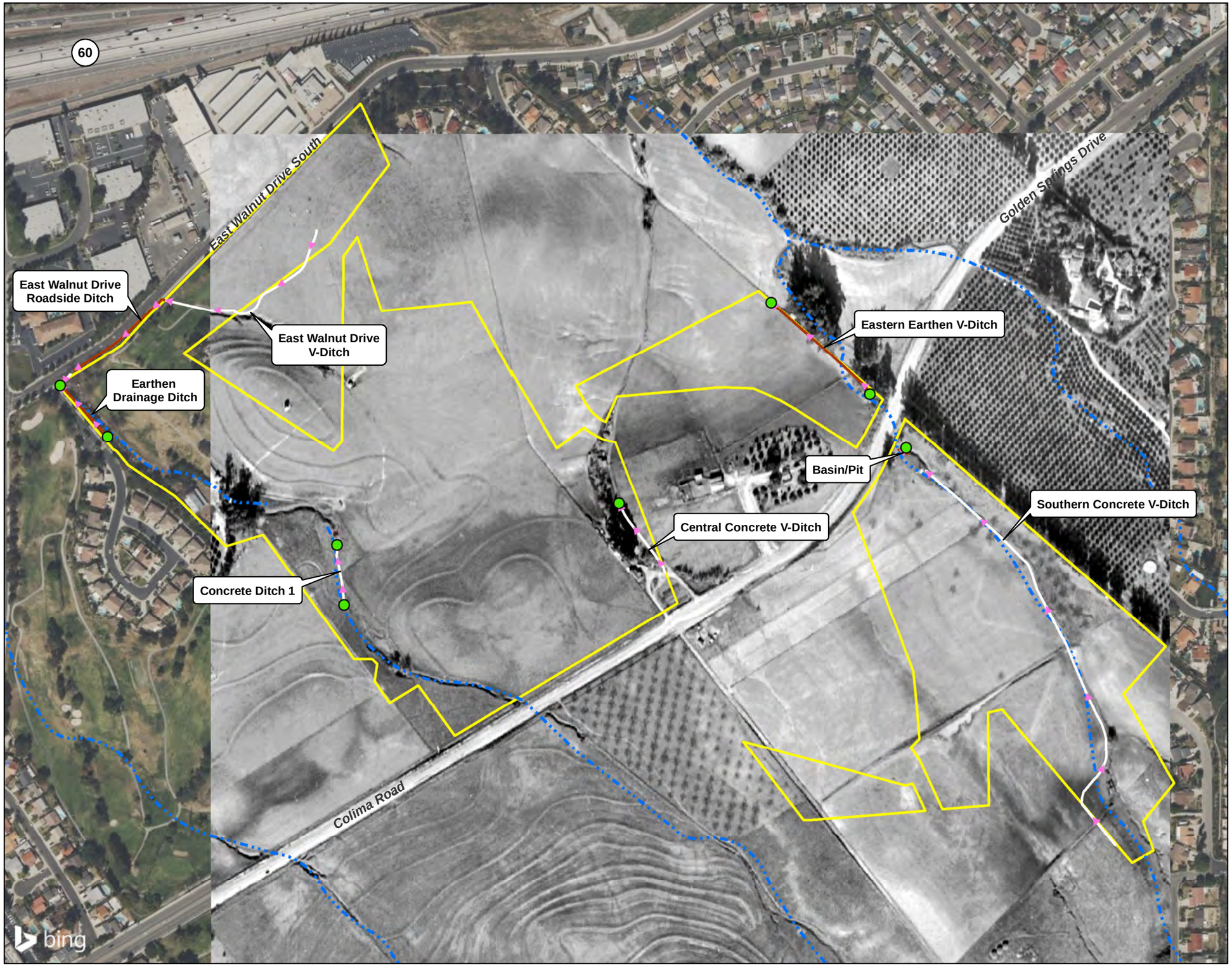
ROYAL VISTA GOLF COURSE

Historic Aerial - 1953

GLENN LUKOS ASSOCIATES

Exhibit 7A

X:\0363-THE REST\1086-08ROYA\1086-8_GIS\DelineationGIS\REV1\1086-8_JD_HistoricalAerial1953_Clean.mxd



Approximate Project Site

Blue Line Drainage *

Concrete Feature

Earthen Feature

Pipe Inlet/Outlet

Flow Path

** Source: USGS*
Yorba Linda, CA quadrangle (1964)

N

0 175 350 700
Feet

1 inch = 350 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: B. Gale, GLA
Date Prepared: March 4, 2023

ROYAL VISTA GOLF COURSE

Historic Aerial - 1953 with Current Feature Overlay

GLENN LUKOS ASSOCIATES

Exhibit 7B

X:\0363-THE REST\1086-08ROYA\1086-8_GIS\DelineationGIS\REV1\1086-8_JD_HistoricalAerial1953.mxd

Approximate Project Site

N

0 87.5 175 350
Feet

1 inch = 175 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: B. Gale, GLA
Date Prepared: March 4, 2023

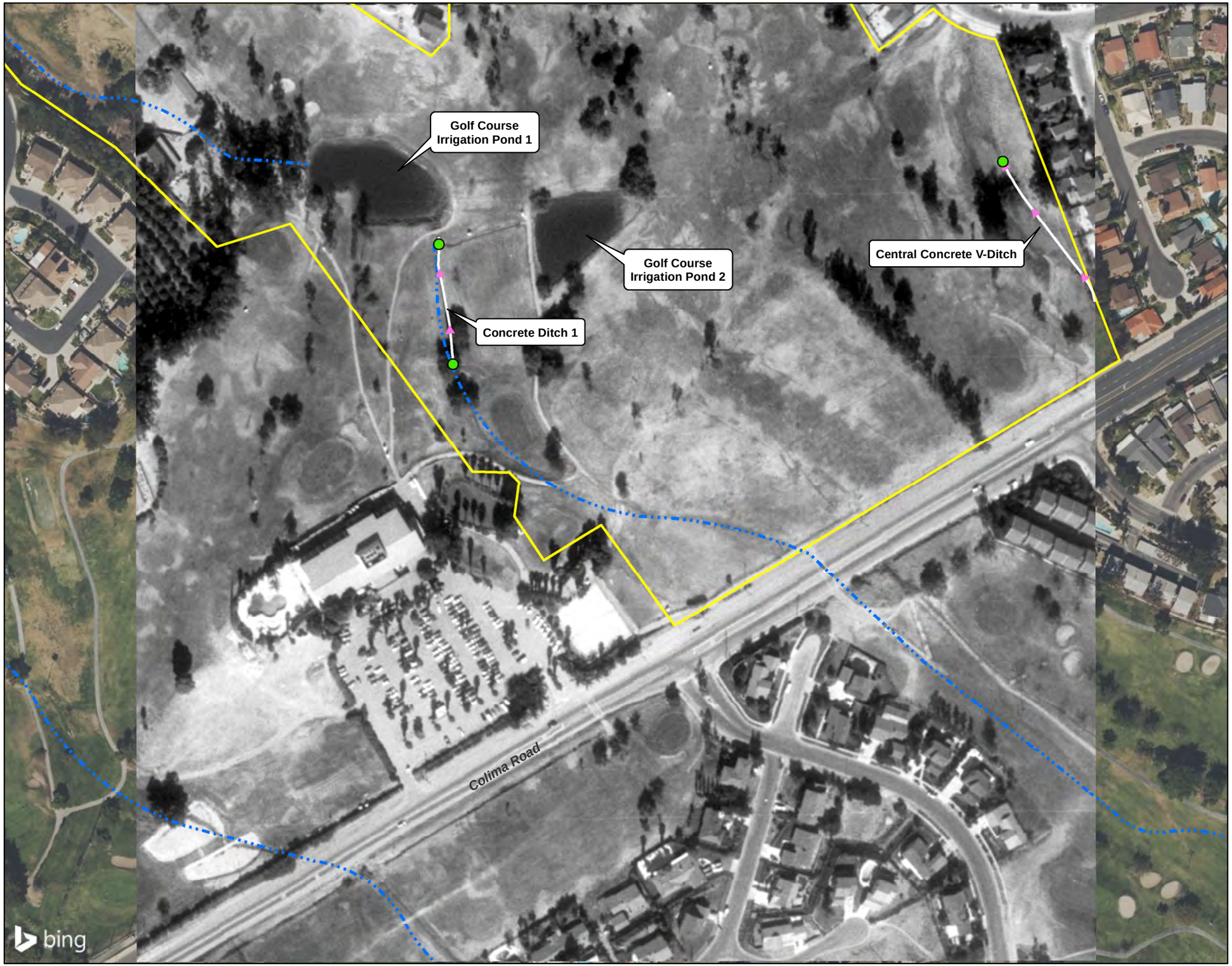
ROYAL VISTA GOLF COURSE

Historic Aerial - 1980

GLENN LUKOS ASSOCIATES

Exhibit 8A

X:\0363-THE REST\1086-08ROYA\1086-8_GIS\DelineationGIS\REV1\1086-8_JD_HistoricalAerial1980_Clean.mxd



Approximate Project Site

Blue Line Drainage *

Concrete Feature

Earthen Feature

Pipe Inlet/Outlet

Flow Path

** Source: USGS*
Yorba Linda, CA quadrangle (1964)

0 87.5 175 350
Feet

1 inch = 175 feet

N

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: B. Gale, GLA
Date Prepared: March 4, 2023

ROYAL VISTA GOLF COURSE

Historic Aerial - 1980 with Current Feature Overlay

GLENN LUKOS ASSOCIATES

Exhibit 8B

X:\0363-THE REST\1086-08ROYA\1086-8_GIS\DelineationGIS\REV1\1086-8_JD_HistoricalAerial1980.mxd

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Royal Vista Golf Course (1086-08ROYA) City/County: Rowland Heights, Los Angeles Sampling Date: 04/21/2021

Applicant/Owner: Project Dimensions State: CA Sampling Point: 1

Investigator(s): Tony Bomkamp, Velvet Park Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 2%

Subregion (LRR): LRR C Lat: 33.992876° Long: -117.868718° Datum: NAD 83

Soil Map Unit Name: Urban land-Sorrento-Arbolado complex, 2 to 9 percent slopes NWI classification: Palustrine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No _____	**Is the Sampled Area within a Wetland?** **Yes ✔ No _____**
Hydric Soil Present?	Yes ✔	No _____	
Wetland Hydrology Present?	Yes ✔	No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1. Typha domingensis	70	Y	OBL
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✔ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ✔ No _____**

Remarks:

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ✔ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Surface water present: meets soils criteria for Long Duration ponding or inundation

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ✔ Surface Water (A1)
- ___ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ✔ No ___ Depth (inches): 1-2

Water Table Present? Yes ___ No ___ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ✔ No ___ Depth (inches): to surface

Wetland Hydrology Present? **Yes** ✔ **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

standing water present; water flowing through channel 1" deep; ponding near outfall at top of concrete spillway

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Royal Vista Golf Course (1086-08ROYA) City/County: Rowland Heights, Los Angeles Sampling Date: 04/21/2021

Applicant/Owner: Project Dimensions State: CA Sampling Point: 2

Investigator(s): Tony Bomkamp, Velvet Park Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 2%

Subregion (LRR): LRR C Lat: 33.992876° Long: -117.868718° Datum: NAD 83

Soil Map Unit Name: Counterfeit-Urban land complex, 10 to 35 percent slopes, terraced NWI classification: Palustrine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No _____	**Is the Sampled Area within a Wetland?** **Yes ✔ No _____**
Hydric Soil Present?	Yes ✔	No _____	
Wetland Hydrology Present?	Yes ✔	No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1. Typha domingensis	80	Y	OBL
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✔ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ✔ No _____**

Remarks:

SOIL

Sampling Point: 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-12	10 YR 3/2							

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ✔ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ✔ Surface Water (A1)
- ___ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ✔ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ✔ No ___ Depth (inches): 1-2

Water Table Present? Yes ___ No ___ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ✔ No ___ Depth (inches): to surface

Wetland Hydrology Present? **Yes** ✔ **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Royal Vista Golf Course (1086-08ROYA) City/County: Rowland Heights, Los Angeles Sampling Date: 04/21/2021

Applicant/Owner: Project Dimensions State: CA Sampling Point: 3

Investigator(s): Tony Bomkamp, Velvet Park Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 2%

Subregion (LRR): LRR C Lat: 33.992876° Long: -117.868718° Datum: NAD 83

Soil Map Unit Name: Urban land-Sorrento-Arbolado complex, 2 to 9 percent slopes NWI classification: Palustrine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No _____	**Is the Sampled Area within a Wetland?** **Yes ✔ No _____**
Hydric Soil Present?	Yes ✔	No _____	
Wetland Hydrology Present?	Yes ✔	No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Washingtonia robusta	45	Y	FACW
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1. Iris pseudacorus	35	Y	OBL
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✔ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ✔ No _____**

Remarks:

SOIL

Sampling Point: 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-12	Gley 2.5/N						sand loam	coarse sand loam with muck

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ✔ Black Histic (A3)
- ✔ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ✔ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ✔ Surface Water (A1)
- ___ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ✔ No ___ Depth (inches): 1-2

Water Table Present? Yes ___ No ___ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ✔ No ___ Depth (inches): to surface

Wetland Hydrology Present? **Yes** ✔ **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: