GLENN LUKOS ASSOCIATES
Regulatory Services

June 23, 2015

Peter D. Zak
NCA Real Estate
3 Corporate Plaza, Suite 230
Newport Beach, California 92600
USA

SUBJECT: Results of Vegetation Mapping for Latitude II, Escondido, California

Dear Mr. Zak:

This letter report summarizes the results of a vegetation mapping for the above referenced property.

The Latitude II site comprises approximately 3.73 acres in the City of Escondido, San Diego County, California [Exhibit 1- Regional Map] and is located in an unsectioned area within Township 12 South and Range 2 West, of the U.S. Geological Survey (USGS) 7.5: quadrangle map Valley Center (dated 1968 and photorevised in 1975)[Exhibit 2 – Vicinity Map]. The Project site is bordered by West Washington Avenue to the south, Centre City Parkway to the west, and by commercial development to the north and east.

During vegetation mapping of the Project site, one vegetation alliance was identified. Table 1 provides a summary of vegetation alliances/land uses and the corresponding acreage. Three additional vegetation types are identified that did not meet alliance membership requirements. Detailed descriptions of each vegetation type follow the table. A Vegetation Map is attached as Exhibit 3. Photographs depicting various vegetation types and land uses are attached as Exhibit 4. No special status plants were encountered during any vegetation mapping efforts.

29 Orchard ▪ Lake Forest ▪ California 92630-8300
Telephone: (949) 837-0404 Facsimile: (949) 837-5834

Table 1. Summary of Vegetation/Land Use Types for the Project Site

VEGETATION ALLIANCES/ LAND USE TYPE	RANK	CODE	ACREAGE
***Bromus (diandrus, hordeaceus) – Brachypodium distachyon* (Annual brome grasslands) Alliance**	N/A	42.026.00	
Bromus diandrus – Mixed herbs		42.026.11	0.39
Non-alliance Vegetation			
Ornamental Trees			0.31
Bare/Disturbed			1.88
Developed			1.15

Annual brome grasslands Alliance

Approximately 0.39 acres of the Project site located in the eastern and north western open areas are vegetated with annual brome grasslands alliance. The annual brome grasslands alliance vegetation type has no rank, meaning it is not threatened in either a local or global capacity. It should also be noted that annual brome grasslands are non-native and invasive.

The membership rules for the annual brome grasslands alliance include the following: (1) *Brachypodium distachyon* > 50% relative cover in the herbaceous layer, (2) *Bromus diandrus* > 60% relative cover with other non-natives in herbaceous layer and with a variety of annuals at low cover, (3) *Bromus diandrus, B. hordeaceus,* and/or *Brachypodium distachyon* > 80% relative cover separately or co-dominant with non-natives; natives usually with low or insignificant cover, and (4) *Bromus hordeaceus* > 50% relative cover in the herbaceous layer. Within the subject areas of vegetation, relative cover of *Bromus* species within the herb layer is approximately 60 %. Within the western area, relative cover of *Brachypodium distachyon* is 85%, co-dominant with other weedy species.

Ornamental Trees

The trees on-site do not meet any alliance membership rules, and therefore are not considered part of any vegetative alliance. On site there are seven gum trees (*Eucalyptus sp.*), seven pine trees (*Pinus sp.*), and eleven queen palms (*Syagrus romanzoffiana*), occupying approximately 0.31 acres.

Bare/Disturbed

This area on site comprises approximately 1.88 acres and consists of recently disced soils and ruderal sites that have limited plant growth. The majority of these areas are bare dirt with small populations of native and non-native vegetation that do not meet any membership rules. Species encountered in this area include Russian thistle (*Salsola tragus*), wild mustard (*Hirschfeldia incana*), and dove weed (*Croton setigerus*). These species do not fall into any alliance category due to the overall lack of vegetation/cover.

Developed

This area consists of building pads, a storm drain, and asphalt and comprises approximately 1.15 acres.

If you have any questions regarding this letter report, please call me at (949) 837-0404, ext. 48.

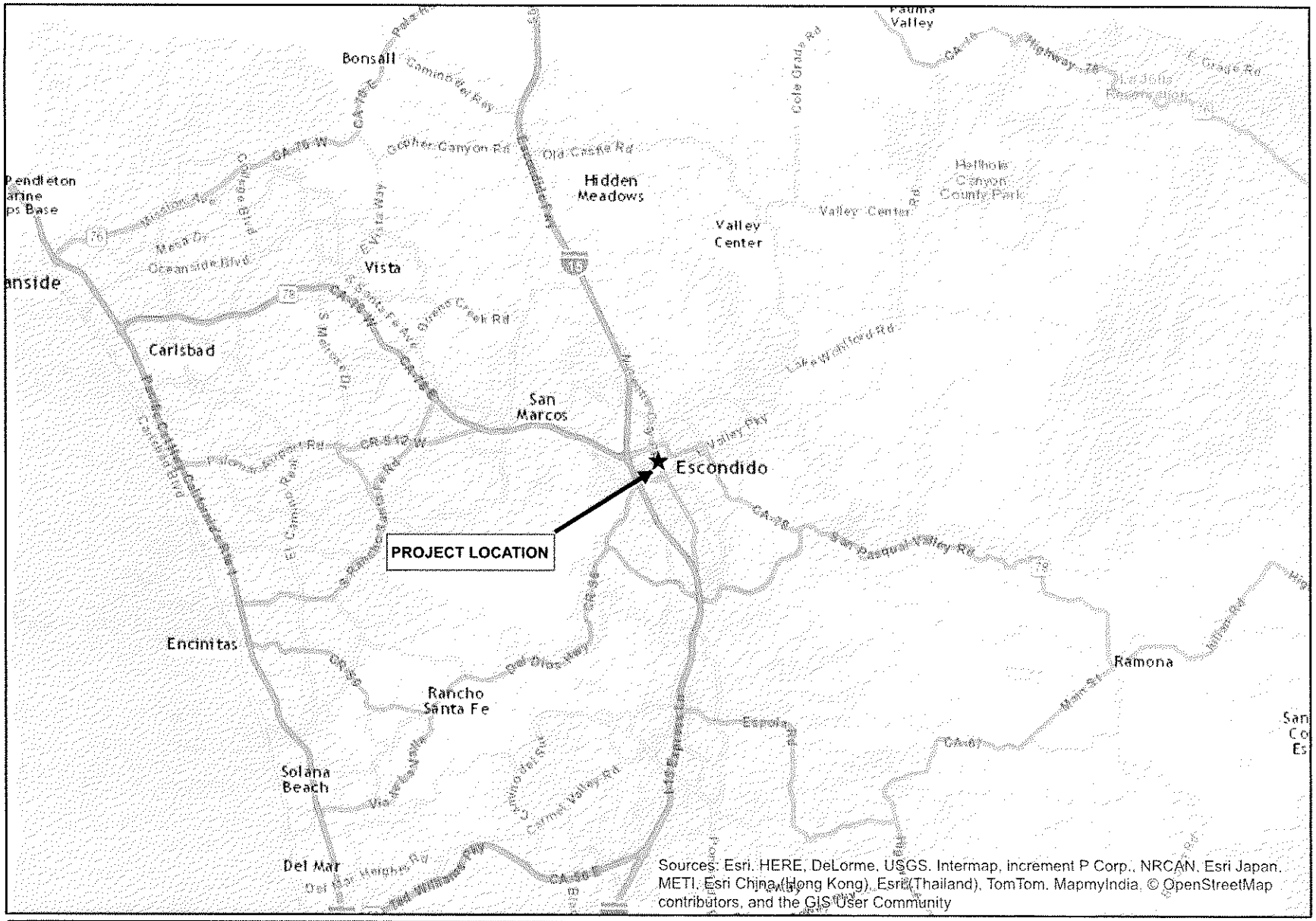
Sincerely,

GLENN LUKOS ASSOCIATES, INC.

David Smith

David Smith
Biologist

S: \\FILESERVER2012\Shared\1087 GENERAL\1087-02WASH



Source: ESRI World Street Map

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0 2 4 8 Miles

LATITUDE II PROJECT

Regional Map

GLENN LUKOS ASSOCIATES

Exhibit 1

GLENN LUKOS ASSOCIATES

Exhibit 2

LATITUDE II PROJECT

Vicinity Map

Adapted from USGS Valley Center, CA quadrangle

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Feet

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Legend

- Annual Brome Grasslands
- Bare/ Disturbed
- Developed
- Ornamental

N

0 50 100 200

Feet

1 inch = 100 feet

Aerial Photo: ESRI Basemaps
Reference Elevation Datum: State Plane 6 NAD 83
Map Prepared by: C. Lukos, GLA
Date Prepared: June 23, 2015

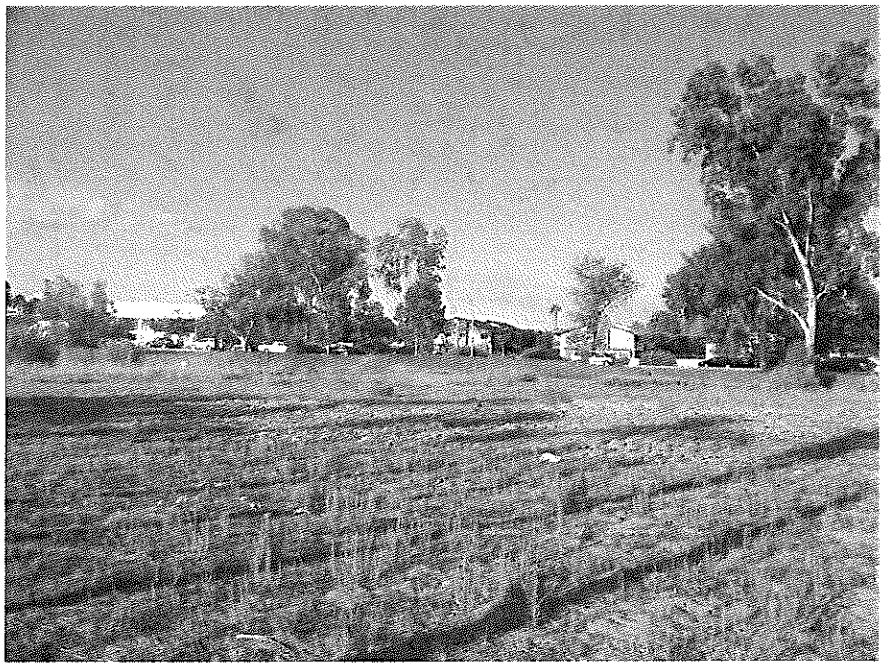
LATITUDE II PROJECT

Vegetation Map

GLENN LUKOS ASSOCIATES

Exhibit 3

Photograph 1: Photo depicts sparse, annual brome grasslands in the eastern portion of the site.



Photograph 2: View of the center of the site taken from the eastern edge.

GLENN LUKOS ASSOCIATES

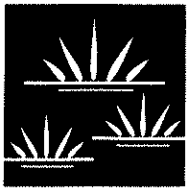
Exhibit 4

LATITUDE II PROJECT

Site Photographs

MEMORANDUM

GLENN LUKOS ASSOCIATES
Regulatory Services



PROJECT NUMBER: 10870002

TO: Peter Zak

FROM: Tony Bomkamp

DATE: February 2, 2015

SUBJECT: Latitude II Project Biological Survey and Wetland Determination Results

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The purpose of this Biological Memorandum is to provide an updated evaluation of the biological resources associated for the Latitude II Project (Project)[Exhibits 1, 2 & 3] along with a discussion of areas potentially subject to the U.S. Army Corps of Engineers (Corps) pursuant to section 404 of the Clean Water Act and the California Department of Fish and Wildlife (CDFW) pursuant to Section 1602 of the Fish and Game Code and the documentary concurrence by the respective regulatory agencies.

1. Survey History for the Latitude II Project

In 2005 a biological survey and wetland evaluation of the Project Site was conducted.[1] The survey found that the Project Site exhibited no state or federally listed threatened or endangered species and no candidate, sensitive or special status plants or animal species and that the Project Site lacked any habitat to support them. Nor did the Project Site function as a foraging or nesting area for native resident or migratory fauna and is not within or near native wildlife nursery sites. The Project Site was not included in any conservation planning area or program.

The 2005 report identified an on-site drainage feature that was potentially subject to Section 404 of the Clean Water Act and Section 1602 of the California Fish and Game Code jurisdictions; however, a formal verification was not obtained from the Corps or the CDFW. No applications were submitted to the respective agencies and as such there was no determination by the agencies that permits to construct the Project would be required.

To summarize, the previous biological report determined that in accordance with Appendix G of the CEQA Guidelines, excerpted below, the Project would have no significant impacts under Paragraphs A, B, E and F. The report determined that impacts to the drainage feature; while potentially subject to 404 and Section 1602 regulation, were less-than-significant.

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[1] Vincent Scheidt, *Results of a Biological Survey for the LCW Townhome Residential Project.* November 1, 2005.

Appendix G to the State CEQA Guidelines indicate that a project may have a significant effect on the environment if it would:

> *(a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.*
>
> *(b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.*
>
> *(c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.*
>
> *(d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.*
>
> *(e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.*
>
> *(f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.*

2. Surveys in 2014

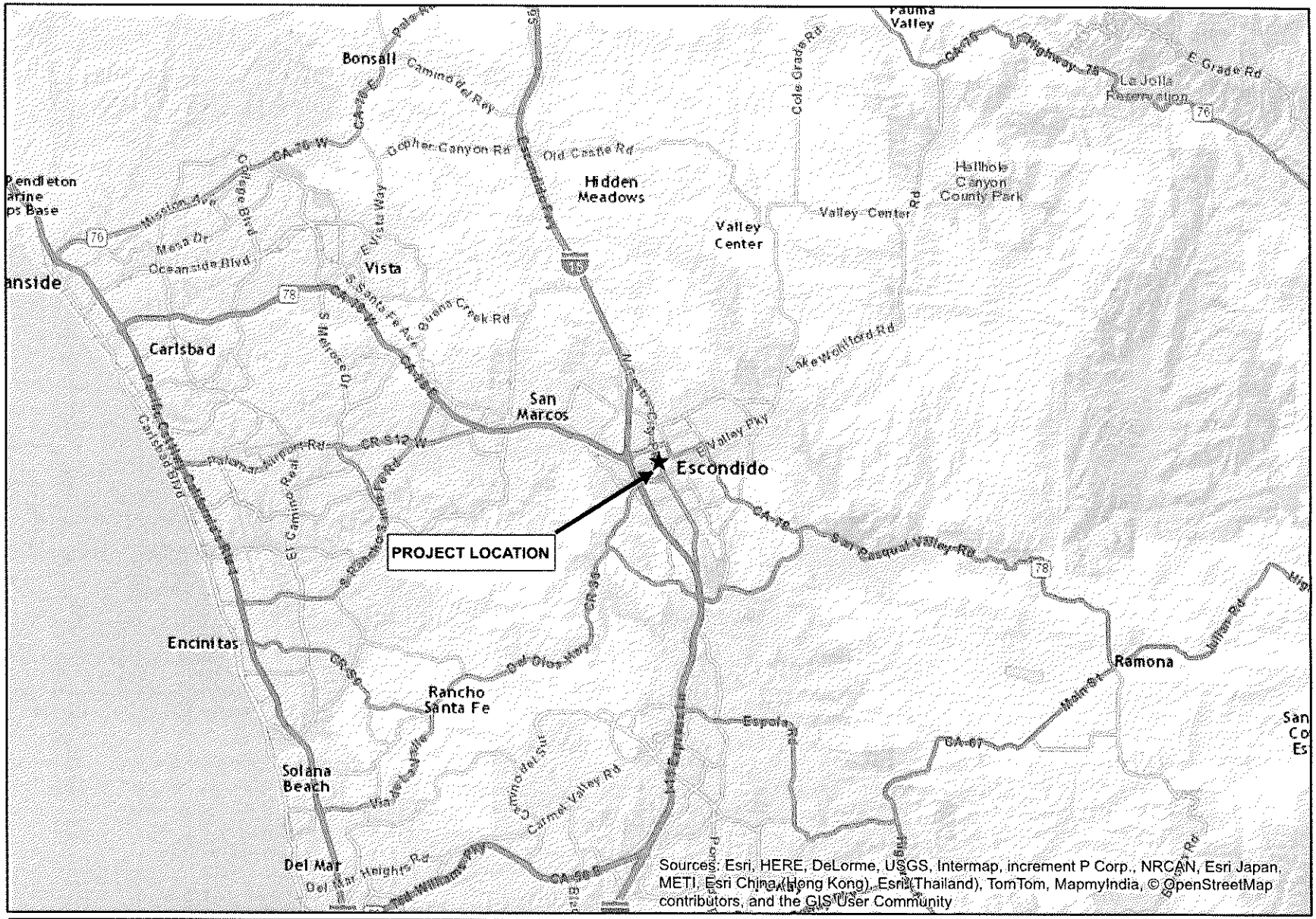
On June 23, 2014, Glenn Lukos Associates (GLA) conducted biological surveys on the Project Site and confirmed that no special status plants or animals have any potential for occurring on the Site and there is no native habitat that could support such species. As such the conclusion that no significant impacts would occur associated with Paragraphs A, B, E & F above was confirmed.

GLA also conducted a jurisdictional determination of the Site (See Attached) which found no wetlands or riparian habitat and confirmed the absence of hydrophytic vegetation, including Cattails "Typha", Sedge "Cyperus" or any other hydrophytic plants that were mentioned in the 2005 report.

GLA obtained concurrence from the Corps via email by Therese O. Bradford, Chief, South Coast Branch on July 3, 2014 that there were no waters of the United States, subject to Corps jurisdiction on the Site, including wetlands. Similarly GLA also obtained concurrence from CDFW concerning potential waters of the State from Kevin Hupf via an informal consultation at the Project Site on July 24, 2014. Mr. Hupf indicated that the Department of Fish and Wildlife would not require "notification" (i.e., require a Section 1602 Streambed Alteration Agreement) prior to grading the site, which is the Department's confirmation that that feature on the site is not a "Water of the State" pursuant to Section 1602 of the Fish and Game Code. Mr. Hupf explained that there are no provisions in the Fish and Game Code for making "non-jurisdictional" determinations and that his determination that "notification" would not be required would not be provided in writing, but that he would be happy to cover this with the City of Escondido Planning staff by means of a telephone conversation. As such, construction of the site would not result in impacts to Section 404 or Section 1602 jurisdiction, including wetlands or riparian habitat. Given that the Project contains no areas of defined waters of the U.S. or waters of the State, the Regional Water Quality Control Board would assert no jurisdictional oversight over the Property pursuant to the Clean Water Act or under the Porter-Cologne Act.

3. Conclusion

In accordance with the CEQA Appendix G Guidelines noted above construction of the Project would result in no significant impacts on biological resources and therefore require no mitigation. As confirmed by the regulatory agencies the Project requires no authorizations for impacts to the non-jurisdictional drainage feature.



Source: ESRI World Street Map

N

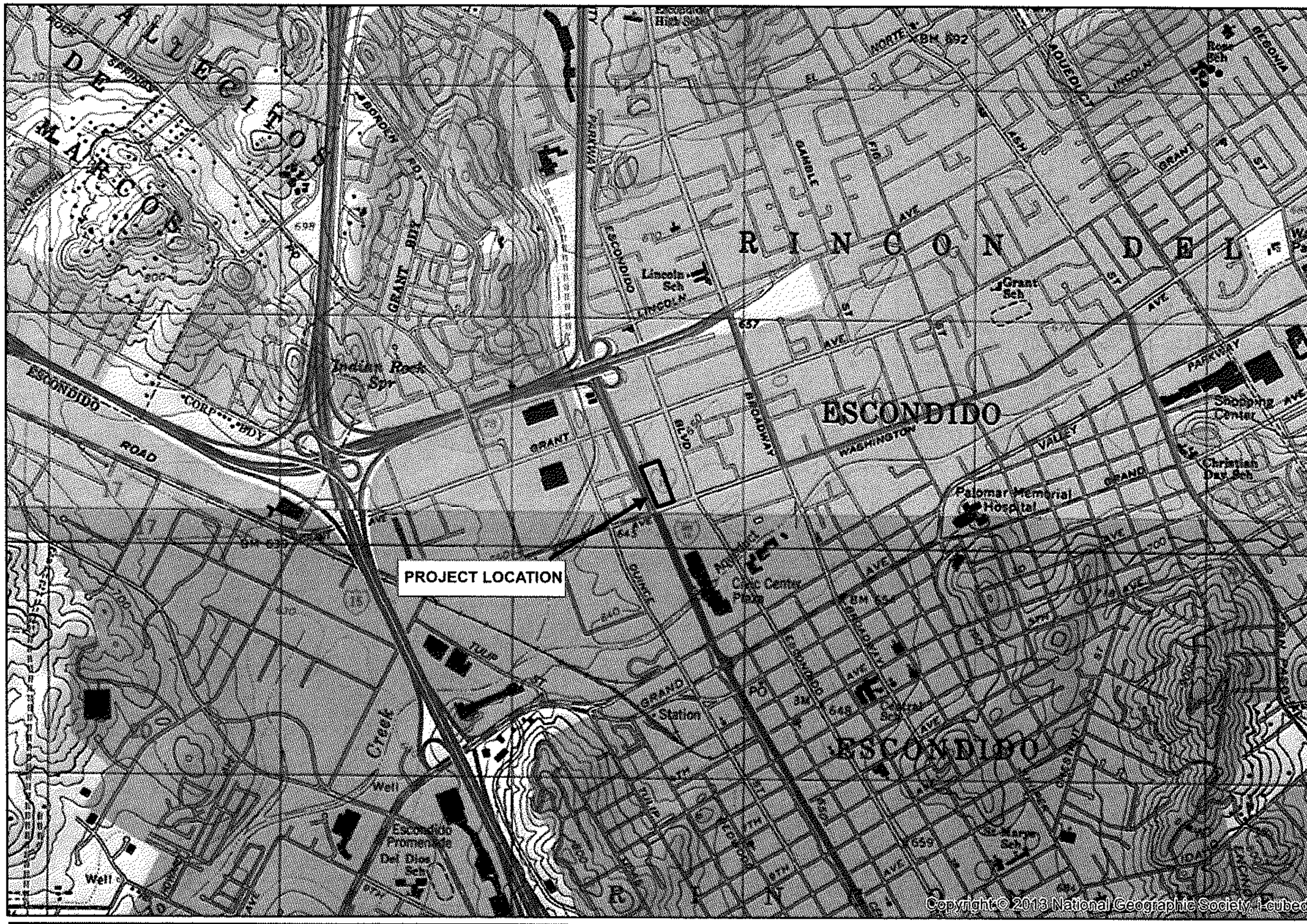
0 2 4 8 Miles

LATITUDE II PROJECT

Regional Map

GLENN LUKOS ASSOCIATES

Exhibit 1



LATITUDE II PROJECT

Vicinity Map

GLENN LUKOS ASSOCIATES

Exhibit 2

Adapted from USGS Valley Center, CA quadrangle

N

0 1,000 2,000 4,000 Feet

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Legend

Project boundary

N

0 75 150 300

Feet

1 inch = 150 feet

Aerial Photo: ESRI Basemaps
Reference Elevation Datum: State Plane 6 NAD 83
Map Prepared by: C. Lukos, GLA
Date Prepared: June 24, 2014

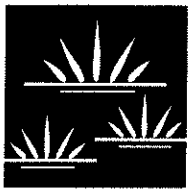
LATITUDE II PROJECT

Aerial Photograph

GLENN LUKOS ASSOCIATES

Exhibit 3

GLENN LUKOS ASSOCIATES
Regulatory Services



June 30, 2014

Peter D. Zak
NCA Real Estate
3 Corporate Plaza, Suite 230
Newport Beach, California 92660
USA

SUBJECT: Jurisdictional Determination for Latitude II, Escondido, California

Dear Mr. Zak:

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

The Latitude II project site in San Diego County [Exhibit 1], comprises approximately 3.73 acres and contains no blue-line drainages (as depicted on the U.S. Geological Survey (USGS) topographic map Valley Center, California [dated 1968 and photo revised in 1975]) [Exhibit 2]. On June 23, 2014, regulatory specialists of 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, and (2) CDFW jurisdiction pursuant to Division 2, Chapter 6, Section 1600 of the Fish and Game Code. Enclosed is a 150-scale map [Exhibit 3] that depicts the areas of Corps and CDFW jurisdiction. Photographs to document 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.

The site contains no wetlands pursuant to Section 404 of the Clean Water Act and the area contains no drainages with an Ordinary High Water Mark (OHWM).

The site contains no streambed pursuant to section 1602 of the California Fish and Game Code and the site contains no riparian habitat.

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

I. METHODOLOGY

Prior to beginning the field delineation a color aerial photograph, and the previously cited USGS topographic map were examined to determine the locations of potential areas of Corps/CDFW jurisdiction. Potential jurisdictional areas were field checked for the presence of definable channels and/or wetland vegetation, soils and hydrology. Potential wetland habitats on the site were evaluated using the methodology set forth in the U.S. Army Corps of Engineers 1987 Wetland Delineation Manual[2] (Wetland Manual) and the 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Supplement (Version 2.0) (Arid West Supplement).[3] Data relevant to potential presence of wetlands were recorded onto wetland data sheets. The presence of an Ordinary High Water Mark (OHWM) was determined using *A Field Guide to the Identification of the ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* and *Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM)in the Arid West Region of the Western United States.*

The Soil Conservation Service (SCS)[4] has mapped the following soil types as occurring in the general vicinity of the project site:

Placentia Sandy Loam, 2 to 9 percent slopes

The Placentia series consists of moderately well drained sandy loams that have a sandy clay subsoil. These soils formed in granite alluvium. In a typical profile the surface layer is brown, medium acid and slightly acid sandy loam about 13 inches thick. The subsoil is brown, moderately alkaline sandy clay and clay loam about 40 inches thick.

Ramona Sandy Loam, 2 to 5 percent slopes

The Ramona series consists of well-drained deep sandy loams that have a sandy clay loam subsoil. These soils also formed in granite alluvium. In a typical profile the surface layer is yellowish–brown and brown, slightly acid and medium acid sandy loam about 17 inches think. The subsoil is brown and yellowish-brown slightly acid and neutral sandy clay loam about 43 inches thick.

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

[3] U.S. Army Corps of Engineers, Ed. J.S. Wakeley, R.W. Lichevar, and C.V. Noble, Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0), 2008.

[4] SCS is now known as the National Resource Conservation Service or NRCS.

None of these soil units are identified as hydric in the SCS's publication, Hydric Soils of the United States[5] or the hydric soils list for San Diego County.[6]

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.*

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[5] 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.)

[6] United States Department of Agriculture, Soil Conservation Service. Hydric Soils List, Escondido, CA Field Office, Section II (March 1992).

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.[7] 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.

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

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

[7] 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.]

- 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 Wetlands[8]);

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

- Whereas the 1987 Manual requires that hydrologic characteristics indicate that the ground is saturated to within 12 inches of the surface for at least five percent of the growing season during a normal rainfall year, the Arid West Supplement does not include a quantitative criteria with the exception for areas with "problematic hydrophytic vegetation", which require a minimum of 14 days of ponding to be considered a wetland.

B. California Department of Fish and Wildlife

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

CDFW defines a "stream" (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." CDFW's definition of "lake" includes "natural lakes or man-made reservoirs."

CDFW jurisdiction within altered or artificial waterways is based upon the value of those waterways to fish and wildlife. CDFW 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 [CDFW] as natural waterways...

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[8] Lichvar, R.W., M. Butterwick, N.C. Melvin, and W. N. Kirchner, 2014, The National Wetland Plant List: Update of Wetland Ratings. Phytoneuron 2014-41: 1-42.

- Artificial waterways without the attributes of natural waterways should generally not be subject to Fish and Game Code provisions...

Thus, CDFW jurisdictional limits closely mirror those of the Corps. Exceptions are CDFW'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

The project site contains a single swale that enters the site at the eastern boundary and extends in a westerly direction to a concrete inlet where it exits the site. The swale contains no indicators for an OHWM; rather it exhibits dense upland vegetation across the entire feature. The swale contains no wetlands.

The swale supports a predominance of upland species. Dominant species include, Johnson grass (*Sorghum halepense*, FACU), castor-bean (*Ricinus communis*, FACU), Bermuda grass (*Cynodon dactylon*, FACU), and Italian Rye grass (*Festuca perennis,* FAC).

Other species include, bristly ox-tongue (*Helminthotheca echiodes*, FACU) yard knotweed (*Polygnomum aviculare*, FACW), field bindweed (*Convolvulus arvensis*, UPL), wild oats (*Arena fatua*, UPL), giant reed (*Arundo donax*, FACW), and curly dock (*Rumex crispus,* FAC).

The plants were examined at three data collection points, [Exhibit 3] with each one failing the basic dominance test. The prevalence index score from point 1 is 3.89, with soil point 2 scoring 3.59, and point 3 scoring 3.87. Given that all three points failed both the basic dominance test and the prevalence index, the site does not support hydrophytic vegetation.

Soils exhibited a chroma of 10/YR 2/1 and no redoximorphic features. No other hydric soil indicators were present. Therefore the site does not exhibit hydric soils.

As to Hydrology, the swale exhibited one secondary indicator, drainage patterns (B10), but because no other secondary or primary indicators were present, the site does not meet the threshold for wetland hydrology.

Therefore, the swale fails to meet each of the three criteria for a positive wetland determination.

B. CDFW Jurisdiction

The project site contains a single swale that enters the site at the eastern boundary and extends in a westerly direction to a concrete inlet where it exits the site. The swale contains no indicators that water flows in a manner consistent with the presence of a "stream." The swale does not support riparian or wetland habitat.

The swale supports a predominance of upland species. Dominant species include, Johnson grass (*Sorghum halepense*, FACU), castor-bean (*Ricinus communis*, FACU), Bermuda grass (*Cynodon dactylon*, FACU), and Italian Rye grass (*Festuca perennis*, FAC).

Other species include, bristly ox-tongue (*Helminthotheca echiodes*, FACU), yard knotweed (*Polygnomum aviculare*, FACW), field bindweed (*Convolvulus arvensis*, UPL), wild oats (*Avena fatua*, UPL), and curly dock (*Rumex crispus*, FAC).

Giant reed (*Arundo donax*, FACW) is also present but only a few individuals occur inside and outside of the swale.

Soils exhibited a chroma of 10/YR 2/1 and no redoximorphic features. No other hydric soil indicators were present. Therefore the site does not exhibit hydric soils.

As noted, the swale does not exhibit the characteristics of a stream, therefore the swale is not a streambed pursuant to section1602.

If you have any questions about this letter report, please contact Tony Bomkamp at (949) 837-0404, ext. 41.

Sincerely,

GLENN LUKOS ASSOCIATES, INC.

Tony Bomkamp
Regulatory Specialist

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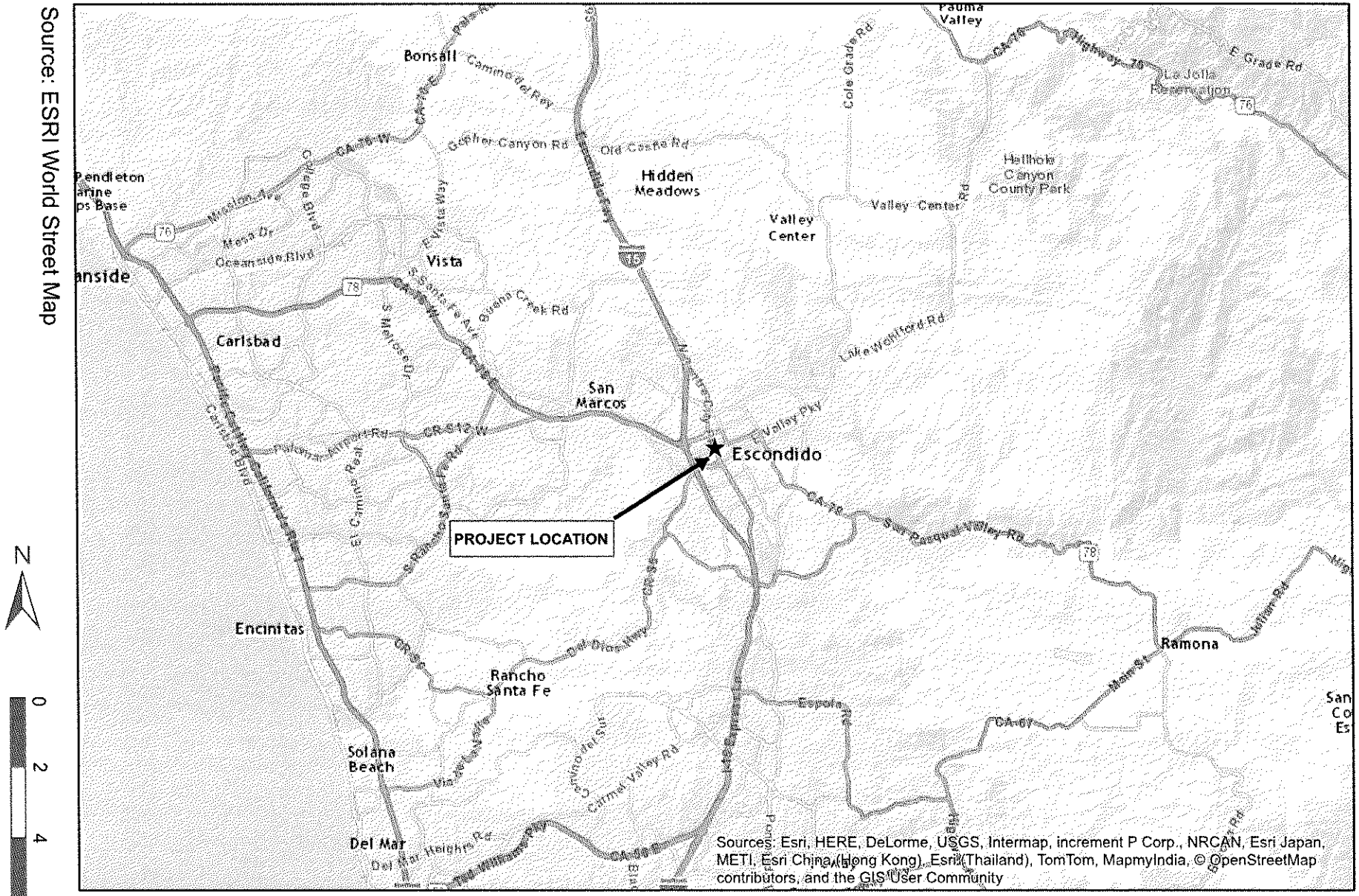

Source: ESRI World Street Map

N

0 2 4 8 Miles

LATITUDE II PROJECT

Regional Map

GLENN LUKOS ASSOCIATES

Exhibit 1

GLENN LUKOS ASSOCIATES

Exhibit 2

LATITUDE II PROJECT

Vicinity Map

Adapted from USGS Valley Center, CA quadrangle

N

0 1,000 2,000 4,000

Feet

X:\0363-THE REST\1087-02WASH\1087-2GIS\1087-2JDGIS\1087-2JDsoilspits.mxd

Legend

- Data Pits
- Project boundary

N

0 75 150 300

Feet

1 inch = 150 feet

Aerial Photo: ESRI Basemaps
Reference Elevation Datum: State Plane 6 NAD 83
Map Prepared by: C. Lukos, GLA
Date Prepared: June 24, 2014

LATITUDE II PROJECT

Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 3

Photograph 1: View of Swale Looking West

Photograph 2: View of Swale Looking East

GLENN LUKOS ASSOCIATES

Exhibit 4

LATITUDE II

Site Photographs

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Latitude II City/County: San Diego Sampling Date: 6/23/14
Applicant/Owner: NCA State: CA Sampling Point: 1
Investigator(s): T. Benkamp/P. Robinson Section, Township, Range:
Landform (hillslope, terrace, etc.): field Local relief (concave, convex, none): concave Slope (%): 1 < 2%
Subregion (LRR): LRRC Lat: 117°05'21.98W Long: 33°7'34.54"N Datum:
Soil Map Unit Name: Placentia Sandy Loam, Monserate Sandy Loam NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? No Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? NO (If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1. Bromus Compressus	35%	Yes	FACU
2. Cynodon dactylon	35%	Yes	FACU
3. Helminthotheca echioides	5%	No	FACU
4. Avena fatua	3%	No	UPL
5. Convolvulus arvensis	5%	No	UPL
6. Polygonum aviculare	7%	No	FACW
7.			
8.			
	87 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 13 % Cover of Biotic Crust 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 7	x 2 = 14
FAC species 0	x 3 = 0
FACU species 75	x 4 = 300
UPL species 5	x 5 = 25
Column Totals: 87 (A)	339 (B)

Prevalence Index = B/A = 3.89

Hydrophytic Vegetation Indicators:
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No X

Remarks:

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10yr 4/1	100	0		0		Loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): Bedrock

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

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

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

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

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Latitude II City/County: San Diego Sampling Date: 6/23/14
Applicant/Owner: NCA State: CA Sampling Point: 2
Investigator(s): T Bankemper / P Robinson Section, Township, Range:
Landform (hillslope, terrace, etc.): Field Local relief (concave, convex, none): Concave Slope (%): < 2%
Subregion (LRR): LRRC Lat: 117°5'22.58"W Long: 33°0'34.15"N Datum:
Soil Map Unit Name: Placentia Sandy Loam, Ramona Sandy Loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? NO Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? NO (If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1. Sorghum halepense	35%	Yes	FACU
2. Cynodon dactylon	30%	NO	FACU
3. Helminthotheca echioides	3%	NO	FAC
4. Arundo donax	3%	NO	FACW
5. Festuca perennis	25%	yes	FAC
6. Convolvulus arvensis	2%	NO	UPL
7.			
8.			
	71 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 29 % Cover of Biotic Crust 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 29% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	3	x 2 =	6
FAC species	35	x 3 =	75
FACU species	41	x 4 =	164
UPL species	2	x 5 =	10
Column Totals:	71 (A)		255 (B)

Prevalence Index = B/A = 3.59

Hydrophytic Vegetation Indicators:
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No X

Remarks:

SOIL

Sampling Point: 2

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 4/1	100	0		0	0	LOAM	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: ___

Depth (inches): NONE

Hydric Soil Present? Yes ___ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

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

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

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

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? Yes ___ No X

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Latitude II City/County: San Diego Sampling Date: 6/23/14
Applicant/Owner: NCA State: CA Sampling Point: 3
Investigator(s): T. Bomkamp / P. Robinson Section, Township, Range:
Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Concave Slope (%): < 2%
Subregion (LRR): LRRC Lat: 117°05'21.9"W Long: 33°07'34.5"N Datum:
Soil Map Unit Name: Placentia Sandy Loam, Ramona Sandy Loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? NO Are "Normal Circumstances" present? Yes X No
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? NO (If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1. Sorghum halepense	35%	Yes	FACU
2. Festuca perennis	35%	Yes	FAC
3. Convolvulus arvensis	25%	Yes	UPL
4. Rumex crispus	2%	NO	FAC
5.			
6.			
7.			
8.			
	97 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 3 % Cover of Biotic Crust 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 33% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	37	x 3 =	111
FACU species	35	x 4 =	140
UPL species	25	x 5 =	125
Column Totals:	97 (A)		376 (B)

Prevalence Index = B/A = 3.87

Hydrophytic Vegetation Indicators:
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No X

Remarks:

SOIL

Sampling Point: 3

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10 yr 4/1	100	0		0		Loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: ___

Depth (inches): None

Hydric Soil Present? Yes ___ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

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

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

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

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? Yes ___ No X

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

Remarks: