

MEMORANDUM

GLENN LUKOS ASSOCIATES

Regulatory Services



PROJECT NUMBER: 0163-83PANK
TO: Bobbi Herdes
COMPANY: RECON
ADDRESS: 1927 Fifth Avenue
San Diego, California 92101
FROM: Darlene A. Shelley
DATE: June 12, 2009
SUBJECT: Meadowood Project, Fallbrook, San Diego County, CA

We recently received the revised boundaries for the Meadowood Project due to the various refinements of the project with the County of San Diego.

The attached tables reflect the revised impact numbers associated with U. S. Army Corps of Engineers Jurisdiction, California Department of Fish and Game, and the County of San Diego, based on the attached exhibit depicting the revised project footprint.

Additionally, in order to be consistent with all of the documents submitted to the County, we have moved the extension of Horse Ranch Creek Road [from the new alignment of SR-76, across Campus and a small drainage to the third segment of the road to the north] to the offsite table as reflected in the Draft Environmental Impact Report, the Biological Technical Report, and the Biological Assessment.

The onsite impacts for the Corps have been reduced from 0.95 acre to 0.83 acre. CDFG jurisdiction has been reduced from 1.05 acre to 0.93 acre, and County wetland jurisdiction remains the same.

On-Site Impacts to Corps Jurisdiction

Drainage Number	Total Corps Jurisdiction (in square feet)	Total Impacts to Corps Jurisdictional Waters (in square feet)	Total Linear Feet of Drainage (in feet)	Total Impacts to Linear Feet of Drainage (in feet)
Drainage 1 and its Tributaries	2,893	2,132	2,323	1559
Drainage 2 and its Tributaries	3,607	2,342	3,051	1,845
Drainage 3 and its Tributaries	3,488	2,361	1,776	796
Drainage 4 and its Tributaries	32,547	29,130	9,237	6,979
Drainage 5 and its Tributaries	2,572	0	3,141	3,141
Drainage 6 and its Tributary	433	0	405	405
Drainage 8 and its Tributary	247	0	246	0
Drainage 9 and its Tributary	681	0	340	0
Drainage 10 and its Tributary	2,698	0	1,890	0
Drainage 12	765	0	765	0
Total	49,931 (1.15 acre)	35,965 (0.83 acre)	23,174	14,725

Off-Site Impacts to Corps Jurisdiction

Drainage Number	Total Corps Jurisdiction (in square feet)	Temporary Impacts to Non-Wetland Corps Jurisdiction (in square feet)	Temporary Impacts to Wetland Corps Jurisdiction (in square feet)	Permanent Impacts to Wetland Corps Jurisdiction (in square feet)	Linear Feet of Drainage On Site (in feet)	Linear Foot Impacts On Site (in feet)
Horse Ranch Creek Road: Northern Campus Park Boundary to Stewart Canyon Rd.	112	112	0	0	56	56
Horse Ranch Creek Road: New SR 76 Alignment to Campus Property	6,720	1,680	0	5,040	160	160
Horse Ranch Creek Road: Old to New SR 76 Alignment	0	0	0	0	0	0
Pala Mesa Drive Including Street R: Horse Ranch Creek Road to U.S. Highway 395	189,100	0	87,120	94,960	2,350	2,350
Pala Mesa Heights Drive: Horse Ranch	0	0	0	0	0	0

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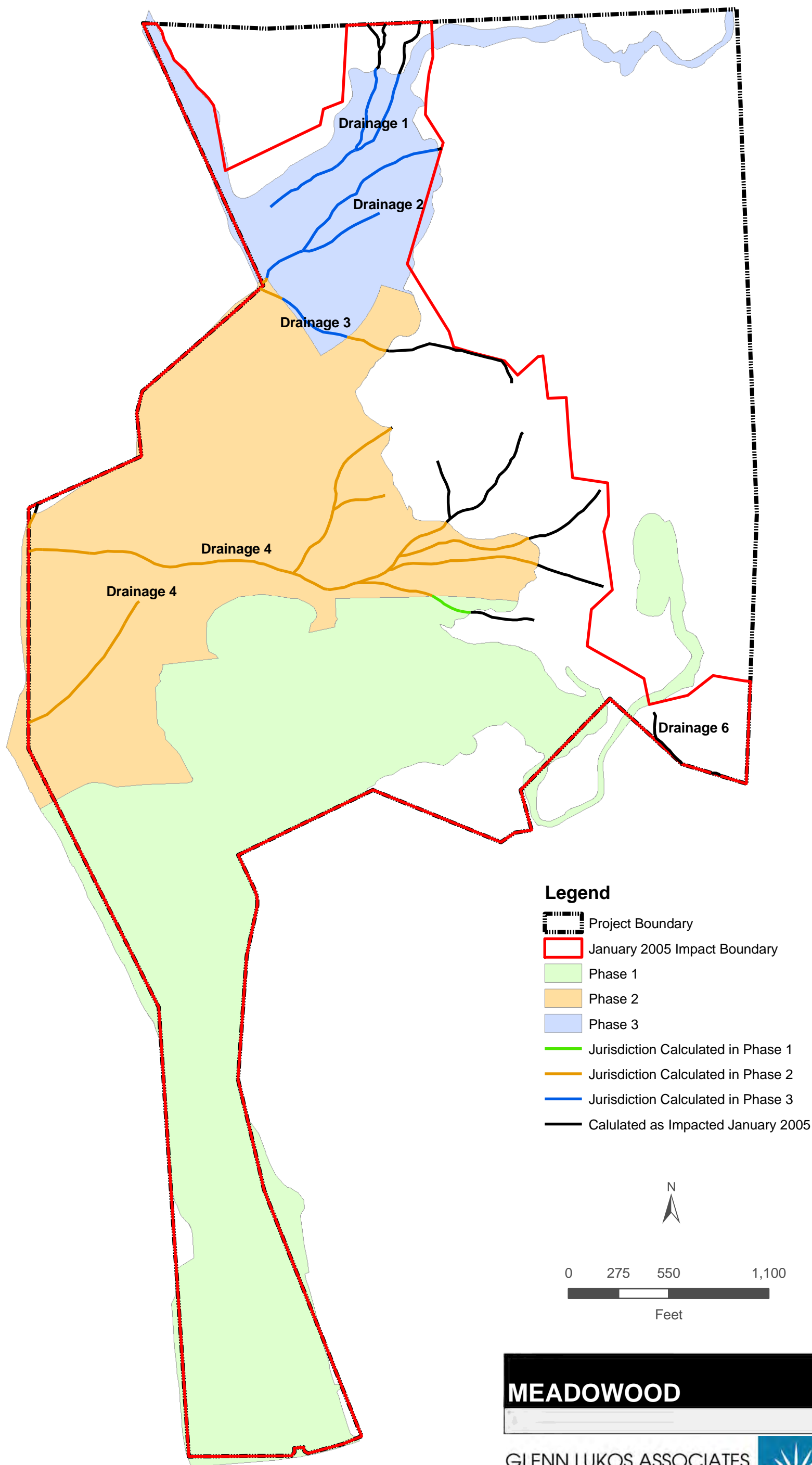
Drainage Number	Total Corps Jurisdic tion (in square feet)	Temporary Impacts to Non-Wetland Corps Jurisdiction (in square feet)	Temporary Impacts to Wetland Corps Jurisdiction (in square feet)	Permanent Impacts to Wetland Corps Jurisdiction (in square feet)	Linear Feet of Drainage On Site (in feet)	Linear Foot Impacts On Site (in feet)
Creek Road to Meadowood Boundary						
WWTP and its Associated Wet storage ponds	0	0	0	0	0	0
Total	189,212 (4.34 acres)	1792 (0.04 acre)	87,120 (2.0) acres)	100,000 (2.29 acres)	2,566	2,566

**Total CDFG Jurisdiction, Impacts to CDFG Jurisdiction, and Total Impacts to Linear Feet
of Jurisdiction On Site**

Drainage Number	Total CDFG Jurisdiction (in square feet)	Total Impacts to CDFG Jurisdiction (in square feet)	Total Linear Feet of Drainage (in feet)	Total Impacts to Linear Feet of Drainage (in feet)
Drainage 1 and its Tributaries	2,893	2,132	2,323	1,559
Drainage 2 and its Tributaries	3,607	2,342	3,051	1845
Drainage 3 and its Tributaries	3,488	2361	1,776	796
Drainage 4 and its Tributaries	31,485	28,068	9,237	6,979
Drainage 5 and its Tributaries	5,215	5,215	3,141	3,141
Drainage 6 and its Tributary	500	500	405	405
Drainage 8 and its Tributary	249	0	246	0
Drainage 9 and its Tributary	17,975	0	340	0
Drainage 10 and its Tributary	2,698	0	1,890	0
Drainage 12	765	0	764	0
Total	68,875 (1.58 acre)	40,618 (0.93 acre)	22,933	14,725

Total CDFG Impacts-Off Site Road Alignments and Sewer Treatment Plant Location

Drainage Number	Total CDFG Jurisdiction (in square feet)	Temporary Impacts to CDFG Unvegetated Streambed (in square feet)	Temporary Impacts to CDFG Vegetated Riparian Habitat (in square feet)	Permanent Impacts to CDFG Streambed (in square feet)	Permanent Impacts to CDFG Vegetated Riparian Habitat (in square feet)	Linear Feet of Drainage On Site (in feet)	Linear Foot Impacts On Site (in feet)
Horse Ranch Creek Road: Northern Campus Park Boundary to Stewart Cyn. Rd.	112	112	0	0	0	56	56
Horse Ranch Creek Road Extension	6,720	1,680	0	5,040	0	160	160
Horse Ranch Creek Road: Old to New SR 76 Alignment	0	0	0	0	0	0	0
Pala Mesa Rd: Horse Ranch Creek Road to U.S. Highway 395	189,100	0	87,120	0	94,960	2,350	2,350
Meadowood Residential Connection Road: Horse Ranch Creek Road to Meadowood Boundary	0	0	0	0	0	0	0
Wastewater Treatment Plant Site	0	0	0	0	0	0	0
Total	195,932 (4.50 acres)	1,792 (0.04 acre)	87,120 (2.0 acres)	5,0400 (0.11 acre)	94,960 (2.18 acres)	2,556	2,556



Legend

- Project Boundary
- January 2005 Impact Boundary
- Phase 1
- Phase 2
- Phase 3
- Jurisdiction Calculated in Phase 1
- Jurisdiction Calculated in Phase 2
- Jurisdiction Calculated in Phase 3
- Calculated as Impacted January 2005



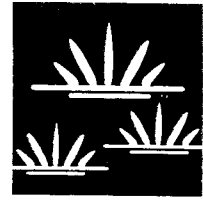
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MEADOWOOD

GLENN LUKOS ASSOCIATES

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Regulatory Services



September 22, 2006
[Revised November 5, 2007
For County of San Diego Purposes Only]

Hugh Hewitt
Hewitt & O'Neil
19900 MacArthur Boulevard
Suite 1050
Newport Beach, California 92660

SUBJECT: Revised Jurisdictional Delineation of the 400-Acre Meadowood Specific Plan Area
and the Horse Ranch Creek Road Extension Across the Campus Park Property
Located in the City of Fallbrook, San Diego County, California.

Dear Mr. Hewitt:

This revised report reflects U.S. Army Corps of Engineers (Corps) field guidance for the Meadowood Specific Plan Area as represented by Jeannette Baker on September 23, 2003 during an on site field visit to verify the preliminary jurisdictional findings noted by Glenn Lukos Associates for the above-referenced property. The Corps has not reviewed the alignment of the Pankey Road Extension.

The 400-acre Meadowood Specific Plan (Project) is located at 33°21'00" North Latitude and 117°08'30" West Longitude within Section 36, Township 9 South, Range 3 West and Section 1, Township 10 South, Range 3 West in the City of Fallbrook, San Diego County, California [Exhibit 1] and contains no blue-line drainages (as depicted on the U.S. Geological Survey (USGS) topographic map Bonsall, California [dated 1968 and photorevised in 1975]) [Exhibit 2]. On June 30 and July 1, 2003, regulatory specialists from Glenn Lukos Associates, Inc. (GLA) examined the Project site to determine the limits of (1) Corps jurisdiction pursuant to Section 404 of the Clean Water Act, (2) CDFG jurisdiction pursuant to Division 2, Chapter 6, Section 1600 of the Fish and Game Code, and County of San Diego (County) wetlands pursuant to County Ordinances 7631, 7685, 7739, and 7968. Enclosed is a 200-scale map [Exhibit 3] depicting the boundaries of Corps, CDFG, and County jurisdiction on site. Photographs

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documenting the topography, vegetative communities, and general widths of each of the waters are provided as Exhibit 4. Wetland data sheets are attached as Appendix A.

Corps jurisdiction associated with the Meadowood Specific Plan Area totals approximately 45,998 square feet (1.06 acres), of which 6,098 square feet (0.14 acre) consist of jurisdictional wetlands. Corps isolated waters pursuant to the January 9, 2001 U.S. Supreme Court case titled *Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al.* (SWANCC) Decision total 3,993 square feet (0.09 acre), none of which consist of wetlands. All on site drainage features are ephemeral streams. Impacts to Corps jurisdictional waters within the Meadowood Specific Plan Area total 41,221 square feet (0.95 acre), of which 6,098 square feet (0.14 acre) consist of jurisdictional wetlands. Impacts to Corps isolated waters within the Meadowood Specific Plan Area total 3,005 square feet (0.07 acre), none of which consist of wetlands.

In addition, a jurisdictional delineation report was prepared by REC Consultants, Inc. (REC) for the Campus Park Property (Campus Park). GLA is utilizing this report to quantify impacts to Corps jurisdictional waters associated with the Horse Ranch Creek Road Extension (Meadowood Extension). The Meadowood Extension extends from the northwestern Project boundary onto the Campus Park Property in a northerly direction and terminates at the northern Campus Park boundary. According to REC's jurisdictional delineation, a total of 6,720 square feet (0.15 acre) of Corps jurisdiction, of which 6,400 square feet (0.14 acre) consist of jurisdictional wetlands, are present within the footprint of the Meadowood Extension on Campus Park. Of the 6,720 square feet (0.15 acre) of Corps impact associated with the Meadowood Extension, approximately 1,680 square feet (0.04 acre) of Corps jurisdiction, of which 1,600 square feet (0.04 acre) consist of jurisdictional wetlands, are temporary impacts and 5,040 square feet (0.11 acre), of which 4,800 square feet (0.11 acre) consist of jurisdictional wetlands, are permanent impacts. Linear-foot impacts consist of 120 linear feet of permanent impacts and 40 linear feet of temporary impacts.

CDFG jurisdiction associated with the Meadowood Specific Plan Area totals approximately 68,875 square feet (1.58 acres), of which 32,664 square feet (0.75 acre) consist of vegetated riparian habitat. Impacts to CDFG jurisdiction associated with the Project total approximately 45,875 square feet (1.05 acres), of which 14,829 square feet (0.34 acre) consist of vegetated riparian habitat.

As indicated above, a jurisdictional delineation report was prepared by REC for the Campus Park Property. GLA is utilizing this report to quantify impacts to CDFG jurisdiction associated with

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the Meadowood Extension. The Meadowood Extension extends from the northwestern Project boundary onto the Campus Park Property in a northerly direction and terminates at the northern Campus Park boundary. According to REC's jurisdictional delineation, impacts to CDFG jurisdiction associated with the Meadowood Extension 6,720 square feet (0.15 acre), of which 6,400 square feet (0.14 acre) consist of vegetated riparian habitat. Of the 6,720 square feet (0.15 acre) of CDFG impact associated with the Meadowood Extension, approximately 1,680 square feet (0.04 acre) of CDFG jurisdiction, of which 1600 square feet (0.04 acre) consist of vegetated riparian habitat, are temporary impacts and 5,040 square feet (0.11 acre) of CDFG jurisdiction, of which 4,800 square feet (0.11 acre) consist of vegetated riparian habitat, are permanent impacts. Linear-foot impacts consist of 120 linear feet of permanent impacts and 40 feet of temporary impacts.

County wetlands associated with the Meadowood Specific Plan Area total approximately 6,098 square feet (0.14 acre). Impacts to County wetlands associated with the Project total 6,098 square feet (0.14 acre).

According to the delineation report prepared by REC for the Campus Park Property, impacts to County wetlands associated with the Horse Ranch Creek Road Extension Project total 6,400 square feet (0.15 acre). Of the 6,400 square feet (0.15 acre), 4,800 square feet (0.11 acre) consist of permanent impacts and 1,600 square feet (0.04 acre) consist of temporary impacts.

I. METHODOLOGY

Prior to beginning the field delineation a 200-scale color aerial photograph, a 200-scale topographic base map of the property, and the previously cited USGS topographic map were examined to determine the locations of potential areas of Corps/CDFG jurisdiction. Suspected jurisdictional areas were field checked for the presence of definable channels and/or wetland vegetation, soils and hydrology. Suspected wetland habitats on the site were evaluated using the methodology set forth in the U.S. Army Corps of Engineers 1987 Wetland Delineation Manual¹ (Wetland Manual). While in the field the jurisdictional area was recorded onto a 200-scale color aerial photograph using visible landmarks. Other data were recorded onto wetland data sheets.

¹ Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, U.S. Army Engineer Waterways Experimental Station, Vicksburg, Mississippi.

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The Soil Conservation Service (SCS)² has mapped the following soil type as occurring in the general vicinity of the project site:

Arlington Coarse Sandy Loam, 2 to 9 Percent Slopes (AvC)

The Arlington series consists of moderately well drained, moderately deep coarse sandy loams underlain by weakly cemented granitic material. These soils are located on alluvial fans and have slopes of 2 to 9 percent. The upper 9 inches of consist of brown (10YR 5/3) coarse sandy loam when dry and dark brown (10YR 3/3) coarse sandy loam when moist. The Arlington soils are used mainly for range and small portions are farmed for tomatoes, flowers, and truck crops.

Fallbrook Sandy Loam, 5 to 9 Percent Slopes, Eroded (FaC2) and Fallbrook Sandy Loam, 15 to 30 Percent Slopes, Eroded (FaE2)

The Fallbrook series consists of well-drained, moderately deep-to-deep sandy loams in upland areas that have slopes of 2 to 30 percent. These soils developed or formed in material weathered in place or from granodiorite. The upper 12 inches of soil consist of brown (10YR 5/3) and reddish-brown (5YR 5/3) sandy loam when dry and dark brown (10YR 3/3) and dark reddish-brown (5YR 3/3) sandy loam when moist. The Fallbrook soils are used for avocado and citrus orchards, tomatoes, flowers, truck crops, grain, grain hay, and pasture.

Grangeville Fine Sandy Loam, 0 to 2 Percent Slopes (GoA)

The Grangeville series consists of somewhat poorly drained, very deep fine sandy loams derived from granitic alluvium. These soils are located on alluvial fans and alluvial plains and have slopes of 0 to 2 percent. The upper 11 inches of soil consist of grayish-brown (10YR 5/2) fine sandy loam when dry and dark grayish-brown (10YR 3/2) fine sandy loam when moist. The Grangeville soils are used for tomatoes, flowers, pasture, and truck crops.

Las Posas Stony Fine Sandy Loam 30 to 65 Percent Slopes (LrG), Las Posas Fine Sandy Loam, 5 to 9 Percent Slopes, Eroded (LpD2), and Las Posas Fine Sandy Loam, 15 to 30 Percent Slopes, Eroded (LpE2)

The Las Posas series consists of well-drained, moderately deep stony fine sandy loams underlain with clay subsoil. These soils formed in material weathered from basic igneous rock. These

² SCS is now known as the National Resource Conservation Service or NRCS.

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soils are located on uplands and have slopes of 2 to 65 percent. The upper 4 inches of soil consist of reddish-brown (5YR 5/3) fine stony sandy loam when dry and dark reddish-brown (10YR 3/3) fine stony sandy loam when moist. The Las Posas soils are used mainly for tomatoes, flowers, citrus, field crops, range, and watershed.

Ramona Sandy Loam, 5 to 9 Percent Slopes (RaC) and Ramona Sandy Loam, 9 to 15 Percent Slopes, Eroded (RaD2)

The Ramona series consists of well drained, very deep sandy loams underlain with a clay loam subsoil. These soils formed in granitic alluvium and are located on terraces and alluvial fans with slopes of 0 to 30 percent. The upper 12 inches of soil consist of yellowish-brown (10YR 5/4) sandy loam when dry and dark yellowish-brown (10YR 3/3) sandy loam when moist. The Ramona soils are used mainly for dry-farmed crops, citrus, truck crops, tomatoes, flowers, pasture, range, and housing development.

Steep Gullied Land (StG)

Steep gullied land consists of strongly sloping to steep areas that are actively eroding into old alluvium or decomposed rock. These occur as large individual gullies or as a network of many gullies in areas where the vegetative cover is sparse or has been severely depleted by grazing or fires.

Tujunga Sand, 0 to 5 Percent Slopes (TuB)

The Tujunga series consists of very deep, excessively drained, sands derived from granitic alluvium. These soils are located on alluvial fans and floodplains and support slopes of 0 to 9 percent. The upper 14 inches of consist of brown (10YR 5/3) sand when dry and dark grayish-brown (10YR 4/2) sand when moist. The Tujunga soils are used mainly for range and golf courses and a few small areas are used for avocados, flowers, and truck crops.

Visalia Sandy Loam, 0 to 2 Percent Slopes (VaA)

The Visalia series consists of moderately well drained, very deep sandy loams derived from granitic alluvium. These soils are located on alluvial fans and flood plains and have slopes of 0 to 15 percent. The upper 12 inches of soil consist of dark grayish-brown (10YR 4/2) sandy loam when dry and very dark grayish-brown (10YR 2/2) sandy loam when moist. The Visalia soils are

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used mainly for avocados, citrus, walnut orchards, truck crops, irrigated pasture, field crops, tomatoes, flowers, and nursery stock.

Wyman Loam, 2 to 5 Percent Slopes (WmB), Wyman Loam, 5 to 9 Percent Slopes (WmC), and Wyman Loam, 9 to 15 Percent Slopes (WmD)

The Wyman series consists of well-drained, very deep loams that formed in alluvium derived from basic igneous rock. These soils are located on alluvial fans and have slopes of 2 to 15 percent. The upper 7 inches of consist of brown (7.5YR 5/2) loam when dry and dark brown (7.5YR 3/2) loam when moist. The Wyman soils are used mainly for citrus orchards, truck crops, tomatoes, flowers, and range.

None of these soil units are identified as hydric in the SCS's publication, Hydric Soils of the United States³ or in the County of San Diego's hydric soils list, however three soils, Steep The local hydric soil list indicates that Gullied Land (StG), Tujunga Sand, 0 to 5 Percent Slopes (TuB), and Visalia Sandy Loam, 0 to 2 Percent Slopes (VaA), may be considered hydric soils if they meet the following condition:

Soils in the Aquic suborder, Aquic subgroups, Albolls suborder, Salorthids great group, Pell great group of Vertisols, Pachic subgroups, or Cumulic subgroups that are poorly drained or very poorly drained and have a frequently occurring water table at less than 1.5 feet from the surface for a significant period (usually more than two weeks) during the growing season if permeability is less than 6.0 in/hr in any layer within 20 inches.

In addition, the local hydric soil list indicates that Tujunga Sand, 0 to 5 Percent Slopes (TuB), with an inclusion of Riverwash, can be considered a hydric soil if *its soils are frequently flooded for long durations or very long durations during the growing season.*

The federal hydric soils list indicates that Tujunga Sand, 0 to 5 Percent Slopes (TuB), and Visalia Sandy Loam, 0 to 2 Percent Slopes (VaA) may support hydric landform inclusions if these soils are located in floodplains and *are hydric because of saturation and/or can be farmed under natural conditions without removing woody vegetation or other manipulation.* Steep Gullied

³ United States Department of Agriculture, Soil Conservation Service. 1991. Hydric Soils of the United States, 3rd Edition, Miscellaneous Publication Number 1491. (In cooperation with the National Technical Committee for Hydric Soils.)

Land (StG) may support hydric landform inclusions if depressions are present and *are hydric because of saturation.*

II. JURISDICTION

A. Army Corps of Engineers

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 shell fish 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.*

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.

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(8) *Waters of the United States do not include prior converted cropland.⁴ 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.*

In the absence of wetlands, the limits of Corps jurisdiction in non-tidal waters, such as intermittent streams, extend to the ordinary high water mark (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.

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, 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

⁴ The term "prior converted cropland" is defined in the Corps' Regulatory Guidance Letter 90-7 (dated September 26, 1990) as "wetlands which were both manipulated (drained or otherwise physically altered to remove excess water from the land) and cropped before 23 December 1985, to the extent that they no longer exhibit important wetland values. Specifically, prior converted cropland is inundated for no more than 14 consecutive days during the growing season...." [Emphasis added.]

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wetland that abutted 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..

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 a manual to guide its field personnel in determining jurisdictional wetland boundaries. In 1989 the Federal Interagency Committee for Wetland Delineation developed an updated methodology, which was adopted by the Corps, U.S. Fish and Wildlife Service (USFWS), U.S. Environmental Protection Agency (EPA), and SCS, which replaced the 1987 Wetland Delineation Manual.⁵ The use of this 1989 manual was perceived by many to excessively increase the jurisdictional limits of wetlands. After several congressional hearings, EPA, Corps, SCS, and USFWS published proposed 1991 revisions to the 1989 manual.⁶ A few days afterwards, the President signed the Energy and Water Development Appropriations Act of 1992, which, in effect, prohibits the use of the 1989 manual. Because the 1991 proposed revisions to the 1989 manual have not yet been adopted, the only remaining valid methodology is the 1987 Wetland Delineation Manual.⁷ The methodology set forth in the 1987

⁵ Federal Interagency Committee for Wetland Delineation. 1989. Federal Manual for Identifying and Delineating Jurisdictional Wetlands. U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, and USDA Soil Conservation Service, Washington, DC Cooperative technical publication.

⁶ Government Printing Office. 1991. Federal Register, "1989 Federal Manual for Identifying Jurisdictional Wetlands; Proposed Revisions." August 14, 1991, Vol. 56, No. 157, pp 40446-40480.

⁷ This delineation was performed using, where appropriate, the 1987 Wetland Manual. It is unlikely that any actions will be taken on a revised wetland manual in the near future. If a new manual is adopted, it may be necessary to review our delineation to determine its compliance with any changes set forth.

Wetland Delineation Manual generally requires that, in order to be considered a wetland, the vegetation, soils, and hydrology of an area exhibit at least minimal hydric characteristics. While the manual provides great detail in methodology and allows 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 typical of wetlands (i.e., rated as facultative or wetter in the National List of Plant Species that Occur in Wetlands⁸);
- 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
- hydrologic characteristics must 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 year⁹.

1. Corps Jurisdiction on Agricultural Lands

Section 404 of the Clean Water Act requires a landowner to obtain a permit from the Corps prior to beginning any non-exempt activity involving the placement of dredged or fill material in waters of the U.S. Certain ongoing, normal farming practices in wetlands (and other waters of the U.S.) are exempt and do not require a permit. These practices include plowing, harvesting, seeding, minor drainage, and cultivation. Farmed waters of the U.S. fall into one of two categories:

The first of these is "prior converted cropland". *Prior converted croplands are wetlands that were drained, dredged, filled, leveled, or otherwise manipulated, including the removal of woody vegetation, before December 23, 1985, to make production of an agricultural commodity possible, and that (1) do not meet specific hydrologic criteria, (2) have had an agricultural commodity planted or produced at least once prior to December 23, 1985, and (3) have not since been abandoned.* Activities in prior converted cropland are not regulated under Section 404.

⁸ Reed, P.B., Jr. 1988. National List of Plant Species that Occur in Wetlands. U.S. Fish and Wildlife Service Biological Report 88(26.10).

⁹ For most of low-lying southern California, five percent of the growing season is equivalent to 18 days.

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The second is "farmed wetlands". *Farmed wetlands are similar to prior converted cropland in that they were drained, dredged, filled, leveled, or otherwise manipulated before December 23, 1985, to make production of an agricultural commodity possible, but are often wet enough to still be valuable wetland habitat subject to ... Section 404.* Non-exempt activities in farmed wetlands are regulated under Section 404.

B. Regional Water Quality Control Board

Subsequent to the SWANCC decision, the Chief Counsel for the State Water Resources Control Board issued a memorandum that addressed the effects of the SWANCC decision on the Section 401 Water Quality Certification Program.¹⁰ The memorandum states:

California's right and duty to evaluate certification requests under section 401 is pendant to (or dependent upon) a valid application for a section 404 permit from the Corps, or another application for a federal license or permit. Thus if the Corps determines that the water body in question is not subject to regulation under the COE's 404 program, for instance, no application for 401 certification will be required...

The SWANCC decision does not affect the Porter Cologne authorities to regulate discharges to isolated, non-navigable waters of the states....

Water Code section 13260 requires "any person discharging waste, or proposing to discharge waste, within any region that could affect the waters of the state to file a report of discharge (an application for waste discharge requirements)." (Water Code § 13260(a)(1) (emphasis added).) The term "waters of the state" is defined as "any surface water or groundwater, including saline waters, within the boundaries of the state." (Water Code § 13050(e).) The U.S. Supreme Court's ruling in SWANCC has no bearing on the Porter-Cologne definition. While all waters of the United States that are within the borders of California are also waters of the state, the converse is not true—waters of the United States is a subset of waters of the state. Thus, since Porter-Cologne was enacted California always had and retains authority to regulate discharges of waste into any waters

¹⁰ Wilson, Craig M. January 25, 2001. Memorandum addressed to State Board Members and Regional Board Executive Officers.

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of the state, regardless of whether the COE has concurrent jurisdiction under section 404. The fact that often Regional Boards opted to regulate discharges to, e.g., vernal pools, through the 401 program in lieu of or in addition to issuing waste discharge requirements (or waivers thereof) does not preclude the regions from issuing WDRs (or waivers of WDRs) in the absence of a request for 401 certification....

Thus, discharge of fill material into waters of the State that do not fall under the jurisdiction of the Corps pursuant to Section 404 of the Clean Water Act, may require authorization through application for waste discharge requirements (WDRs) or through waiver of WDRs).

C. California Department of Fish and Game

Pursuant to Division 2, Chapter 6, Sections 1600-1603 of the California Fish and Game Code, the CDFG 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.

CDFG 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." CDFG's definition of "lake" includes "natural lakes or man-made reservoirs."

CDFG jurisdiction within altered or artificial waterways is based upon the value of those waterways to fish and wildlife. CDFG Legal Advisor has prepared the following opinion:

- Natural waterways that have been subsequently modified and which have the potential to contain fish, aquatic insects and riparian vegetation will be treated like natural waterways...
- Artificial waterways that have acquired the physical attributes of natural stream courses and which have been viewed by the community as natural stream courses, should be treated by [CDFG] as natural waterways...
- Artificial waterways without the attributes of natural waterways should generally not be subject to Fish and Game Code provisions...

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Thus, CDFG jurisdictional limits closely mirror those of the Corps. Exceptions are CDFG's exclusion of isolated wetlands (those not associated with a river, stream, or lake), the addition of artificial stock ponds and irrigation ditches constructed on uplands, and the addition of riparian habitat supported by a river, stream, or lake regardless of the riparian area's federal wetland status.

D. County of San Diego Wetlands

On October 10, 1991, the County enacted its "Resource Protection Ordinance," now known as a compilation of County Ordinances 7631, 7685, 7739, and 7968. This ordinance was passed to protect sensitive lands within the County and prevent their degradation and loss by requiring a "Resource Protection Study" for various discretionary projects. The County considers "environmentally sensitive lands" to be *lands that shall consist of wetlands, floodplains, steep slope lands, sensitive habitat lands, and lands containing significant prehistoric and historic sites as defined by this ordinance.*

The County defines wetlands as follows:

All lands which are transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or where the land is covered by water.
All lands having one or more of the following attributes are wetlands:

- a) *At least periodically, the land supports predominantly hydrophytes (plants whose habitat is water or very wet places);*
- b) *The substratum is predominantly undrained hydric soil; or*
- c) *The substratum is non-soil and is saturated with water or covered by water at some time during the growing season of each year.*

III. RESULTS

A. Corps Jurisdiction

Corps jurisdiction associated with the Meadowood Specific Plan Area and the Horse Ranch Creek Road Extension totals approximately 52,718 square feet (1.21 acres), of which 12,498

square feet (0.29 acre) consist of jurisdictional wetlands. Of the 52,718 square feet (1.21 acres) of Corps jurisdiction, of which 12,498 square feet (0.29 acre) consist of jurisdictional wetlands, within the Project area, approximately 45,998 square feet (1.06 acres) of Corps jurisdiction exist within the Meadowood Specific Plan Area and 6,720 square feet (0.15 acre) exist within the Horse Ranch Creek Road Extension.

Corps jurisdictional waters have been determined to be present in Drainages 1 through 4, Drainage 10, and Drainage 12. In addition, Drainages 5 through 9, 11, and 13 through 15 have been determined to be Corps isolated waters pursuant to the SWANCC Decision or drainages not exhibiting an OHWM. Corps isolated waters total 3,993 square feet (0.09 acre), none of which consist of wetlands. All of the on site drainage features are ephemeral streams. The boundaries of Corps jurisdictional waters are depicted on the enclosed map (see Exhibit 3). Table One below outlines all Corps jurisdictional waters on site and Table Two below separates Corps jurisdictional waters from Corps isolated waters.

1. Drainage 1 and its Tributaries

Corps jurisdiction associated with Drainage 1 and its tributaries total approximately 2,893 square feet (0.07 acre), none of which consist of jurisdictional wetlands. The headwaters of Drainage 1 and its tributaries begin just north of the Project area and enter the Project area from the north. Drainage 1 and its tributaries flow from north to southwest for approximately 2,323 linear feet before leaving the site. Drainage 1 supports an OHWM ranging in width from one-foot wide to two-feet wide and the drainage bottoms support sediment and the uplands support diegan sage scrub (Holland code 32500).

Drainage 1 and its tributaries support non-native vegetation consisting of red brome (*Bromus rubens*), ripgut brome (*Bromus diandrus*), wild oat (*Avena fatua*), tocalote (*Centaurea solstitialis*) within the channel and coastal/diegan sage scrub consisting of buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), and laurel sumac (*Malosma laurina*) along its upper banks. No soil pits were taken within Drainage 1 and its tributaries since the drainage does not support hydrophytic vegetation.

2. Drainage 2 and its Tributaries

Corps jurisdiction associated with Drainage 2 and its tributaries total approximately 3,607 square feet (0.08 acre), none of which consist of jurisdictional wetlands. The headwaters of Drainage 2 and its tributaries begin on site and the drainages flow from east to west for approximately 3,051 linear feet before leaving the Project site. Drainage 2 and its tributaries support an OHWM

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ranging in width from one-foot wide to two-feet wide and the drainage bottoms support sediment and the uplands support diegan sage scrub (Holland code 32500).

The upper watershed of Drainage 2 and its tributaries support non-native vegetation consisting of red brome (*Bromus rubens*), ripgut brome (*Bromus diandrus*), wild oat (*Avena fatua*), tocalote (*Centaurea solstitialis*) within the channel and coastal/diegan sage scrub consisting of buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), and laurel sumac (*Malosma laurina*) along its upper banks. The lower watershed passes through an active citrus operation prior to exiting the site. No soil pits were taken within Drainage 2 and its tributaries since the drainage does not support hydrophytic vegetation.

3. Drainage 3 and its Tributary

Corps jurisdiction associated with Drainage 3 and its tributary total approximately 3,488 square feet (0.08 acre), none of which consist of jurisdictional wetlands. The headwaters of Drainage 3 and its tributary begin on site and the drainages flow from east to west for approximately 1,776 linear feet before confluenting with Drainage 2. Drainage 3 and its tributary support an OHWM ranging in width from one-foot wide to four-feet wide. The bottom of Drainage 3 and its tributary support sediment and the uplands support diegan sage scrub (Holland code 32500) and/or active citrus groves (Holland code 18100).

The upper watershed of Drainage 3 and its tributary support non-native vegetation consisting of red brome (*Bromus rubens*), ripgut brome (*Bromus diandrus*), wild oat (*Avena fatua*), tocalote (*Centaurea solstitialis*) within the channel and coastal/diegan sage scrub consisting of buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), and laurel sumac (*Malosma laurina*) along its upper banks. The lower watershed passes through an active citrus operation prior to exiting the site and confluenting with Drainage 2. No soil pits were taken within Drainage 3 and its tributaries since the drainage does not support hydrophytic vegetation.

4. Drainage 4 and its Tributaries

Corps jurisdiction associated with Drainage 4 and its tributaries total approximately 32,547 square feet (0.75 acre), of which 6,098 square feet (0.14 acre) consist of jurisdictional wetlands. The headwaters of Drainage 4 and its tributaries begin on site and the drainages flow from east to west through the central portion of the Project area for approximately 9,237 linear feet before confluenting with Drainage 2 off site. Drainage 4 and its tributaries support an OHWM ranging

in width from one-foot wide to six-feet wide. In addition, the headwaters of Tributary 4.1 support a 0.14-acre wetland. The bottom of Drainage 4 and its tributaries support sediment and riparian vegetation (Holland code 63300) and the uplands support diegan sage scrub (Holland code 32500) and/or active citrus groves (Holland code 18100).

The upper watershed of Drainage 4 and its tributary support non-native vegetation consisting of red brome (*Bromus rubens*), ripgut brome (*Bromus diandrus*), wild oat (*Avena fatua*), tocalote (*Centaurea solstitialis*) within the channel and coastal/diegan sage scrub consisting of buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), and laurel sumac (*Malosma laurina*) along its upper banks. The lower watershed passes through an active citrus operation prior to exiting the site and confluenting with Drainage 2. The upper watershed of Tributary 4.1 supports riparian vegetation consisting of arroyo willow (*Salix lasiolepis*), yellow nut-sedge (*Cyperus esculentis*), bristly oxtongue (*Picris echioides*), and cattails (*Typha spp.*). Two soil pits, soil pits 2 and 3, were taken within Tributary 4.1 since the drainage supported hydrophytic vegetation dominated by cattails in one location. Soil Pit 3 indicated that hydrophytic vegetation, hydric soils, and hydrology, a wetland, were all present within a 0.14-acre area. Soil pit 3 contained organic streaking of sandy soils, gleyed conditions, and low-chroma conditions. Soil pit 2 was taken just north of the boundary of the wetland and did not exhibit hydric soils or mottling.

5. Drainage 5 and its Tributaries

No Corps jurisdiction is associated with Drainage 5 and its tributaries since this drainage system is isolated pursuant to the SWANCC Decision. Drainage 5 and its tributaries support approximately 2,572 square feet (0.06 acre) of isolated waters, none of which consist of jurisdictional wetlands. Drainage 5 and its tributaries, as indicated above, are isolated ephemeral drainages located in the southern portion of the Project area. The headwaters of Drainage 5 and its tributaries begin on site and the drainages flow through an incised canyon from east to west for approximately 3,141 linear feet. The central portion of Drainage 5 has been disked and now contains several rock piles, thus making this portion of the drainage a non-jurisdictional upland area. Finally, the lower watershed enters into a detention basin and then exits the basin via a disked agricultural field. Drainage 5 loses its OHWM in this field and is no longer detectable. Drainage 5 and its tributary support an OHWM ranging in width from one-foot wide to three-feet wide. The bottom of Drainage 5 and its tributary support sediment and the uplands support diegan sage scrub (Holland code 32500) and/or active citrus groves (Holland code 18100).

The upper watershed of Drainage 5 and its tributaries support non-native vegetation consisting of red brome (*Bromus rubens*), ripgut brome (*Bromus diandrus*), wild oat (*Avena fatua*), tocalote (*Centaurea solstitialis*) within the channel and coastal/diegan sage scrub consisting of buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), and laurel sumac (*Malosma laurina*) along its upper banks. The lower watershed passes through an active citrus operation prior to losing its OHWM in the southern portion of the site. One soil pit, soil pit 1, was taken within Drainage 5 since the drainage supported flowing water, however no hydric soils, or mottles within the soils, were detected.

6. Drainage 6 and its Tributary

No Corps jurisdiction is associated with Drainage 6 and its tributary since this drainage system is isolated pursuant to the SWANCC Decision. Drainage 6 and its tributary support approximately 433 square feet (0.01 acre) of isolated waters, none of which consist of wetlands. Drainage 6 and its tributary, as indicated above, are isolated ephemeral drainages located in the southeastern portion of the Project area. The headwaters of Drainage 6 and its tributary begin on site and the drainages flow from west to east for approximately 405 linear feet before leaving the site. Drainage 6 and its tributary support an OHWM ranging in width from one-foot wide to two-feet wide. The bottom of Drainage 6 and its tributary support sediment and the uplands support diegan sage scrub (Holland code 32500) and/or active citrus groves (Holland code 18100).

Drainage 6 and its tributary support non-native vegetation consisting of red brome (*Bromus rubens*), ripgut brome (*Bromus diandrus*), wild oat (*Avena fatua*), tocalote (*Centaurea solstitialis*) within the channel and coastal/diegan sage scrub consisting of buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), and laurel sumac (*Malosma laurina*) along its upper banks. The lower watershed passes through an active avocado and citrus operation and supports one coast live oak (*Quercus agrifolia*) prior to leaving the site. No soil pit was taken within Drainage 6 or its tributary since the neither one supports hydrophytic vegetation.

7. Drainage 7 and its Tributary

No Corps jurisdiction is associated with Drainage 7 and its tributary since this drainage system does not support an OHWM. The headwaters of Drainage 7 and its tributary begin on site and flow from west to east before leaving the site. The bottom of Drainage 7 and its tributary support non-native vegetation that does not display a flow sign (Holland code 42200) and the uplands support diegan sage scrub (Holland code 32500).

Drainage 7 and its tributary support non-native vegetation consisting of red brome (*Bromus rubens*), ripgut brome (*Bromus diandrus*), wild oat (*Avena fatua*), tocalote (*Centaurea solstitialis*) within the channel and coastal/diegan sage scrub consisting of buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), and laurel sumac (*Malosma laurina*) along its upper banks.

8. Drainage 8 and its Tributary

No Corps jurisdiction is associated with Drainage 8 and its tributary since this drainage system is isolated pursuant to the SWANCC Decision. Drainage 8 and its tributary support approximately 247 square feet (0.01 acre) of isolated waters, none of which consist of wetlands. Drainage 8 and its tributary, as indicated above, are isolated ephemeral drainages located in the southwestern portion of the Project area. The headwaters of Drainage 8 and its tributary begin on site and the drainages flow from west to east for approximately 247 linear feet before leaving the site. Drainage 8 and its tributary support an OHWM one-foot wide. The bottom of Drainage 8 and its tributary support sediment and the uplands support diegan sage scrub (Holland code 32500) and/or active citrus and avocado groves (Holland code 18100).

Drainage 8 and its tributary support non-native vegetation consisting of red brome (*Bromus rubens*), ripgut brome (*Bromus diandrus*), wild oat (*Avena fatua*), tocalote (*Centaurea solstitialis*) within the channel and coastal/diegan sage scrub consisting of buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), and laurel sumac (*Malosma laurina*) along its upper banks. No soil pit was taken within Drainage 8 or its tributary since the neither one supports hydrophytic vegetation.

9. Drainage 9 and its Tributary

No Corps jurisdiction is associated with Drainage 9 and its tributary since this drainage system is isolated pursuant to the SWANCC Decision. Drainage 9 and its tributary support approximately 681 square feet (0.02 acre) of isolated waters, none of which consist of wetlands. Drainage 9 and its tributary, as indicated above, are isolated ephemeral drainages located in the south-central portion of the Project area. The headwaters of Drainage 9 and its tributary begin on site and the drainages flow from west to east for approximately 340 linear feet before leaving the site. Drainage 9 and its tributary support an OHWM two-feet wide. The bottom of Drainage 9 and its tributary support sediment and the uplands support diegan sage scrub (Holland code 32500) and/or active citrus groves (Holland code 18100).

Drainage 9 and its tributary support non-native vegetation consisting of red brome (*Bromus rubens*), ripgut brome (*Bromus diandrus*), wild oat (*Avena fatua*), tocalote (*Centaurea solstitialis*) within the channel and coastal/diegan sage scrub consisting of buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), and laurel sumac (*Malosma laurina*) along its upper banks. The lower watershed passes through an active avocado and citrus operation and supports coast live oak (*Quercus agrifolia*) habitat prior to leaving the site. No soil pit was taken within Drainage 9 or its tributary since the neither one supports hydrophytic vegetation.

10. Drainage 10 and its Tributaries

Corps jurisdiction associated with Drainage 10 and its tributaries total approximately 2,698 square feet (0.06 acre), none of which consist of jurisdictional wetlands. Drainage 10 and its tributaries, as indicated above, are ephemeral drainages located in the south-central portion of the Project area. The headwaters of Drainage 10 and its tributaries begin on site and the drainages flow from west to east for approximately 1,890 linear feet before leaving the site. Drainage 10 and its tributaries support an OHWM ranging in width from one-foot wide to two-feet wide. The bottom of Drainage 10 and its tributary support sediment and the uplands support diegan sage scrub (Holland code 32500).

Drainage 10 and its tributaries support non-native vegetation consisting of red brome (*Bromus rubens*), ripgut brome (*Bromus diandrus*), wild oat (*Avena fatua*), tocalote (*Centaurea solstitialis*) within the channel and coastal/diegan sage scrub consisting of buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), and laurel sumac (*Malosma laurina*) along its upper banks. The lower watershed passes through an active avocado and citrus operation prior to leaving the site. No soil pit was taken within Drainage 10 or its tributaries since the neither one supports hydrophytic vegetation.

11. Drainage 11 and its Tributary

No Corps jurisdiction is associated with Drainage 11 and its tributary since this drainage system does not support an OHWM. The headwaters of Drainage 11 and its tributary begin on site and flow from west to east before leaving the site. The bottom of Drainage 11 and its tributary support non-native vegetation that does not display a flow sign (Holland code 42200) and the uplands support diegan sage scrub (Holland code 32500).

Drainage 11 and its tributary support non-native vegetation consisting of red brome (*Bromus rubens*), ripgut brome (*Bromus diandrus*), wild oat (*Avena fatua*), tocalote (*Centaurea solstitialis*) within the channel and coastal/diegan sage scrub consisting of buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), and laurel sumac (*Malosma laurina*) along its upper banks.

12. Drainage 12

Corps jurisdiction associated with Drainage 12 totals 765 square feet (0.02 acre), none of which consist of jurisdictional wetlands. The headwaters of Drainage 12 begin on site and the drainage flows from west to east for 765 linear feet before leaving the site. Drainage 12 supports an OHWM one-foot wide. The bottom of Drainage 12 supports sediment and the uplands support diegan sage scrub (Holland code 32500).

Drainage 12 supports non-native vegetation consisting of red brome (*Bromus rubens*), ripgut brome (*Bromus diandrus*), wild oat (*Avena fatua*), tocalote (*Centaurea solstitialis*) within the channel and coastal/diegan sage scrub consisting of buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), and laurel sumac (*Malosma laurina*) along its upper banks. No soil pit was taken within Drainage 12 since the does not support hydrophytic vegetation.

13. Drainage 13 and its Tributary

No Corps jurisdiction is associated with Drainage 13 and its tributary since this drainage system does not support an OHWM. The headwaters of Drainage 13 and its tributary begin on site and flow from west to east before leaving the site. The bottom of Drainage 13 and its tributary support non-native vegetation (Holland code 42200) that does not display a flow sign and the uplands support diegan sage scrub (Holland code 32500).

Drainage 13 and its tributary support non-native vegetation consisting of red brome (*Bromus rubens*), ripgut brome (*Bromus diandrus*), wild oat (*Avena fatua*), tocalote (*Centaurea solstitialis*) within the channel and coastal/diegan sage scrub consisting of buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), and laurel sumac (*Malosma laurina*) along its upper banks.

14. Drainage 14 and its Tributary

No Corps jurisdiction is associated with Drainage 14 and its tributary since this drainage system has been disked as part of ongoing agricultural operations. Drainage 14 and its tributary, as indicated above, are ephemeral drainages located in the southern portion of the Project area. The headwaters of Drainage 14 and its tributary begin on site and the drainages flow from north to south before terminating on site near some existing housing structures.

No vegetation exists within Drainage 14 and its tributary since they have been annually disked as part of ongoing agricultural operations (Holland code 18000). No soil pits were taken within either drainage since they have been disked and no sign of the former drainage exists.

15. Drainage 15

No Corps jurisdiction is associated with Drainage 15 since this drainage system does not support an OHWM. The headwaters of Drainage 15 begin on site and flow from east to west before leaving the site. The bottom of Drainage 15 supports non-native vegetation (Holland code 42200) that does not display a flow sign and the uplands support diegan sage scrub (Holland code 32500).

Drainage 15 support non-native vegetation consisting of red brome (*Bromus rubens*), ripgut brome (*Bromus diandrus*), wild oat (*Avena fatua*), tocalote (*Centaurea solstitialis*) within the channel and coastal/diegan sage scrub consisting of buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), and laurel sumac (*Malosma laurina*) along its upper banks.

16. Horse Ranch Creek Road Extension

As part of the Project, the Horse Ranch Creek Road Extension has been proposed across the Campus Park Property. Campus Park was delineated by REC on September 18, 2003. Since the Horse Ranch Creek Road Extension will only temporarily impact a width of 20 feet and permanently impact a width of 60 feet, this report focuses on the square footage, acreage, and impact calculations for the road extension rather than the entire acreage of Corps jurisdiction on Campus Park.

According to REC, the road extension alignment supports approximately 6,720 square feet (0.15 acre) of Corps jurisdiction, of which 6,400 square feet (0.15 acre) consist of jurisdictional

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wetlands. The square footage and acreage calculations listed above are extrapolations of the REC delineation report since the report does not provide Corps jurisdictional totals across the Campus Park Property. The jurisdictional numbers discussed as part of the REC report are based upon the upstream values of drainage features located within the Meadowood Specific Plan Area. Based upon REC's delineation, it appears that the Corps' OHWM for Drainage 2 off site within the Campus Park Property has been estimated at two to four feet wide and no wetlands are present. According to REC's delineation report, total Corps jurisdiction associated with Drainage 2 off site is 320 square feet (0.01 acre), none of which consist of jurisdictional wetlands, and total Corps jurisdiction associated with Drainage 4 off site is 6,400 square feet (0.15 acre), all of which consist of jurisdictional wetlands. A total of 160 linear feet of drainage exists within the footprint of the Horse Ranch Creek Road Extension.

Table One: Total Corps Jurisdiction and Total Linear Feet of Jurisdiction On Site

Drainage Number	Total Non-Wetland Corps Jurisdiction (in square feet)	Total Wetland Corps Jurisdiction (in square feet)	Total Corps Jurisdiction (in square feet)	Total Linear Feet of Drainage (in feet)
Drainage 1 and its Tributaries	2,893	0	2,893	2,323
Drainage 2 and its Tributaries	3,607	0	3,607	3,051
Drainage 3 and its Tributaries	3,488	0	3,488	1,776
Drainage 4 and its Tributaries	26,449	6,098	32,547	9,237
Drainage 10 and its Tributary	2,698	0	2,698	1,890
Drainage 12	765	0	765	765
Horse Ranch Creek Road Extension	320	6,400	6,720	160
Total	40,220 (0.92 acre)	12,498 (0.29 acre)	52,718 (1.21 acre)	19,202

Table Two: Total Corps Jurisdictional and Isolated Waters

Drainage Number	Total Non-Wetland Corps Jurisdictional Waters (in square feet)	Total Wetland Corps Jurisdictional Waters (in square feet)	Total Non-Wetland Corps Isolated Waters (in square feet)	Total Wetland Corps Isolated Waters (in square feet)
Drainage 1 and its Tributaries	2,893	0	0	0
Drainage 2 and its Tributaries	3,607	0	0	0
Drainage 3 and its Tributaries	3,488	0	0	0
Drainage 4 and its Tributaries	26,449	6,098	0	0
Drainage 5 and its Tributaries	0	0	2,572	0
Drainage 6 and its Tributary	0	0	433	0
Drainage 8 and its Tributary	0	0	247	0
Drainage 9 and its Tributary	0	0	681	0
Drainage 10 and its Tributary	2,698	0	0	0
Drainage 12	765	0	0	0
Horse Ranch Creek Road Extension	320	6,400	0	0
Total	40,220 (0.92 acre)	12,498 (0.29 acre)	3,933 (0.09 acre)	0

B. Regional Water Quality Control Board Jurisdiction

Corps jurisdictional waters have been determined to be present in Drainages 1 through 4, Drainage 10, and Drainage 12. In addition, Drainages 5 through 9, 11, and 13 through 15 have been determined to be Corps isolated waters pursuant to the SWANCC Decision or drainages not exhibiting an OHWM. Corps isolated waters and are not subject to regulation pursuant to

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Section 401 or 404 of the Clean Water Act per the SWANCC Decision, however the San Diego Regional Water Quality Control Board may attempt to exert its jurisdiction, per the Porter-Cologne Act, over isolated waters and require a waste discharge report (WDR) for the Project.

All improvements associated with the Horse Ranch Creek Road Extension are Corps jurisdictional waters and do not need to be addressed separately pursuant to the Porter-Cologne Act.

C. CDFG Jurisdiction

CDFG jurisdiction associated with the Meadowood Specific Plan Area and the Horse Ranch Creek Road Extension totals approximately 75,595 square feet (1.74 acres), of which 39,064 square feet (0.90 acre) consist of vegetated riparian habitat. Of the 75,595 square feet (1.74 acres) of CDFG jurisdiction, of which 39,064 square feet (0.90 acre) consist of vegetated riparian habitat, within the Project area, approximately 68,875 square feet (1.58 acres) of CDFG jurisdiction exist within the Meadowood Specific Plan Area and 6,720 square feet (0.15 acre) exist within the Horse Ranch Creek Road Extension. All of the on site drainage features are ephemeral streams. The boundaries of CDFG jurisdiction are depicted on the enclosed map (see Exhibit 3). Table Three below outlines all CDFG jurisdiction on site.

1. Drainage 1 and its Tributaries

CDFG jurisdiction associated with Drainage 1 and its tributaries totals approximately 2,893 square feet (0.07 acre), none of which consist of vegetated riparian habitat. Drainage 1 and its tributaries, as indicated above, are ephemeral drainages located in the northern portion of the Project area. The headwaters of Drainage 1 and its tributaries begin just north of the Project area and enter the Project area from the north. Drainage 1 and its tributaries flow from north to southwest for approximately 2,323 linear feet before leaving the site. Drainage 1 supports a high water mark (HWM) ranging in width from one-foot wide to two-feet wide. The drainage bottoms support sediment and the uplands adjacent to the drainages support diegan sage scrub.

Drainage 1 and its tributaries support non-native vegetation consisting of red brome (*Bromus rubens*), ripgut brome (*Bromus diandrus*), wild oat (*Avena fatua*), tocalote (*Centaurea solstitialis*) within the channel and coastal/diegan sage scrub consisting of buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), and laurel sumac (*Malosma laurina*) along its upper banks.

2. Drainage 2 and its Tributaries

CDFG jurisdiction associated with Drainage 2 and its tributaries totals approximately 3,607 square feet (0.08 acre), none of which consist of vegetated riparian habitat. Drainage 2 and its tributaries, as indicated above, are ephemeral drainages located in the northern portion of the Project area. The headwaters of Drainage 2 and its tributaries begin within the Project area and flow from north to southwest for approximately 3,051 linear feet before leaving the site. Drainage 2 supports a HWM ranging in width from one-foot wide to two-feet wide. The drainage bottoms support sediment and the uplands adjacent to the drainages support diegan sage scrub.

Drainage 2 and its tributaries support non-native vegetation consisting of red brome (*Bromus rubens*), ripgut brome (*Bromus diandrus*), wild oat (*Avena fatua*), tocalote (*Centaurea solstitialis*) within the channel and coastal/diegan sage scrub consisting of buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), and laurel sumac (*Malosma laurina*) along its upper banks.

3. Drainage 3 and its Tributary

CDFG jurisdiction associated with Drainage 3 and its tributary totals approximately 3,488 square feet (0.08 acre), none of which consist of vegetated riparian habitat. Drainage 3 and its tributary, as indicated above, are ephemeral drainages located in the north-central portion of the Project area. The headwaters of Drainage 3 and its tributary begin on site and the drainages flow from east to west for approximately 1,776 linear feet before confluenting with Drainage 2. Drainage 3 and its tributary support a HWM ranging in width from one-foot wide to four-feet wide. The bottom of Drainage 3 and its tributary support sediment and the uplands support diegan sage scrub and/or active citrus groves.

The upper watershed of Drainage 3 and its tributary support non-native vegetation consisting of red brome (*Bromus rubens*), ripgut brome (*Bromus diandrus*), wild oat (*Avena fatua*), tocalote (*Centaurea solstitialis*) within the channel and coastal/diegan sage scrub consisting of buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), and laurel sumac (*Malosma laurina*) along its upper banks. The lower watershed passes through an active citrus operation prior to exiting the site and confluenting with Drainage 2.

4. Drainage 4 and its Tributaries

CDFG jurisdiction associated with Drainage 4 and its tributaries total approximately 31,485 square feet (0.72 acre) of which 14,762 square feet (0.34 acre) consist of vegetated riparian habitat. Drainage 4 and its tributaries are ephemeral and/or intermittent drainages located in the central portion of the Project area. The headwaters of Drainage 4 and its tributaries begin on site and the drainages flow from east to west for approximately 9,237 linear feet before confluenting with Drainage 2 off site. Drainage 4 and its tributaries support a HWM ranging in width from one-foot wide to six-feet wide. In addition, the headwaters of Tributary 4.1 support a 0.14-acre wetland. The bottom of Drainage 4 and its tributaries support sediment and riparian vegetation and the uplands support diegan sage scrub and/or active citrus groves.

The upper watershed of Drainage 4 and its tributary support non-native vegetation consisting of red brome (*Bromus rubens*), ripgut brome (*Bromus diandrus*), wild oat (*Avena fatua*), tocalote (*Centaurea solstitialis*) within the channel and coastal/diegan sage scrub consisting of buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), and laurel sumac (*Malosma laurina*) along its upper banks. The lower watershed passes through an active citrus operation prior to exiting the site and confluenting with Drainage 2. The upper watershed of Tributary 4.1 supports riparian vegetation consisting of arroyo willow (*Salix lasiolepis*), yellow nut-sedge (*Cyperus esculentis*), bristly oxtongue (*Picris echioides*), and cattails (*Typha spp.*).

5. Drainage 5 and its Tributaries

CDFG jurisdiction associated with Drainage 5 and its tributaries totals approximately 5,215 square feet (0.12 acre), none of which consist of vegetated riparian habitat. Drainage 5 and its tributaries, as indicated above, are ephemeral drainages located in the southern portion of the Project area. The headwaters of Drainage 5 and its tributaries begin on site and the drainages flow through an incised canyon from east to west for approximately 3,141 linear feet. The central portion of Drainage 5 has been disked and now contains several rock piles, thus making this portion of the drainage a non-jurisdictional upland area. Finally, the lower watershed enters into a detention basin and then exits the basin via a disked agricultural field. Drainage 5 loses its HWM in this field and is no longer detectable. Drainage 5 and its tributary support an HWM ranging in width from one-foot wide to three-feet wide. The bottom of Drainage 3 and its tributary support sediment and the uplands support diegan sage scrub and/or active citrus groves.

The upper watershed of Drainage 5 and its tributaries support non-native vegetation consisting of red brome (*Bromus rubens*), ripgut brome (*Bromus diandrus*), wild oat (*Avena fatua*), tocalote (*Centaurea solstitialis*) within the channel and coastal/diegan sage scrub consisting of buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), and laurel sumac (*Malosma laurina*) along its upper banks. The lower watershed passes through an active citrus operation prior to losing its HWM in the southern portion of the site.

6. Drainage 6 and its Tributary

CDFG jurisdiction associated with Drainage 6 totals approximately 500 square feet (0.01 acre), of which 67 square feet (0.002 acre) consist of vegetated riparian habitat. Drainage 6 and its tributary, as indicated above, are ephemeral drainages located in the southeastern portion of the Project area. The headwaters of Drainage 6 and its tributary begin on site and the drainages flow from west to east for approximately 405 linear feet before leaving the site. Drainage 6 and its tributary support a HWM ranging in width from one-foot wide to 50-feet wide. The bottom of Drainage 6 and its tributary support sediment and the uplands support diegan sage scrub and/or active citrus groves.

Drainage 6 and its tributary support non-native vegetation consisting of red brome (*Bromus rubens*), ripgut brome (*Bromus diandrus*), wild oat (*Avena fatua*), tocalote (*Centaurea solstitialis*) within the channel and coastal/diegan sage scrub consisting of buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), and laurel sumac (*Malosma laurina*) along its upper banks. The lower watershed passes through an active avocado and citrus operation and supports one coast live oak (*Quercus agrifolia*) prior to leaving the site.

7. Drainage 7 and its Tributary

No CDFG jurisdiction is associated with Drainage 7 and its tributary since this drainage system does not support bed, bank, channel, or an HWM. The headwaters of Drainage 7 and its tributary begin on site and flow from west to east before leaving the site. The bottom of Drainage 7 and its tributary support non-native vegetation that does not display a flow sign and the uplands support diegan sage scrub.

Drainage 7 and its tributary support non-native vegetation consisting of red brome (*Bromus rubens*), ripgut brome (*Bromus diandrus*), wild oat (*Avena fatua*), tocalote (*Centaurea*

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solstitialis) within the channel and coastal/diegan sage scrub consisting of buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), and laurel sumac (*Malosma laurina*) along its upper banks.

8. Drainage 8 and its Tributary

CDFG jurisdiction associated with Drainage 8 totals approximately 249 square feet (0.01 acre), none of which consist vegetated riparian habitat. Drainage 8 and its tributary, as indicated above, are ephemeral drainages located in the southwestern portion of the Project area. The headwaters of Drainage 8 and its tributary begin on site and the drainages flow from west to east for approximately 249 linear feet before leaving the site. Drainage 8 and its tributary support an HWM one-foot wide. The bottom of Drainage 8 and its tributary support sediment and the uplands support diegan sage scrub and/or active citrus and avocado groves.

Drainage 8 and its tributary support non-native vegetation consisting of red brome (*Bromus rubens*), ripgut brome (*Bromus diandrus*), wild oat (*Avena fatua*), tocalote (*Centaurea solstitialis*) within the channel and coastal/diegan sage scrub consisting of buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), and laurel sumac (*Malosma laurina*) along its upper banks.

9. Drainage 9 and its Tributary

CDFG jurisdiction within Drainage 9 and its tributary total approximately 17,975 square feet (0.41 acre), of which 17,835 square feet (0.409 acre) consist of vegetated riparian habitat. Drainage 9 and its tributary, as indicated above, are ephemeral drainages located in the south-central portion of the Project area. The headwaters of Drainage 9 and its tributary begin on site and the drainages flow approximately 340 linear feet from west to east before leaving the site. Drainage 9 and its tributary support a HWM ranging in width from two-feet wide to 50-feet wide. The bottom of Drainage 9 and its tributary support sediment and the uplands support diegan sage scrub and/or active citrus groves.

Drainage 9 and its tributary support non-native vegetation consisting of red brome (*Bromus rubens*), ripgut brome (*Bromus diandrus*), wild oat (*Avena fatua*), tocalote (*Centaurea solstitialis*) within the channel and coastal/diegan sage scrub consisting of buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), and laurel sumac (*Malosma laurina*) along its upper banks. The lower watershed

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passes through an active avocado and citrus operation and supports coast live oak (*Quercus agrifolia*) habitat prior to leaving the site.

10. Drainage 10 and its Tributaries

CDFG jurisdiction associated with Drainage 10 and its tributaries totals approximately 2,698 square feet (0.06 acre), none of which consist of vegetated riparian habitat. Drainage 10 and its tributaries, as indicated above, are ephemeral drainages located in the south-central portion of the Project area. The headwaters of Drainage 10 and its tributaries begin on site and the drainages flow from west to east for approximately 1,890 linear feet before leaving the site. Drainage 10 and its tributaries support a HWM ranging in width from one-foot wide to two-feet wide. The bottom of Drainage 10 and its tributaries support sediment and the uplands support diegan sage scrub.

Drainage 10 and its tributaries support non-native vegetation consisting of red brome (*Bromus rubens*), ripgut brome (*Bromus diandrus*), wild oat (*Avena fatua*), tocalote (*Centaurea solstitialis*) within the channel and coastal/diegan sage scrub consisting of buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), and laurel sumac (*Malosma laurina*) along its upper banks. The lower watershed passes through an active avocado and citrus operation prior to leaving the site.

11. Drainage 11 and its Tributary

No CDFG jurisdiction is associated with Drainage 11 and its tributary since this drainage system does not support bed, bank, channel, or a HWM. The headwaters of Drainage 11 and its tributary begin on site and flow from west to east before leaving the site. The bottom of Drainage 11 and its tributary support non-native vegetation that does not display a flow sign and the uplands support diegan sage scrub.

Drainage 11 and its tributary support non-native vegetation consisting of red brome (*Bromus rubens*), ripgut brome (*Bromus diandrus*), wild oat (*Avena fatua*), tocalote (*Centaurea solstitialis*) within the channel and coastal/diegan sage scrub consisting of buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), and laurel sumac (*Malosma laurina*) along its upper banks.

12. Drainage 12

Corps jurisdiction associated with Drainage 12 total approximately 765 square feet (0.02 acre), none of which consist of vegetated riparian habitat. Drainage 12, as indicated above, is an ephemeral drainage located in the northeastern portion of the Project area. The headwaters of Drainage 12 begin on site and the drainages flow from west to east for approximately 765 linear feet before leaving the site. Drainage 12 supports a HWM one-foot wide. The bottom of Drainage 12 supports sediment and the uplands support diegan sage scrub.

Drainage 12 supports non-native vegetation consisting of red brome (*Bromus rubens*), ripgut brome (*Bromus diandrus*), wild oat (*Avena fatua*), tocalote (*Centaurea solstitialis*) within the channel and coastal/diegan sage scrub consisting of buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), and laurel sumac (*Malosma laurina*) along its upper banks.

13. Drainage 13 and its Tributary

No CDFG jurisdiction is associated with Drainage 13 and its tributary since this drainage system does not support bed, bank, or a HWM. The headwaters of Drainage 13 and its tributary begin on site and flow from west to east before leaving the site. The bottom of Drainage 13 and its tributary support non-native vegetation that does not display a flow sign and the uplands support diegan sage scrub.

Drainage 13 and its tributary support non-native vegetation consisting of red brome (*Bromus rubens*), ripgut brome (*Bromus diandrus*), wild oat (*Avena fatua*), tocalote (*Centaurea solstitialis*) within the channel and coastal/diegan sage scrub consisting of buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), and laurel sumac (*Malosma laurina*) along its upper banks.

14. Drainage 14 and its Tributary

No CDFG jurisdiction is associated with Drainage 14 and its tributary since this drainage system has been disked as part of ongoing agricultural operations. Drainage 14 and its tributary, as indicated above, are ephemeral drainages located in the southern portion of the Project area. The headwaters of Drainage 14 and its tributary begin on site and the drainages flow from north to south before terminating on site near some existing housing structures.

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No vegetation exists within Drainage 14 and its tributary since they have been annually disked as part of ongoing agricultural operations.

15. Drainage 15

No CDFG jurisdiction is associated with Drainage 15 since this drainage system does not support a HWM and does not support CDFG riparian resources. The headwaters of Drainage 15 begin on site and flow from east to west before leaving the site.

Drainage 15 supports non-native vegetation consisting of red brome (*Bromus rubens*), ripgut brome (*Bromus diandrus*), wild oat (*Avena fatua*), tocalote (*Centaurea solstitialis*) within the channel and coastal/diegan sage scrub consisting of buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), and laurel sumac (*Malosma laurina*) along its upper banks.

16. Horse Ranch Creek Road Extension

As part of the Project, the Horse Ranch Creek Road Extension has been proposed across the Campus Park Property. Campus Park was delineated by REC on September 18, 2003. Since the Horse Ranch Creek Road Extension will only temporarily impact a width of 20 feet and permanently impact a width of 60 feet, this report focuses on the square footage, acreage, and impact calculations for the road extension rather than the entire acreage of CDFG jurisdiction on Campus Park.

According to REC, the road extension alignment supports approximately 6,720 square feet (0.15 acre) of CDFG jurisdiction, of which 6,400 square feet (0.15 acre) consist of vegetated riparian habitat. The square footage and acreage calculations listed above are extrapolations of the REC delineation report since the report does not provide CDFG jurisdictional totals across the Campus Park Property. The jurisdictional numbers discussed as part of the REC report are based upon the upstream values of drainage features located within the Meadowood Specific Plan Area. Based upon REC's delineation, it appears that the CDFG HWM for Drainage 2 off site within the Campus Park Property has been estimated at two to four feet wide and no wetlands are present. According to REC's delineation report, total CDFG jurisdiction associated with Drainage 2 off site is 320 square feet (0.01 acre), none of which consist of jurisdictional wetlands, and total Corps jurisdiction associated with Drainage 4 off site is 6,400 square feet (0.15 acre), all of

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which consist of jurisdictional wetlands. A total of 160 linear feet of drainage exists within the footprint of the Horse Ranch Creek Road Extension.

Table Three: Total CDFG Jurisdiction and Total Linear Feet of Jurisdiction On Site

Drainage Number	Total Unvegetated CDFG Jurisdiction (in square feet)	Total Vegetated Riparian Habitat (in square feet)	Total CDFG Jurisdiction (in square feet)	Total Linear Feet of Drainage (in feet)
Drainage 1 and its Tributaries	2,893	0	2,893	2,323
Drainage 2 and its Tributaries	3,607	0	3,607	3,051
Drainage 3 and its Tributaries	3,488	0	3,488	1,776
Drainage 4 and its Tributaries	16,723	14,762	31,485	9,237
Drainage 5 and its Tributaries	5,215	0	5,215	3,141
Drainage 6 and its Tributary	433	67	500	405
Drainage 8 and its Tributary	249	0	249	249
Drainage 9 and its Tributary	140	17,835	17,975	340
Drainage 10 and its Tributary	2,698	0	2,698	1890
Drainage 12	765	0	765	765
Horse Ranch Creek Road Extension	320	6,400	6,720	160
Total	36,531 (0.84 acre)	39,064 (0.90 acre)	75,595 (1.74 acre)	23,337

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D. County of San Diego Wetlands

According to the County's wetland definition (hydrology supported by groundwater), GLA located only one County-regulated feature at the Meadowood Specific Plan Area. This feature is located in the upper watershed of Tributary 4.1 and supports riparian vegetation consisting of arroyo willow (*Salix lasiolepis*), yellow nut sedge (*Cyperus esculentis*), bristly oxtongue (*Picris echioides*), and cattails (*Typha spp.*). Two soil pits, soil pits 2 and 3, were taken adjacent to Tributary 4.1. Soil Pit 3 indicated that hydrophytic vegetation, hydric soils, and hydrology, a wetland, were all present within a 6,098 square-foot (0.14 acre) area; the soil at pit three contained organic streaking of sandy soils, gleyed conditions, and low-chroma conditions. Soil pit 2 was taken just north of the boundary of the wetland and did not exhibit hydrophytic vegetation or hydric soils. No other County-defined wetlands were located on site.

Although several other drainage features to be regulated by the Corps and the CDFG exist on site, these ephemeral drainage features do not support hydrophytes, do not support an undrained hydric soil, and do not support a water table that is usually at or near the surface and are not covered in water. These drainage features are ephemeral streams that support surficial agricultural runoff and/or above-ground irrigation only and are not subject to County regulation since they do not meet the County's wetland definition.

In addition, the project area supports three man-made stock ponds used as a source of water. The ponds support pumps and/or other mechanisms that add agricultural runoff to the system and remove irrigation water from each pond. These ponds do not support hydrophytes or hydric soils and do not support a water table that is usually at or near the surface and are not covered in water. Therefore, based upon existing conditions, the ponds are not subject to County regulation since they do not meet the County's wetland definition.

According to the delineation map prepared by REC for the Campus Park Property, the Horse Ranch Creek Road Extension supports approximately 6,400 square feet (0.15 acre) of County wetlands.

IV. DISCUSSION

A. Impact Analysis

1. *Impacts to Corps Jurisdiction*

A. Impacts to the Meadowood Specific Plan Area

Construction of the project, as proposed, would impact approximately 41,221 square feet (0.95 acre) of Corps jurisdictional waters, of which 6,098 square feet (0.14 acre) consist of jurisdictional wetlands within the Meadowood Specific Plan Area. Impacts to Corps isolated waters total 3,005 square feet (0.07 acre), none of which consist of wetlands.

Table Four below outlines impacts to Corps jurisdictional and isolated waters related to this project and Table Five outlines impacts to Corps jurisdictional waters and linear foot impacts per drainage.

Table Four: Total Impacts to Corps Jurisdictional and Isolated Waters

Drainage Number	Total Non-Wetland Corps Jurisdictional Waters (in square feet)	Total Wetland Corps Jurisdictional Waters (in square feet)	Total Non-Wetland Corps Isolated Waters (in square feet)	Total Impacts to Corps Jurisdictional Waters (in square feet)	Total Impacts to Corps Jurisdictional Wetlands (in square feet)	Total Impacts to Corps Isolated Waters (in square feet)
Drainage 1 and its Tributaries	2,893	0	0	2,892	0	0
Drainage 2 and its Tributaries	3,607	0	0	2,479	0	0
Drainage 3 and its Tributaries	3,488	0	0	3,303	0	0
Drainage 4 and its Tributaries	26,449	6,098	0	32,547	6,098	0
Drainage 5 and its Tributaries	0	0	2,572	0	0	2,572
Drainage 6 and its Tributary	0	0	433	0	0	433
Drainage 8 and its Tributary	0	0	247	0	0	0
Drainage 9 and its Tributary	0	0	681	0	0	0

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Drainage Number	Total Non-Wetland Corps Jurisdictional Waters (in square feet)	Total Wetland Corps Jurisdictional Waters (in square feet)	Total Non-Wetland Corps Isolated Waters (in square feet)	Total Impacts to Corps Jurisdictional Waters (in square feet)	Total Impacts to Corps Jurisdictional Wetlands (in square feet)	Total Impacts to Corps Isolated Waters (in square feet)
Drainage 10 and its Tributary	2,698	0	0	0	0	0
Drainage 12	765	0	0	0	0	0
Total	39,900 (0.91 acre)	6,098 (0.14 acre)	3,933 (0.09 acre)	41,221 (0.95 acre)	6,098 (0.14 acre)	3,005 (0.07 acre)

Table Five: Total Corps Jurisdiction, Impacts to Corps Jurisdiction, and Linear Feet of Drainage

Drainage Number	Total Corps Jurisdiction (in square feet)	Total Impacts to Corps Jurisdictional Waters (in square feet)	Total Linear Feet of Drainage (in feet)	Total Impacts to Linear Feet of Drainage (in feet)
Drainage 1 and its Tributaries	2,893	2,892	2,323	2,323
Drainage 2 and its Tributaries	3,607	2,479	3,051	1,922
Drainage 3 and its Tributaries	3,488	3,303	1,776	1,591
Drainage 4 and its Tributaries	32,547	32,547	9,237	9,237
Drainage 5 and its Tributaries	2,572	0	3,141	3,141
Drainage 6 and its Tributary	433	0	405	405
Drainage 8 and its Tributary	247	0	246	0
Drainage 9 and its Tributary	681	0	340	0
Drainage 10 and its Tributary	2,698	0	1,890	0
Drainage 12	765	0	765	0
Total	49,931 (1.15 acre)	41,221 (0.95 acre)	23,174	18,899

B. Impacts to Horse Ranch Creek Road Extension

According to REC's delineation report, impacts associated with the Horse Ranch Creek Road Extension total 6,720 square feet (0.15 acre) of Corps jurisdictional waters, of which 6,400 square feet (0.15 acre) consist of jurisdictional wetlands. Of the 6,720 square feet (0.15 acre) of impacts, approximately 1,680 square feet (0.04 acre) of Corps jurisdiction, of which 1,600 square feet (0.04 acre) consist of jurisdictional wetlands, are temporary impacts and 5,040 square feet (0.11 acre), of which 4,800 square feet (0.11 acre) consist of jurisdictional wetlands, are permanent impacts. Table Six below outlines temporary and permanent impacts to Corps jurisdictional waters associated with the Horse Ranch Creek Road Extension.

Table Six: Total Impacts to Corps Jurisdiction-Horse Ranch Creek Road Extension

Drainage Number	Total Corps Jurisdiction (in square feet)	Total Temporary Impacts to Corps Jurisdictional Waters (in square feet)	Total Permanent Impacts to Corps Jurisdictional Waters (in square feet)	Total Linear Feet of Drainage (in feet)	Total Impacts to Linear Feet of Drainage (in feet)
Horse Ranch Creek Road Extension	6,720	1,680	5,040	160	160
Total	6,720 (0.15 acre)	1,680 (0.04 acre)	5,040 (0.11 acre)	160	160

2. *Impacts to CDFG Jurisdiction*

A. Impacts to the Meadowood Specific Plan Area

Construction of the project, as proposed, would impact approximately 45,875 square feet (1.05 acres) of CDFG jurisdictional waters, of which 14,829 square feet (0.34 acre) consist of vegetated riparian habitat. Table Seven below outlines impacts to CDFG jurisdiction related to this project and Table Eight outlines impacts to CDFG jurisdiction and linear foot impacts to CDFG jurisdictional drainages.

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Table Seven: Total Impacts to CDFG Jurisdiction

Drainage Number	Total CDFG Streambed Jurisdiction (in square feet)	Total Vegetated Riparian Habitat (in square feet)	Total CDFG Jurisdiction (in square feet)	Total Impacts to CDFG Streambed (in square feet)	Total Impacts to CDFG Vegetated Riparian Habitat (in square feet)	Total Impacts to CDFG Jurisdiction (in square feet)
Drainage 1 and its Tributaries	2,893	0	2,893	2,892	0	2,892
Drainage 2 and its Tributaries	3,607	0	3,607	2,479	0	2,479
Drainage 3 and its Tributaries	3,488	0	3,488	3,303	0	3,303
Drainage 4 and its Tributaries	16,723	14,762	31,485	16,723	14,762	31,485
Drainage 5 and its Tributaries	5,215	0	5,215	5,215	0	5,215
Drainage 6 and its Tributary	433	67	500	433	67	500
Drainage 8 and its Tributary	249	0	249	0	0	0
Drainage 9 and its Tributary	140	17,835	17,975	0	0	0
Drainage 10 and its Tributary	2,698	0	2,698	0	0	0
Drainage 12	765	0	765	0	0	0
Total	36,211 (0.83 acre)	32,664 (0.75 acre)	68,875 (1.58 acre)	31,046 (0.71 acre)	14,829 (0.34 acre)	45,875 (1.05 acre)

Table Eight: Total CDFG Jurisdiction, Impacts to CDFG Jurisdiction, and Total Impacts to Linear Feet of Jurisdiction On Site

Drainage Number	Total CDFG Jurisdiction (in square feet)	Total Impacts to CDFG Jurisdiction (in square feet)	Total Linear Feet of Drainage (in feet)	Total Impacts to Linear Feet of Drainage (in feet)
Drainage 1 and its Tributaries	2,893	2,893	2,323	2,323
Drainage 2 and its Tributaries	3,607	2,479	3,051	1,922
Drainage 3 and its Tributaries	3,488	3,303	1,776	1,591
Drainage 4 and its Tributaries	31,485	31,485	9,237	9,237
Drainage 5 and its Tributaries	5,215	5,215	3,141	3,141
Drainage 6 and its Tributary	500	500	405	405
Drainage 8 and its Tributary	249	0	246	0
Drainage 9 and its Tributary	17,975	0	340	0
Drainage 10 and its Tributary	2,698	0	1,890	0
Drainage 12	765	0	764	0
Total	68,875 (1.58 acre)	45,875 (1.05 acre)	22,933	18,379

B. Impacts to Horse Ranch Creek Road Extension

According to REC's delineation report, impacts associated with the Horse Ranch Creek Road Extension total 6,720 square feet (0.15 acre) of CDFG jurisdiction, of which 6,400 square feet (0.15 acre) consist of vegetated riparian habitat. Of the 6,720 square feet (0.15 acre) of CDFG impacts, approximately 1,680 square feet (0.04 acre) of CDFG jurisdiction, of which 1,600 square feet (0.04 acre) consist of vegetated riparian habitat, are temporary impacts and 5,040 square feet (0.11 acre), of which 4,800 square feet (0.11 acre) consist of vegetated riparian habitat, are permanent impacts. Table Nine below

outlines temporary and permanent impacts to CDFG jurisdiction associated with the Horse Ranch Creek Road Extension.

Table Nine: Total Impacts to CDFG Jurisdiction-Horse Ranch Creek Road Extension

Drainage Number	Total CDFG Jurisdiction (in square feet)	Total Temporary Impacts to CDFG Jurisdiction (in square feet)	Total Permanent Impacts to CDFG Jurisdiction (in square feet)	Total Linear Feet of Drainage (in feet)	Total Impacts to Linear Feet of Drainage (in feet)
Horse Ranch Creek Road Extension	6,720	1,680	5,040	160	160
Total	6,720 (0.15 acre)	1,680 (0.04 acre)	5,040 (0.11 acre)	160	160

3. *Impacts to County of San Diego Jurisdiction*

Construction of the project, as proposed, would impact approximately 6,098 square feet (0.14 acre) of County wetlands. According to REC's delineation report, project impacts to County wetlands within the Horse Ranch Creek Road Extension Project total 6,400 square feet (0.15 acre). Of the 6,400 square feet (0.15 acre) of impact within County jurisdiction associated with the Horse Ranch Creek Road Extension, approximately 1,600 square feet (0.04 acre) is temporary and the remaining 4,800 square feet (0.11 acre) is permanent. Table Ten below outlines County impacts related to this project.

Table Ten: Total Impacts to County Wetlands

Drainage Number	Total County of San Diego Wetlands (in square feet)	Total Temporary Impacts to County of San Diego Wetlands (in square feet)	Total Permanent Impacts to County of San Diego Wetlands (in square feet)
Drainage 4 and its Tributaries	6,098	0	6,098
Horse Ranch Creek Road Extension Impacts	6,400	1,600	4,800

Hugh Hewitt
Hewitt & O'Neil
September 22, 2006
[Revised November 5, 2007
For County of San Diego Purposes Only]
Page 40

Drainage Number	Total County of San Diego Wetlands (in square feet)	Total Temporary Impacts to County of San Diego Wetlands (in square feet)	Total Permanent Impacts to County of San Diego Wetlands (in square feet)
Total	12,498 (0.29 acre)	1,600 (0.04 acre)	10,898 (0.25 acre)

If you have any questions about this letter report, please contact either Darlene Shelley or Martin Rasnick at (949) 837-0404.

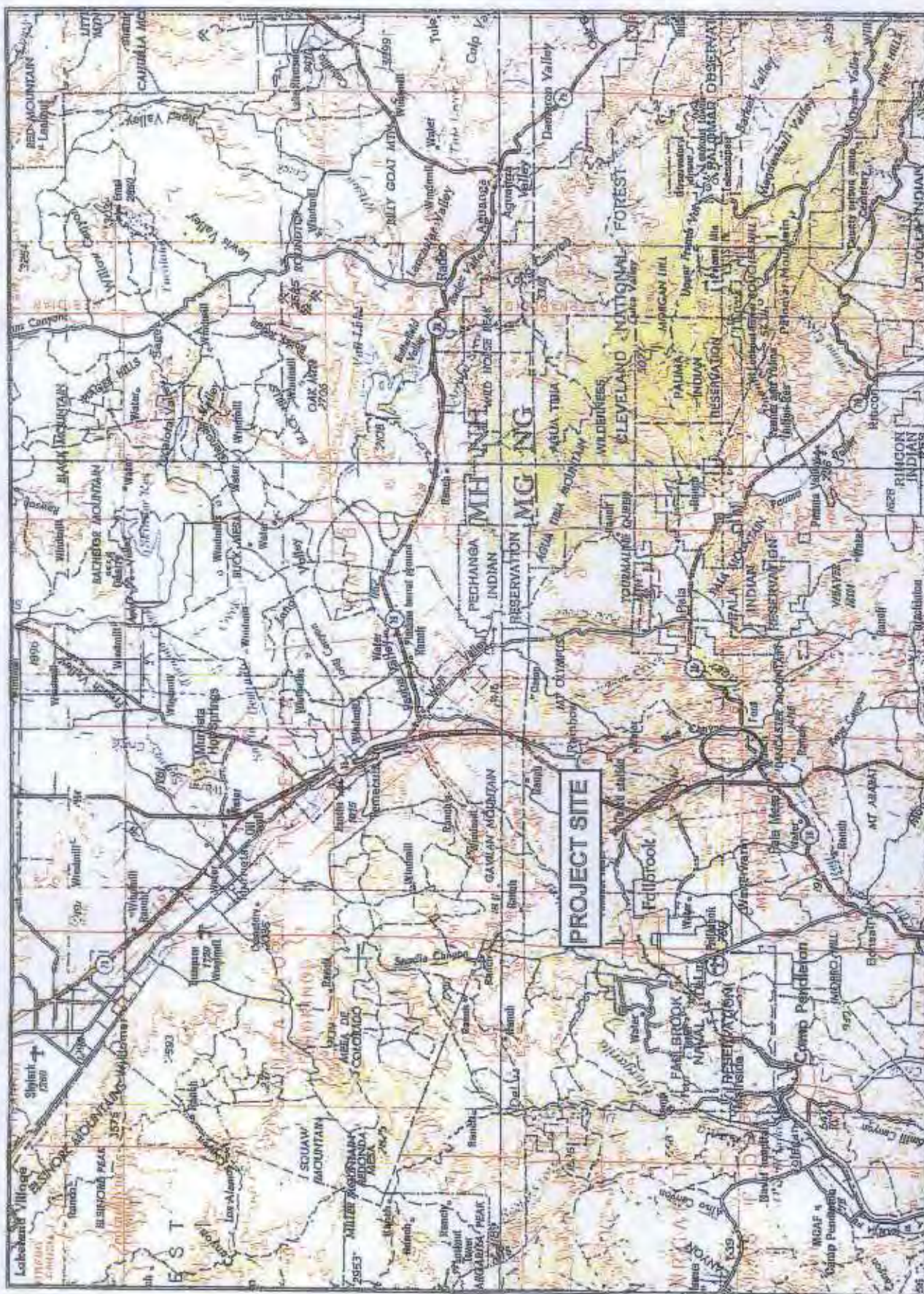
Sincerely,

GLENN LUKOS ASSOCIATES, INC.

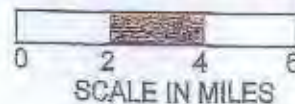
Darlene A. Shelley
for

Martin A. Rasnick
Regulatory Specialist

s: 0163-83j.rpt

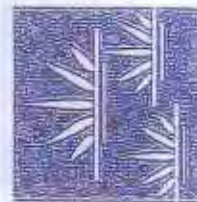


Adapted from USGS Santa Ana Quadrangle



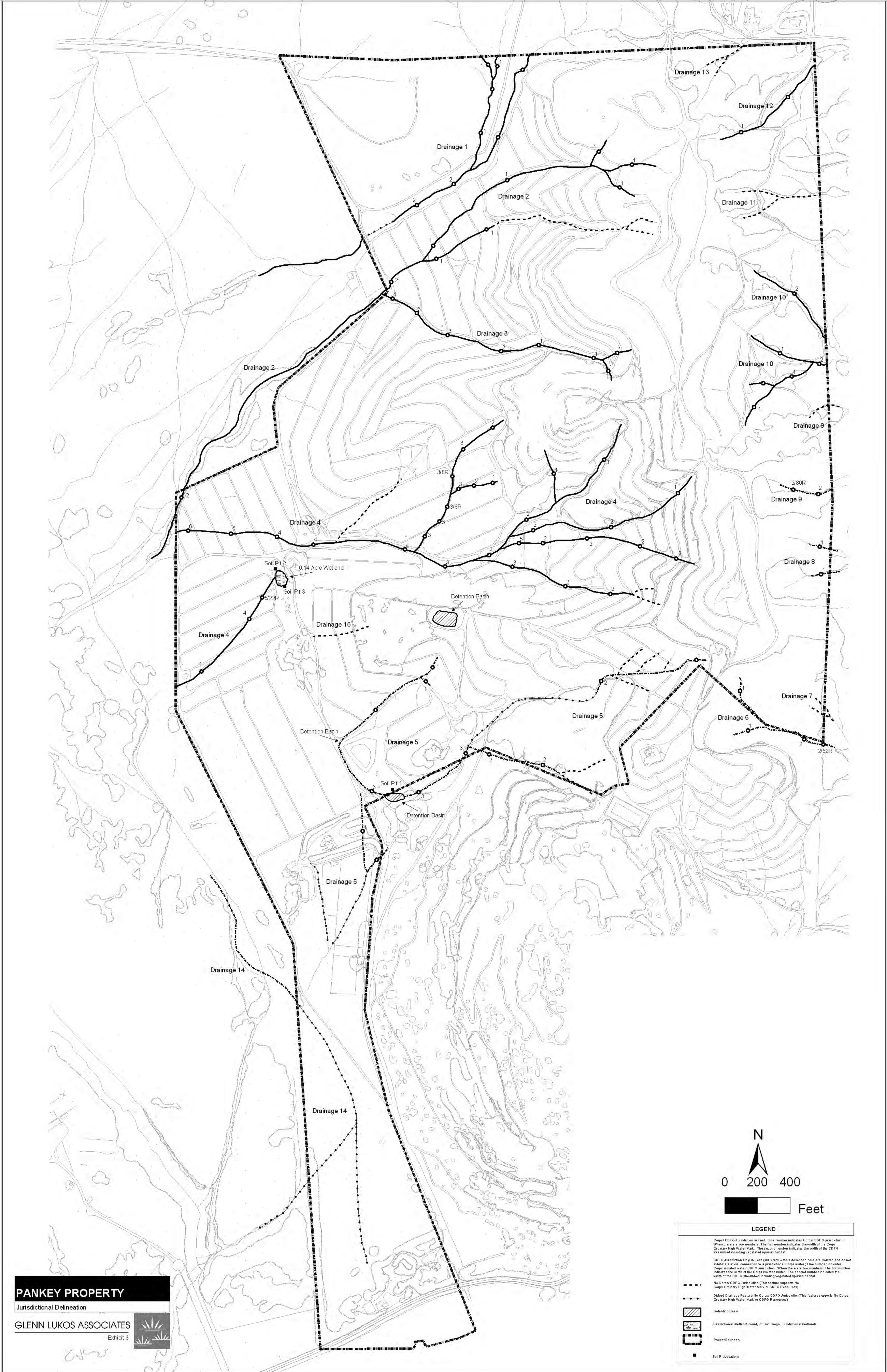
PANKKEY PROJECT

Regional Map



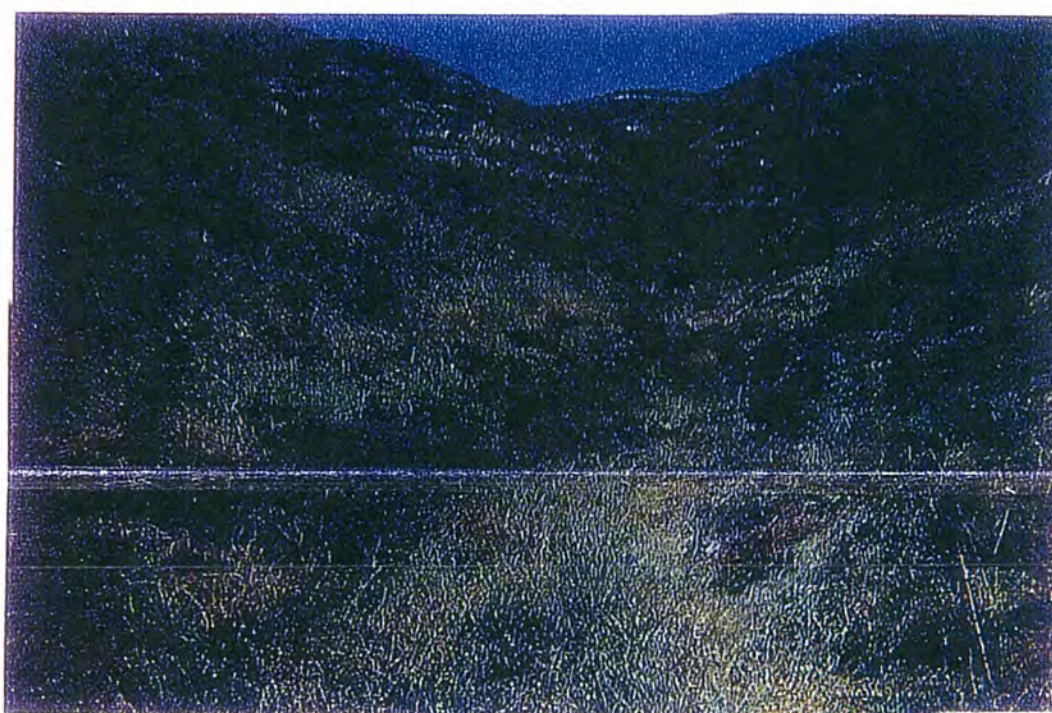
GLENN LUKOS ASSOCIATES

EXHIBIT 1





Photograph 1: Northern view of Drainage 1 near the northwestern project boundary. This photograph depicts the existing conditions of most on site drainage features.



Photograph 2: Eastern view of Drainage 2 near the western project boundary.



Photograph 3: Western view of Drainage 4 in the western portion of the project area.

PANKEY PROPERTY

Site Photographs

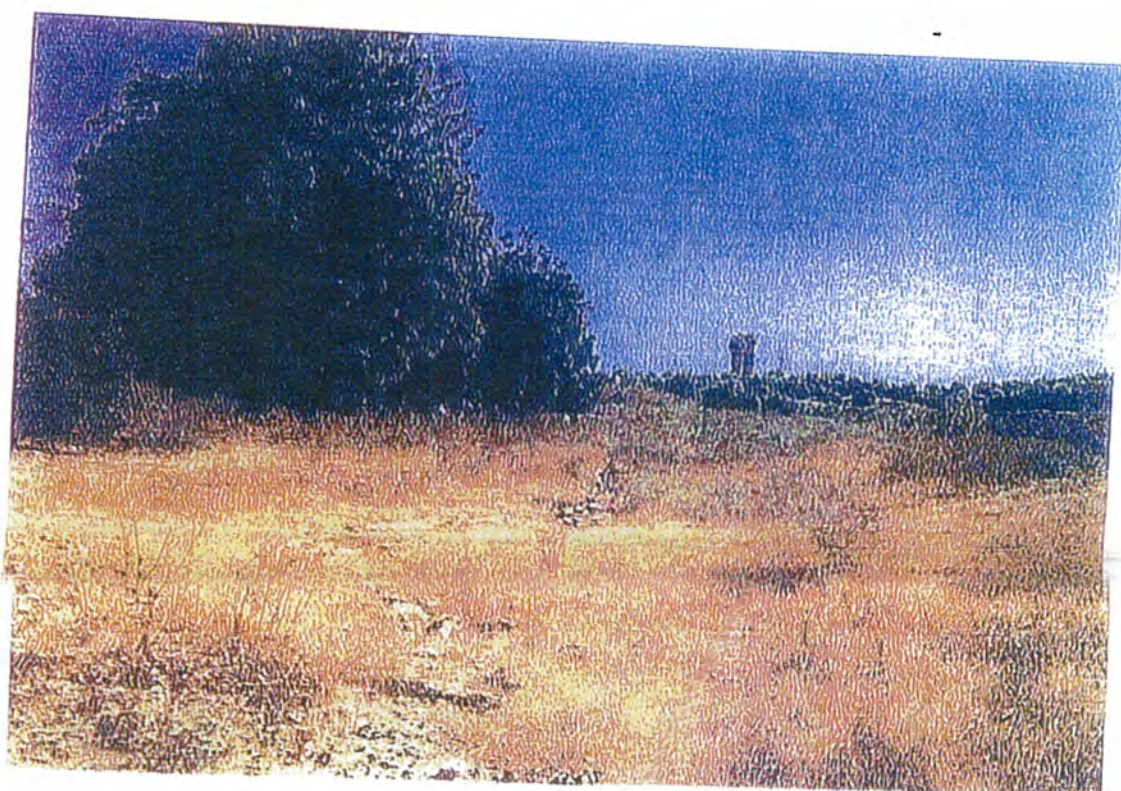
GLENN LUKOS ASSOCIATES

EXHIBIT 4

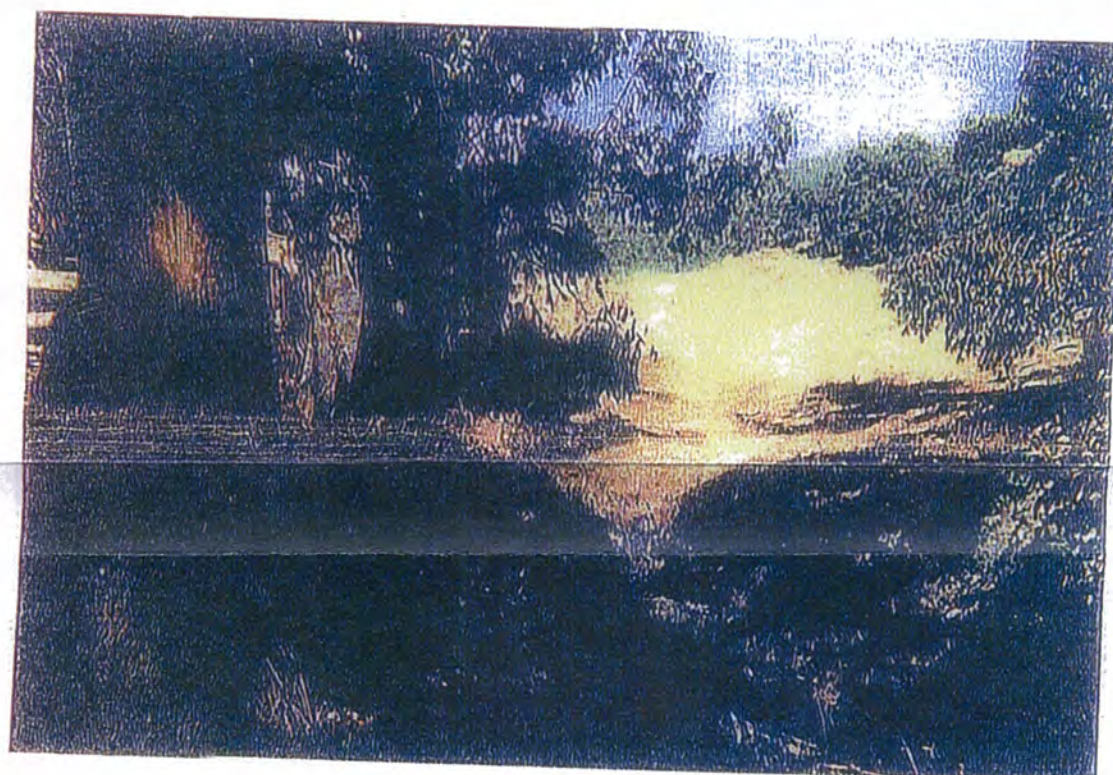




Photograph 4: Western view of Drainage 5 depicting the disked drainage with rock piles around and/or in the former drainage path.



Photograph 5: Western view of Drainage 5 downstream of the disked portion of the drainage.



Photograph 6: Western view of Drainage 5 prior to entering into a detention basin in the central portion of the project area.



DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Parker Property</u> Applicant/Owner: _____ Investigator: <u>M. Pasnick / D. Stelley</u>	Date: <u>7-1-03</u> County: <u>S.D.</u> State: <u>CA</u>
Do Normal Circumstances exist on the site? Yes <input type="radio"/> No <input checked="" type="radio"/> Is the site significantly disturbed (Atypical Situation)? Yes <input type="radio"/> No <input checked="" type="radio"/> Is the area a potential Problem Area? Yes <input type="radio"/> No <input checked="" type="radio"/> (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: <u>1</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Potamogeton nodosus</u>	<u>N</u>	<u>Fresh</u>	9. _____	_____	_____
2. _____	_____	_____	10. _____	_____	_____
3. _____	_____	_____	11. _____	_____	_____
4. _____	_____	_____	12. _____	_____	_____
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): _____

Remarks: _____

HYDROLOGY

<p>Recorded Data (Describe in Remarks):</p> <p> <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No Recorded Data Available </p> <hr/> <p>Field Observations:</p> <p>Depth of Surface Water: <u>1/2"</u> (in.)</p> <p>Depth to Free Water in Pit: <u>Surface</u> (in.)</p> <p>Depth to Saturated Soil: <u>Surface</u> (in.)</p>	<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators:</p> <p> <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands </p> <p>Secondary Indicators (2 or more required):</p> <p> <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks) </p>
<p>Remarks: _____</p>	

SOILS

Map Unit Name (Series and Phase): _____				Drainage Class: _____	
Taxonomy (Subgroup): _____				Field Observations Confirm Mapped Type? Yes No	
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-8	A	10YR2/2	—	—	Sandy

Hydric Soil Indicators:

<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low-Chrome Colors	<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Remarks)
---	--

Remarks: No mottles; rock after 8"

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No (Circle) Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	Is this Sampling Point Within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/> (Circle)
Remarks:	

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Parkway Property</u> Applicant/Owner: _____ Investigator: <u>M. Rarnick / D. Stelley</u>	Date: <u>7-1-03</u> County: <u>SD</u> State: <u>CA</u>				
Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on reverse.)	<table style="width: 100%;"> <tr> <td style="text-align: center;">Yes <input type="radio"/> No <input checked="" type="radio"/></td> <td rowspan="3" style="vertical-align: middle; padding: 0 10px;"> Community ID: _____ Transect ID: _____ Plot ID: <u>(2)</u> </td> </tr> <tr> <td style="text-align: center;">Yes <input checked="" type="radio"/> No <input type="radio"/></td> </tr> <tr> <td style="text-align: center;">Yes <input type="radio"/> No <input checked="" type="radio"/></td> </tr> </table>	Yes <input type="radio"/> No <input checked="" type="radio"/>	Community ID: _____ Transect ID: _____ Plot ID: <u>(2)</u>	Yes <input checked="" type="radio"/> No <input type="radio"/>	Yes <input type="radio"/> No <input checked="" type="radio"/>
Yes <input type="radio"/> No <input checked="" type="radio"/>	Community ID: _____ Transect ID: _____ Plot ID: <u>(2)</u>				
Yes <input checked="" type="radio"/> No <input type="radio"/>					
Yes <input type="radio"/> No <input checked="" type="radio"/>					

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Arroyo Willow</u>	<u>T</u>	<u>Fach</u>	9. _____	_____	_____
2. <u>Cyperus sp.</u>	<u>H</u>	<u>Fach</u>	10. _____	_____	_____
3. <u>Piper? sp.</u>	<u>H</u>	<u>Fac</u>	11. _____	_____	_____
4. _____	_____	_____	12. _____	_____	_____
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: _____

HYDROLOGY

<p>Recorded Data (Describe in Remarks):</p> <p> <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No Recorded Data Available </p> <hr/> <p>Field Observations:</p> <p>Depth of Surface Water: <u>1/8" (in.)</u></p> <p>Depth to Free Water in Pit: <u>Surface (in.)</u></p> <p>Depth to Saturated Soil: <u>Surface (in.)</u></p>	<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators:</p> <p> <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands </p> <p>Secondary Indicators (2 or more required):</p> <p> <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks) </p>
<p>Remarks: _____</p>	

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Pankey Property</u> Applicant/Owner: _____ Investigator: <u>M. Kessner / D. Shelley</u>	Date: <u>7-1-03</u> County: <u>SD</u> State: <u>CA</u>
Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the area a potential Problem Area? <input checked="" type="radio"/> Yes <input type="radio"/> No (If needed, explain on reverse.)	
Community ID: _____ Transect ID: _____ Plot ID: <u>(3)</u>	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Typha sp.</u>	<u>H</u>	<u>OBL</u>	9. _____	_____	_____
2. _____	_____	_____	10. _____	_____	_____
3. _____	_____	_____	11. _____	_____	_____
4. _____	_____	_____	12. _____	_____	_____
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: _____

HYDROLOGY

<p><input type="checkbox"/> Recorded Data (Describe in Remarks):</p> <p style="margin-left: 20px;"><input type="checkbox"/> Stream, Lake, or Tide Gauge</p> <p style="margin-left: 20px;"><input type="checkbox"/> Aerial Photographs</p> <p style="margin-left: 20px;"><input type="checkbox"/> Other</p> <p><input checked="" type="checkbox"/> No Recorded Data Available</p> <hr/> <p>Field Observations:</p> <p>Depth of Surface Water: <u>0</u> (in.)</p> <p>Depth to Free Water in Pit: <u>0</u> (in.)</p> <p>Depth to Saturated Soil: <u>0</u> (in.)</p>	<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators:</p> <p style="margin-left: 20px;"><input type="checkbox"/> Inundated</p> <p style="margin-left: 20px;"><input type="checkbox"/> Saturated in Upper 12 Inches</p> <p style="margin-left: 20px;"><input checked="" type="checkbox"/> Water Marks</p> <p style="margin-left: 20px;"><input type="checkbox"/> Drift Lines</p> <p style="margin-left: 20px;"><input checked="" type="checkbox"/> Sediment Deposits</p> <p style="margin-left: 20px;"><input checked="" type="checkbox"/> Drainage Patterns in Wetlands</p> <p>Secondary Indicators (2 or more required):</p> <p style="margin-left: 20px;"><input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12 Inches</p> <p style="margin-left: 20px;"><input type="checkbox"/> Water-Stained Leaves</p> <p style="margin-left: 20px;"><input type="checkbox"/> Local Soil Survey Data</p> <p style="margin-left: 20px;"><input checked="" type="checkbox"/> FAC-Neutral Test</p> <p style="margin-left: 20px;"><input type="checkbox"/> Other (Explain in Remarks)</p>
<p>Remarks: _____</p>	

GLENN LUKOS ASSOCIATES

Regulatory Services



April 13, 2007
[Revised November 5, 2007]
[Revised April 4, 2008]
[Revised May 23, 2008]
[Revised June 27, 2008]
[Revised July 14, 2008]

Hugh Hewitt
Hewitt & O'Neil
19900 MacArthur Boulevard
Suite 1050
Newport Beach, California 92660

SUBJECT: Jurisdictional Delineation of Eight Off Site Road Improvements and a Waste Water Treatment Plant Associated with the Meadowood Specific Plan in the Community of Fallbrook, San Diego County, California.

Dear Mr. Hewitt:

This revised report reflects the U.S. Army Corps of Engineers (Corps) field guidance for jurisdiction for the eight off site road improvements and the Waste Water Treatment Plant (WWTP) associated with the Meadowood Residential Development Project (Project) as represented by Terry Dean and Therese O'Rourke on July 10, 2008 during an on site field visit to verify the preliminary jurisdictional findings noted by Glenn Lukos Associates.

The Project is located between 33°19'30" and 33°21'30" latitude north and 117°8'0" and 117°9'30" longitude west within Section 25, 26, 35, and 36, Township 9 South, and Range 3 West and Sections 1 and 12, Township 10 South, and Range 3 West within the Community of Fallbrook, San Diego County [Exhibit 1]. The Project is bounded by the San Luis Rey River to the south, Stewart Canyon Road to the north, U.S. Highway 395 to the west, and Rice Canyon Road to the east. The Project area supports one blue-line drainage (as depicted on the U.S. Geological Survey (USGS) topographic map Bonsall, California [dated 1968 and photorevised in 1975]) [Exhibit 2]. On July 19, August 15, 2006, and April 2, 2008 regulatory specialists of Glenn Lukos Associates, Inc. (GLA) examined the Project area to determine the limits of (1) Corps jurisdiction pursuant to Section 404 of the Clean Water Act, and (2) CDFG jurisdiction pursuant to Division 2, Chapter 6, Section 1600 of the Fish and Game Code. Enclosed is a 200-scale map [Exhibit 3 and 3b], which depicts the areas of Corps and CDFG jurisdiction. A graphic depicting the topography, and vegetative communities, is attached as Exhibit 4.

Hugh Hewitt
Hewitt & O'Neil
April 13, 2007
[Revised November 5, 2007]
[Revised April 4, 2008]
[Revised May 23, 2008]
[Revised June 27, 2008]
[Revised July 10, 2008]
Page 2

Corps jurisdiction associated with the off site road improvements and the WTP is 189,612 square feet (4.35 acres), of which 189,100 square feet (4.34 acres) consist of jurisdictional wetlands. Construction of the off site road improvements and proposed WTP would temporarily impact a total of 83,512 square feet (1.91 acres) of Corps jurisdiction, of which 83,200 square feet (1.91 acres) consist of jurisdictional wetlands, and permanently impact 106,100 square feet (2.44 acres) of Corps jurisdictional waters, of which 105,900 square feet (2.43 acres) consist of jurisdictional wetlands. Permanent linear-foot impacts associated with the Project total 2,446 linear feet.

CDFG jurisdiction associated with the off site road improvements and the WWTP total 189,612 square feet (4.35 acres), of which 189,100 square feet (4.34 acres) consist of vegetated riparian habitat. Construction of the off site road improvements and the WWTP would temporarily impact a total of 83,512 square feet (1.91 acres) of CDFG jurisdiction, of which 83,200 square feet (1.91 acres) consist of vegetated riparian habitat, and permanently impact a total of 106,100 square feet (2.44 acres) of CDFG jurisdiction, of which 105,900 square feet (2.43 acres) consist of vegetated riparian habitat. Permanent linear-foot impacts associated with the Project total 2,446 linear feet.

County of San Diego wetlands associated with the off site road improvements and the WWTP is approximately 189,100 square feet (4.34 acres), all of which consist of vegetated riparian habitat. Construction of the project, as proposed, would temporarily impact a total of 83,200 square feet (1.91 acres) of County of San Diego wetlands, all of which support vegetated riparian habitat, and permanently impact a total of 105,900 square feet (2.43 acres) of County of San Diego wetlands, all of which support vegetated riparian habitat.

Hugh Hewitt
Hewitt & O'Neil
April 13, 2007
[Revised November 5, 2007]
[Revised April 4, 2008]
[Revised May 23, 2008]
[Revised June 27, 2008]
[Revised July 10, 2008]
Page 3

I. METHODOLOGY

Prior to beginning the field delineation a 200-scale color aerial photograph, a 200-scale topographic base map of the property, and the previously cited USGS topographic map were examined to determine the locations of potential areas of Corps/CDFG jurisdiction. Suspected jurisdictional areas were field checked for the presence of definable channels and/or wetland vegetation, soils and hydrology. Suspected wetland habitats on the site were evaluated using the methodology set forth in the U.S. Army Corps of Engineers 1987 Wetland Delineation Manual¹ (Wetland Manual). While in the field the jurisdictional area was recorded onto a 200-scale color aerial photograph using visible landmarks. Other data were recorded onto wetland data sheets.

The Soil Conservation Service (SCS)² has mapped the following soil type as occurring in the general vicinity of the project site:

Arlington Coarse Sandy Loam, 2 to 9 Percent Slopes (AvC)

The Arlington series consists of moderately well drained, moderately deep coarse sandy loams underlain by weakly cemented granitic material. These soils are located on alluvial fans and have slopes of 2 to 9 percent. The upper 9 inches of consist of brown (10YR 5/3) coarse sandy loam when dry and dark brown (10YR 3/3) coarse sandy loam when moist. The Arlington soils are used mainly for range and small portions are farmed for tomatoes, flowers, and truck crops.

Cieneba Course Sandy Loam, 15 to 30 Percent Slopes, Eroded (C1G2) and Cieneba Very Rocky Course Sandy Loam, 30 to 75 Percent Slopes (CmrG)

The Cieneba series consists of excessively drained, very shallow-to-shallow course sandy loams that formed in material weathered in place from granitic rock. These soils are located on rolling to mountainous uplands and have slopes ranging of 4 to 75 percent. The upper 10 inches of soil consist of brown (10YR 5/3) course sandy loam when dry and dark brown (10YR 3/2) course

¹ Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, U.S. Army Engineer Waterways Experimental Station, Vicksburg, Mississippi.

² SCS is now known as the National Resource Conservation Service or NRCS.

Hugh Hewitt
Hewitt & O'Neil
April 13, 2007
[Revised November 5, 2007]
[Revised April 4, 2008]
[Revised May 23, 2008]
[Revised June 27, 2008]
[Revised July 10, 2008]
Page 4

sandy loam when moist. The Cieneba series are used for avocados, range, wildlife habitat, recreational areas, watershed, and some small areas are used for citrus.

Escondido Very Fine Sandy Loam, 5 to 9 Percent Slopes (EsC) and Escondido Very Fine Sandy Loam, 15 to 30 Percent Slopes, Eroded (EsE2)

The Escondido series consists of moderately deep-to-deep, well-drained very fine sandy loams that formed in material weathered in place from metamorphosed sandstone. These soils are located on gently rolling to hilly uplands and have slopes of 5 to 30 percent. The upper 17 inches of soil consist of dark brown (7.5YR 4/4) very fine sandy loam when dry and dark reddish brown (5YR 3/3 and 5YR 3/4) very fine sandy loam when moist. The Escondido series are used for range, citrus, tomatoes, flowers.

Fallbrook Sandy Loam, 5 to 9 Percent Slopes, Eroded (FaC2), Fallbrook Sandy Loam, 9 to 15 Percent Slopes, Eroded (FaD2), and Fallbrook Sandy Loam, 15 to 30 Percent Slopes, Eroded (FaE2)

The Fallbrook series consists of well-drained, moderately deep-to-deep sandy loams in upland areas that developed or formed in material weathered in place or from granodiorite. These soils have slopes of 2 to 30 percent. The upper 12 inches of soil consist of brown (10YR 5/3) and reddish-brown (5YR 5/3) sandy loam when dry and dark brown (10YR 3/3) and dark reddish-brown (5YR 3/3) sandy loam when moist. The Fallbrook soils are used for avocado and citrus orchards, tomatoes, flowers, truck crops, grain, grain hay, and pasture.

Friant Fine Sandy Loam, 30 to 50 Percent Slopes (FwF)

The Friant series consists of shallow and very shallow, well-drained fine sandy loams that formed in material weathered from fine-grained metasedimentary rock. These soils are on mountainous uplands and have slopes of 9 to 70 percent. The upper 12 inches of soil consist of dark-brown (10YR 4/4) fine sandy loam to brown (10YR 5/3) heavy fine sandy loam when dry and dark brown (10YR 3/3) fine sandy loam to dark-brown (10YR 4/3) heavy fine sandy loam when moist. The Friant soils are used for watershed and wildlife habitat, and a limited acreage is used for range.

Hugh Hewitt
Hewitt & O'Neil
April 13, 2007
[Revised November 5, 2007]
[Revised April 4, 2008]
[Revised May 23, 2008]
[Revised June 27, 2008]
[Revised July 10, 2008]
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Grangeville Fine Sandy Loam, 0 to 2 Percent Slopes (GoA)

The Grangeville series consists of somewhat poorly drained, very deep fine sandy loams derived from granitic alluvium. These soils are located on alluvial fans and alluvial plains and have slopes of 0 to 2 percent. The upper 11 inches of soil consist of grayish-brown (10YR 5/2) fine sandy loam when dry and dark grayish-brown (10YR 3/2) fine sandy loam when moist. The Grangeville soils are used for tomatoes, flowers, pasture, and truck crops.

Las Posas Stony Fine Sandy Loam 30 to 65 Percent Slopes (LrG), Las Posas Fine Sandy Loam, 5 to 9 Percent Slopes, Eroded (LpD2), and Las Posas Fine Sandy Loam, 15 to 30 Percent Slopes, Eroded (LpE2)

The Las Posas series consists of well-drained, moderately deep stony fine sandy loams underlain with clay subsoil that formed in material weathered from basic igneous rock. These soils are located on uplands and have slopes of 2 to 65 percent. The upper 4 inches of soil consist of reddish-brown (5YR 5/3) fine stony sandy loam when dry and dark reddish-brown (10YR 3/3) fine stony sandy loam when moist. The Las Posas soils are used mainly for tomatoes, flowers, citrus, field crops, range, and watershed.

Placentia Sandy Loam, 2 to 9 Percent Slopes (PeC) and Placentia Sandy Loam, 9 to 15 Percent Slopes, Eroded (PeD2)

The Placentia series consists of moderately well drained sandy loams that have sandy clay subsoil that formed in granitic alluvium. These soils are on old alluvial fans and have slopes of 0 to 15 percent. The upper 13 inches of soil consist of brown (10YR 5/3) sandy loam when dry to dark-brown (10YR 4/3) sandy loam to dark grayish brown (10YR 4/2) sandy loam when moist. The Placentia soils are used mainly for dry-farmed crops, tomatoes, flowers, range, and a few areas are irrigated and used for orchards and for grain.

Ramona Sandy Loam, 2 to 5 Percent Slopes (RaB), Ramona Sandy Loam, 5 to 9 Percent Slopes (RaC), Ramona Sandy Loam, 5 to 9 Percent Slopes, Eroded (RaC2), and Ramona Sandy Loam, 9 to 15 Percent Slopes, Eroded (RaD2)

The Ramona series consists of well-drained, very deep sandy loams underlain with clay loam subsoil that formed in granitic alluvium. These soils are located on terraces and alluvial fans

Hugh Hewitt
Hewitt & O'Neil
April 13, 2007
[Revised November 5, 2007]
[Revised April 4, 2008]
[Revised May 23, 2008]
[Revised June 27, 2008]
[Revised July 10, 2008]
Page 6

with slopes of 0 to 30 percent. The upper 12 inches of soil consist of yellowish-brown (10YR 5/4) sandy loam when dry and dark-brown (10YR 3/3) sandy loam when moist. The Ramona soils are used mainly for dry-farmed crops, citrus, truck crops, tomatoes, flowers, pasture, range, and housing development.

Steep Gullied Land (StG)

Steep gullied land consists of strongly sloping to steep areas that are actively eroding into old alluvium or decomposed rock. These occur as large individual gullies or as a network of many gullies in areas where the vegetative cover is sparse or has been severely depleted by grazing or fires.

Tujunga Sand, 0 to 5 Percent Slopes (TuB)

The Tujunga series consists of very deep, excessively drained, sands derived from granitic alluvium. These soils are located on alluvial fans and floodplains and support slopes of 0 to 9 percent. The upper 14 inches consist of brown (10YR 5/3) sand when dry and dark grayish-brown (10YR 4/2) sand when moist. The Tujunga soils are used mainly for range and golf courses and a few small areas are used for avocados, flowers, and truck crops.

Visalia Sandy Loam, 0 to 2 Percent Slopes (VaA), Visalia Sandy Loam, 2 to 5 Percent slopes (VaB)

The Visalia series consists of moderately well drained, very deep sandy loams derived from granitic alluvium. These soils are located on alluvial fans and flood plains and have slopes of 0 to 15 percent. The upper 12 inches of soil consist of dark grayish-brown (10YR 4/2) sandy loam when dry and very dark-brown (10YR 2/2) sandy loam when moist. The Visalia soils are used mainly for avocados, citrus, walnut orchards, truck crops, irrigated pasture, field crops, tomatoes, flowers, and nursery stock.

Vista Course Sandy Loam, 30 to 65 Percent Slopes (VsG)

The Vista series consists of well-drained, moderately deep and deep course sandy loams derived from granodiorite or quartz diorite. These soils are on uplands and have slopes of 5 to 65 percent. The upper 12 inches of soil consist of dark grayish-brown (10YR 4/2) to dark-brown

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(10YR 4/3) course sandy loam when dry and dark-brown (10YR 3/3) course sandy loam when moist. The Vista soils are used mainly for avocados, citrus orchards, truck crops, flowers, small grain, range, and housing developments.

Wyman Loam, 2 to 5 Percent Slopes (WmB), Wyman Loam, 5 to 9 Percent Slopes (WmC), and Wyman Loam, 9 to 15 Percent Slopes (WmD)

The Wyman series consists of well-drained, very deep loams that formed in alluvium derived from basic igneous rock. These soils are located on alluvial fans and have slopes of 2 to 15 percent. The upper 7 inches of consist of brown (7.5YR 5/2) loam when dry and dark brown (7.5YR 3/2) loam when moist. The Wyman soils are used mainly for citrus orchards, truck crops, tomatoes, flowers, and range.

None of these soil units are identified as hydric in the SCS's publication, Hydric Soils of the United States³ or in the County of San Diego's hydric soils list; however, four soils, Placentia Sandy Loam, 2 to 9 Percent Slopes (PeC), Steep Gullied Land (StG), Tujunga Sand, 0 to 5 Percent Slopes (TuB), and Visalia Sandy Loam, 0 to 2 Percent Slopes (VaA), may be considered hydric soils if they meet the following criteria according to the local hydric soils list:

Soils in the Aquic suborder, Aquic subgroups, Albolls suborder, Salorthids great group, Pell great group of Vertisols, Pachic subgroups, or Cumulic subgroups that are poorly drained or very poorly drained and have a frequently occurring water table at less than 1.5 feet from the surface for a significant period (usually more than two weeks) during the growing season if permeability is less than 6.0 in/hr in any layer within 20 inches.

Secondly, Placentia Sandy Loam, 2 to 9 Percent Slopes (PeC), soils would be considered hydric if they are frequently ponded for a long duration or very long duration during the growing season.

³ United States Department of Agriculture, Soil Conservation Service. 1991. Hydric Soils of the United States, 3rd Edition, Miscellaneous Publication Number 1491. (In cooperation with the National Technical Committee for Hydric Soils.)

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In addition, the local hydric soil list indicates that Tujunga Sand, 0 to 5 Percent Slopes (TuB), with an inclusion of Riverwash, can be considered a hydric soil if *its soils are frequently flooded for long durations or very long durations during the growing season*.

Finally, the federal hydric soils list indicates that Tujunga Sand, 0 to 5 Percent Slopes (TuB), and Visalia Sandy Loam, 0 to 2 Percent Slopes (VaA) may support hydric landform inclusions if these soils are located in floodplains and *are hydric because of saturation and/or can be farmed under natural conditions without removing woody vegetation or other manipulation*. Placentia Sandy Loam, 2 to 9 Percent Slopes (PeC) may support hydric landform inclusions if depressions are present and *are seasonally flooded or ponded*, while Steep Gullied Land (StG) may support hydric landform inclusions if depressions are present and *are hydric because of saturation*.

II. JURISDICTION

A. Army Corps of Engineers

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 shell fish 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.*

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.

- (8) Waters of the United States do not include prior converted cropland.⁴ 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.*

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.

⁴ The term "prior converted cropland" is defined in the Corps' Regulatory Guidance Letter 90-7 (dated September 26, 1990) as "wetlands which were both manipulated (drained or otherwise physically altered to remove excess water from the land) and cropped before 23 December 1985, to the extent that they no longer exhibit important wetland values. Specifically, prior converted cropland is inundated for no more than 14 consecutive days during the growing season..." [Emphasis added.]

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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, 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 abutted 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.

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 a manual to guide its field personnel in

determining jurisdictional wetland boundaries. In 1989 the Federal Interagency Committee for Wetland Delineation developed an updated methodology, which was adopted by the Corps, U.S. Fish and Wildlife Service (USFWS), U.S. Environmental Protection Agency (EPA), and SCS, which replaced the 1987 Wetland Delineation Manual.⁵ The use of this 1989 manual was perceived by many to excessively increase the jurisdictional limits of wetlands. After several congressional hearings, EPA, Corps, SCS, and USFWS published proposed 1991 revisions to the 1989 manual.⁶ A few days afterwards, the President signed the Energy and Water Development Appropriations Act of 1992, which, in effect, prohibits the use of the 1989 manual. Because the 1991 proposed revisions to the 1989 manual have not yet been adopted, the only remaining valid methodology is the 1987 Wetland Delineation Manual.⁷ The methodology set forth in the 1987 Wetland Delineation Manual generally requires that, in order to be considered a wetland, the vegetation, soils, and hydrology of an area exhibit at least minimal hydric characteristics. While the manual provides great detail in methodology and allows 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 typical of wetlands (i.e., rated as facultative or wetter in the National List of Plant Species that Occur in Wetlands⁸);
- 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

⁵ Federal Interagency Committee for Wetland Delineation. 1989. Federal Manual for Identifying and Delineating Jurisdictional Wetlands. U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, and USDA Soil Conservation Service, Washington, DC Cooperative technical publication.

⁶ Government Printing Office. 1991. Federal Register, "1989 Federal Manual for Identifying Jurisdictional Wetlands; Proposed Revisions." August 14, 1991, Vol. 56, No. 157, pp 40446-40480.

⁷ This delineation was performed using, where appropriate, the 1987 Wetland Manual. It is unlikely that any actions will be taken on a revised wetland manual in the near future. If a new manual is adopted, it may be necessary to review our delineation to determine its compliance with any changes set forth.

⁸ Reed, P.B., Jr. 1988. National List of Plant Species that Occur in Wetlands. U.S. Fish and Wildlife Service Biological Report 88(26.10).

- hydrologic characteristics must 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 year⁹.
1. **Corps Jurisdiction on Agricultural Lands**

Section 404 of the Clean Water Act requires a landowner to obtain a permit from the Corps prior to beginning any non-exempt activity involving the placement of dredged or fill material in waters of the U.S. Certain ongoing, normal farming practices in wetlands (and other waters of the U.S.) are exempt and do not require a permit. These practices include plowing, harvesting, seeding, minor drainage, and cultivation. Farmed waters of the U.S. fall into one of two categories:

The first of these is "prior converted cropland". *Prior converted croplands are wetlands that were drained, dredged, filled, leveled, or otherwise manipulated, including the removal of woody vegetation, before December 23, 1985, to make production of an agricultural commodity possible, and that (1) do not meet specific hydrologic criteria, (2) have had an agricultural commodity planted or produced at least once prior to December 23, 1985, and (3) have not since been abandoned.* Activities in prior converted cropland are not regulated under Section 404.

The second is "farmed wetlands". *Farmed wetlands are similar to prior converted cropland in that they were drained, dredged, filled, leveled, or otherwise manipulated before December 23, 1985, to make production of an agricultural commodity possible, but are often wet enough to still be valuable wetland habitat subject to ... Section 404.* Non-exempt activities in farmed wetlands are regulated under Section 404.

B. Regional Water Quality Control Board

Subsequent to the SWANCC decision, the Chief Counsel for the State Water Resources Control Board issued a memorandum that addressed the effects of the SWANCC decision on the Section 401 Water Quality Certification Program.¹⁰ The memorandum states:

⁹ For most of low-lying southern California, five percent of the growing season is equivalent to 18 days.

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California's right and duty to evaluate certification requests under section 401 is pendant to (or dependent upon) a valid application for a section 404 permit from the Corps, or another application for a federal license or permit. Thus if the Corps determines that the water body in question is not subject to regulation under the COE's 404 program, for instance, no application for 401 certification will be required...

The SWANCC decision does not affect the Porter Cologne authorities to regulate discharges to isolated, non-navigable waters of the states....
Water Code section 13260 requires "any person discharging waste, or proposing to discharge waste, within any region that could affect the waters of the state to file a report of discharge (an application for waste discharge requirements)." (Water Code § 13260(a)(1) (emphasis added).) The term "waters of the state" is defined as "any surface water or groundwater, including saline waters, within the boundaries of the state." (Water Code § 13050(e).) The U.S. Supreme Court's ruling in SWANCC has no bearing on the Porter-Cologne definition. While all waters of the United States that are within the borders of California are also waters of the state, the converse is not true—waters of the United States is a subset of waters of the state. Thus, since Porter-Cologne was enacted California always had and retains authority to regulate discharges of waste into any waters of the state, regardless of whether the COE has concurrent jurisdiction under section 404. The fact that often Regional Boards opted to regulate discharges to, e.g., vernal pools, through the 401 program in lieu of or in addition to issuing waste discharge requirements (or waivers thereof) does not preclude the regions from issuing WDRs (or waivers of WDRs) in the absence of a request for 401 certification....

In this memorandum the SWRCB's Chief Counsel has made the clear assumption that fill material to be discharged into isolated waters of the United States is to be considered equivalent to "waste" and therefore subject to the authority of the Porter Cologne Water Quality Act.

¹⁰ Wilson, Craig M. January 25, 2001. Memorandum addressed to State Board Members and Regional Board Executive Officers.

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However, while providing a recounting of the Act's definition of waters of the United States, this memorandum fails to also reference the Act's own definition of waste:

"Waste" includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal.

The lack of inclusion of a reference to "fill material," "dirt," "earth" or other similar terms in the Act's definition of "waste," or elsewhere in the Act, suggests that no such association was intended. Thus, the Chief Counsel's memorandum signals that the SWRCB is attempting to retain jurisdiction over discharge of fill material into isolated waters of the United States by administratively expanding the definition of "waste" to include "fill material" without actually seeking amendment of the Act's definition of waste (an amendment would require action by the state legislature). Consequently, discharge of fill material into waters of the State not subject to the jurisdiction of the Corps pursuant to Section 404 of the Clean Water Act may require authorization pursuant to the Porter Cologne Act through application for waste discharge requirements (WDRs) or through waiver of WDRs, despite the lack of a clear regulatory imperative.

C. California Department of Fish and Game

Pursuant to Division 2, Chapter 6, Sections 1600-1603 of the California Fish and Game Code, the CDFG 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.

CDFG 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." CDFG's definition of "lake" includes "natural lakes or man-made reservoirs."

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CDFG jurisdiction within altered or artificial waterways is based upon the value of those waterways to fish and wildlife. CDFG Legal Advisor has prepared the following opinion:

- Natural waterways that have been subsequently modified and which have the potential to contain fish, aquatic insects and riparian vegetation will be treated like natural waterways...
- Artificial waterways that have acquired the physical attributes of natural stream courses and which have been viewed by the community as natural stream courses, should be treated by [CDFG] as natural waterways...
- Artificial waterways without the attributes of natural waterways should generally not be subject to Fish and Game Code provisions...

Thus, CDFG jurisdictional limits closely mirror those of the Corps. Exceptions are CDFG's exclusion of isolated wetlands (those not associated with a river, stream, or lake), the addition of artificial stock ponds and irrigation ditches constructed on uplands, and the addition of riparian habitat supported by a river, stream, or lake regardless of the riparian area's federal wetland status.

III. RESULTS

A. Corps Jurisdiction

Corps jurisdiction associated with the off site road improvements and proposed WWTP 189,612 square feet (4.35 acres), of which 189,100 square feet (4.34 acres) consist of jurisdictional wetlands. As part of the proposed Project, GLA reviewed eight off site road alignments and/or improvement areas [Exhibit 3] as well as the proposed WWTP within the Project vicinity. Since off site improvements will only result in temporary impacts ranging in width from 10 to 40 feet wide and permanent impacts ranging in width from 50 to 157 feet wide, this report focuses on the square footage and acreage associated with these off site improvements rather than the entire acreage of Corps jurisdiction associated with each drainage course. Table One below depicts Corps jurisdiction associated with the road improvements and WWTP.

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The potential off site road alignments consist of the following:

- The extension of Horse Ranch Creek Road from the northern boundary of the Campus Park Property (Campus Park) to the end of proposed improvements at Stewart Canyon Road. This alignment will consist of a two-lane 60-foot wide permanent impact and 20-foot wide temporary impact along the eastern side of the road;
- The construction of Horse Ranch Creek Road (Pankey Road) from its existing location at the intersection of Pankey Road and State Highway 76 to the realigned location of Horse Ranch Creek Road associated with the realignment of State Highway 76. This alignment will consist of a 106-foot wide permanent impact and 20-foot wide temporary impact to existing resources, if any;
- The upgraded alignment of Stewart Canyon Road from its eastern boundary at Pankey Road to its western boundary across Interstate 15 at U.S. Highway 395. This alignment will consist of a 60-foot wide permanent impact and a 20-foot wide temporary impact;
- The widening and extension of Pala Mesa Drive, including Street R (Exhibit 3b), from Horse Ranch Creek Road to U.S. Highway 395. The widening of Pala Mesa Drive and construction of Street R consists of widening Pala Mesa Drive from U.S. Highway 395 from west to southeast across the Pappas Property (Pappas) boundary. Pala Mesa Drive and Street R will be extended across Pappas to the existing terminus of Pankey Road and then will turn to the east across Campus Park, and terminate at Horse Ranch Creek Road. Pala Mesa Drive and Street R will support an approximate 70-foot wide right-of-way with an additional 25 feet of permanent sloping on each side of the road for an approximate 120-foot wide permanent impact. Additionally, a 15-foot wide temporary grading footprint is proposed on either side of the road for remedial soils and construction impacts.
- The construction of the Pala Mesa Heights Road from Horse Ranch Creek Road to the Meadowood Project area. The construction of the Pala Mesa Heights Road consists of constructing a roadway from Horse Ranch Creek Road to the Meadowood Project. The road will extend for 530 linear feet across Campus Park until its terminus at Horse Ranch

Creek Road and will result in a 60-foot wide permanent impact and a 10-foot wide temporary impact on both sides of the road alignment.

- Intersection of Old U.S. Highway 395 at Reche Road: Placement of a signal on the eastern side of Old U. S. Highway 395 within an existing CalTrans right-of-way.
- Intersection of Old U.S. Highway 395 at Mission Road: Placement of a signal, with widening of Mission Road by 12-feet north of US Highway 395 and Mission Road intersection to provide an additional southbound left turn lane and widening of Mission Road to the South by 12-feet to provide for an additional westbound right turn lane. The existing Mission Road right -of-way varies in width from 60- to 140-feet at the intersection with Old Highway 395.
- Intersection of I-15 Southbound Ramp at Mission Road: Old Highway 395 will be widened to provide a single dedicated right turn lane onto the I-15 southbound.
- The proposed WWTP and its associated wet weather ponds are located immediately south of the Project along the southern side of existing State Highway 76. Once improvements occur along State Highway 76, the WWTP and associated wet weather ponds will be north of the proposed highway (See Exhibit 3c).

1. Horse Ranch Creek Road: Northern Boundary of Campus Park to Stewart Canyon Road

Improvements proposed for Pankey Road (to be renamed as Horse Ranch Creek Road) will occur from the northern boundary of Campus Park to Stewart Canyon Road. This alignment will consist of a two-lane 60-foot wide permanent impact and 20-foot wide temporary impact along the eastern side of the road. The existing right-of-way for Horse Ranch Creek Road is 66 feet wide. Corps jurisdiction associated with the Meadowood Extension is 112 square feet (0.01 acre), none of which consist of jurisdictional wetlands within four drainages east of existing Pankey Road. The square footage and acreage calculations listed above are extrapolations of the REC delineation report since the report did not provide Corps jurisdictional totals for the Campus Park Property.

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Vegetation associated with the Horse Ranch Creek Road Extension consists of ruderal vegetation (Holland code 11000) and coastal sage scrub habitat (Holland code 32500) dominated by buckwheat (*Eriogonum fasciculatum*).

2. Horse Ranch Creek Road: Old to New State Highway 76 Alignment

This proposed construction of Horse Ranch Creek Road will occur as a result of the realignment of State Highway 76. This off site improvement consists of constructing a four-lane 106-foot right-of-way and requiring a 20-foot wide temporary impact area. This area supports functioning citrus groves (Holland code 18100) and does not support Corps jurisdictional waters.

3. Stewart Canyon Road: Pankey Road to U.S. Highway 395

Improvements proposed for Stewart Canyon Road consist of a two-lane, 60-foot wide right-of-way with a 20-foot wide temporary impact area. The existing right-of-way for Stewart Canyon Road exceeds 120-feet wide. No Corps jurisdiction is present within this footprint.

4. Pala Mesa Drive including Street R: Horse Ranch Creek Road to U. S. Highway 395 (Bridge Crossing)

The widening of Pala Mesa Drive consists of widening Pala Mesa Drive from U.S. Highway 395 from west to southeast across the Pappas boundary. Pala Mesa Drive and Street R will be extended across Pappas to the existing terminus of Pankey Road and then will turn to the east, extend across Campus Park, and terminate at Horse Ranch Creek Road. Pala Mesa Drive and Street R will support an approximate 70-foot wide right-of-way with an additional 25 feet of permanent sloping on each side of the road for an approximate 120-foot wide permanent impact. Additionally, a 15-foot wide temporary grading footprint is proposed on either side of the road for remedial soils and construction impacts.

A portion of this right-of-way was assessed as part of the jurisdictional delineation report for Pappas and a portion of the right-of-way was assessed as part of the jurisdictional delineation for Campus Park. Pappas was delineated by REC in July 2004 and Campus Park was delineated by REC on September 18, 2003. Since the road widening project will temporarily impact a width of 40 feet on either side of the road alignment and permanently impact a width of 120 feet, this delineation report only focuses on the square footage, acreage, and impact calculations based

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upon the widening and extension of Pala Mesa Drive and Street R, not the entire acreage of Corps jurisdiction on Pappas and/or Campus Park.

According to REC, the road widening project supports approximately 189,100 square feet (4.34 acres) of Corps jurisdiction, all of which consist of jurisdictional wetlands. Linear-feet of jurisdiction associated with Pappas totals approximately 1,175 feet and linear-foot jurisdiction associated with Campus Park totals 1,175 linear feet. The square footage and acreage calculations listed above are extrapolations of both REC delineation reports since neither report provides Corps jurisdictional totals.

Vegetation associated with this road alignment area consists of arroyo willow (*Salix lasiolepis*), black willow (*Salix gooddingii*), Fremont's cottonwood (*Populus fremontii*), mule fat (*Baccharis salicifolia*), coast live oak (*Quercus agrifolia*) (Holland code 61320), and native herbaceous grasses.

5. Pala Mesa Heights Road-Horse Ranch Creek Road to Meadowood Project

Improvements proposed for the Pala Mesa Heights Road from Horse Ranch Creek Road to the Meadowood Property will consist of a 60-foot wide right-of-way with two 10-foot wide temporary impact areas on either side of the road. The road length is 530 linear feet. No Corps jurisdiction is present within this footprint.

6. Intersection of Old U.S. Highway 395 at Reche Road

Improvements consist of the placement of a signal on the eastern side of Old U. S. Highway 395 within an existing CalTrans right-of-way. No Corps jurisdiction is associated with the proposed placement of this signal.

7. Intersection of Old Highway 395 at Mission Road:

Improvements consists of the placement of a signal, with widening of Mission Road by 12-feet north of the US Highway 395 and Mission Road intersection to provide an additional southbound left turn lane and widening of Mission Road to the south by 12-feet to provide for an additional westbound right turn lane. The existing Mission Road right -of-way varies in width from 60- to

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140-feet at the intersection with US Highway 395. Since the proposed road improvement project will temporarily impact a length of ten linear feet on either side of the road alignment (with a width of approximately ten feet) and permanently impact a length of 20 linear feet on the north side of Mission Road, this delineation report only focuses on the square footage, acreage, and impact calculations based upon this improvement.

The proposed road improvement project supports approximately 400 square feet (0.01 acre) of Corps jurisdiction, none of which consist of jurisdictional wetlands. A total of 40 linear-feet of streambed is associated with this improvement.

No vegetation is associated with this improvement as the improvement area consists of existing rock riprap, which appears to be maintained.

8. Intersection of I-15 Southbound Ramp at Mission Road:

Improvements consist of the widening of Old Highway 395 on the western side to provide a single dedicated right turn lane onto the I-15 southbound. No Corps jurisdiction is associated with this improvement.

9. Wastewater Treatment Plant and its Associated Wet Weather Ponds

The proposed WWTP and its associated wet weather ponds are located immediately south of the Project along the southern side of existing State Highway 76. Once improvements occur along State Highway 76, the WWTP and its associated wet weather ponds will be north of the proposed highway (See Exhibit 3c). The site supports a functioning citrus grove and is dominated by citrus trees (Holland code 18100) and ruderal vegetation (Holland code 11000). No Corps jurisdiction is associated with the WWTP.

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**Table One: Total Corps Jurisdiction-Off Site Road
 Alignments and Sewer Treatment Plant Location**

Drainage Segment	Total Non-Wetland Corps Jurisdictional Waters (in square feet)	Total Wetland Corps Jurisdictional Waters (in square feet)	Total Corps Jurisdiction (in square feet)	Linear Feet of Drainage (in feet)
Horse Ranch Creek Road: Northern Campus Park Boundary to Stewart Canyon Rd.	112	0	112	56
Horse Ranch Creek Road.: Old to New SR 76 Alignment	0	0	0	0
Stewart Canyon Rd.: Pankey Road to U.S. Highway 395	0	0	0	0
Pala Mesa Drive and Street R: Horse Ranch Creek Road to U. S. Highway 395	0	189,100	189,100	2,350
Pala Mesa Heights Road: Horse Ranch Creek Road to Meadowood Boundary	0	0	0	0
Intersection of Old U.S. Highway 395 at	0	0	0	0

Drainage Segment	Total Non-Wetland Corps Jurisdictional Waters (in square feet)	Total Wetland Corps Jurisdictional Waters (in square feet)	Total Corps Jurisdiction (in square feet)	Linear Feet of Drainage (in feet)
Reche Road				
Intersection of Old U.S. Highway 395 at Mission Road	400	0	400	40
Intersection of I-15 Southbound Ramp at Mission Road & Old 395	0	0	0	0
WWTP and its Associated wet weather ponds	0	0	0	0
Total	512 (0.01 acre)	189,100 (4.34 acres)	189,612 (4.35 acres)	2,446

B. Regional Water Quality Control Board Jurisdiction

All off site drainages support connectivity to a drainage system that is tributary to the San Luis Rey River. Therefore, all off site drainages support Corps jurisdiction and do not need to be addressed separately pursuant to the Porter-Cologne Act.

C. CDFG Jurisdiction

CDFG jurisdiction associated with the off site road improvements and the WWTP is 189,612 square feet (4.35 acres), of which 189,100 square feet (4.34 acres) consist of vegetated riparian habitat. As part of the proposed Project, GLA reviewed eight off site road improvements, and the proposed WWTP within the Project vicinity. Since off site improvements will only result in temporary impacts ranging in width from 10 to 40 feet wide and permanent impacts ranging in width from 50 to 157 feet wide, this report focuses on the square footage and acreage associated

with these off site improvements rather than the entire acreage of CDFG jurisdiction associated with each drainage course. Table Two below depicts CDFG jurisdiction associated with the road improvements and the WWTP.

The potential off site road alignments consist of the following:

- The extension of Horse Ranch Creek Road from the northern boundary of Campus Park to the end of proposed improvements at Stewart Canyon Road. This alignment will consist of a two-lane 60-foot wide permanent impact and 20-foot wide temporary impact along the eastern side of the road;
- The construction of Horse Ranch Creek Road (Pankey Road) from its existing location at the intersection of Pankey Road and State Highway 76 to the realigned location of Horse Ranch Creek Road associated with the realignment of State Highway 76. This alignment will consist of a 106-foot wide permanent impact and 20-foot wide temporary impact to existing resources, if any;
- The upgraded alignment of Stewart Canyon Road from its eastern boundary at Pankey Road to its western boundary across Interstate 15 at U.S. Highway 395. This alignment will consist of a 60-foot wide permanent impact and a 20-foot wide temporary impact;
- The widening and extension of Pala Mesa Drive including Street R (Exhibit 3b) from Horse Ranch Creek Road to the U.S. Highway 395. The widening of Pala Mesa Drive consists of widening Pala Mesa Drive from U.S. Highway 395 from west to southeast across Pappas including Street R. Pala Mesa Drive will be extended across Pappas to the existing terminus of Pankey Road, at which point the road will turn to the east, extend across Campus Park, and terminate at Horse Ranch Creek Road. Pala Mesa Drive and Street R will support an approximate 70-foot wide right-of-way with an additional 25 feet of permanent sloping on each side of the road for an approximate 120-foot wide permanent impact. Additionally, a 15-foot wide temporary grading footprint is proposed on either side of the road for remedial soils grading and construction impacts;
- The construction of the Pala Mesa Heights Road from Horse Ranch Creek Road to the Meadowood Project area. The construction of the Pala Mesa Heights Road consists of

constructing a roadway from Horse Ranch Creek Road to the Meadowood Project. The road will extend for 530 linear feet across Campus Park until its terminus at Horse Ranch Creek Road and will result in a 60-foot wide permanent impact and a 10-foot wide temporary impact on both sides of the road alignment.

- Intersection of Old U.S. Highway 395 at Reche Road: Placement of a signal on the eastern side of Old U. S. Highway 395 within an existing CalTrans right-of-way.
- Intersection of Old U.S. Highway 395 at Mission Road: Placement of a signal, with widening of Mission Road by 12-feet north of the US Highway 395 and Mission Road intersection to provide an additional southbound left turn lane and widening of Mission Road to the south by 12-feet to provide for an additional westbound right turn lane. The existing Mission Road right -of-way varies in width from 60- to 140-feet at the intersection with Old Highway 395.
- Intersection of I-15 Southbound Ramp at Mission Road: Old Highway 395 will be widened to provide a single dedicated right turn lane onto the I-15 southbound.
- The proposed WWTP and its associated wet weather ponds are located immediately south of the Project along the southern side of existing State Highway 76. Once improvements occur along State Highway 76, the WWTP and its associated wet weather ponds will be north of the proposed highway (See Exhibit 3c).

1. Horse Ranch Creek Road: Northern Boundary of Campus Park to Stewart Canyon Road

Improvements proposed for Pankey Road (to be renamed as Horse Ranch Creek Road) will occur from the northern boundary of Campus Park to Stewart Canyon Road. This alignment will consist of a two-lane 60-foot wide permanent impact and 20-foot wide temporary impact along the eastern side of the road. The existing right-of-way for Horse Ranch Creek Road is 66 feet wide. CDFG jurisdiction associated with the Meadowood Extension is 112 square feet (0.01 acre), none of which consist of vegetated riparian habitat within four drainages east of existing Pankey Road. The square footage and acreage calculations listed above are extrapolations of the

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REC delineation report since the report did not provide CDFG jurisdictional totals for the Campus Park Property.

Vegetation associated with the Horse Ranch Creek Road Extension consists of ruderal vegetation (Holland code 11000) and coastal sage scrub habitat (Holland code 32500) dominated by buckwheat (*Eriogonum fasciculatum*).

2. Horse Ranch Creek Road: Old to New State Highway 76 Alignment

This proposed construction of Horse Ranch Creek Road will occur as a result of the realignment of State Highway 76. This off site improvement consists of constructing a four-lane 106-foot right-of-way and requiring a 20-foot wide temporary impact area. This area supports functioning citrus groves (Holland code 18100) and does not support CDFG jurisdiction.

3. Stewart Canyon Road: Pankey Road to U.S. Highway 395

Improvements proposed for Stewart Canyon Road consist of a two-lane, 60-foot wide right-of-way with a 20-foot wide temporary impact area. The existing right-of-way for Stewart Canyon Road exceeds 120-feet wide. No CDFG jurisdiction is present within this footprint.

4. Pala Mesa Drive Including Street R: Horse Ranch Creek Road to U. S. Highway 395 (Bridge Crossing)

Improvements proposed for Pala Mesa Drive between Horse Ranch Creek Road and U.S. Highway 395, including Street R, consists of constructing an approximate 70-foot wide right-of-way with an additional 25 feet of permanent sloping on each side of the road for an approximate 120-foot wide permanent impact. Additionally, a 15-foot wide temporary grading footprint is proposed on either side of the road as remedial grading and construction impacts. A portion of this right-of-way was assessed as part of the jurisdictional delineation report for Pappas and a portion of the right-of-way was assessed as part of the jurisdictional delineation for the Campus Park Property. Pappas was delineated by REC in July 2004 and Campus Park was delineated by REC on September 18, 2003. Since the road widening project will temporarily impact a width of 40 feet on either side of the road alignment and permanently impact a width of 120 feet, this delineation report only focuses on the square footage, acreage, and impact calculations based

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upon the widening and extension of Pala Mesa Drive and construction of Street R, not the entire acreage of CDFG jurisdiction on Pappas and/or Campus Park.

According to REC, the road widening project supports approximately 189,100 square feet (4.34 acres) of CDFG jurisdiction, all of which consist of vegetated riparian habitat. Linear-feet of jurisdiction associated with Pappas totals approximately 1,175 feet and linear-foot jurisdiction associated with Campus Park totals 1,175 linear feet. The square footage and acreage calculations listed above are extrapolations of both REC delineation reports since neither report provides CDFG jurisdictional totals.

Vegetation associated with this road alignment area consists of arroyo willow (*Salix lasiolepis*), black willow (*Salix Gooddingii*), Fremont's cottonwood (*Populus fremontii*), mule fat (*Baccharis salicifolia*), coast live oak (*Quercus agrifolia*) (Holland code 61320), and native herbaceous grasses.

5. Pala Mesa Heights Road-Horse Ranch Creek Road to Meadowood Project

Improvements proposed for the Pala Mesa Heights Road from Horse Ranch Creek Road to the Meadowood Property will consist of a 60-foot wide right-of-way with two ten-foot wide temporary impact areas on either side of the road. The road length is 530 linear feet. No CDFG jurisdiction is present within this footprint.

6. Intersection of Old U.S. Highway 395 at Reche Road

Improvements consist of the placement of a signal on the eastern side of Old U. S. Highway 395 within an existing CalTrans right-of-way. No CDFG jurisdiction is associated with the proposed placement of this signal.

7. Intersection of Old U.S. Highway 395 at Mission Road

Improvements consist of the placement of a signal, with widening of Mission Road by 12-feet north of the US Highway 395 and Mission Road intersection to provide an additional southbound left turn lane and widening of Mission Road to the south by 12-feet to provide for an additional westbound right turn lane. The existing Mission Road right -of-way varies in width from 60- to

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140-feet at the intersection with Old Highway 395. Additionally, a ten-foot long temporary grading footprint is proposed on either side of Mission Road as remedial grading and/or construction impact. Since the proposed road improvement project will temporarily impact a length of ten linear feet on either side of the road alignment (with a width of approximately ten feet) and permanently impact a length of 20 linear feet on the north side of Mission Road, this delineation report only focuses on the square footage, acreage, and impact calculations based upon this improvement.

The proposed road improvement project supports approximately 400 square feet (0.01 acre) of CDFG jurisdiction, none of which consist of vegetated riparian habitat. A total of 40 linear-feet of streambed is associated with this improvement.

No vegetation is associated with this improvement as the improvement area consists of existing rock riprap, which appears to be maintained.

8. Intersection of I-15 Southbound Ramp at Mission Road

Old Highway 395 will be widened to provide a single dedicated right turn lane onto the I-15 southbound. No CDFG jurisdiction is associated with this improvement.

9. Wastewater Treatment Plant and its Associated Wet Weather Ponds

The proposed WWTP and its associated wet weather ponds are located immediately south of the Project along the southern side of existing State Highway 76. Once improvements occur along State Highway 76, the WWTP and its associated wet weather ponds will be north of the proposed highway (See Exhibit 3c). The site supports a functioning citrus grove and is dominated by citrus trees (Holland code 18100) and ruderal vegetation (Holland code 11000). No CDFG jurisdiction is present within the footprint of the WWTP.

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Table Two: Total CDFG Jurisdiction-Off Site Road Alignments and Sewer Treatment Plant Location

Drainage Segment	Total CDFG Jurisdictional Unvegetated Streambed (in square feet)	Total CDFG Vegetated Riparian Habitat (in square feet)	Total CDFG Jurisdiction (in square feet)	Linear Feet of Drainage (in feet)
Horse Ranch Creek Road.: Northern Campus Park Boundary to Stewart Canyon Rd.	112	0	112	56
Horse Ranch Creek Road: Old to New SR 76 Alignment	0	0	0	0
Stewart Canyon Rd.: Pankey Road to U.S. Highway 395	0	0	0	0
Pala Mesa Drive Including Street R: Horse Ranch Creek Road to U.S. Highway 395	0	189,100	189,100	2,350
Pala Mesa Heights Road: Horse Ranch Creek Road to Meadowood Boundary	0	0	0	0
Intersection of Old U.S.	0	0	0	0

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Drainage Segment	Total CDFG Jurisdictional Unvegetated Streambed (in square feet)	Total CDFG Vegetated Riparian Habitat (in square feet)	Total CDFG Jurisdiction (in square feet)	Linear Feet of Drainage (in feet)
Highway 395 at Reche Road				
Intersection of Old U.S. Highway 395 at Mission Road	400	0	400	40
Intersection of I-15 Southbound Ramp at Mission Road & 395	0	0	0	0
WWTP and its Associated wet weather ponds	0	0	0	0
Total	512 (0.01 acre)	189,100 (4.34 acres)	189,612 (4.35 acres)	2,446

D. County of San Diego Wetlands

According to the County's wetland definition (hydrology supported by groundwater), REC located approximately 189,100 square feet (4.34 acres), all of which consist of vegetated riparian habitat. County wetlands are located throughout the road alignment areas and support arroyo willow (*Salix lasiolepis*), black willow (*Salix Gooddingii*), Fremont's cottonwood (*Populus fremontii*), mule fat (*Baccharis salicifolia*), coast live oak (*Quercus agrifolia*), and native herbaceous grasses. No other County-defined wetlands were located within the remaining road improvement areas and no County-defined wetlands were located within the footprint of the WWTP.

Although several other drainage features to be regulated by the Corps and the CDFG exist on site, these ephemeral drainage features do not support hydrophytes, do not support an undrained hydric soil, and do not support a water table that is usually at or near the surface and are not

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covered in water. These drainage features are ephemeral streams that support surficial agricultural runoff and/or aboveground irrigation only and are not subject to County regulation since they do not meet the County's wetland definition. Table Three below depicts total County jurisdiction and linear-feet of streambed.

Table Three: Total County of San Diego Jurisdictional Areas for-Off Site Road Alignments and Sewer Treatment Plant Location

Drainage Segment	Total County of San Diego Jurisdiction (in square feet)	Linear Feet of Drainage (in feet)
Horse Ranch Creek Road.: Northern Campus Park Boundary to Stewart Canyon Rd.	0	0
Horse Ranch Creek Road: Old to New SR 76 Alignment	0	0
Stewart Canyon Rd.: Pankey Road to U.S. Highway 395	0	0
Pala Mesa Drive Including Street R: Horse Ranch Creek Road to U.S. Highway 395	189,100	2,350
Pala Mesa Heights Road: Horse Ranch Creek Road to Meadowood Boundary	0	0
Intersection of Old U.S. Highway 395 at Reche Road	0	0
Intersection of Old U.S. Highway 395 at	0	0

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Drainage Segment	Total County of San Diego Jurisdiction (in square feet)	Linear Feet of Drainage (in feet)
Mission Road		
Intersection of I-15 Southbound Ramp at Mission Road & 395	0	0
WWTP and its Associated wet weather ponds	0	0
Total	189,100 (4.34 acres)	2,350

IV. DISCUSSION

A. Impact Analysis

1. Impacts to Corps Jurisdiction

Construction of the off site road improvements and proposed WWTP plant would temporarily impact a total of 83,512 square feet (1.91 acres) of Corps jurisdiction, of which 83,200 square feet (1.91 acres) consist of jurisdictional wetlands, and permanently impact 106,100 square feet (2.44 acres) of Corps jurisdictional waters, of which 105,900 square feet (2.43 acres) consist of jurisdictional wetlands. Permanent linear-foot impacts associated with the Project total 2,446 linear feet. Table Four below outlines temporary and permanent impacts to Corps jurisdictional waters related to this project.

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Table Four: Total Corps Impacts-Off Site Road Alignments and Sewer Treatment Plant Location

Drainage Segment	Total Corps Jurisdiction (in square feet)	Temporary Impacts to Non-Wetland Corps Jurisdiction (in square feet)	Temporary Impacts to Wetland Corps Jurisdiction (in square feet)	Permanent Impacts to Non-Wetland Corps Jurisdiction (in square feet)	Permanent Impacts to Wetland Corps Jurisdiction (in square feet)	Linear Feet of Drainage On Site (in feet)	Linear Foot Impacts On Site (in feet)
Horse Ranch Creek Road: Northern Campus Park Boundary to Stewart Canyon Rd.	112	112	0	0	0	56	56
Horse Ranch Creek Road: Old to New SR 76 Alignment	0	0	0	0	0	0	0
Stewart Canyon Rd.: Pankey Road to U.S. Highway 395	0	0	0	0	0	0	0
Pala Mesa Drive Including Street R: Horse Ranch Creek Road to U.S. Highway 395	189,100	0	83,200	0	105,900	2,350	2,350
Pala Mesa Heights	0	0	0	0	0	0	0

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Drainage Segment	Total Corps Jurisdiction (in square feet)	Temporary Impacts to Non-Wetland Corps Jurisdiction (in square feet)	Temporary Impacts to Wetland Corps Jurisdiction (in square feet)	Permanent Impacts to Non-Wetland Corps Jurisdiction (in square feet)	Permanent Impacts to Wetland Corps Jurisdiction (in square feet)	Linear Feet of Drainage On Site (in feet)	Linear Foot Impacts On Site (in feet)
Road: Horse Ranch Creek Road to Meadowood Boundary							
Intersection of Old U.S. Highway 395 at Reche Road	0	0	0	0	0	0	0
Intersection of Old U.S. Highway 395 at Mission Road	400	200	0	200	0	40	40
Intersection of I-15 Southbound Ramp at Mission Road & 395	0	0	0	0	0	0	0
WWTP and its Associated wet weather ponds	0	0	0	0	0	0	0
Total	189,612 (4.35 acres)	312 <(0.01 acre)	83,200 (1.91 acres)	200 <(0.01 acre)	105,900 (2.43 acres)	2,446	2,446

2. Impacts to CDFG Jurisdiction

Construction of the off site road alignments and proposed WWTP would temporarily impact a total of 83,512 square feet (1.91 acres) of CDFG jurisdiction, of which 83,200 square feet (1.91 acres) consist of vegetated riparian habitat, and permanently impact a total of 106,100 square feet (2.44 acres) of CDFG jurisdiction, of which 105,900 square feet (2.43 acres) consist of vegetated riparian habitat. Permanent linear-foot impacts associated with the Project total 2,446 linear feet. Table Five below outlines impacts to CDFG jurisdiction related to this project.

Table Five: Total CDFG Impacts-Off Site Road Alignments and Sewer Treatment Plant Location

Drainage Segment	Total CDFG Jurisdiction (in square feet)	Temporary Impacts to CDFG Unvegetated Streambed (in square feet)	Temporary Impacts to CDFG Vegetated Riparian Habitat (in square feet)	Permanent Impacts to CDFG Streambed (in square feet)	Permanent Impacts to CDFG Vegetated Riparian Habitat (in square feet)	Linear Feet of Drainage On Site (in feet)	Linear Foot Impacts On Site (in feet)
Horse Ranch Creek Road: Northern Campus Park Boundary to Stewart Canyon Rd.	112	112	0	0	0	56	56
Horse Ranch Creek Road: Old to New SR 76 Alignment	0	0	0	0	0	0	0
Stewart Canyon Rd.: Pankey Road	0	0	0	0	0	0	0

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Drainage Segment	Total CDFG Jurisdiction (in square feet)	Temporary Impacts to CDFG Unvegetated Streambed (in square feet)	Temporary Impacts to CDFG Vegetated Riparian Habitat (in square feet)	Permanent Impacts to CDFG Streambed (in square feet)	Permanent Impacts to CDFG Vegetated Riparian Habitat (in square feet)	Linear Feet of Drainage On Site (in feet)	Linear Foot Impacts On Site (in feet)
to U.S. Highway 395							
Pala Mesa Drive Including Street R: Horse Ranch Creek Road to U.S. Highway 395	189,100	0	83,200	0	105,900	2,350	2,350
Pala Mesa Heights Road: Horse Ranch Creek Road to Meadowood Boundary	0	0	0	0	0	0	0
Intersection of Old U.S. Highway 395 at Reche Road	0	0	0	0	0	0	0
Intersection of Old U.S. Highway 395 at Mission Road	400	200	0	200	0	40	40
Intersection of I-15 Southbound Ramp at Mission Road	0	0	0	0	0	0	0

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Drainage Segment	Total CDFG Jurisdiction (in square feet)	Temporary Impacts to CDFG Unvegetated Streambed (in square feet)	Temporary Impacts to CDFG Vegetated Riparian Habitat (in square feet)	Permanent Impacts to CDFG Streambed (in square feet)	Permanent Impacts to CDFG Vegetated Riparian Habitat (in square feet)	Linear Feet of Drainage On Site (in feet)	Linear Foot Impacts On Site (in feet)
& 395							
WWTP and its Associated wet weather ponds	0	0	0	0	0	0	0
Total	189,612 (4.35 acres)	312 <(0.01 acre)	83,200 (1.91 acres)	200 <(0.01 acre)	105,900 (2.43 acres)	2,446	2,446

3. Impacts to County of San Diego Jurisdiction

Construction of the project, as proposed, would temporarily impact a total of 83,200 square feet (1.91 acres) of County of San Diego wetlands, all of which support vegetated riparian habitat, and permanently impact a total of 105,900 square feet (2.43 acres) of County of San Diego wetlands, all of which support vegetated riparian habitat. Table Six below outlines impacts to County jurisdiction related to this project.

Table Six: Total County Impacts-Off Site Road Alignments and Sewer Treatment Plant Location

Drainage Segment	Total County Jurisdiction (in square feet)	Temporary Impacts to County Jurisdiction (in square feet)	Permanent Impacts to County Jurisdiction (in square feet)	Linear Feet of Drainage (in feet)	Linear Foot Impacts to Drainage (in feet)
Horse Ranch Creek Road: Northern Campus	0	0	0	0	0

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Drainage Segment	Total County Jurisdiction (in square feet)	Temporary Impacts to County Jurisdiction (in square feet)	Permanent Impacts to County Jurisdiction (in square feet)	Linear Feet of Drainage (in feet)	Linear Foot Impacts to Drainage (in feet)
Park Boundary to Stewart Canyon Rd.					
Horse Ranch Creek Road: Old to New SR 76 Alignment	0	0	0	0	0
Stewart Canyon Rd.: Pankey Road to U.S. Highway 395	0	0	0	0	0
Pala Mesa Drive Including Street R: Horse Ranch Creek Road to U.S. Highway 395	189,100	83,200	105,900	2,350	2,350
Pala Mesa Heights Road: Horse Ranch Creek Road to Meadowood Boundary	0	0	0	0	0
Intersection of Old U.S. Highway 395 at Reche Road	0	0	0	0	0
Intersection of Old U.S. Highway 395 at Mission Road	0	0	0	0	0
Intersection of I-15 Southbound	0	0	0	0	0

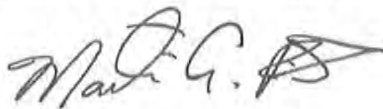
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[Revised May 23, 2008]
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Drainage Segment	Total County Jurisdiction (in square feet)	Temporary Impacts to County Jurisdiction (in square feet)	Permanent Impacts to County Jurisdiction (in square feet)	Linear Feet of Drainage (in feet)	Linear Foot Impacts to Drainage (in feet)
Ramp at Mission Road & 395					
WWTP and its Associated wet weather ponds	0	0	0	0	0
Total	189,100 (4.34 acres)	83,200 (1.91 acres)	105,900 (2.43 acres)	2,350	2,350

If you have any questions about this letter report, please contact me at (949) 837-0404, Ext 20.

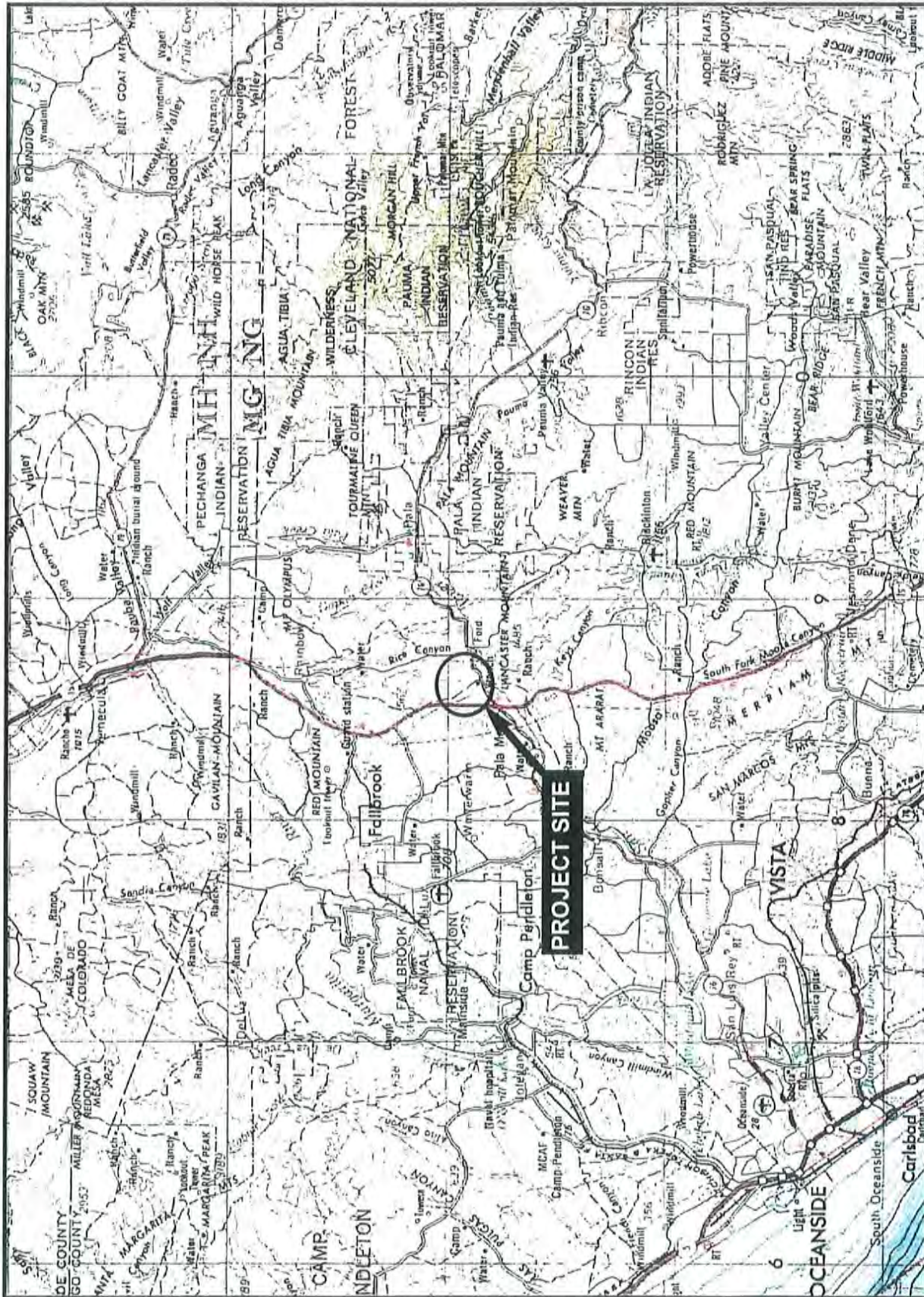
Sincerely,

GLENN LUKOS ASSOCIATES, INC.



Martin A. Rasnick
Regulatory Specialist

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Adapted from USGS Santa Ana Quadrangle



GLENN LUKOS ASSOCIATES

FIGURE 1

PANKEY PROPERTY

Regional Map

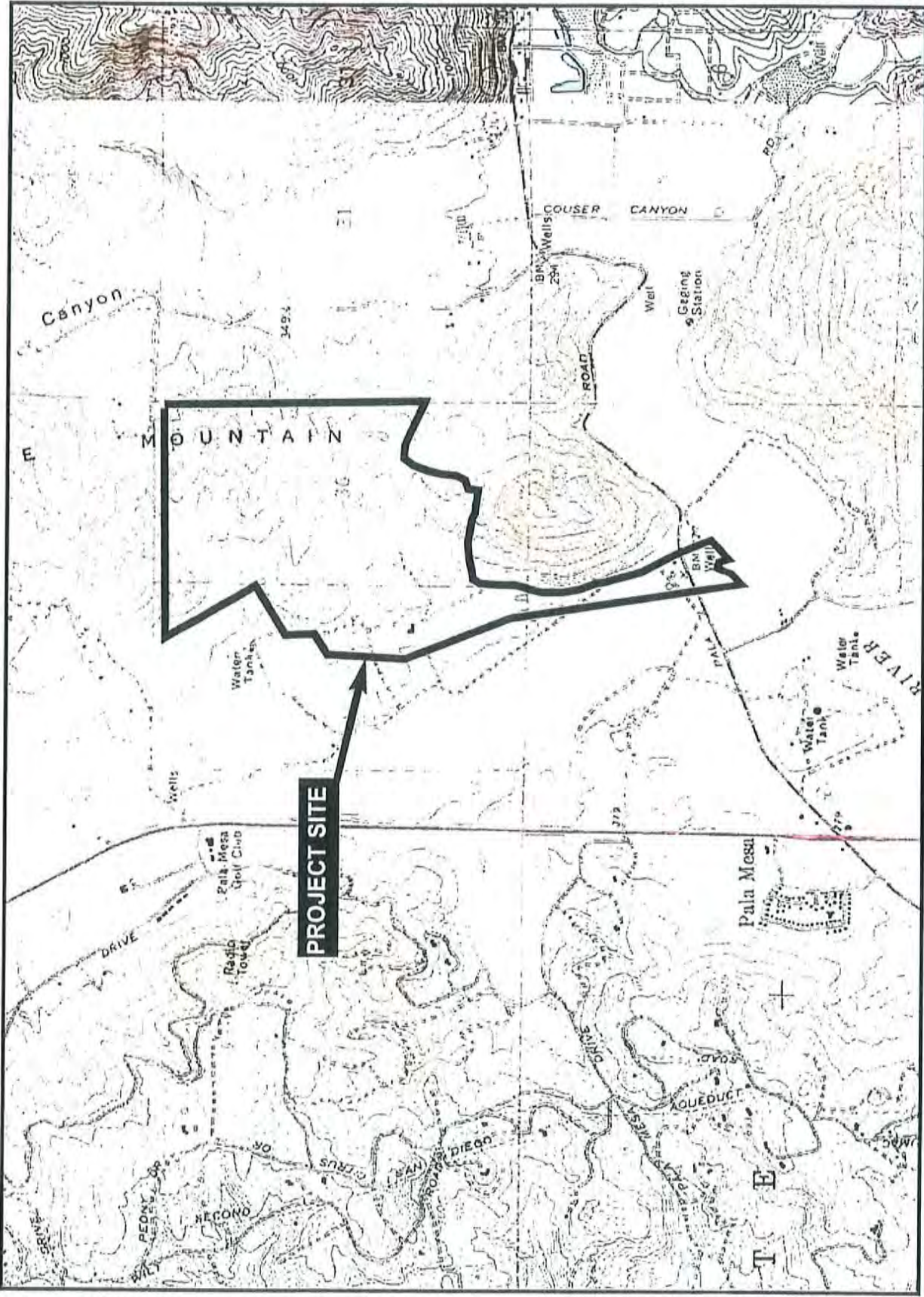


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FIGURE 2

PANKEY PROPERTY

Vicinity Map



Adapted from USGS Bonsall Quadrangle



MISSION ROAD

OLD HIGHWAY 395

RECHE ROAD

STEWART CANYON ROAD

CAMPUS PARK

PALA MESA HEIGHTS ROAD

CAMPUS PARK

MEADOWOOD

HORSE RANCH CREEK ROAD

PALOMAR COLLEGE

OLD HIGHWAY 395

PALA MESA DRIVE

CAMPUS PARK

CAMPUS PARK WEST
(NOT A PART)

STREET R

OFF-SITE ROADWAY IMPROVEMENT MAP

MEADOWOOD

Latitude 33

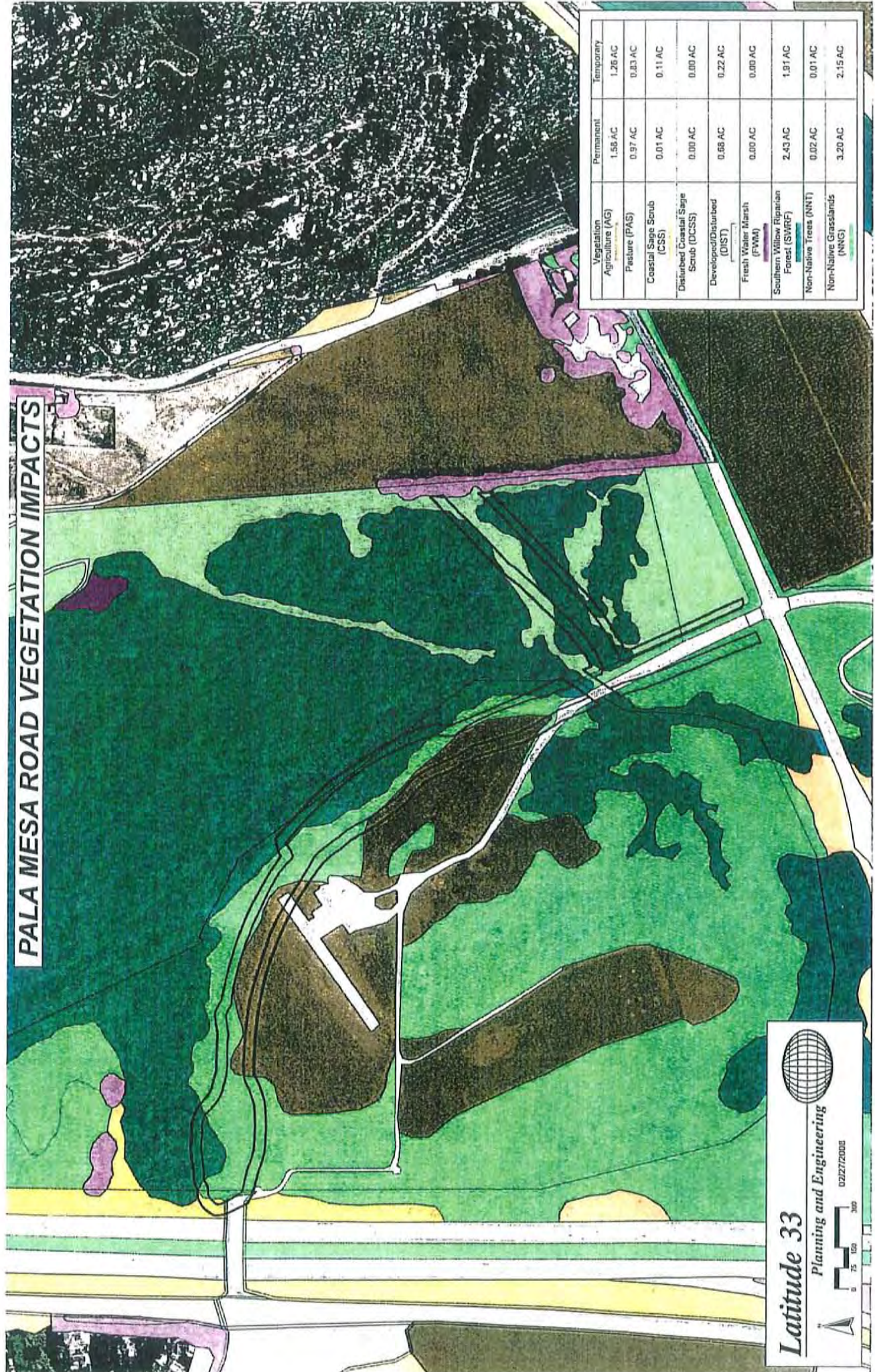
Planning and Engineering
4511 Foothill Drive, San Diego, CA 92121
619.514.6551 • Fax 619.514.6551



This project is intended for the use of Palomar College as a guide and the actual work will be done by the Palomar College Department of Planning and Engineering. The project information is provided for planning and design purposes only. It is not intended to be used for any other purpose. The project information is provided for planning and design purposes only. It is not intended to be used for any other purpose.

- PROJECT BOUNDARY
- ADJACENT PROPERTY BOUNDARY
- PROPOSED OFF-SITE ROAD IMPROVEMENT

PALA MESA ROAD VEGETATION IMPACTS



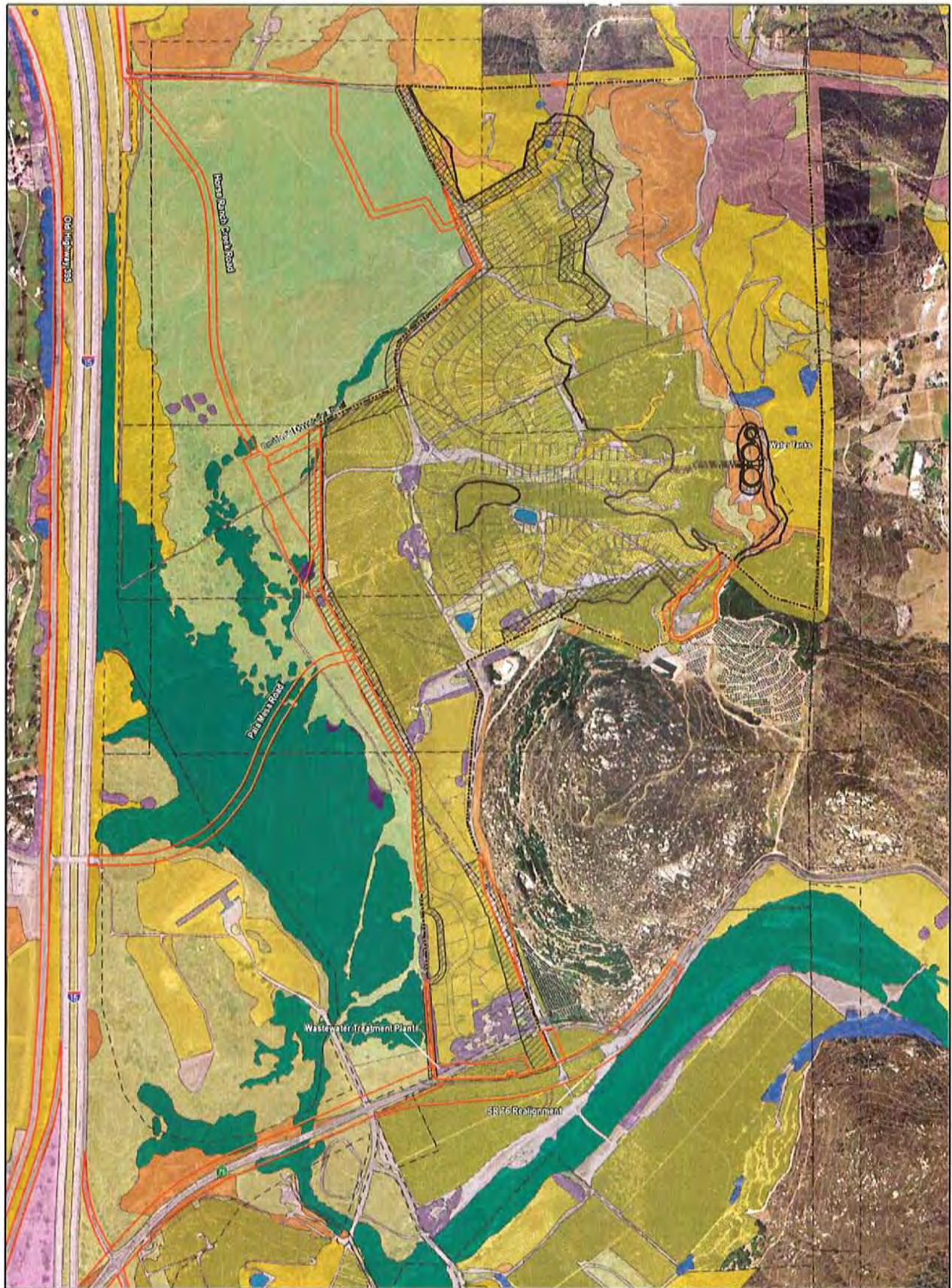
Vegetation	Permanent	Temporary
Agriculture (AG)	1.58 AC	1.26 AC
Pasture (PAS)	0.97 AC	0.83 AC
Coastal Sage Scrub (CSS)	0.01 AC	0.11 AC
Disturbed Coastal Sage Scrub (DCSS)	0.00 AC	0.00 AC
Developed/Disturbed (DIST)	0.68 AC	0.22 AC
Fresh Water Marsh (FWM)	0.00 AC	0.00 AC
Southern Willow Riparian Forest (SWRF)	2.43 AC	1.91 AC
Non-Native Trees (NNT)	0.02 AC	0.01 AC
Non-Native Grasslands (NNG)	3.20 AC	2.15 AC



Latitude 33
 Planning and Engineering

02/27/2008





Boundary	(AG) Agriculture - 18000/18100	(OW) Coast Live Oak Woodland - 71160
On-site Impact Area	(NNG) Non-native Grassland - 42200	(WMS) Willow and Mulefat Scrub - 63300
Temporary Impact Area Lot Plan	(CSS) Coastal Sage Scrub - 72500	(SAWRF) Southern Arroyo Willow Riparian Forest - 61320
Off-site Improvements	(DCSS) Disturbed Coastal Sage Scrub - 32500	(SWS) Southern Willow Scrub - 63320
Limited Building Zone	(CHP) Southern Mixed Chaparral - 37120	(FWM) Freshwater Marsh - 52400
Brush Management Zone	(NNT) Non-native Trees - 11700	(OWP) Open Water Ponds - 13100
Parcel Boundaries	(PAS) Pasture - 16310	(DIST) Disturbed - 11000/12000/13000

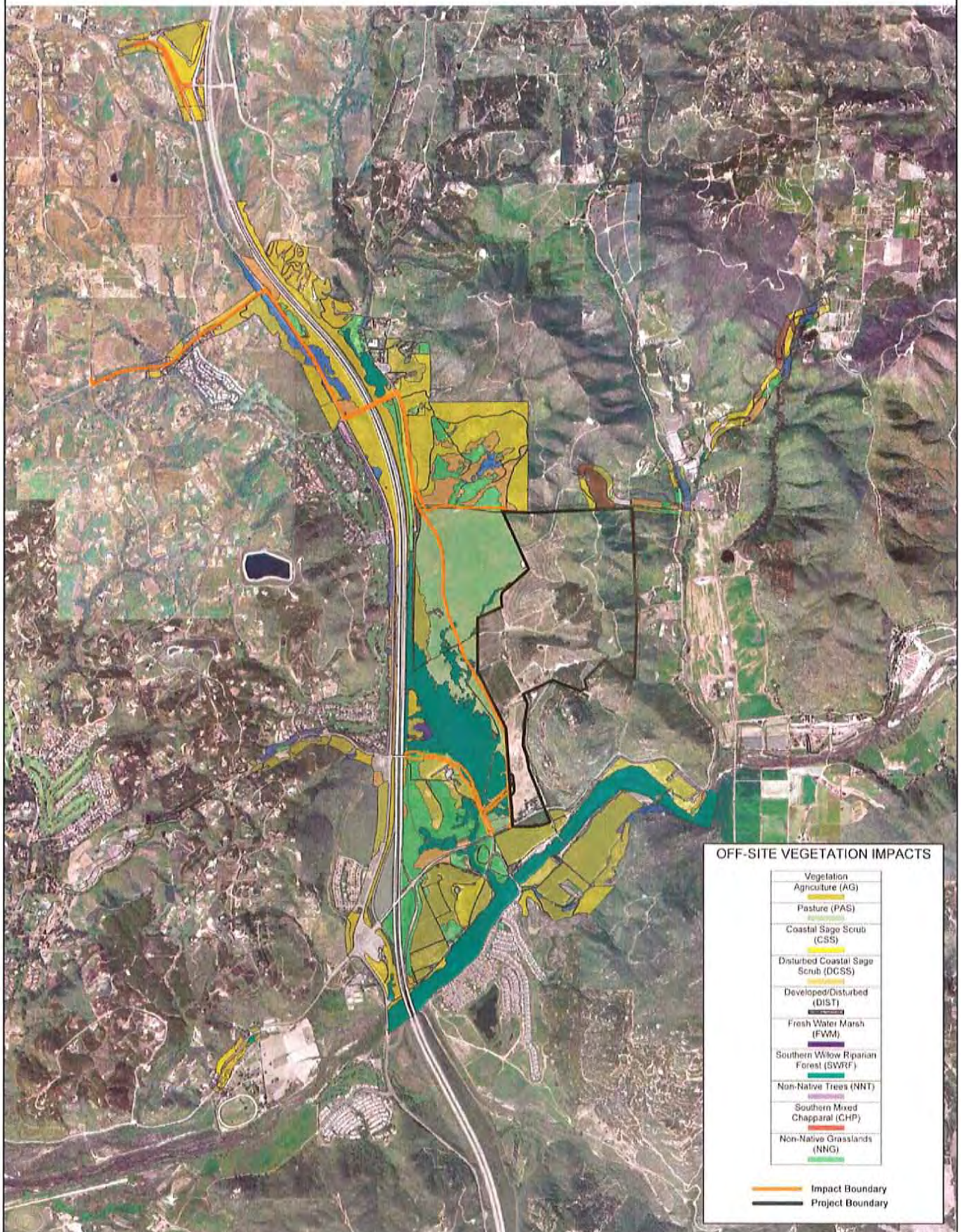
File: SanDiegoCounty\GIS\Projects\SR76\SR76_000000.mxd



EXHIBIT 3: PROJECT IMPACTS
MEADOWOOD | SAN DIEGO COUNTY, CALIFORNIA



Meadowood Off-Site Vegetation Impacts



Latitude 33

Planning and Engineering
4933 Paramount Drive, San Diego, CA 92123
858-751-0633 • Fax 858-751-0634



0 500 1000 2000



03-26-08

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Parker Property</u> Applicant/Owner: _____ Investigator: <u>M. Pasnick / D. Stalley</u>	Date: <u>7-1-03</u> County: <u>S.D.</u> State: <u>CA</u>
Do Normal Circumstances exist on the site? Yes <input type="radio"/> No <input checked="" type="radio"/> Is the site significantly disturbed (Atypical Situation)? Yes <input checked="" type="radio"/> No <input type="radio"/> Is the area a potential Problem Area? Yes <input type="radio"/> No <input checked="" type="radio"/> (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: <u>⑤</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Potamogeton nodosus</u>	<u>N</u>	<u>Fresh</u>	9. _____	_____	_____
2. _____	_____	_____	10. _____	_____	_____
3. _____	_____	_____	11. _____	_____	_____
4. _____	_____	_____	12. _____	_____	_____
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): _____

Remarks: _____

HYDROLOGY

<p>Recorded Data (Describe in Remarks):</p> <p> <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No Recorded Data Available </p> <hr/> <p>Field Observations:</p> <p>Depth of Surface Water: <u>1/2"</u> (in.)</p> <p>Depth to Free Water in Pit: <u>Surface</u> (in.)</p> <p>Depth to Saturated Soil: <u>Surface</u> (in.)</p>	<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators:</p> <p> <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands </p> <p>Secondary Indicators (2 or more required):</p> <p> <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks) </p>
<p>Remarks: _____</p>	

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Definition Manual)

Project/Site: <u>Parkway Property</u> Applicant/Owner: _____ Investigator: <u>M. Rarnick / D. Shelton</u>	Date: <u>7-1-03</u> County: <u>SA</u> State: <u>CA</u>				
Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on reverse.)	<table style="width: 100%;"> <tr> <td style="text-align: center;">Yes <input type="radio"/> No <input checked="" type="radio"/></td> <td rowspan="3" style="vertical-align: middle; padding-left: 10px;"> Community ID: _____ Transect ID: _____ Plot ID: <u>(2)</u> </td> </tr> <tr> <td style="text-align: center;">Yes <input checked="" type="radio"/> No <input type="radio"/></td> </tr> <tr> <td style="text-align: center;">Yes <input type="radio"/> No <input checked="" type="radio"/></td> </tr> </table>	Yes <input type="radio"/> No <input checked="" type="radio"/>	Community ID: _____ Transect ID: _____ Plot ID: <u>(2)</u>	Yes <input checked="" type="radio"/> No <input type="radio"/>	Yes <input type="radio"/> No <input checked="" type="radio"/>
Yes <input type="radio"/> No <input checked="" type="radio"/>	Community ID: _____ Transect ID: _____ Plot ID: <u>(2)</u>				
Yes <input checked="" type="radio"/> No <input type="radio"/>					
Yes <input type="radio"/> No <input checked="" type="radio"/>					

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Arroyo Willow</u>	<u>T</u>	<u>Fach</u>	9. _____	_____	_____
2. <u>Cyperus sp.</u>	<u>H</u>	<u>Fach</u>	10. _____	_____	_____
3. <u>Piperia sp.</u>	<u>H</u>	<u>Fach</u>	11. _____	_____	_____
4. _____	_____	_____	12. _____	_____	_____
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: _____

HYDROLOGY

<p>Recorded Data (Describe in Remarks):</p> <p> <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No Recorded Data Available </p> <hr/> <p>Field Observations:</p> <p>Depth of Surface Water: <u>1/8"</u> (in.)</p> <p>Depth to Free Water in Pit: <u>Surface</u> (in.)</p> <p>Depth to Saturated Soil: <u>Surface</u> (in.)</p>	<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators:</p> <p> <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands </p> <p>Secondary Indicators (2 or more required):</p> <p> <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks) </p>
Remarks:	

SOILS

Map Unit Name (Series and Phase): _____			Drainage Class: _____		
Taxonomy (Subgroup): _____			Field Observations Confirm Mapped Type? Yes No		
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-12	A	10YR 2/2	—	—	sandy silt

Hydric Soil Indicators:

<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Remarks)
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Remarks: _____

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes No (Circle)	
Wetland Hydrology Present?	Yes No	
Hydric Soils Present?	Yes No	
		Is this Sampling Point Within a Wetland? Yes No
Remarks:		

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Pankey Property</u> Applicant/Owner: _____ Investigator: <u>M. Karnick / D. Shelkey</u>	Date: <u>7-1-03</u> County: <u>SD</u> State: <u>CA</u>
Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on reverse.)	Yes <input type="radio"/> No <input checked="" type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/>
Community ID: _____ Transect ID: <u>1</u> Plot ID: <u>3</u>	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Typha spp.</u>	<u>H</u>	<u>OBL</u>	9. _____	_____	_____
2. _____	_____	_____	10. _____	_____	_____
3. _____	_____	_____	11. _____	_____	_____
4. _____	_____	_____	12. _____	_____	_____
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks: _____

HYDROLOGY

<p>Recorded Data (Describe in Remarks):</p> <p>Stream, Lake, or Tide Gauge _____</p> <p>Aerial Photographs _____</p> <p>Other _____</p> <p><input checked="" type="checkbox"/> No Recorded Data Available</p> <hr/> <p>Field Observations:</p> <p>Depth of Surface Water: <u>ft</u> (in.)</p> <p>Depth to Free Water in Pit: <u>ft</u> (in.)</p> <p>Depth to Saturated Soil: <u>ft</u> (in.)</p>	<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators:</p> <p>Inundated _____</p> <p>Saturated in Upper 12 Inches _____</p> <p><input checked="" type="checkbox"/> Water Marks</p> <p>Drift Lines _____</p> <p><input checked="" type="checkbox"/> Sediment Deposits</p> <p><input checked="" type="checkbox"/> Drainage Patterns in Wetlands</p> <p>Secondary Indicators (2 or more required):</p> <p><input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12 Inches</p> <p>Water-Stained Leaves _____</p> <p>Local Soil Survey Data _____</p> <p><input checked="" type="checkbox"/> FAC-Neutral Test</p> <p>Other (Explain in Remarks) _____</p>
<p>Remarks: _____</p>	

