2011 Wetland Analysis

GLENN LUKOS ASSOCIATES
Regulatory Services

February 21, 2011

Steve Soboroff
Soboroff Partners
1101 Montana Avenue #C
Santa Monica, California 90403
Los Angeles, California 90071

SUBJECT: Jurisdictional Determination, Whole Foods Plaza, Malibu, Los Angeles County, California.

Dear Mr. Soboroff:

This letter report summarizes our preliminary findings regarding the potential for wetlands or other jurisdictional waters that would be regulated by the U.S. Army Corps of Engineers (Corps) pursuant to Section 404 of the Clean Water Act, the California Department of Fish and Game (CDFG) pursuant to Section 1602 of the California Fish and Game Code, and/or the City of Malibu Local Coastal Program in accordance with the California Coastal Act for the above-referenced property.

The Whole Foods Plaza site in Malibu [Exhibit 1] comprises approximately 5.88 acres and contains no blue-line drainages (as depicted on the U.S. Geological Survey (USGS) topographic map Malibu, California [dated 1950 and photorevised in 1981]) [Exhibit 2]. On December 28, 2010 and February 17, 2011, a senior regulatory specialist of Glenn Lukos Associates, Inc. (GLA) examined the project site to determine whether the site contained any wetlands or other aquatic features potentially subject to (1) the 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 and or the City of Malibu LCP in accordance with the California Coastal Act. Enclosed is a 100-scale aerial photograph [Exhibit 3] that depicts the site and specific points where data was collected as part of the site evaluation for the presence of wetlands. Photographs to document the topography, vegetative communities, and general site characteristics are provided as Exhibit 4. Wetland data sheets are attached as Appendix A.

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The site does not support or contain wetlands as defined by the Corps nor does it exhibit any other aquatic features such as a stream or ephemeral drainage that would be subject to the Corps pursuant to Section 404 of the Clean Water Act.

The site does not support or contain a stream, ephemeral drainage or associated riparian habitat as defined by the CDFG.

The site does not contain wetlands as defined by the City of Malibu LCP or the California Coastal Commission nor does the site contain or is identified as containing a stream as defined by the Malibu Local Coastal Program.

I. METHODOLOGY

Prior to beginning the field delineation a 100-scale color aerial photograph and the previously cited USGS topographic map were examined to determine potential areas to be examined for the presence of wetlands, streams, or riparian vegetation as defined by Corps/CDFG/Malibu LCP. During the site visits, all portions of the site were field checked for the presence of definable channels[1] and/or wetland vegetation, soils and hydrology. The evaluation of vegetation, soils and hydrology followed 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 Region (Version 2.0)[3]. While in the field the areas were data were collected were recorded onto a 100-scale color aerial photograph using visible landmarks. Site specific data were recorded onto wetland data sheets.

The Whole Foods Plaza site is located within the coastal zone of the City of Malibu. Development in the coastal zone is regulated by the local jurisdiction's Local Coastal Program. Policy 3.86 of the Malibu Local Coastal Program/Land Use Plan requires that:

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[1] U.S. Army Corps of Engineers. 2008. *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) ion the Arid West Region of the United States: A Delineation Manual.* ERDC/CRREL TR-08-12: Cold Regions Research and Engineering Laboratory, U.S. Army Engineer Research and Development Center, Hanover NH.

[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. 2008. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0).* Ed. J.S. Wakeley, R.W. Lichevar, and C.V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

"Wetlands delineations will be conducted according to the definitions of wetland boundaries contained in section 13577(b) of the California Code of Regulations. A preponderance of hydric soils or a preponderance of wetland indicator species will be considered presumptive evidence of wetland conditions. The delineation report will include at a minimum a (1) a map at a scale of 1 inch =:200 feet or larger with polygons delineating all wetland areas, polygons delineating all areas of vegetation with a preponderance of wetland indicator species and the location of sampling points, and (2) a description of the surface indicators used for delineating the wetland polygons. Paired sample points will be placed inside and outside of vegetation polygons and wetland polygons identified by the consultant doing the delineation." Because no wetlands were detected on the site, it was not appropriate to utilize the "paired" sampling technique; rather, data points where data were collected are depicted on Exhibit 3.

It is also important to note that the site is disked periodically to limit weedy growth; however, during the February 17, 2011 visit, the site exhibited moderate to dense growth of non-native grasses and forbs and identification of most species was possible [see Exhibit 4, site photographs for representative areas of vegetation]. As such, it was determined that treatment of the site as an "atypical situation" was not necessary.

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

Elder fine sandy loam, coastal, 0 to 2 percent slopes: The Elder series consists of very deep and deep, well drained soils that formed in alluvial material derived from mixed rock sources. Elder soils are on alluvial fans and in flood plains

This soil unit is not identified as hydric in the SCS's publication, Hydric Soils of the United States[5].

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

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.[6] Notwithstanding the determination of an area's status as prior converted cropland by

[6] 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

> 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:

- 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[7]);

- 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

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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.]

[7] 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).

- 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.

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...

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.

C. Malibu LCP/California Coastal Commission

Determination of whether a particular landscape feature under the Malibu LCP requires careful evaluation of different components of the LCP: 1) the definition of "stream" provided in the definition section of the LCP, 2) LCP ESHA maps that designate specific features as "streams," and 3) the discussion of "streams" and associated land use policies on pages 81-83 of the February 2003 Malibu LCP: Revised Findings ("Revised Findings").

The Malibu LCP definition of a stream is as follows:

> *STREAM - is a topographic feature that at least periodically conveys water through a bed or channel having banks. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation.*

This definition generally mirrors the definition of stream from the California Fish and Game Code provided above with a few important distinctions. As shown in Table 1 below:

Table 1

CDFG Definition	Malibu LCP Definition
1. A stream is a body of water that flows at least periodically or intermittently through a bed or channel having banks	**1.** STREAM - is a topographic feature that at least periodically conveys water through a bed or channel having banks
2. and supports fish or other aquatic life	**2.**
3. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation.	**3.** This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation.

III. RESULTS

A. <u>Corps Jurisdiction</u>

The site does not contain streams or other ephemeral drainages that exhibit an OHWM nor does the site contain any wetland as defined by the Corps.

1. Hydrology

An initial site visit on December 28, 2010 following approximately 9.5 inches of rain during the preceding 14 days[8] and 14 inches to date for the season found no indicators of wetland hydrology, including standing water or saturation within the upper 12 inches. The site exhibited no other primary or secondary indicators for wetland hydrology.

2. Vegetation

Vegetation on the site is dominated by upland species with most of the site supporting upland non-native grasses and forbs. The site also supports a mix of upland native and non-native trees. Herbaceous species include ripgut (*Bromus diandrus*, UPL), dwarf nettle (*Urtica urens*, UPL), foxtail barley (*Hordeum murinum leporinum*, NI), red-stem filaree *(Erodium cicutarium*, UPL), black mustard (*Brassica nigra*, UPL), bur clover (*Medicago polymorpha*, UPL), Russian thistle (*Salsola tragus*, UPL), Chinese caps (*Euphorbia crenulata*, UPL), cheeseweed (*Malva parviflora*, UPL), and castor bean (*Ricinus communis*, FACU). Trees on the site include blue gum eucalyptus (*Eucalyptus globulus*, UPL), jacaranda (*Jacaranda mimosifolia*, UPL), and western sycamore (*Platanus racemosa*, FACW).

While western sycamore has an indicator status of FACW, it is important to note that on this site, this tree is not a wetland indicator species. Rather, the western sycamore is a phreatophyte, capable of sending roots to the groundwater table many feet below the ground surface. Version 2.0 of the Corps' Regional supplement is clear on the treatment of phreatophytes when evaluated under the sort of conditions observed on this site:

> *Examples of species that occur in these situations include cottonwoods (e.g., Populus deltoides, P. fremontii) and tree-forming willows (e.g., Salix gooddingii, S. laevigata). These areas may have a high frequency of* ***phreatophytic species that, when mature, are able to exploit groundwater that is too deep to support wetlands****. In such situations, there may be a hydrophytic overstory and* ***a nonhydrophytic understory****. If the soils are Entisols lacking hydric soil features and/or wetland hydrology is problematic,* ***more emphasis should be placed on the understory, which may be more indicative of*** *current wetland or* ***non-wetland conditions****.* [Emphasis not in original]

The conditions discussed in the Corps' Supplement is consistent with the conditions on the site where the understory vegetation across the site is strongly dominated by upland species, which is expected given the lack of wetland hydrology and hydric soils.

[8] Mean rainfall for December is approximately 2.3 inches based on the nearby gauging station at Deals Flat.

3. Soils

Soil pits were excavated at representative locations on the site and no indicators of hydric soils were detected. Soils were uniformly 10YR 3/3 with no redox concentrations or depletions. As noted above under methods, the soils on the site consist of sandy loam that is well drained, which explains the lack of any surface ponding or soil saturation following 14 days of the well-above average rainfall that occurred during the second half of December 2010.

B. CDFG Jurisdiction

The site does not contain streams or other ephemeral drainages that exhibit bed, bank, or channel nor does the site contain any riparian habitat as defined by the CDFG. The western sycamore trees, while often associated with riparian areas, are also commonly found in upland areas due to their ability to tap into deeper groundwater. In summary, there are no areas on the site that would be regulated under Section 1602 of the Fish and Game Code.

C. Malibu LCP Jurisdiction

As noted above for both Corps and CDFG, the site does not contain any features that could be considered a stream, including the definition of "stream" in the Malibu LCP. Also, as noted above, the few scattered western sycamores on the site are not functioning as riparian species because they are not associated with a stream or drainage course and as such, the site does not support "riparian habitat".

As discussed above under Corps jurisdiction, the site does not exhibit any wetland indicators. Specifically, the site lacks wetland hydrology, based on very strong evidence of a complete lack of any indicators for wetland hydrology as observed on the 14th day of a series of storm events that accounted for about 9.5 inches of rainfall (about four times the normal rainfall for all of December).

Consistent with the lack of wetland hydrology, the vegetation on the site is strongly dominated by upland grasses and forbs as well as trees. The one exception, western sycamore, is not functioning as a hydrophyte; rather is functioning as an upland species since wetland hydrology is absent.

Finally, the soils on the site exhibit no hydric indicators and instead consist of well-drained sandy loam typical of upland conditions.

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

Sincerely,

GLENN LUKOS ASSOCIATES, INC.

Tony Bomkamp
Senior Biologist/Wetland Specialist

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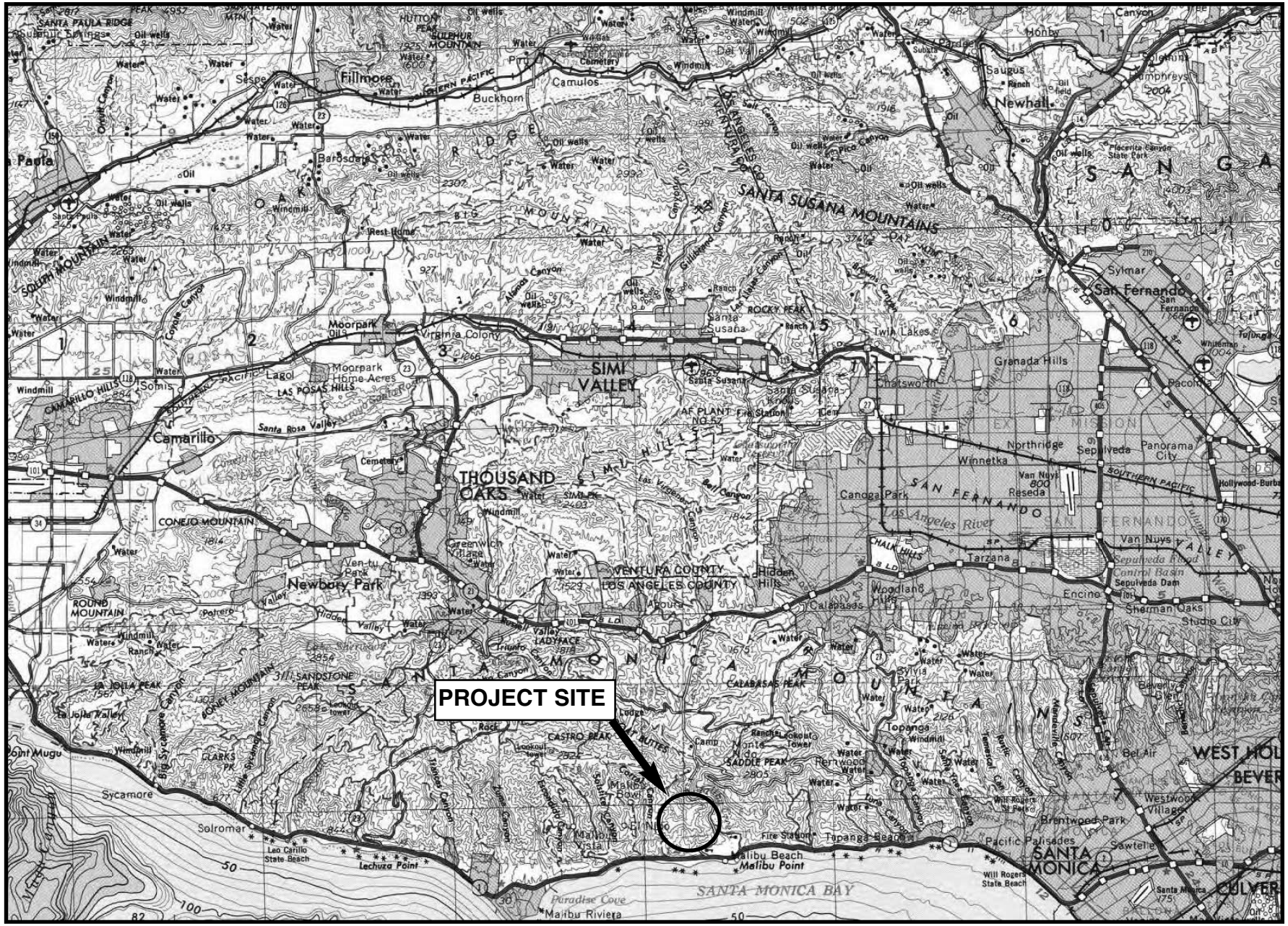

Adapted from USGS Los Angeles quadrangle

NORTH

0 2 4 6

MILES

WHOLE FOODS PLAZA

Regional Map

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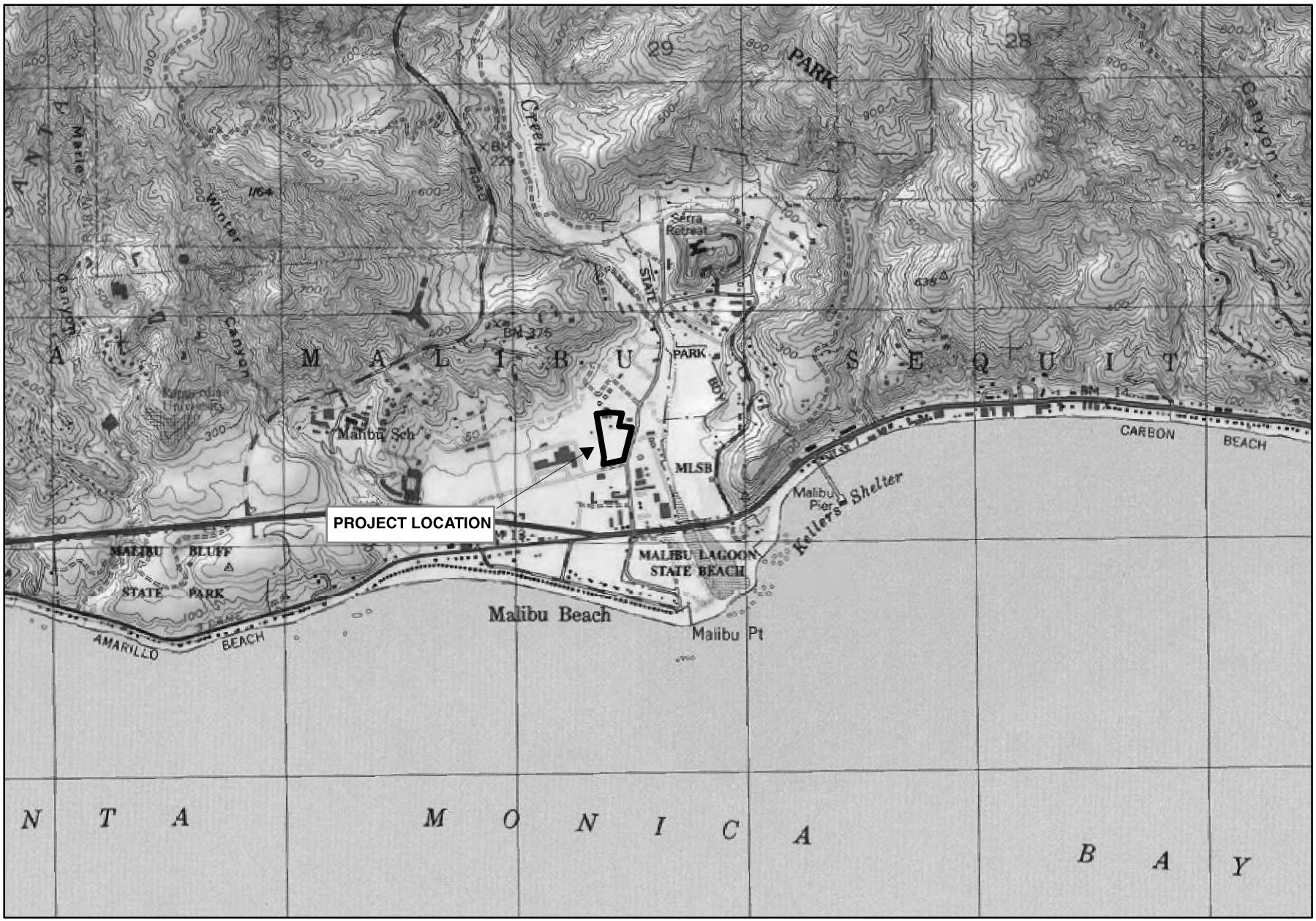
Exhibit 1



Adapted from USGS Malibu Beach, CA quadrangle

WHOLE FOODS PLAZA

Vicinity Map

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Exhibit 2

Legend

- Project Boundary
- 1 Data Pit Location
- 1 Photo Location

N

0 50 100 Feet

WHOLE FOODS PLAZA

Data Point/Site Photo Location Map

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Exhibit 3

PHOTOGRAPH 1: View of project from gravel parking area looking east at area dominated by upland ruderal vegetation

PHOTOGRAPH 2: View of central portion of site looking north at sycamore clump with upland non-native ruderal understory

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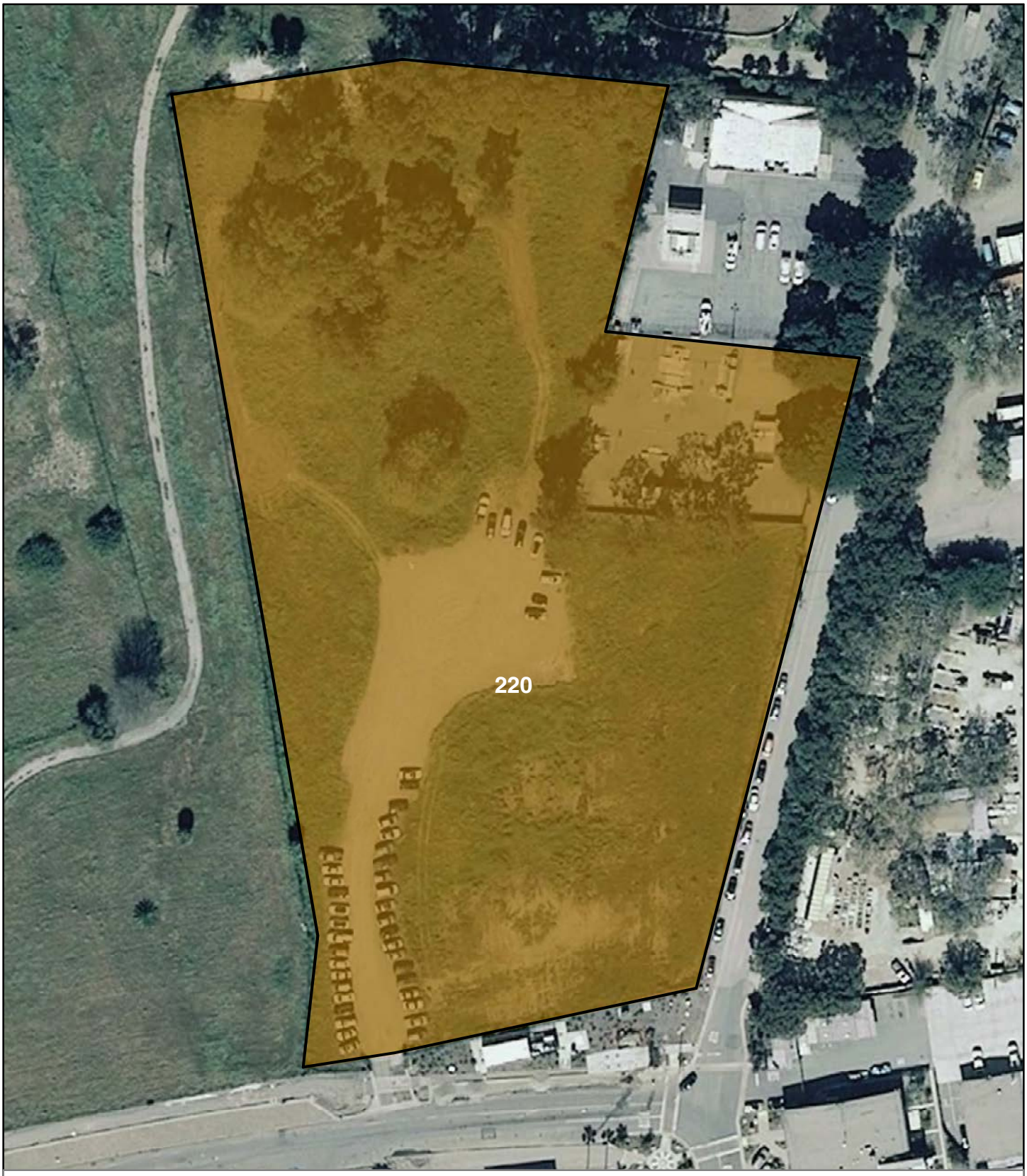
Exhibit 4

WHOLE FOODS PLAZA

Site Photographs



Legend

Project Boundary

220 - Elder fine sandy loam, coastal, 0 to 2 percent slopes

N

0 50 100 Feet

WHOLE FOODS PLAZA

Soils Map

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Exhibit 5

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Whole Foods Plaza City/County: Malibu Sampling Date: 12/28/10
Applicant/Owner: Soboroft Partners State: CA Sampling Point: 1
Investigator(s): TBomkamp Section, Township, Range: unsectioned / RW16 / T1S
Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): NONE Slope (%): 0-2%
Subregion (LRR): Med Lat: Long: Datum:
Soil Map Unit Name: Elder Fine Sandy loam NWI classification: NONE
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.) Above Average Rainfall
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No 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

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum			
1. Medicago polymorpha	60	Y	UPL
2. Bromus diandrus	20	Y	UPL
3. Euphorbia maculata	5	N	UPL
4.			
5.			
6.			
7.			
8.			
Total Cover:	85		
Woody Vine Stratum			
1.			
2.			
Total Cover:	85		

% Bare Ground in Herb Stratum 15 % 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	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species 85	x 5 =	425
Column Totals: 85 (A)		425 (B)

Prevalence Index = B/A = 5.0

Hydrophytic Vegetation Indicators:
__ Dominance Test is >50% NO
__ Prevalence Index is ≤3.0[1] NO
__ 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.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: Vegetation sampled on February 17, 2011

SOIL

Sampling Point: 1

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR3/3	100	NONE				Sandy Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, 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.

Restrictive Layer (if present):

Type: NONE

Depth (inches): NA

Hydric Soil Present? Yes ___ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ 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 Plowed Soils (C6)
- ___ 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)
- ___ Thin Muck Surface (C7)
- ___ 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: * Sampling visit on 14th day of series of storms that accounted for 9+ inches of rain - wetland hydrology clearly lacking!

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Whole Foods Plaza City/County: Malibu Sampling Date: 12/28/10
Applicant/Owner: Sobroft Partners State: CA Sampling Point: 2
Investigator(s): TBomkamp Section, Township, Range: Unsectioned RW16 / T1S
Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): NONE Slope (%): 0-2
Subregion (LRR): Med Lat: Long: Datum:
Soil Map Unit Name: Elder Fine Sandy Loam NWI classification: NONE
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.) Above Ave. Rainfall
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ____ No X
Hydric Soil Present? Yes ____ No X
Wetland Hydrology Present? Yes ____ No X

Is the Sampled Area within a Wetland? Yes ____ No X

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. Platanus racemosa	100		
2.			
3.			
4.			
Total Cover:	100		
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum			
1. Urtica urens	60		
2. Brassica nigra	20		
3. Bromus diandrus	10		
4.			
5.			
6.			
7.			
8.			
Total Cover:			
Woody Vine Stratum			
1.			
2.			
Total Cover:	190		

% Bare Ground in Herb Stratum 10 % 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 ____	x 1 = ____
FACW species 100	x 2 = 200
FAC species ____	x 3 = ____
FACU species ____	x 4 = ____
UPL species 90	x 5 = 450
Column Totals: 190 (A)	650 (B)

Prevalence Index = B/A = 3.42

Hydrophytic Vegetation Indicators:
___ Dominance Test is >50% NO
___ Prevalence Index is ≤3.0[1] NO
___ 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.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks:
Vegetation Sampled on Feb. 17, 2011

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 3/3	100	NONE				Sandy loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, 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.

Restrictive Layer (if present):

Type: NONE

Depth (inches): NA

Hydric Soil Present? Yes ___ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ 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 Plowed Soils (C6)
- ___ 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)
- ___ Thin Muck Surface (C7)
- ___ 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: