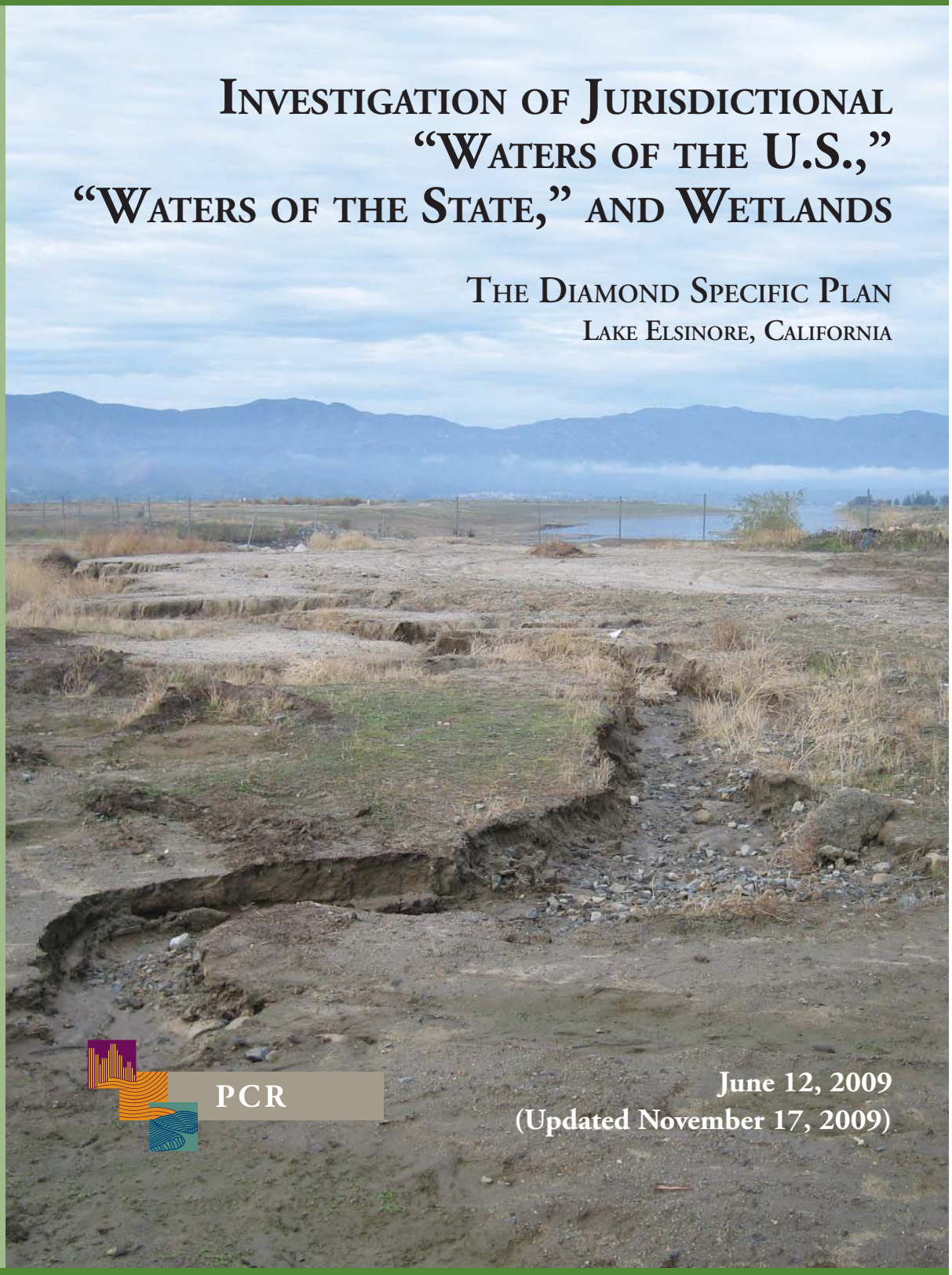
Investigation of Jurisdictional "Waters of the U.S.," "Waters of the State," and Wetlands

The Diamond Specific Plan
Lake Elsinore, California



PCR

June 12, 2009
(Updated November 17, 2009)

Investigation of Jurisdictional "Waters of the U.S.," "Waters of the State," and Wetlands

The Diamond Specific Plan
Lake Elsinore, California

Prepared For:
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Contact: Richard Haywood, Senior Wetland Ecologist

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The undersigned certify that this report is a complete and accurate account of the findings and conclusions of a jurisdictional determination for the above-referenced project.

PCR Services Corporation

Richard Haywood, Senior Wetland Ecologist

June 12, 2009 (Updated November 17, 2009)

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INVESTIGATION OF JURISDICTIONAL "WATERS OF THE U.S.," "WATERS OF THE STATE," AND WETLANDS ON THE DIAMOND SPECIFIC PLAN, LAKE ELSINORE, CALIFORNIA

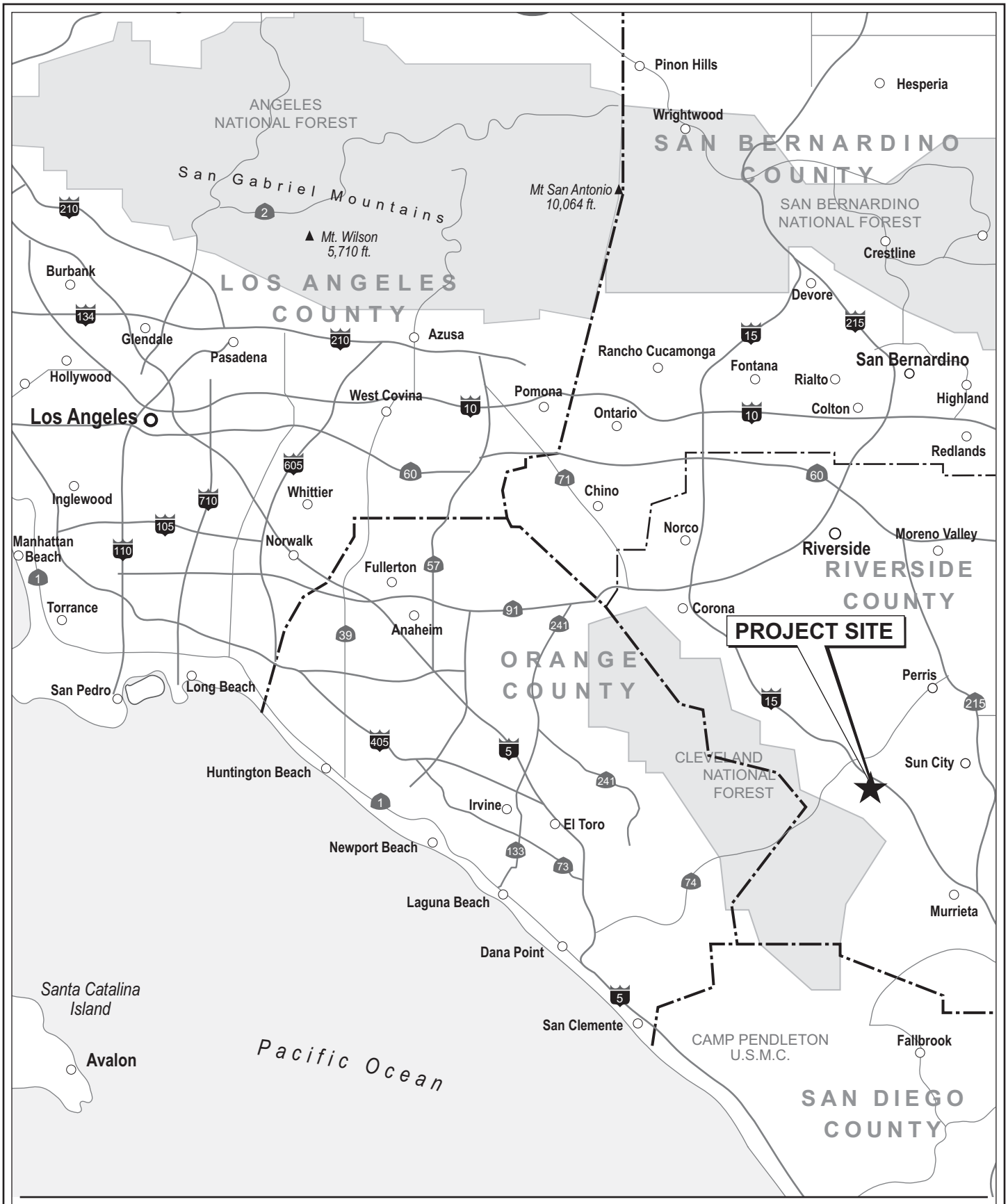
1.0 INTRODUCTION

This report presents the findings of an investigation conducted by **PCR Services Corporation (PCR)** of jurisdictional "waters of the U.S.," "waters of the State," and wetlands on the approximately 87-acre Diamond Specific Plan located in the City of Lake Elsinore, Riverside County, California (the "study area").

The property is comprised of an approximately 87-acre study area* (APNs: 363-150-006; 363-161-012, -029, -030, -031, -032, -033, -034, -035, -037; 365-280-022; 371-030-035; 373-210-014, -016, -019, -020, -021, -023, -026, -027, -030, -037, -038, -039, -040, -041, -042, and -043) within the City of Lake Elsinore ("the City"), Riverside County, California. The portions of the study area investigated include a disturbed open lot generally located west of the intersection of Diamond Drive and Campbell Street, and north of Pete Lehr Drive; and a disturbed lot east of Diamond Drive and north of Malaga Road (Figure 1, *Regional Map*, on page 2). The study area is located within Section 16, T. 6 S., R. 4 W. of the U.S. Geological Survey (USGS) 7.5-minute Lake Elsinore, California topographic quadrangle as shown in Figure 2, *Vicinity Map*, on page 3. Surrounding land use includes the San Jacinto River and Lake Elsinore ("the lake") to the west, Lake Elsinore Diamond Stadium to the south, and mixed residential and commercial development associated with the City of Lake Elsinore to the north and east. The longitude and latitude of the approximate center of the study area is 33° 39' 24.912" North and 117° 18' 6.768" West. UTM Zone 11 (X, Y) 472010, 3724158.

An assessment of jurisdictional "waters of the U.S.," "waters of the State," and wetlands on the study area was conducted by PCR Senior Wetland Ecologist Richard Haywood on December 24, 2009. The assessment was conducted to determine whether or not the on-site drainage features are subject to the jurisdiction of the U.S. Army Corps of Engineers (ACOE), the Regional Water Quality Control Board (RWQCB), and/or the California Department of Fish and Game (CDFG) and to delineate and map the extent of all jurisdictional resources on the study area.

* *The study area boundary was updated from the original boundary (which utilized county APN boundaries) to the field survey data provided by the project engineer, Wilson Mikami Corporation, which is the legal boundary. There were only very minor discrepancies between the original and updated boundary. The updated boundary has been incorporated into the associated biological studies reports.*



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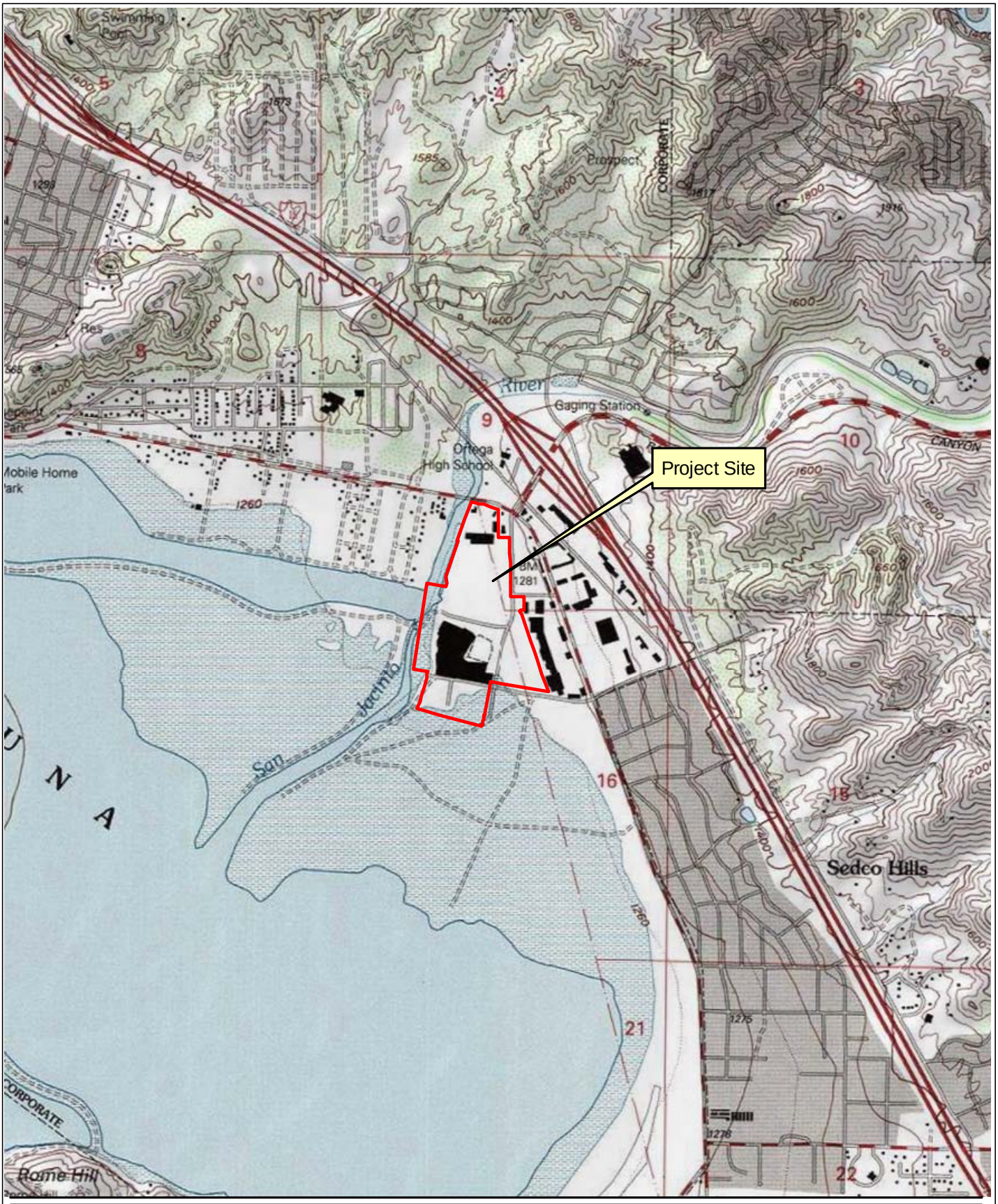
Source: PCR Services Corporation, 2009.

Figure 1
The Diamond Specific Plan Regional Map



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Source: USGS Topographic Series (Lake Elsinore,CA); PCR Services Corporation, 2009.

Figure 2
The Diamond Specific Plan Vicinity Map

The opinions presented in this report are a reflection of the best professional judgment of PCR staff. However, all conclusions are tentative until verified by Agency (i.e., ACOE, RWQCB, and CDFG) personnel.

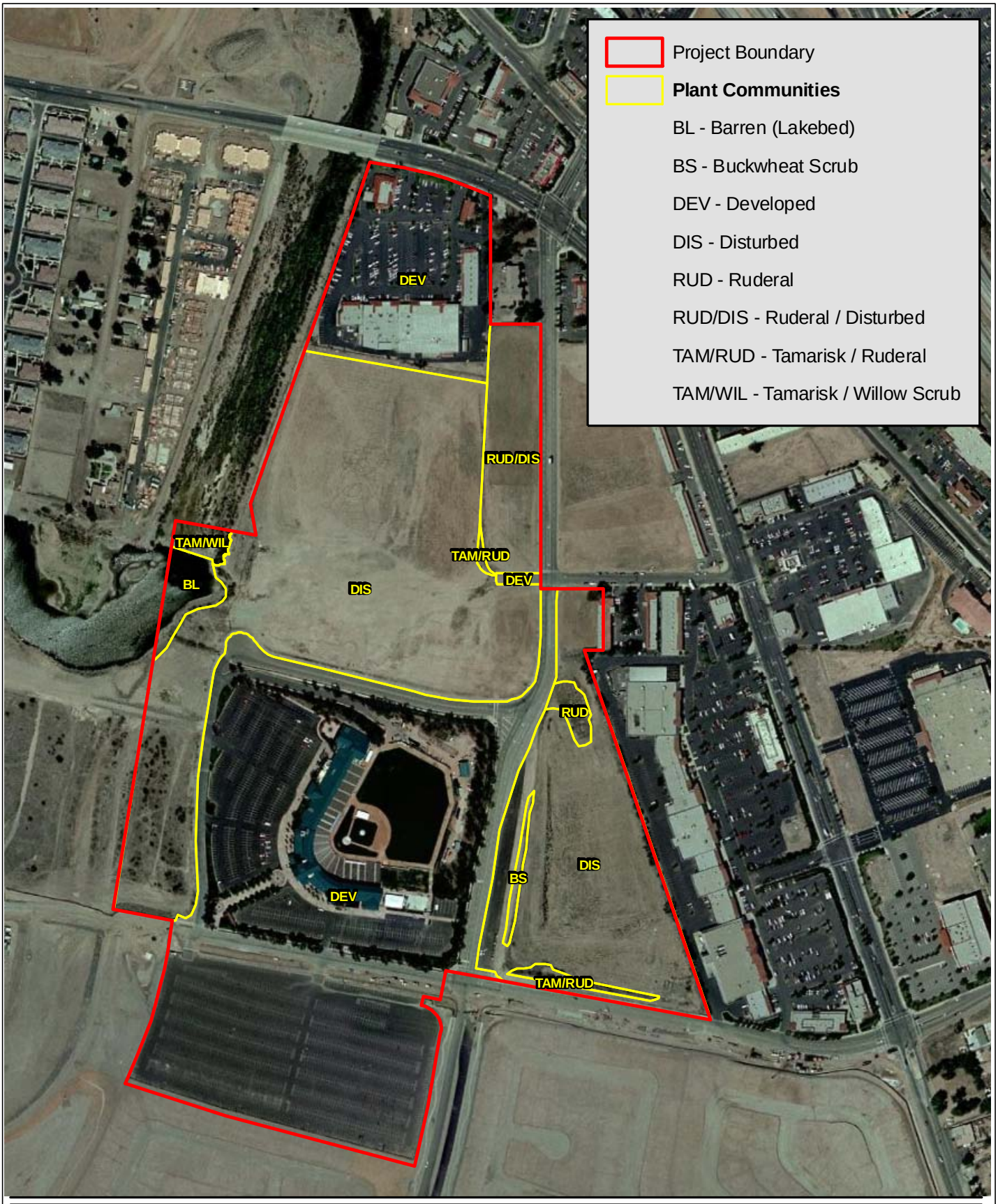
2.0 EXISTING SITE CONDITIONS

The study area consists predominantly of disturbed, undeveloped areas. These two areas include a disturbed open lot located to the west of Diamond Drive (the western lot), which appeared to have been recently disced and is mostly unvegetated, with a sparse ruderal plant community. The second area, located to the east of Diamond Drive (the eastern lot), also appeared to have been recently disced and is mostly unvegetated with a sparse ruderal plant community, as well as has large soil stockpiles occupying much of its northern corner (Figure 3, *Vegetation Communities Map,* on page 5).

Local topography within the western lot of the study area is generally flat with a slight downward slope to the west. However, the westernmost edge of the western lot slopes sharply down to the banks of Lake Elsinore's back basin, near the inflow of the San Jacinto River. This slope is armored with boulder-sized rip rap and is fenced off from the remaining part of the western lot. No jurisdictional delineation was conducted on the portions of Lake Elsinore or the San Jacinto River within the study area, which will not be impacted by the proposed project and thus is not included within the scope of this jurisdictional delineation. The ACOE's jurisdiction within Lake Elsinore's back basin area has been established at an elevation of 1,255 feet above mean sea level (msl) in a letter dated March 21, 2008 from the Office Chief of the Department of the Army, Regulatory Division to the City of Lake Elsinore (USACOE 2008). In addition, the CDFG's jurisdiction within Lake Elsinore's back basin area has been established at an elevation of 1,265 feet msl (CDFG 1989).

The study area's eastern lot appears to have been impacted by the construction of Diamond Drive and has been graded to form a shallow basin, which is confined by the road. The elevation found on-site ranges from approximately 1,238 to 1,279 feet msl.

Plant species observed within the sparse ruderal community include black mustard (*Brassica nigra*), Russian thistle (*Salsola tragus*), doveweed (*Croton setigerus*), bush sunflower (*Encelia californica*), yellow star thistle (*Centuarea melitensis*), foxtail chess (*Bromus madritensis*), and hairypod pepperweed (*Lepidium lasiocarpum*). In addition, a few individual mule fat (*Baccharis salicifolia*) shrubs were also observed on the study area, generally in association with the on-site erosional features.



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N

450 0 450 Feet

Source: Aerial Express, 2008; PCR Services Corporation, 2009.

Figure 3
The Diamond Specific Plan
Vegetation Communities

3.0 SUMMARY OF REGULATIONS

Three key agencies regulate activities within inland streams, wetlands, and riparian areas in California. The ACOE Regulatory Program regulates activities pursuant to Section 404 of the federal Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act of 1899 (RHA), the CDFG regulates activities under the Fish and Game Code Sections 1600-1616, and the RWQCB regulates activities under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act.

3.1 Regulatory Agencies

3.1.1 U.S. Army Corps of Engineers

The ACOE regulates the "discharge of dredged or fill material" into "waters of the U.S.," which includes all waters currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce; waters subject to the ebb and flow of the tide; all interstate waters; all other waters, including intrastate lakes, rivers, streams, mudflats, sandflats, playa lakes, or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce; or any other waters that are part of a tributary system to interstate waters or to navigable "waters of the U.S.," (33 C.F.R. 328.3(a.)), pursuant to provisions of Section 404 of the CWA.

The ACOE generally takes jurisdiction within rivers and streams to the "ordinary high water mark" (OHWM) determined by erosion, the deposition of sediments or debris, and changes in vegetation. The ACOE defines wetlands as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 C.F.R. 328.3(b.)). In accordance with the ACOE's *Wetland Delineation Manual* (Environmental Laboratory 1987) and subsequent guidance provided in the *Regional Supplemental to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (Environmental Laboratory 2008), a wetland ecosystem must possess wetland hydrology and support hydrophytic vegetation and hydric soils.

Over the years the ACOE has modified their regulations, typically due to evolving policy or judicial decisions, through the issuance of Regulatory Guidance Letters (RGL), memorandum, or more expansive instructional guidebooks. These guidance documents help to update and define how jurisdiction is claimed, and how these "waters of the U.S" will be regulated. The most recent modification was issued on June 26, 2008 in the form of RGL No. 08-02, which defines the use, review criteria, and applicability of requesting an Approved or Preliminary

Jurisdictional Determination. The most significant modification in recent years was issued on June 5, 2007, when the ACOE and the U.S. Environmental Protection Agency (EPA) jointly issued a series of guidance documents outlining the requirements and procedures, effective immediately, to establish jurisdiction under Section 404 of the CWA and the Section 10 of the RHA (ACOE and EPA 2006). The guidance was updated in a memorandum issued on December 02, 2008 summarizing and clarifying the original guidance documents. These documents are intended to be used for all jurisdictional delineations but also provide specific guidance for the jurisdictional determination of potentially jurisdictional features affected by the United States Supreme Court rulings on *Rapanos v. the United States* and *Carabell v. the United States* 126 U.S. Ct. 2208 (2006) (jointly referred to as "Rapanos").

The Rapanos case outlines the conditions and criteria utilized by the ACOE to assess and claim jurisdiction over non-navigable, ephemeral tributaries. Under a plurality ruling, the Court noted that certain "not relatively permanent" (i.e., ephemeral), non-navigable tributaries must have a "significant nexus" to downstream traditional "navigable waters of the U.S." (TNW) to be jurisdictional. An ephemeral tributary has a significant nexus to a downstream "navigable water of the U.S." when it has "more then a speculative or an insubstantial effect on the chemical, physical, and/or biological integrity of a TNW." A significant nexus is established through the consideration of a variety of hydrologic, geologic and ecological factors specific to the particular drainage feature in question.

In addition, on January 15, 2003 the ACOE and EPA issued a Joint Memorandum to provide clarifying guidance regarding the United States Supreme Court ruling in the *Solid Waste Agency of Northern Cook County v United States Army Corps of Engineers*, No. 99-1178 (January 9, 2001) ("the SWANCC case"), (Federal Register: Vol. 68, No. 10.) This ruling held that the CWA does not give the federal government regulatory authority over non-navigable, isolated, intrastate waters. As a result of this decision, some previously regulated depressional areas such as mudflats, sandflats, wetlands, prairie potholes, wet meadows, playa lakes, natural ponds, and vernal pools, which are not hydrologically connected to other intra- or inter-state "waters of the U.S.," are no longer regulated by the ACOE.

However, these "not relatively permanent" or isolated features may still be regulated by CDFG under Fish and Game Code Section 1600 or the RWQCB under the Porter-Cologne Water Quality Act. A detailed discussion of Section 404 of the CWA is included in Section 7.0 of this report.

3.1.2 California Department of Fish and Game

In accordance with Section 1600 *et seq*. of the California Fish and Game Code (FGC) ("Streambed Alteration"), CDFG regulates activities which "will substantially divert, obstruct, or substantially change the natural flow or bed, channel or bank of any river, stream, or lake

designated by the department in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit." The CDFG takes jurisdiction to the top of bank of the stream, or the limit of the adjacent riparian vegetation when present.

3.1.3 Regional Water Quality Control Board

The RWQCB regulates "discharging waste, or proposing to discharge waste, within any region that could affect "waters of the State" (Water Code § 13260 (a)), pursuant to provisions of the Porter-Cologne Water Quality Control Act. "Waters of the State" are defined as "any surface water or groundwater, including saline waters, within the boundaries of the State" (Water Code § 13050 (e)). Before the ACOE will issue a CWA Section 404 permit, applicants must receive a CWA Section 401 Water Quality Certification from the RWQCB. If a CWA Section 404 permit is not required for the project, the RWQCB may still require a permit (i.e., Waste Discharge Requirement) under the Porter-Cologne Water Quality Control Act.

3.2 Activities Requiring Permitting

Any development proposal that involves impacting jurisdictional drainages, streams, and/or wetlands through filling, stockpiling, conversion to a storm drain, channelization, bank stabilization, road or utility line crossings, or any other modifications, will require permits from the ACOE, RWQCB, and the CDFG before any development can commence within the study area. Both permanent and temporary impacts are regulated and would trigger the need for these permits. Before the ACOE will issue a CWA Section 404 permit, applicants must receive a CWA Section 401 Water Quality Certification from the RWQCB. If a CWA Section 404 permit is not required for the project, the RWQCB may still require a permit (i.e., Waste Discharge Requirement) under the Porter-Cologne Water Quality Control Act. Processing of the Section 401 and 1602 permits can occur concurrently with the ACOE permit process and can utilize the same information and analysis. Applications to the CDFG and RWQCB must include a complete, certified California Environmental Quality Act (CEQA) document. A detailed discussion of the regulatory permitting process is included in Section 7.0 of this report.

4.0 METHODS

4.1 Initial Data Collection and Assessment

Prior to visiting the study area, potential and/or historic drainages and aquatic features were located based on a review of the following: USGS Lake Elsinore, California topographic quadrangle map (USGS 1953, photorevised in 1988), the Soil Survey of Western Riverside Area, California, and aerial photographs (Google Earth). The information provided by these various

sources was used to help identify the likely drainage features on the study area, the best access routes to those drainage features, and to help assess the hydrologic connectivity of on-site drainage features to downstream (off-site) "waters."

4.2 Field Delineation and Mapping: "Waters of the U.S."/"Waters of the State"

Following the initial data collection, the entire study area was evaluated and all areas that were identified as being potentially subject to the jurisdiction of the ACOE, RWQCB, and/or CDFG were field verified and mapped. Drainage features were mapped to obtain characteristic parameters and detailed descriptions using a combination of standard measurement tools and Global Positioning System (GPS) equipment. The precise location of transects, upstream and downstream extents of each feature, and sample points were collected in the field using a GPS hand-held unit. The Trimble GeoXT system is an advanced geographic data collection tool that integrates satellite differential and wide area augmentation system capabilities to provide submeter (50 cm RMS) positional accuracy on a real-time basis. Following data collection, the digital information was uploaded and incorporated within PCR's project-specific Geographic Information System (GIS) database to calculate jurisdictional acreages.

The potential for "waters of the U.S." and "waters of the State" were investigated based on the absence or presence of an OHWM, or if not clearly visible, as determined by erosion, the deposition of debris, and changes in vegetation. If any of these criteria were met, a series of transects were run to determine the extent of jurisdictional non-wetland "waters of the U.S." Identified non-wetland "waters of the U.S." were traversed within or along the channel, and the OHWM was measured. Where channels diverged to form low, intermediate areas between the channels, the entire area between the outermost edge of each channel was considered within the OHWM. Where the intermediate area was equal to or above the height of the uppermost bank of either channel, the OHWM was recorded individually for each channel. The CDFG jurisdiction was defined to the bank of the stream/channels or to the limit of the adjacent riparian vegetation, whichever is greater.

4.3 Field Delineation and Mapping: Wetlands

ACOE jurisdictional wetlands were delineated using a routine determination according to the methods outlined in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplemental to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (Environmental Laboratory 2008) based on hydrologic and edaphic features of the study area and on the vegetation community composition of each area being investigated. In areas where jurisdictional wetlands were suspected, data on vegetation, hydrology, and soils was collected along transects as described below.

4.3.1 Vegetation

Aerial cover of vegetation was estimated along each transect by estimating coverage in two randomly placed circular plots. Tree cover was estimated using 30-foot radius circular plots; sapling, shrub, and forb cover was estimated using 10-foot radius plots. Plant species in each stratum were ranked according to their dominance. Species that contributed to a cumulative total of 50 percent of the total dominant coverage plus any species that comprised at least 20 percent of the total dominant coverage were recorded on the wetland data sheets. The wetland indicator status was assigned to each species using the Region 0 List of Plant Species that Occur in Wetlands, as shown in Table 1, *Summary of Wetland Indicator Status*, on page 11. If greater than 50 percent of the dominant species from all strata were Obligate, Facultative-wetland, or Facultative species, the criteria for wetland vegetation was considered to have been met.

4.3.2 Hydrology

The presence of wetland hydrology was evaluated at each transect by recording the extent of observed surface flows, depth of inundation, depth to saturated soils, and depth to free water in the soil pits. In addition, indicators of wetland or riverine hydrology were recorded, including water marks, drift lines, rack, debris, and sediment deposits. The lateral extent of the hydrology indicators was used as a guide for locating soil pits for evaluation of hydric soils. In portions of the stream where the flow was divided between multiple channels with intermediate sand bars, the entire area between the outermost edges of each channel was considered within the OHWM and the wetland hydrology indicator was considered met for the entire area, assuming surface water was present.

4.3.3 Soils

If the criteria for wetland vegetation and hydrology were met, an excavation of the soils was conducted to determine if the soils were hydric. Soil pits were dug to a depth of 20 inches. In areas of recent deposition of sand or other overburden material, the soil pit was dug to a depth of 20 inches below the depth of the overburden material. At each soil pit the soil texture and color were recorded by comparison with standard plates within a Munsell soil color chart. Any hydric soils, as defined in the *Field Indicators of Hydric Soils in the United State* [Natural Resources Conservation Services (NRCS) 2006] or indicators of hydric soils were also recorded. The limits of wetland hydrology indicators were used as a guide for locating soil pits.

4.4 Significant Nexus Determination

Upon completion of the initial data collection and analysis and the field delineation and mapping, the on-site drainage features were evaluated to determine if a significant nexus is likely

Table 1

Summary of Wetland Indicator Status

Category		Probability
Obligate Wetland	(OBL)	Almost always occur in wetlands (estimated probability of >99%)
Facultative Wetland	(FACW)	Usually occur in wetlands (estimated probability of 67 to 99%)
Facultative	(FAC)	Equally likely to occur in wetlands/non-wetlands (estimated probability of 34 to 66%)
Facultative Upland	(FACU)	Usually occur in non-wetlands (estimated probability 67 to 99%)
Obligate Upland	(UPL)	Almost always occur in non-wetlands (estimated probability >99%)
Non-Indicator	(NI)	No indicator status has been assigned

Source: Reed, 1988.

to exist between each individual drainage feature delineated on the study area and a TNW located downstream and off-site from the study area. Lake Elsinore is the closest downstream TNW for the erosional features identified on the study area. Information collected for the significant nexus determination is used to help complete the *Approved Jurisdictional Determination Form* found in Appendix A and is provided to assist the ACOE in making the final jurisdictional determination.

5.0 RESULTS

The study area was investigated to determine the presence and the extent of all ACOE, RWQCB, and/or CDFG jurisdictional features. Two small erosional features, which are labeled Drainage Feature 1 (DF1), and Drainage Feature 2 (DF2), and a portion of one small, intermittent drainage feature (i.e., it's hydrology is augmented by periodic flows from adjacent man-made sources), which is labeled Drainage Feature 3 (DF3), were delineated on the study area's western lot. See Table 2, *Jurisdictional Drainage Features,* on page 12 for a full breakdown drainage features, and Figure 4, *Jurisdictional Resources Map,* on page 13 for the location and extent of drainage features. The features are tributary to Lake Elsinore (the lake), the nearest downstream TNW. DF1 and DF2 are indirectly connected to the lake, while DF3 is a direct tributary. As noted in Section 2.0, jurisdiction associated with the lake is derived from a pre-determined elevation and therefore a field delineation of the edge of the lake is not included within this report.

In addition, nine seasonal ponds were identified during wet season presence/absence surveys which were conducted for fairy shrimp (*Branchinecta* spp. and *Streptocephalus* spp.) in December 2008 through March 2009; however, these seasonal ponds were not determined to be jurisdictional during the December 24, 2008 delineation due to their ephemeral nature, lack of any channelized flows, and lack of wetland soils, but are included within this report for

Table 2

Jurisdictional Drainage Features

		Width (feet)			Area (acres)			
Name	**Length (feet)**	**ACOE/ RWQCB**	**Wetlands**	**CDFG**	**ACOE/ RWQCB**	**Wetlands**	**CDFG**	**Nature**
Drainage Feature 1	217.2	NA/1-4	NA	2-20	0.01	NA	0.10	Ephemeral
Drainage Feature 2	514.3	NA/1-3	NA	4-8	0.02	NA	0.11	Ephemeral
Drainage Feature 3	202.0	2-3/2-3	2-3	25	0.03	0.02[a]	0.23	Intermittent
TOTALS	**933.5**	-	-	-	0.03/0.06	0.02	0.44	

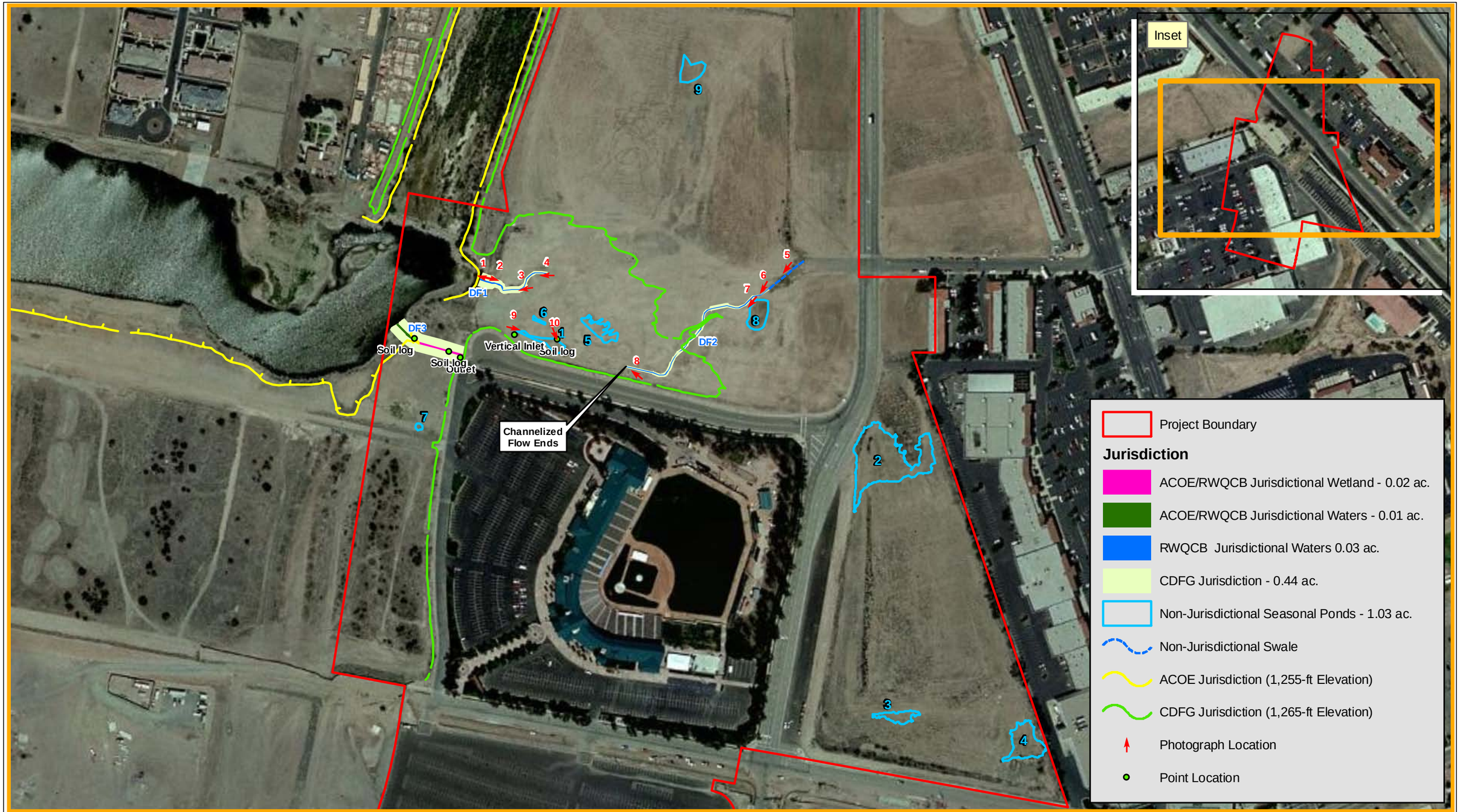
Footnotes:
[a] *Jurisdictional wetlands are a subset of ACOE/RWQCB jurisdictional area and the two are not additive.*
Source: PCR Services Corporation, 2009.

thoroughness. The seasonal ponds are shown on Figure 4, *Jurisdictional Resources Map*. Refer to Table 3, *Seasonal Ponds*, on page 14 for a summary of the areas of each of the ponds.

Drainage Feature 1 is a small erosional gully that has eroded the sandy soils occurring on the study area as stormwater runoff collects and flows towards the back basin of the lake. At its deepest, the gully is approximately five feet deep and its outer banks are 20 feet in width. The gully gradually becomes more shallow and narrow upstream until it disappears completely. The gully's channel terminates abruptly at the boulder riprap that lines the slopes surrounding the lake. It is reasonable to assume the flows from DF1 continue to percolate through the riprap and flow into the back basin. The back basin area of the lake is located approximately 100 to 200 feet west of the study area at a distinctly lower elevation. See Figure 5, *Site Photographs*, on page 15 for photographs of DF1.

DF1 delineated within the study area totals 217.2 linear feet of streambed. The delineated jurisdictional area within DF1 totals 0.01 acre of RWQCB jurisdictional "waters of the State," and 0.10 acre of CDFG jurisdictional streambed.

Drainage Feature 2 is an ephemeral channel supported by runoff from the surrounded paved streets collected in surface gutters and discharged onto the study area. These flows have formed a moderately well defined channel as the western lot slopes downward from Diamond Drive. However, the channel quickly dissipates as this slope levels off in the middle of the lot. This non-channelized flow continues westward, supporting a small seasonal pool (SP1) on the western side of the lot where it is collected in a vertical inlet culvert and subsequently discharged into the back basin through Drainage Feature 3. Although the channelized flow of DF2 terminates approximately 300 to 400 feet from the lake, a hydrologic connection to the lake is



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250 0 250 Feet

Source: Aerial Express, 2008; PCR Services Corporation, 2009.

Figure 4
The Diamond Specific Plan
Jurisdictional Resources Map

Table 3

Seasonal Ponds

Name	Area (acres)
SP1	0.046
SP2	0.540
SP3	0.055
SP4	0.157
SP5	0.066
SP6	0.005
SP7	0.006
SP8	0.084
SP9	0.070
Total	**1.029**

Source: PCR Services Corporation, 2009.

assumed due to the gradient of the study area, the vertical inlet culvert located down gradient from the channel which discharges into the lake, and the presence of a seasonal pool (SP1) in between. See Figure 6, *Site Photographs*, on page 16, and Figure 7, *Site Photographs*, on page 17 for photographs of DF2.

DF2 delineated within the study area totals 514.3 linear feet of streambed. The delineated jurisdictional area within the DF2 totals 0.02 acre of RWQCB jurisdictional "waters of the State," and 0.11 acre of CDFG jurisdictional streambed.

Drainage Feature 3 is a constructed, intermittent stormwater channel that originates at the discharge of a concrete culvert. The hydrology supporting DF3 includes the collected surface flows discharged by DF2 during sufficiently large storm events, as well as nuisance runoff from adjacent man-made sources (i.e., adjacent landscape and lawn irrigation and seasonal stormwater runoff from adjacent paved streets and a large parking lot). DF3 is vegetated by a variety of upland, facultative, and wetland indicator plant species, including sparse tamarisk (*Tamarix ramosissima*), mule fat, and black mustard and due to the augmented hydrology provided by irrigation runoff, the feature supports a very small, 0.02-acre, wetland system within its bed. See Figure 7, *Site Photographs*, for a photograph of DF3.

DF3 delineated within the study area totals 202.0 linear feet of streambed. The delineated jurisdictional area within the DF3 totals 0.03 acre of ACOE/RWQCB jurisdictional "waters of the U.S."/"waters of the State," of which 0.02 acre is wetland, and 0.23 acre of CDFG jurisdictional streambed.

Photograph 1: Looking downstream at end of Drainage Feature 1. Note: Gully ends at riprap.

Photograph 2: Looking upstream at Drainage Feature 1 from downstream-most location.

Photograph 3: Looking downstream from approximate middle of Drainage Feature 1.

Photograph 4: Looking downstream from upper end of Drainage Feature 1.

PCR

Figure 5
The Diamond Specific Plan
Site Photographs

Source: PCR Services Corporation, 2009.

Photograph 5: Looking downstream along Drainage Feature 2. No clear channel evident.

Photograph 6: Looking downstream along Drainage Feature 2.

Photograph 7: Looking downstream along Drainage Feature 2. Channel more becomes more well defined.

Photograph 8: Looking west at the end of channelized flow of Drainage Feature 2. Sheet flows continues on toward ponding area.

PCR

Source: PCR Services Corporation, 2009.

Figure 6
The Diamond Specific Plan
Site Photographs

Photograph 9: Looking east from vertical inlet, across ponding area towards Drainage Feature 2 (not visible).

Photograph 10: Looking at soil log (pink flag) adjacent to ponding area.

Photograph 10: Looking east toward concrete culvert of Drainage Feature 3.

PCR

Figure 7
The Diamond Specific Plan
Site Photographs

Source: PCR Services Corporation, 2009.

DF1 and DF2 are not likely to be considered jurisdictional "waters of the U.S." under Sections 404 and 401 of the CWA. As identified in the December 2, 2008 guidance issued by the Environmental Protection Agency (EPA) and the ACOE on the *Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in Rapanos v. United States & Carabell v. United States*, "Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent or short duration flow)" are generally not jurisdictional. While both features do have hydrologic connections to the lake, DF1's connection is through diffuse flows that percolate through the riprap installed along the banks of the lake, while DF2's hydrologic connection is via diffuse overland sheet flow that collects within Seasonal Pond 1, which at sufficient depth outlets into a vertical culvert inlet which subsequently discharges into DF3. In addition, DF1 is clearly an erosional gully, scoured out by stormwater runoff with little or no channel formation. DF2 is created by street runoff, collected in storm gutters and dumped on the study area. While both features have channelized flow, this is due to erosive scour, formed by flows generated from street runoff, and/or the soft erodible soils created from the annual discing that occurs on the site. Therefore, because DF1 and DF2 are erosional features that occur within uplands, they should not be considered jurisdictional. However, both features would be considered jurisdictional "waters of the State" under the Porter Cologne Water Quality Control Act, and jurisdictional streambed under Section 1600 of the FGC. In addition, the CDFG has established a 1,265-foot msl elevational jurisdiction for the back basin of the lake. As such, both features are regulated by the RWQCB and the CDFG.

DF3 is likely a jurisdictional "water of the U.S." due to its direct connection to the lake, and more substantial (albeit augmented) hydrologic regime. While DF3 is a created stormwater channel, DF3 is a direct tributary to the lake. Further, due to the supplement water provided by nearby irrigation, the feature supports a small wetland system within its streambed. Because DF3 is a direct tributary to the lake and has an associated wetland system, a significant nexus exists between this feature and its nearest downstream TNW (e.g., the lake), and the feature is therefore jurisdictional under Sections 404 and 401 of the CWA subject to regulation by the ACOE. In addition, DF3 is also a jurisdictional "water of the State" and is subject to regulation by RWQCB and CDFG.

An area of inundation was observed on the study area's eastern lot. However, this inundation is derived from street runoff, is isolated, and is ephemeral in nature. This area contains no jurisdictional resources under either federal or state regulation.

5.1 Soil Survey Review

The *Soil Survey for Western Riverside County, California, California* was consulted, and five soil types were identified within the study area (see Figure 8, *Soils Map*, on page 19). Because of the low quality of the aerial, very little detail is visible on the study area. However, it does appear that the study area primarily undeveloped, with the exception of a small building on

SOIL TYPES

GoB	Grangeville loamy fine sand, drained, 0 to 5 percent slopes
GyA	Greenfield sandy loam, 0 to 2 percent slopes
GyC2	Greenfield sandy loam, 2 to 8 percent slopes, eroded
HcC	Hanford coarse sandy loam, 2 to 8 percent slopes
PaC2	Pachappa fine sandy loam, 2 to 8 percent slopes, eroded
RaB2	Ramona sandy loam, 2 to 5 percent slopes, eroded
SsD	Soboba stony loamy sand, 2 to 15 percent slopes
Wa	Waukena loamy fine sand, saline-alkali

Project Boundary

PCR

N

0 800 1600 Feet

Source: Soil Survey, Western Riverside County, California, USDA, 1971.

Figure 8
The Diamond Specific Plan
Soils Map

its eastern boundary and a dirt road that bisects the western lot. Several roads are visible in their current locations throughout the area. The San Jacinto River is apparent, however the lake's back basin has not yet been created and the river's flow path continues well south of its current inflow into the lake. In place of the back basin, the area appears to be occupied by agricultural fields. Brief descriptions of each soil unit mapped on the study area are presented below.

- **Grangeville loamy fine sand, drained, 0 to 5 percent slopes (GoB)**: This moderately well drained soil series is formed in alluvium derived from granite. It occurs on alluvial fans and floodplains with elevations ranging from 600 to 3,500 feet. This soil has moderately rapid permeability, with an available water holding capacity of 5.0 to 7.5 inches. Depth to the water table is from 20 to 48 inches. Runoff is slow and the hazard of erosion is slight. Minor components within this soil mapping include Dello loamy sand, and Traver fine sandy loam.

- **Greenfield sandy loam, 0 to 2 percent slopes (GyA)**: This well drained soil series is formed in alluvium derived from granite. It occurs on alluvial fans and floodplains with elevations ranging from 600 to 1,800 feet. This soil has moderate permeability, with an available water holding capacity of 7.5 to 10 inches. The root zone is more then 60 inches deep. Runoff is slow and the hazard of erosion is slight. Minor components within this soil mapping include Hanford, Pachappa, Arlington, and Ramona soils.

- **Greenfield sandy loam, 2 to 8 percent slopes, erode (GyC2)**: This well drained soil series is formed in alluvium derived from granite. It occurs on alluvial fans and terraces with elevations ranging from 600 to 1,800 feet. This soil has moderate permeability, with an available water holding capacity of 7.5 to 10 inches. The root zone is more than 60 inches deep. Runoff is slow to medium and the hazard of erosion is slight to moderate. Minor components within this soil mapping include Hanford, Pachappa, Arlington, and Ramona soils.

- **Hanford coarse sandy loam, 2 to 8 percent slopes (HcC)**: This well drained soil series is formed in alluvium derived from granite. It occurs on alluvial fans with elevations ranging from 700 to 2,500 feet. This soil has moderately rapid permeability, with an available water holding capacity of 5.0 to 7.5 inches. The root zone is more then 60 inches deep. Runoff is slow to medium and the hazard of erosion is slight to moderate. Minor components within this soil mapping include Tujunga, Greenfield, and Ramona soils.

- **PaC2 Pachappa fine sandy loam, 2 to 8 percent slopes, eroded (PaC2)**: This well drained soil series is formed in alluvium derived from granite. It occurs on alluvial fans with elevations ranging from 600 to 1,700 feet. This soil has moderate permeability, with an available water holding capacity of 7.5 to 10 inches. The root

zone is more then 60 inches deep. Runoff is medium and the hazard of erosion is moderate. Minor components within this soil mapping include Hanford, Greenfield, and San Emigdio soils.

- **Ramona sandy loam 2 to 5 percent slopes eroded (RaB2)**: This well drained soil series is formed in alluvium derived from granite. It occurs on alluvial fans and terraces with elevations ranging from 500 to 3,500 feet. This soil has moderately slow permeability, with an available water holding capacity of 8.5 to 9.5 inches. The root zone is more then 60 inches deep. Runoff is medium and the hazard of erosion is moderate. Minor components within this soil mapping include Tujunga, Hanford, Greenfield, Arlington, Buren, Placentia, and Monserate soils.

- **Soboba stony loamy sand, 2 to 15 percent slopes (SsD)**: This excessively well drained soil series is formed in alluvium predominately derived from very gravelly, very cobbly, or stony granitic materials. It occurs on alluvial fans and talus slopes with elevations ranging from 900 to 2,500 feet. This soil has very rapid permeability, with an available water holding capacity of 2.5 to 3.5 inches. The root zone is more then 60 inches deep. Runoff is slight and the hazard of erosion is slight. Minor components within this soil mapping include Tujunga and Hanford soils.

- **Waukena loamy fine sand, saline-alkali (Wa** This moderately well drained soil series is formed in alluvium derived from granite. It occurs in basins and floodplains with elevations ranging from 600 to 1,800 feet. This soil is moderately saline-alkali. This soil has moderately rapid permeability, with an available water holding capacity of 6.5 to 9.5 inches. The root zone is more then 60 inches deep. Runoff is very slow and the hazard of erosion is moderate. Minor components within this soil mapping include unnamed gravelly loamy sand.

5.2 Topographic Map Review

The USGS 7.5-minute Lake Elsinore, California topographic map was utilized to identify natural as well as man-made features occurring on the study area and in its vicinity. The Lake Elsinore, California map is based on a aerial photograph, taken in 1951 and created in 1953, and photo-revised in 1988 (Figure 2, *Vicinity Map*). The study area is generally undeveloped, and is bisected by a dirt road (that later becomes Diamond Drive). Aside from that dirt road no development appears on the study area. The only other feature that is mapped on the study area is a small depression located on the western side of the western lot. No blue line stream or any other aquatic feature is mapped on the study area.

5.3 Aerial Photograph Review

Research into the natural drainage patterns and land use of the study area included a review of available aerial photographs. Google Earth imagery from approximately 2007 was reviewed to analyze the study area and its vicinity. The overall conditions observed in the aerial photography appear consistent with the general site conditions observed during the field investigation. Land use practices on the study area do not appear to have significantly changed over the past several of years. In addition, the land uses present on and in the vicinity the study area are also consistent with conditions witnessed during the field investigation.

5.4 Significant Nexus

The determination of a significant nexus evaluates various characteristics of the delineated drainage feature, both on- and off-site to identify if that feature will effect the physical, chemical, or biological integrity of the jurisdictional "waters" downstream (i.e., TNW). These characteristics are outlined within the guidance documents. A significant nexus determination is necessary to establish jurisdiction for non-TNW non-RPW waters. In addition, Appendix A, *Approved Jurisdictional Delineation Form*, includes information on both the characteristics as well as other factors utilized to complete the significant nexus determination. This information is provided to assist the ACOE in the review of this jurisdictional delineation and in issuing the Final Jurisdictional Determination of the drainage feature delineated on the study area. If necessary, electronic, tabular versions of this information are available upon request.

6.0 SUMMARY AND CONCLUSIONS

Three small, ephemeral drainage features have been identified on the approximately 87-acre Diamond Specific Plan study area. Two of these features are potentially jurisdictional under California FGC 1600 et seq., the 1,265-foot msl elevational jurisdiction established for the back basin by the CDFG, and the Porter-Cologne Water Quality Control Act (Water Code § 13050 (e)). However, because these two features characterized as small upland erosional features, which carry little flow volume they are likely not jurisdictional under Sections 404 and 401 of the CWA, although a final Jurisdictional Determination must be completed by the ACOE. The third feature is likely jurisdictional under both Federal (CWA) and State jurisdiction.

Combined, these features total 0.03 acre of ACOE/RWQCB jurisdictional "waters of the U.S."/"waters of the State," of which 0.02 are wetlands, 0.03 acre of RWQCB jurisdictional "waters of the State," and 0.44 acre of CDFG jurisdictional streambed. Please note that ACOE and RWQCB acreages are included within the total CDFG jurisdictional area, and the different areas are not additive.

DF1 and DF2 are characterized as having ephemeral flows, meaning they carry flows only during and immediately following storm events and are typically only supported by precipitation and associated stormwater runoff. DF3 is characterized as having intermittent hydrology and flows for more prolonged periods throughout the year.

The following, Section 7.0, is a detailed discussion of the current State and Federal regulations that govern the various aquatic resources within the study area.

7.0 REGULATIONS

Any impacts to jurisdictional waters on the study area would require permits from the CDFG, and the RWQCB. Note: ACOE must concur that no jurisdictional area occurs on the study area.

This discussion concentrates on the State permitting process due to a lack of federal jurisdiction on the study area. In the event that the ACOE asserts jurisdiction on the delineated resources on the study area, information addressing the federal permitting process will be provided.

Porter-Cologne Water Quality Control Act

Under authorities granted by State law a RWQCB may choose to regulate discharges of dredge or fill materials by issuing or waiving (with or without conditions) Waste Discharge Requirements, a type of State discharge permit, instead of taking a 401 Water Quality Certification action, in the event that federal jurisdiction existed on the study area. Processing of a WDR is similar to that of a Section 401 certification; however, the RWQCB has slightly more discretion to add conditions to a project under the Porter-Cologne Act than under the CWA.

1602 Agreement

Section 1603 of the California Fish and Game Code requires any person who proposes a project that will substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake or use materials from a streambed to notify the CDFG before beginning the project. Similarly, under Section 1601 of the Fish and Game Code, before any State or local governmental agency or public utility begins a construction project that will: (1) divert, obstruct, or change the natural flow or the bed, channel, or bank of any river, stream, or lake; (2) use materials from a streambed; or (3) result in the disposal or deposition of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into any river, stream, or lake, it must first notify the CDFG of the proposed project.

Notification is generally required for any project that will take place in or in the vicinity of a river, stream, lake, or their tributaries. This includes rivers or streams that flow at least periodically or permanently through a bed or channel with banks that support fish or other aquatic life and watercourses having a surface or subsurface flow that support or have supported riparian vegetation. Based on the notification materials you submit to the CDFG and, if necessary, an investigation of the project site by the CDFG, the CDFG will determine if your proposed project may impact fish or wildlife resources.

If the CDFG determines that a proposed project may substantially adversely affect existing fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. A completed CEQA document must be submitted to the CDFG before they will issue a Streambed Alteration Agreement. Within 30 days of receipt of a complete notification package, the CDFG will propose measures necessary to protect the fish or wildlife that your project could affect. These measures may be the same as any that have been included as part of the project and/or measures proposed by the CDFG. The applicant has 14 days after receiving the CDFG's proposed measures to notify it in writing whether they accept them, unless this time period is extended by mutual agreement. If the measures are acceptable, the Streambed Alteration Agreement will be issued. If the measures are not acceptable, the applicant may request a meeting with the CDFG within seven (7) days from the date the CDFG receives the response or by some other mutually agreed upon date for the purpose of developing measures that are acceptable to both the applicant and the CDFG. If an agreement is not reached with the CDFG on acceptable protection measures, an arbitration panel will be established to resolve any disagreements. If a panel is requested, it must be established within 7 days of the meeting with the CDFG. The arbitration panel will be composed of a representative from the CDFG, the applicant, and a mutually agreed upon third person who will act as the panel chair. The panel must complete the arbitration within 14 days from the date the panel is established unless a time extension is mutually agreed upon. The CDFG, the applicant, or any party affected by a panel decision may appeal the decision to the court to confirm, correct, or vacate the decision in accordance with Section 1285 et seq., of the Code of Civil Procedure.

Once the applicant and the CDFG accept or agree on measures necessary to protect fish or wildlife resources, the CDFG will incorporate these measures into a draft Lake or Streambed Alteration Agreement for review and signature.

8.0 REFERENCES

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APPENDIX A: APPROVED JURISDICTIONAL DELINEATION FORM

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: CA County/parish/borough: Riverside City: Lake Elsinore
Center coordinates of site (lat/long in degree decimal format): Lat. 33.656 ° **N**, Long. 117.301° **W**.
Universal Transverse Mercator: . UTM Zone 11 (X, Y) 472010, 3724158
Name of nearest waterbody: Lake Elsinore
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Lake Elsinore
Name of watershed or Hydrologic Unit Code (HUC): San Jacinto (18070202)

- ☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
- ☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

- ☐ Office (Desk) Determination. Date:
- ☐ Field Determination. Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]

- ☐ Waters subject to the ebb and flow of the tide.
- ☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
   - ☐ TNWs, including territorial seas
   - ☒ Wetlands adjacent to TNWs
   - ☐ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
   - ☐ Non-RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
   - ☐ Impoundments of jurisdictional waters
   - ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
   Non-wetland waters: 202 linear feet: width (ft) and/or acres.
   Wetlands: 0.02 acres.

   c. **Limits (boundaries) of jurisdiction** based on: **1987 Delineation Manual**
   Elevation of established OHWM (if known): .

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   - ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **The two drainage features (DF1 and DF2) are both erosion features (created by ephemeral road runoff) within upland areas**.

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[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW
Identify TNW: .

Summarize rationale supporting determination: .

2. Wetland adjacent to TNW
Summarize rationale supporting conclusion that wetland is "adjacent": .

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:
Watershed size: 759.1 **square miles**
Drainage area: Approx. 25 **acres**
Average annual rainfall: 14-16 inches
Average annual snowfall: NA inches

(ii) Physical Characteristics:
(a) Relationship with TNW:
☒ Tributary flows directly into TNW.
☐ Tributary flows through **Pick List** tributaries before entering TNW.

Project waters are **1 (or less)** river miles from TNW.
Project waters are **1 (or less)** river miles from RPW.
Project waters are **1 (or less)** aerial (straight) miles from TNW.
Project waters are **1 (or less)** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: .

Identify flow route to TNW[5]: DF3 to Lake Elsinore.
Tributary stream order, if known: 1st Order.

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[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

Tributary is:
- ☐ Natural
- ☒ Artificial (man-made). Explain: Constructed stormwater channel.
- ☐ Manipulated (man-altered). Explain: .

Tributary properties with respect to top of bank (estimate):
Average width: 2 feet
Average depth: 0.5 feet
Average side slopes: **3:1 .**

Primary tributary substrate composition (check all that apply):

☒ Silts	☒ Sands	☐ Concrete
☐ Cobbles	☒ Gravel	☐ Muck
☐ Bedrock	☐ Vegetation. Type/% cover:	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Stable, seasonaly vegetated.
Presence of run/riffle/pool complexes. Explain: NA.
Tributary geometry: **Relatively straight**
Tributary gradient (approximate average slope): 1 %

(c) Flow:
Tributary provides for: **Intermittent but not seasonal flow**
Estimate average number of flow events in review area/year: **20 (or greater)**
Describe flow regime: Artificially augmented by nearby irrigation runoff.
Other information on duration and volume: .

Surface flow is: **Confined.** Characteristics: .

Subsurface flow: **Unknown**. Explain findings: .
☐ Dye (or other) test performed: .

Tributary has (check all that apply):
- ☐ Bed and banks
- ☒ OHWM[6] (check all indicators that apply):

☐ clear, natural line impressed on the bank	☐ the presence of litter and debris
☒ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ the presence of wrack line
☒ vegetation matted down, bent, or absent	☒ sediment sorting
☒ leaf litter disturbed or washed away	☒ scour
☒ sediment deposition	☐ multiple observed or predicted flow events
☐ water staining	☒ abrupt change in plant community
☐ other (list):	

- ☐ Discontinuous OHWM.[7] Explain: .

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☐ High Tide Line indicated by:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;
☐ physical markings/characteristics	☐ vegetation lines/changes in vegetation types.
☐ tidal gauges	
☐ other (list):	

(iii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: Clear water, primary source is landscape irrigation.
Identify specific pollutants, if known: Unknon - pollutants expected include fertilizers and possibly pesticides. Also seasonal inflow of street runoff expected.

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[6] A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7] Ibid.

(iv) Biological Characteristics. Channel supports (check all that apply):

☐ Riparian corridor. Characteristics (type, average width): .
☐ Wetland fringe. Characteristics: .
☐ Habitat for:
  ☐ Federally Listed species. Explain findings: .
  ☐ Fish/spawn areas. Explain findings: .
  ☐ Other environmentally-sensitive species. Explain findings: .
  ☐ Aquatic/wildlife diversity. Explain findings: .

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:
Properties:
Wetland size: 0.02 acres
Wetland type. Explain: Emergent Marsh.
Wetland quality. Explain:Poor. Wetlands occur within constructed stormdrain, supported by irrigation runoff.
Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:
Flow is: **Intermittent flow**. Explain: .

Surface flow is**: Discrete**
Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .
☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:
☒ Directly abutting
☐ Not directly abutting
  ☐ Discrete wetland hydrologic connection. Explain: .
  ☐ Ecological connection. Explain: .
  ☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW
Project wetlands are **1 (or less)** river miles from TNW.
Project waters are **1 (or less)** aerial (straight) miles from TNW.
Flow is from: **Wetland to navigable waters.**
Estimate approximate location of wetland as within the **2 - 5-year** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: .
Identify specific pollutants, if known: .

(iii) Biological Characteristics. Wetland supports (check all that apply):

☐ Riparian buffer. Characteristics (type, average width): .
☐ Vegetation type/percent cover. Explain: .
☐ Habitat for:
  ☐ Federally Listed species. Explain findings: .
  ☐ Fish/spawn areas. Explain findings: .
  ☐ Other environmentally-sensitive species. Explain findings: .
  ☐ Aquatic/wildlife diversity. Explain findings: .

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **Pick List**
Approximately (0.02) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
Yes	0.02		

Summarize overall biological, chemical and physical functions being performed: Sediment traping, nutrient removal, carbon source, pollutant trapping, flow velocity reduction.

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: .

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
   - ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: .

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: **.**

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: **.**

☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**
☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. **Impoundments of jurisdictional waters.[9]**
As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]
☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

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[8] See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
[10] Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.*

Identify water body and summarize rationale supporting determination: .

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .
☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):
☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☒ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):
☒ Non-wetland waters (i.e., rivers, streams): **731** linear feet, **1-3** width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
☐ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
☐ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps: .
☐ Corps navigable waters' study: .
☐ U.S. Geological Survey Hydrologic Atlas: .
☐ USGS NHD data.
☐ USGS 8 and 12 digit HUC maps.
☐ U.S. Geological Survey map(s). Cite scale & quad name: .
☐ USDA Natural Resources Conservation Service Soil Survey. Citation: .
☐ National wetlands inventory map(s). Cite name: .
☐ State/Local wetland inventory map(s): .
☐ FEMA/FIRM maps: .
☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
☐ Photographs: ☐ Aerial (Name & Date): .
or ☐ Other (Name & Date): .
☐ Previous determination(s). File no. and date of response letter: .
☐ Applicable/supporting case law: .
☐ Applicable/supporting scientific literature: .
☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: .

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