
Preliminary Determination of Waters of the U.S.

SANTA MARGARITA QUARRY, SAN LUIS OBISPO COUNTY CALIFORNIA

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April 2012



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1.0 INTRODUCTION

On January 30, 31, March 27, 2008, and March 19, 2012 WRA, Inc. conducted a routine wetland delineation within the proposed Santa Margarita Quarry Extension Project Reclamation Plan Amendment Area (RPA Area, Figure 1) to determine the presence of potential wetlands and waters subject to federal jurisdiction under Section 404 of the Clean Water Act. Data originally collected in 2008 were verified in the field on October 22, 2011 and March 19, 2012 in preparation of this report. This report presents the results of the delineation.

1.1 RPA Description

The RPA Area is comprised of 126.1 acres of an active quarry pit, associated processing facilities, and surrounding undeveloped land. Within the RPA Area, the RPA Footprint is comprised of 94.5 acres, and represents the extent of current and proposed project ground disturbance (Figure 2). The undeveloped land surrounding the existing quarry pit and facilities contains mixed chaparral, oak woodland, and riparian habitats, including a portion of the Salinas River. Land use surrounding the RPA Area is mixed rural residential and open space. Elevations within the RPA Area range from approximately 1,050 feet at the highest ridgetop to 880 feet at the bottom of the existing quarry pit.

1.2 Brief Project Description

The proposed project is the modification of an existing Conditional Use Permit (CUP) and RPA for an extension of the existing quarry operations into approximately 38.4 acres of undisturbed slopes to the west of the existing quarry pit (Figure 2). Extension of the quarry operations will occur in four discrete phases. No change in production capability or intensity is proposed beyond currently permitted levels. Reclamation of the RPA Footprint will occur mining operations at the quarry cease.

1.3 Regulatory Background

1.3.1 Clean Water Act Section 404

Section 404 of the Clean Water Act (CWA) gives the U.S. Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (Corps) regulatory and permitting authority regarding discharge of dredged or fill material into “navigable waters of the United States”. Section 502(7) of the Clean Water Act defines navigable waters as “waters of the United States, including territorial seas.” Section 328 of Chapter 33 in the Code of Federal Regulations defines the term “waters of the United States” as it applies to the jurisdictional limits of the authority of the Corps under the Clean Water Act. A summary of this definition of “waters of the U.S.” in 33 CFR 328.3 includes (1) waters used for commerce; (2) interstate waters and wetlands; (3) “other waters” such as intrastate lakes, rivers, streams, and wetlands; (4) impoundments of waters; (5) tributaries to the above waters; (6) territorial seas; and (7) wetlands adjacent to waters. Therefore, for purposes of the determining Corps jurisdiction under the Clean Water Act, “navigable waters” as defined in the Clean Water Act are the same as “waters of the U.S.” defined in the Code of Federal Regulations above.

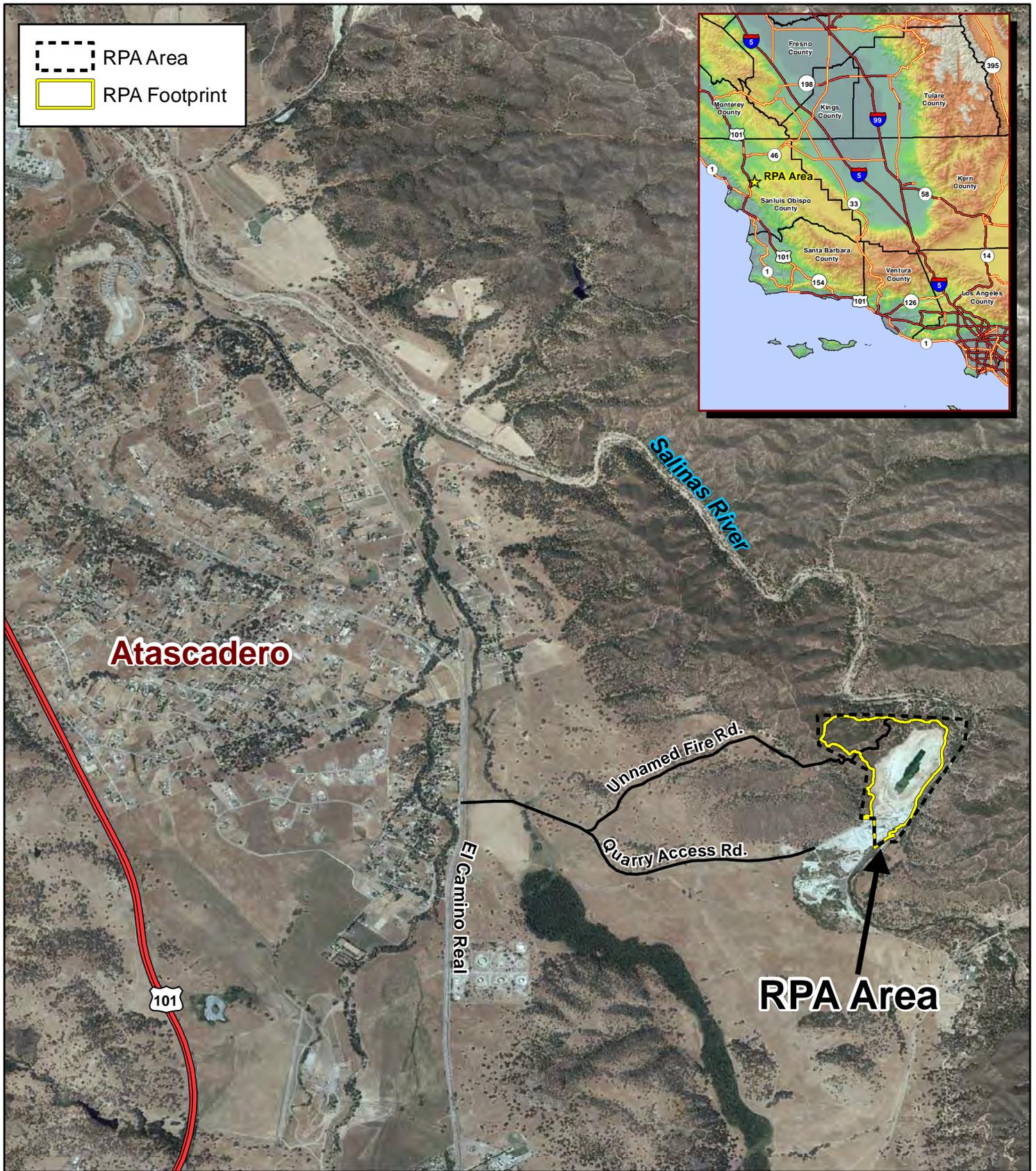
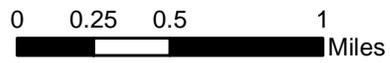


Figure 1. RPA Location Map

Santa Margarita Quarry
 San Luis Obispo County, California



Date: April 2012
 Aerial: 2010 NAIP
 Map By: Michael Rochelle

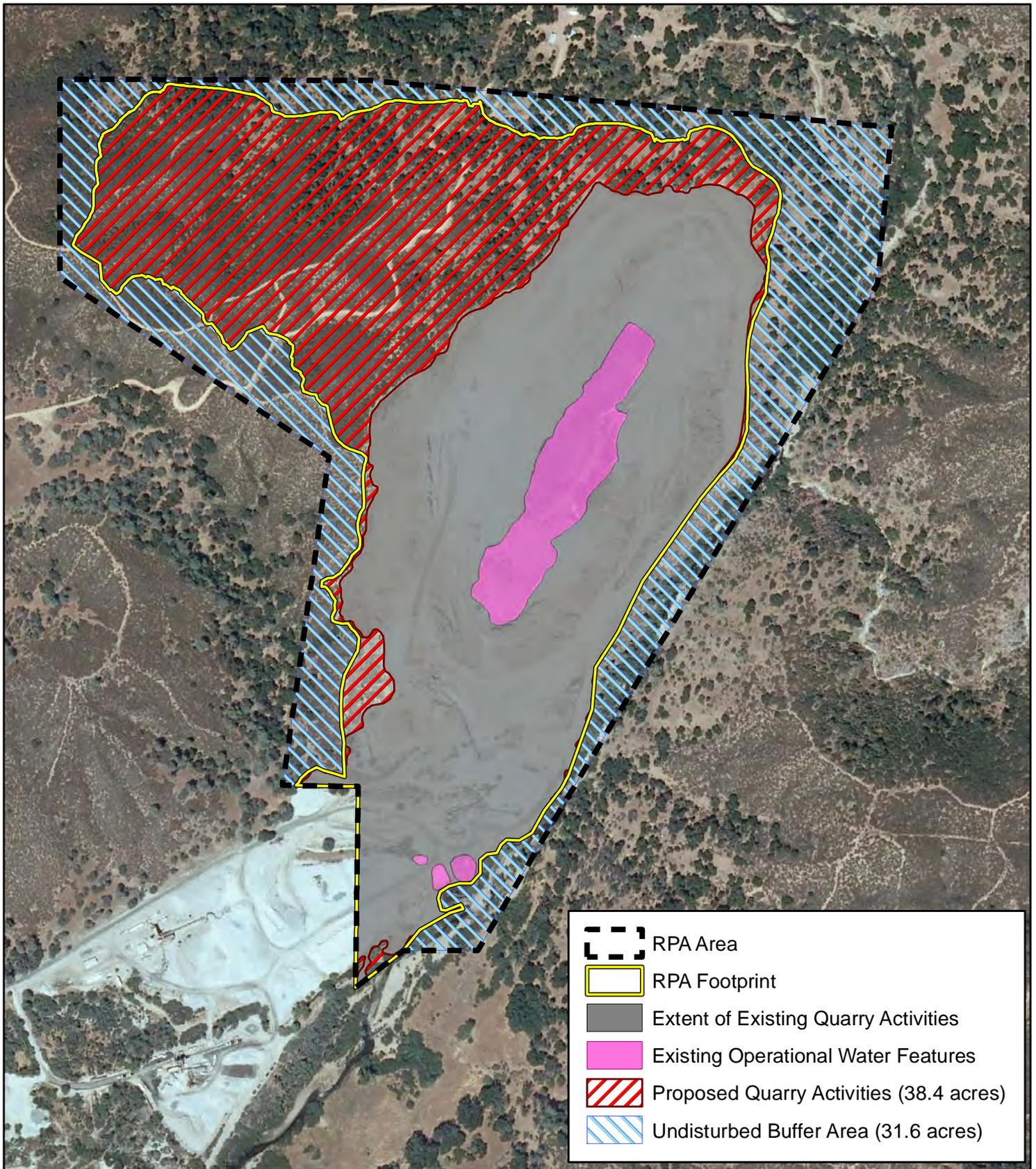
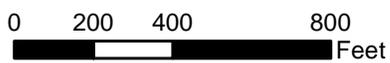


Figure 2. Existing Quarry Activities, Proposed Quarry Activities, and Undisturbed Buffer Area

Santa Margarita Quarry
 San Luis Obispo County, California



Date: April 2012
 Aerial: 2010 NAIP
 Map By: Michael Rochelle

The limits of Corps jurisdiction under Section 404 as given in 33 CFR Section 328.4 are as follows: (a) Territorial seas: three nautical miles in a seaward direction from the baseline; (b) Tidal waters of the U.S.: high tide line or to the limit of adjacent non-tidal waters; (c) Non-tidal waters of the U.S.: ordinary high water mark or to the limit of adjacent wetlands; (d) Wetlands: to the limit of the wetland. A discussion of the methodology used to delineate wetlands and waters is presented in Section 3.1.

2.0 SUMMARY OF POTENTIAL JURISDICTIONAL AREAS

Appendix A depicts the extent of potential Corps jurisdiction within the RPA Area. Table 1 summarizes the acreage and length of potential jurisdictional areas within the RPA Area.

Table 1. Summary of Potential CWA Section 404 Jurisdictional Areas within the RPA Area

Feature Type	Feature size (ac.) / Length (l.f.)	Potential non-jurisdictional areas	Potential Jurisdictional Waters of the U.S.
Within RPA Footprint			
Ephemeral stream	0.08 ac (1,395 l.f.)	0	0.08 ac (1,395 l.f.)
Operational water feature	5.45 ac	5.45 ac	0
<i>Subtotal</i>			<i>0.08 ac (1,395 l.f.)</i>
Within RPA Area (exclusive of RPA Footprint)			
Perennial stream	5.74 ac (4,114 l.f.)	0	5.74 ac (4,114 l.f.)
Ephemeral stream	0.01 ac (169 l.f.)	0	0.01 ac (169 l.f.)
<i>Subtotal</i>			<i>5.75 ac (4,283 l.f.)</i>
TOTAL	11.28 ac (5,678 l.f.)	5.45 ac	5.83 ac (5,678 l.f.)

The RPA Area does not contain any areas meeting the criteria to be considered wetlands under Section 404 of the CWA.

3.0 METHODS

Prior to the site visit, the Soil Survey of San Luis Obispo County, Paso Robles Area, California [U.S. Department of Agriculture (USDA) 1983], county vegetation, geology, and land use maps available from the San Luis Obispo County GIS website, publicly available aerial images, the Santa Margarita USGS 7.5' quadrangle map (USGS 1993), and 2-foot contour interval topographic data for the property were examined to determine if any unique soil types or topographic patterns that could support aquatic features were present in the RPA Area.

WRA biologists performed a focused evaluation of indicators of wetlands and waters in RPA Area on January 30 and 31 and March 27, 2008. Data collected in 2008 were verified in the field on October 22, 2011 and March 19, 2012 in preparation of this report.

The methods used in this study to delineate jurisdictional wetlands and non-wetland waters are based on the U.S. Army Corps of Engineers Wetlands Delineation Manual ("Corps Manual"; Environmental Laboratory 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region ("Arid West Supplement"; Corps 2008). The routine method for wetland delineation described in the Corps Manual was used to identify areas potentially subject to Corps Section 404 jurisdiction within the RPA Area. A general description of the RPA Area, including plant communities present, topography, and land use

was also generated during site visits. The methods for evaluating the presence of wetlands and other “waters of the U.S.” employed during the delineation are described in detail below.

3.1 Potential Section 404 Waters of the U.S.

3.1.1 Wetlands

The RPA Area was evaluated for the presence or absence of indicators of the three wetland parameters described in the Corps Manual (Environmental Laboratory 1987) and the Arid West Supplement (Corps 2008).

Section 328.3 of the Federal Code of Regulations defines wetlands as:

"Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."

EPA, 40 CFR 230.3 and CE, 33 CFR 328.3 (b)

The three parameters used to delineate wetlands are the presence of: (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. According to the Corps Manual, for areas not considered “problem areas” or “atypical situations”:

"...[E]vidence of a minimum of one positive wetland indicator from each parameter (hydrology, soil, and vegetation) must be found in order to make a positive wetland determination."

Data on vegetation, hydrology, and soils collected at sample points during the delineation site visit were reported on Arid West Supplement data forms. If an area was determined to be a potential jurisdictional wetland, its boundaries were delineated using GPS equipment and mapped on a topographic map. The areas of potential jurisdictional wetlands were measured digitally using ArcGIS software. Indicators described in the Arid West Supplement were used to make wetland determinations at each sample point in the proposed bank and are summarized below.

Vegetation

Plant species identified were assigned a wetland status according to the U.S. Fish and Wildlife Service list of plant species that occur in wetlands (Reed 1988). This wetland classification system is based on the expected frequency of occurrence in wetlands as follows:

OBL	Obligate species	Always found in wetlands	>99%
FACW	Facultative Wetland species	Usually found in wetlands	67-99%
FAC	Facultative species	Equal in wetland or non-wetlands	34-66%
FACU	Facultative Upland species	Usually found in non-wetlands	1-33%
UPL/NL	Upland/Not listed species	Always found in uplands	<1%

The presence of hydrophytic vegetation was then determined based on indicator tests described in the Arid West Supplement. The Arid West Supplement requires that a three-step process be conducted to determine if hydrophytic vegetation is present. The procedure first requires the

delineator to apply the “50/20 rule” (Indicator 1; Dominance Test) described in the manual. To apply the “50/20 rule”, dominant species are chosen independently from each stratum of the community. Dominant species are determined for each vegetation stratum from a sampling plot of an appropriate size surrounding the sample point. Dominants are the most abundant species that individually or collectively account for more than 50 percent of the total vegetative cover in the stratum, plus any other species that, by itself, accounts for at least 20 percent of the total vegetative cover. If greater than 50 percent of the dominant species has an OBL, FACW, or FAC status, ignoring + and - qualifiers, the sample point meets the hydrophytic vegetation criterion.

If the sample point fails Indicator 1 and both hydric soils and wetland hydrology are not present, then the sample point does not meet the hydrophytic vegetation criterion, unless the site is a problematic wetland situation. However, if the sample point fails Indicator 1 but hydric soils and wetland hydrology are both present, the delineator must apply Indicator 2.

Indicator 2 is known as the Prevalence Index (PI). The prevalence index is a weighted average of the wetland indicator status for all plant species within the sampling plot. Each indicator status is given a numeric code (OBL = 1, FACW = 2, FAC = 3, FACU = 4, and UPL = 5). Indicator 2 requires the delineator to estimate the percent cover of each species in every stratum of the community and sum the cover estimates for any species that is present in more than one stratum. The delineator must then organize all species into groups according to their wetland indicator status and calculate the Prevalence Index using the following formula, where A equals total percent cover:

$$PI = \frac{A_{OBL} + 2A_{FACW} + 3A_{FAC} + 4A_{FACU} + 5A_{UPL}}{A_{OBL} + A_{FACW} + A_{FAC} + A_{FACU} + A_{UPL}}$$

The Prevalence Index will yield a number between 1 and 5. If the Prevalence Index is equal to or less than 3, the sample point meets the hydrophytic vegetation criterion. However, if the community fails Indicator 2, the delineator must proceed to Indicator 3.

Indicator 3 is known as Morphological Adaptations. If more than 50 percent of the individuals of a FACU species have morphological adaptations for life in wetlands, that species is considered to be a hydrophyte and its indicator status should be reassigned to FAC. If such observations are made, the delineator must recalculate Indicators 1 and 2 using a FAC indicator status for this species. The sample point meets the hydrophytic vegetation criterion if either test is satisfied.

Soils

The Natural Resource Conservation Service (NRCS) defines a hydric soil as follows:

“A hydric soil is a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part.”

Federal Register July 13, 1994, U.S. Department of Agriculture, NRCS

Soils formed over long periods of time under wetland (anaerobic) conditions often possess characteristics that indicate they meet the definition of hydric soils. Hydric soils can have a

hydrogen sulfide (rotten egg) odor, low chroma matrix color, generally designated 0, 1, or 2, used to identify them as hydric, presence of redox concentrations, gleyed or depleted matrix, or high organic matter content.

Specific indicators that can be used to determine whether a soil is hydric for the purposes of wetland delineation are provided in the NRCS Field Indicators of Hydric Soils in the U.S. (USDA 2010a). The Arid West Supplement provides a list of 23 of these hydric soil indicators which are known to occur in the Arid West region. Soil samples were collected and described according to the methodology provided in the Arid West Supplement. Soil chroma and values were determined by utilizing a standard Munsell soil color chart (GretagMacbeth 2000).

Hydric soils were determined to be present if any of the soil samples met one or more of the 23 hydric soil indicators described in the Arid West Supplement.

Hydrology

The Corps jurisdictional wetland hydrology criterion is satisfied if an area is inundated or saturated for a period sufficient to create anoxic soil conditions during the growing season (a minimum of 14 consecutive days in the Arid West region). Evidence of wetland hydrology can include primary indicators, such as visible inundation or saturation, drift deposits, oxidized root channels, and salt crusts, or secondary indicators such as the FAC-neutral test, presence of a shallow aquitard, or crayfish burrows. The Arid West Supplement contains 16 primary hydrology indicators and 10 secondary hydrology indicators. Only one primary indicator is required to meet the wetland hydrology criterion; however, if secondary indicators are used, at least two secondary indicators must be present to conclude that an area has wetland hydrology. The presence or absence of the primary or secondary indicators described in the Arid West Supplement was utilized to determine if sample points within the proposed bank met the wetland hydrology criterion.

3.1.2 *Non-wetland Waters*

This study also evaluated the presence of “waters of the U.S.” other than wetlands potentially subject to U.S. Army Corps of Engineers jurisdiction under Section 404 of the Clean Water Act. Other areas, besides wetlands, subject to Corps jurisdiction include lakes, rivers and streams (including intermittent streams) in addition to all areas below the HTL in areas subject to tidal influence. Jurisdiction in non-tidal areas extends to the ordinary high water mark (OHWM) defined as:

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

Federal Register Vol. 51, No. 219, Part 328.3 (e). November 13, 1986

The Corps has issued specific guidance and data sheets for delineation of streams in the arid west region (Lichvar and McColley 2008, Curtis and Lichvar 2010). However, this guidance applies to “low-gradient, alluvial, ephemeral/intermittent channel forms” that may have a broad lateral extent and are often referred to as “washes” or “dry washes.” Earlier guidance for western arid regions contained in a Corps memorandum (Corps 2001) focuses on similar

systems. This type of stream system was not present within the RPA Area. The most appropriate methodology for identifying OHWM was determined to be the standard guidance (Corps 2005) rather than the arid west guidance (Lichvar and McColley 2008, Curtis and Lichvar 2010, Corps 2001). Identification of the ordinary high water mark followed the Corps Regulatory Guidance Letter No. 05-05, Ordinary High Water Mark Identification (Corps 2005).

4.0 RPA DESCRIPTION

4.1 Biological Communities

Biological communities within the RPA Area were mapped by WRA in preparation of a Biological Resources Assessment Report (WRA 2012), and include coast live oak woodland, chamise chaparral, northern mixed chaparral, riparian woodland, other waters, and disturbed areas. The Biological Resources Assessment Report describes these communities in detail.

4.2 Soils

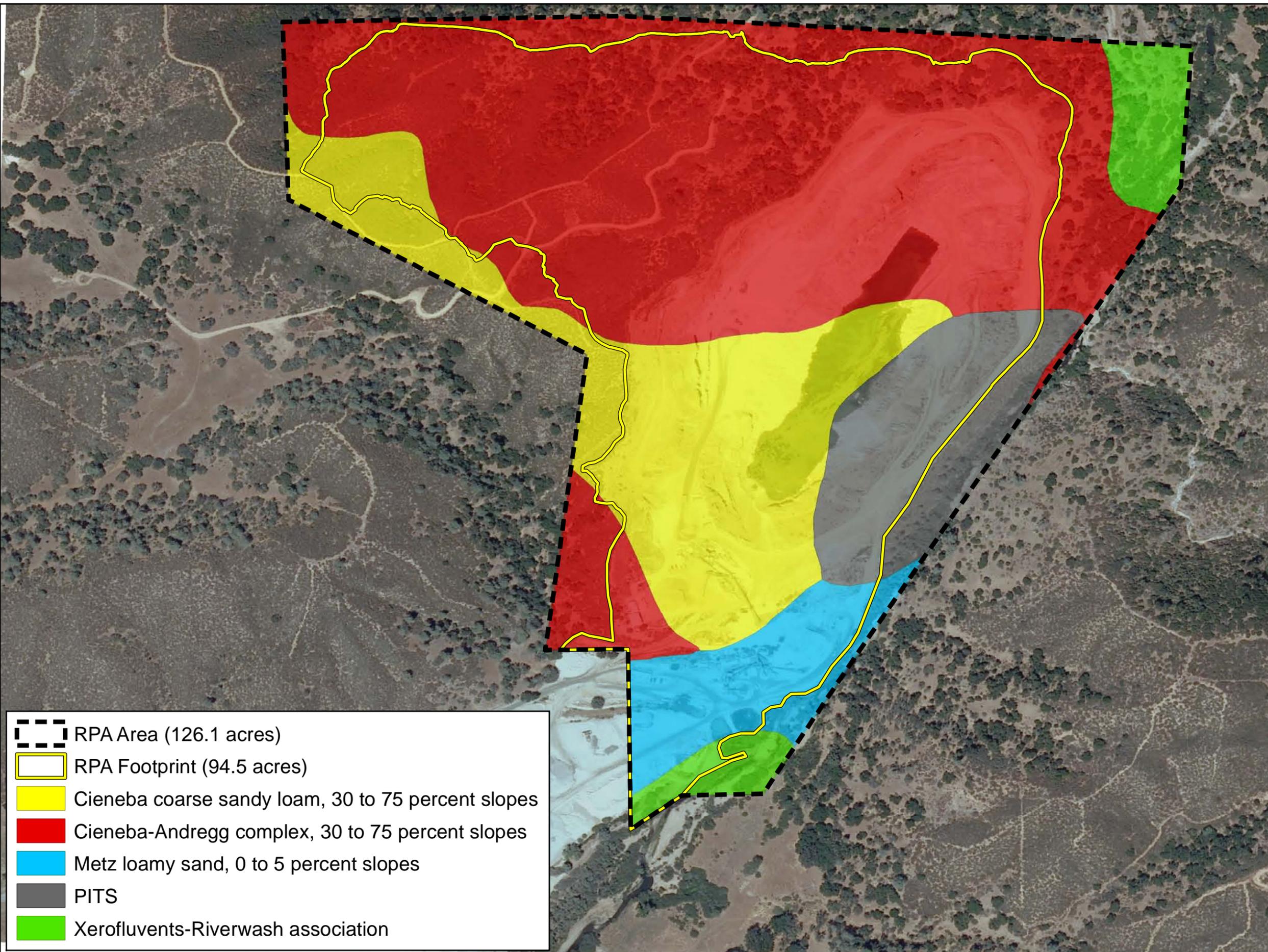
The Soil Survey of San Luis Obispo County, Paso Robles Area, California (USDA 1983) indicates that the RPA Area contains five mapped soil units: Cieneba-Andregg complex, 30 to 75 percent slopes, Cieneba coarse sandy loam, 30 to 75 percent slopes, Metz Loamy Sand, 0 to 5 percent slopes, Xerofluvents – Riverwash Association and Pits. These soil types are described in detail below and are shown in Figure 3.

Cieneba coarse sandy loam, 30 to 75 percent slopes. The Cieneba series includes very sandy soils typically found in mountainous areas. The parent material is residuum weathered from granitic rock, and the depth to a restrictive feature (paralithic bedrock) is typically 12 to 20 inches. This soil type is somewhat excessively drained, and the capacity of the most limiting layer to transmit water is high. The typical depth to the water table is more than 80 inches, and the frequency of ponding is listed as “none.” The typical soil profile includes coarse sandy loam from zero to 15 inches, followed by weathered bedrock from 15 to 19 inches.

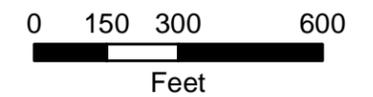
Cieneba-Andregg complex, 30 to 75 percent slopes. This soil complex is described as being composed of 35 percent Cieneba soils, 25 percent Andregg soils, and 35 percent minor components. Cieneba soils are described above. Andregg soils are also found in mountainous areas and are composed of residuum weathered from granitic rock. This soil type is well-drained. The depth to a water table is typically more than 80 inches, and the depth to a restrictive feature (paralithic bedrock) is 20 to 40 inches. The frequency of ponding is listed as “none.” A typical soil profile includes coarse sandy loam from 0 to 23 inches, followed by weathered bedrock from 23 to 27 inches. Minor components included in Cieneba-Andregg complex include Vista coarse sandy loam, Sesame sandy loam, Shimmon loam, Hanford gravelly sandy loam, Metz loamy sand, and Tujunga fine sand.

Santa Margarita Quarry
 San Luis Obispo County,
 California

Figure 3.
 Soils Mapped
 within the RPA Area



-  RPA Area (126.1 acres)
-  RPA Footprint (94.5 acres)
-  Cieneba coarse sandy loam, 30 to 75 percent slopes
-  Cieneba-Andregg complex, 30 to 75 percent slopes
-  Metz loamy sand, 0 to 5 percent slopes
-  PITS
-  Xerofluvents-Riverwash association



Date: March 2012
 Map by: Michael Rochelle
 Image: 2010 NAIP

Metz loamy sand, 0 to 5 percent slopes. The Metz series consists of very deep, somewhat excessively drained soils that formed in alluvial material from mixed, but dominantly sedimentary rocks. Metz soils are on floodplains and alluvial fans and have slopes of 0 to 15 percent.

Xerofluvents – Riverwash Association. This association consists of 50 percent xerofluvents, 30 percent riverwash and 20 percent minor components. The xerofluvents map unit occurs in floodplains, and formed from alluvium derived from mixed rock types. A typical profile is sand from 10 to 10 inches, stratified sand to loam from 10 to 30 inches, and stratified gravelly sand to gravel from 30 to 60 inches. Riverwash consists of barren alluvial areas of unstabilized sand, silt, clay, or gravel reworked frequently by stream activity. It occurs in drainageways, and was formed from alluvium derived from mixed rock types. A typical profile is sand from 0 to 6 inches, and stratified coarse sand to sandy loam from 6 to 60 inches.

Pit. This mapping unit consists of areas large enough to map where excavations have been made and where the original soil has been removed. Excavations in this area have been principally for aggregate rock material.

4.3 Hydrology

Direct precipitation is the principal natural hydrological source for the RPA Area. However, the eastern portion of the RPA Area receives flows from the Salinas River, a perennial stream. The southern boundary of the RPA Area is formed by a ridgeline which rises some 400 feet above the elevation of the nearby Salinas River. Precipitation is likely to be quickly absorbed by the sandy soils observed within the RPA Area, and water runoff appears to occur mostly below the soil surface, except within the Salinas River. Surface runoff within the remainder of the RPA Area is likely to occur only during and shortly after heavy rains in the largest of the topographic draws.

Flows within the RPA Area generally drain via overland and subsurface groundwater movement into to the Salinas River. The Salinas River is a Traditionally Navigable Waters (TNW). The Salinas River flows northwest for approximately 115 air miles before it empties into Monterey Bay.

5.0 RESULTS

Potential Section 404 jurisdictional areas are described in the following sections and depicted in Appendix A. Vegetation, soils and hydrology data collected during delineation site visits are reported on standard Corps Arid West Region Supplement data forms in Appendix A. Photos of representative portions of the RPA Area and sample points are shown in Appendix B. A list of plant species observed during the site visits is included in Appendix C.

Several sample points investigated are located outside the RPA Area, on land owned by Lehigh Hanson Inc. These sample points provide regional context and additional information about downslope conditions in topographic draws originating within the RPA Area.

5.1 Potential Section 404 Waters of the U.S.

5.1.1 Wetlands

The RPA Area contained no features meeting the three wetland parameters. Wetland vegetation was generally absent from the site, and indicators of hydric soils were not observed in any of the soil samples.

5.1.2 Non-wetland Waters

An approximately 4,114 linear foot (5.74 acres) portion of the Salinas River, a perennial stream, is located within the RPA Area but outside of the RPA Footprint (Appendix A). The Salinas River is a Traditionally Navigable Waters (TNW) and was determined to be a jurisdictional Waters of the U.S. Indicators of OHW included change in vegetation communities (well-developed riparian woodland), surface water, water staining, wrack, scour, and presence of litter and debris.

One additional ephemeral drainage within the RPA Area was determined to be a potentially jurisdictional Waters of the U.S. (Appendix A). This 1,564 linear foot (0.09 acre) ephemeral stream is situated within a small canyon to the west of the existing quarry pit. Approximately 1,395 linear feet (0.08 acre) of this feature are located within the RPA Footprint, and the remaining 169 linear feet (0.01 acre) are located within the RPA Area but outside of the RPA Footprint. Marginal and often discontinuous indicators of OHW included deposition, scouring, and the presence of litter and debris. Much of the drainage in this feature appears to happen subsurface in the sandy soil. Surface water was not observed anywhere in this feature. Signs of surface flow may have been the result of brief runoff following infrequent periods of heavy rainfall.

Conditions within the potentially jurisdictional drainage have been disturbed by the presence of a man-made access road cut into the hillside directly west of the drainage for most of its length. Numerous small erosional gullies were observed leading directly off of the access road and into the drainage. Precipitation that falls on the slightly compacted access road appears to flow directly into the drainage, rather than quickly percolating into the soil as would likely occur on the vegetated upper slopes. It is also apparent that in the absence of vegetation, the highly erosive, sandy soil washes off of the road during heavy rainfall events and accumulates in the drainage. Thus, the regime of flow and sedimentation in the drainage has been altered and increased by the presence of the access road, and this condition is likely exacerbated by occasional grading of the road. Sand has been deposited in the channel to such an extent that the original width of the drainage is difficult to estimate. In some cases, sand deposited by surface runoff had covered the lower branches of poison oak (*Toxicodendron diversilobum*, NL) shrubs that were clearly rooted outside of the natural channel.

Several other topographic draws or lowlands are present within the RPA Area that would naturally collect and possibly conduct surface water during times of extreme precipitation. However, these features were determined to be non-jurisdictional drainages or draws due to their lack of clear OHW marks or other indicators that surface water regularly flows in them. In general, the watershed areas for these features appear to be too small to contribute to significant surface flow within the RPA Area. Downstream conditions observed in sample points 6, 7 and 10 showed slightly clearer signs of flowing water, although the drainages in these areas are still small and highly ephemeral. The highly porous sandy soil within the RPA Area allows

water to drain through lowland areas subsurface, so drainage may take place without any significant surface flow. During extended periods of very heavy rainfall these drainages may conduct surface flow, but there was little evidence of this observed during the site visits.

5.1.3 *Non-jurisdictional features*

Operational Water Features

Approximately 5.45 acres of operational water features (sedimentation basins) were mapped within the RPA Footprint (Appendix A), including the bottom of the existing quarry pit. These basins are man-made structures constructed in uplands for the purpose of settling suspended solids and are actively managed as part of the ongoing quarry production process. According to 33 CFR 328.3, such features are generally not considered to be “Waters of the U.S.”

Artificial lakes or ponds created by excavating and/or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing.

Section 328.3 Definitions

6.0 CONCLUSION

The RPA Area contained no wetlands and 5.83 acre (5,678 linear feet) of non-wetland Other Waters that may be considered jurisdictional under Section 404 of the Clean Water Act. Portions of the Salinas River, a perennial stream, are located within the RPA Area, but outside of the RPA Footprint. One ephemeral stream is present within the RPA Area and Footprint. This feature shows indicators of OHW and a hydrologic connection to the Salinas River, a TNW, thus making it a potentially jurisdictional feature.

An additional 5.45 acres of non-jurisdictional operational water features were observed in active portions of the quarry, within the RPA Footprint.

The conclusion of this delineation is based on conditions observed at the time of the field surveys conducted on January 30, 31, March 27, 2008, October 22, 2011 and March 19, 2012.

7.0 REFERENCES

Curtis, Katherine E., and Robert W. Lichvar. 2010. *Updated data sheet for the identification of the ordinary high water mark (OHWM) in the Arid West region of the Western United States*. Cold Regions Research and Engineering Laboratory, U.S. Army Engineer Research and Development Center. Prepared for the U.S. Army Corps of Engineers.

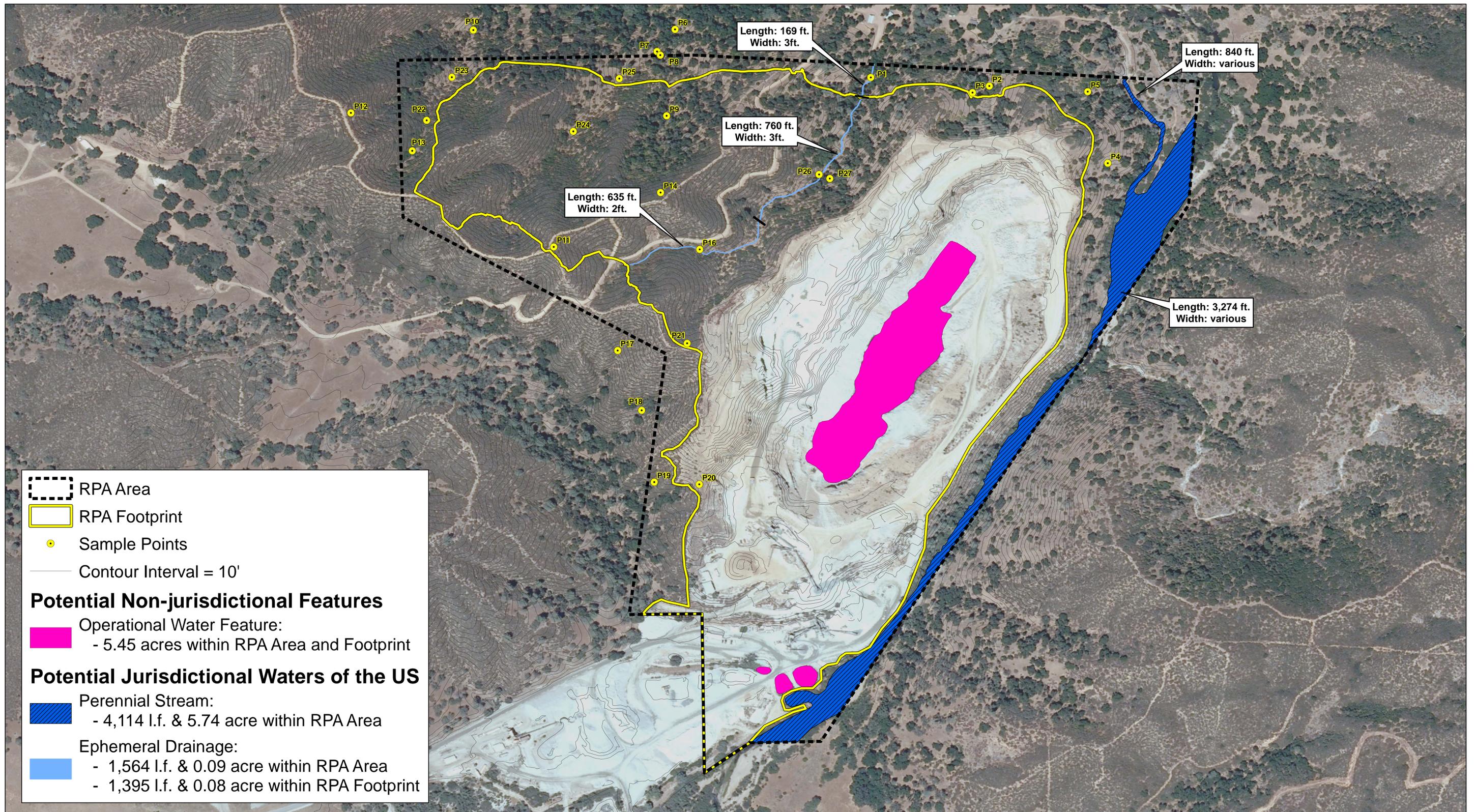
Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual*. Department of the Army, Waterways Experiment Station, Vicksburg, Mississippi 39180-0631.

Federal Register. November 13, 1986. Department of Defense, Corps of Engineers, Department of the Army, 33 CFR Parts 320 through 330, Regulatory Programs of the Corps of Engineers; Final Rule. Vol. 51, No. 219; page 41217.

GretagMacBeth. 2000. Munsell Soil Color Charts, revised washable edition.

- Lichvar, Robert W., and Shawn M. McColley. 2008. *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States*. Cold Regions Research and Engineering Laboratory, U.S. Army Engineer Research and Development Center. Prepared for the U.S. Army Corps of Engineers Wetland Regulatory Assistance Program. 84 pp.
- Reed, P.B. Jr. 1988. *National list of plant species that occur in wetlands: California (Region 0)*. U.S. Fish and Wildlife Service Biological Report 88 (26.10).
- U.S. Army Corps of Engineers (Corps). 2005. Regulatory Guidance Letter No. 05-05. Ordinary High Water Mark Identification. December 7.
- Corps. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). September.
- Corps. 2001. Memorandum CESP-D-CM-O. Western Arid Regions Jurisdictional Determinations. July 5, 2001.
- U.S. Department of Agriculture (USDA), Soil Conservation Service (SCS). 1983. Soil Survey of San Luis Obispo County, Paso Robles Area. In cooperation with the University of California Agricultural Experiment Station.
- USDA, Natural Resources Conservation Service (NRCS). 2010a. Field Indicators of Hydric Soils in the United States: A Guide for Identifying and Delineating Hydric Soils, Version 7.0, 2010.
- USDA, NRCS. 2010b. Official List of California Hydric Soils.
- U.S. Fish and Wildlife Service (USFWS). 2011. National Wetlands Inventory website. U.S. Department of the Interior, USFWS, Washington, D.C. <http://www.fws.gov/nwi/>. Accessed: October 2011.
- U.S. Geological Survey (USGS). 1993. Santa Margarita 7.5-minute quadrangle.
- WRA, Inc. (WRA) 2012. *Biological Resources Assessment Report for the proposed Santa Margarita Quarry Extension Project, San Luis Obispo County, California*.

APPENDIX A. Preliminary Section 404 Jurisdiction Map and Arid West Data Forms



Appendix A. Preliminary Section 404 Jurisdictional Map

Santa Margarita Quarry
 San Luis Obispo County, California



1 inch = 200 feet



Date: March 2012
 Map by: Michael Rochelle
 Image: Bing Maps

Wetland Determination Data Form - Arid West Region

Project/Site Santa Margarita Quarry City Atascadero County San Luis Obispo Sampling Date 1/30/2008

Applicant/Owner Lehigh Hanson Inc. State CA Sampling Point 1

Investigator(s) WRA, Inc. Section, Township, Range _____

Landform (hillslope, terrace, etc.) drainage/valley bottom Local Relief (concave, convex, none) none Slope(%) _____

Subregion(LRR) LRR C (Medit. CA) Lat: 34.424509 Long: -120.573989 Datum: UTM Zone10N

Soil Map Unit Name Cieneba-Andregg complex, 30 to 75 percent slopes NWI classification none

Are climatic/hydrologic conditions on-site typical for this time of year? Yes No (If no, explain in remarks)

Are any of the following significantly disturbed? Vegetation Soil Hydrology Are "Normal Circumstances" present? Yes No

Are any of the following naturally problematic? Vegetation Soil Hydrology (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soil Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>Remarks: Sample point is near the Salinas river in an ephemeral drainage determined to be a "Waters of the US." Drainage is dry but subsurface flow is evident, with some surface flow downstream. Surface flow appears to happen rarely in this feature. Disturbance: flow and sedimentation in this feature have been increased by runoff from a man-made access road. Sediment (sand) has covered vegetation in many places. OHW marks at this location (mostly discontinuous) include scouring, deposition, litter & debris, and presence of a bed & bank.</p>	

VEGETATION

Tree stratum (use scientific names)	Absolute % cover	Dominant Species?	Indicator Status	
1. <u>Quercus agrifolia</u>	<u>30</u>	<u>Y</u>	<u>NL</u>	Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC? <u>1</u> (A) Total number of dominant species across all strata? <u>2</u> (B) % of dominant species that are OBL, FACW, or FAC? <u>50</u> (A/B)
2. _____				
3. _____				
4. _____				
Tree Stratum Total Cover: <u>30</u>				Prevalence Index Worksheet Total % cover of: _____ Multiply by: _____ OBL species _____ x1 _____ FACW species _____ x2 _____ FAC species <u>50</u> x3 <u>150</u> FACU species _____ x4 _____ UPL species <u>40</u> x5 <u>200</u> Column Totals <u>90</u> (A) <u>350</u> (B) Prevalence Index = B/A = <u>3.9</u>
<u>Sapling/Shrub Stratum</u>				
1. _____				
2. _____				
Sapling/Shrub Stratum Total Cover: _____				
<u>Herb Stratum</u>				Hydrophytic Vegetation Indicators <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is <= 3.0 ¹ <input type="checkbox"/> Morphological adaptations (provide supporting data in remarks) <input type="checkbox"/> Problematic hydrophytic vegetation ¹ (explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
1. <u>Unidentifiable annual grasses</u>	<u>50</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Torilis arvensis</u>	<u>5</u>		<u>NL</u>	
3. <u>Carduus pycnocephalus</u>	<u>5</u>		<u>NL</u>	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
Herb Stratum Total Cover: <u>60</u>				
<u>Woody Vine Stratum</u>				
1. _____				
2. _____				
Woody Vine Stratum Total Cover: _____				
% Bare ground in herb stratum <u>40</u>		% cover of biotic crust _____		Hydrophytic Vegetation Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Remarks: Gully bottom is sandy soil with no vegetation; vegetation sample is from surrounding low ground. Unidentifiable grasses are unlikely to be wetland species, but were considered FAC to be conservative. Species observed in the vicinity include Avena barbata (NL), Hordeum murinum (NI), and Cynosurus echinatus (NL).

Profile description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ¹		
0-18	7.5R4/6	100					coarse sand	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5)(LRR C) <input type="checkbox"/> 1cm Muck (A9)(LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 1cm Muck (A9) (LRR C) <input type="checkbox"/> 2cm Muck (A10)(LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (explain in remarks)
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5)(LRR C) <input type="checkbox"/> 1cm Muck (A9)(LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)

³Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
--	---

Remarks: Soil is all loose sand-- probably sediment deposited from the upper slopes.

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1)(Nonriverine) <input type="checkbox"/> Sediment Deposits (B2)(Nonriverine) <input type="checkbox"/> Drift Deposits (B3)(Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water Marks (B1)(Riverine) <input checked="" type="checkbox"/> Sediment Deposits (B2)(Riverine) <input checked="" type="checkbox"/> Drift Deposits (B3)(Riverine) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in PLoWed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)	

Field Observations: Surface water present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ Water table present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ Saturation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present ? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
---	---

Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: Sample point is in an erosional gully (from the nearby access road) with an approximately 18" channel bottom at the point where the gully joins the larger channel. Discontinuous OHW marks including scouring, deposition, litter & debris, and presence of a bed and banks indicate that water flows through the gully during heavy rain events. In general, it appears that surface water flow through the larger channel is rare, and most drainage occurs subsurface.

Wetland Determination Data Form - Arid West Region

Project/Site Santa Margarita Quarry City Atascadero County San Luis Obispo Sampling Date 1/30/2008
 Applicant/Owner Lehigh Hanson Inc. State CA Sampling Point 2
 Investigator(s) WRA, Inc. Section, Township, Range _____
 Landform (hillslope, terrace, etc.) draw Local Relief (concave, convex, none) concave Slope(%) _____
 Subregion(LRR) LRR C (Medit. CA) Lat: 35.424398 Long: -120.572483 Datum: UTM Zone10N
 Soil Map Unit Name Cieneba-Andregg complex, 30 to 75 percent slopes NWI classification none

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

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soil Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Remarks: Point taken in a draw with a very small "watershed" area. No signs of surface water flow, OHW, or ponding are evident.	

VEGETATION

Tree stratum (use scientific names)	Absolute % cover	Dominant Species?	Indicator Status	Dominance Test Worksheet
1. _____	_____	_____	_____	Number of Dominant Species that are OBL, FACW, or FAC? <u>1</u> (A)
2. _____	_____	_____	_____	Total number of dominant species across all strata? <u>2</u> (B)
3. _____	_____	_____	_____	% of dominant species that are OBL, FACW, or FAC? <u>50</u> (A/B)
4. _____	_____	_____	_____	
Tree Stratum Total Cover: _____				
Sapling/Shrub Stratum				Prevalence Index Worksheet
1. <u>Ceanothus cuneatus</u>	<u>30</u>	<u>Y</u>	<u>NL</u>	Total % cover of: _____ Multiply by: _____
2. <u>Toxicodendron diversilobum</u>	<u>3</u>	<u></u>	<u>NL</u>	OBL species _____ x1 _____
3. <u>Baccharis pilularis</u>	<u>2</u>	<u></u>	<u>NL</u>	FACW species _____ x2 _____
4. _____	_____	_____	_____	FAC species <u>75</u> x3 <u>225</u>
Sapling/Shrub Stratum Total Cover: <u>35</u>				FACU species _____ x4 _____
Herb Stratum				UPL species <u>39</u> x5 <u>195</u>
1. <u>Unidentifiable annual grasses</u>	<u>75</u>	<u>Y</u>	<u>FAC</u>	Column Totals <u>114</u> (A) <u>420</u> (B)
2. <u>Torilis arvensis</u>	<u>3</u>	<u></u>	<u>NL</u>	Prevalence Index = B/A = <u>3.7</u>
3. <u>Carduus pycnocephalus</u>	<u>1</u>	<u></u>	<u>NL</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Herb Stratum Total Cover: <u>79</u>				
Woody Vine Stratum				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
Woody Vine Stratum Total Cover: _____				
% Bare ground in herb stratum <u>21</u>		% cover of biotic crust _____		

Hydrophytic Vegetation Indicators

Dominance Test is >50%
 Prevalence Index is <= 3.0¹
 Morphological adaptations (provide supporting data in remarks)
 Problematic hydrophytic vegetation¹ (explain)

¹ Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present ? Yes No

Remarks: Sample point has 45% cover of Quercus agrifolia (NL), but this is rooted in upper banks of the ravine. Unidentifiable grasses are unlikely to be wetland species, but were considered FAC to be conservative. Species observed in the vicinity include Avena barbata (NL), Hordeum murinum (NI), and Cynosurus echinatus (NL).

Profile description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
0-18	10YR3/6	100					coarse sand

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5)(LRR C) <input type="checkbox"/> 1cm Muck (A9)(LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 1cm Muck (A9) (LRR C) <input type="checkbox"/> 2cm Muck (A10)(LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (explain in remarks)
---	---	---

³Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
--	---

Remarks: Rocks are in the soil starting at 9".

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1)(Nonriverine) <input type="checkbox"/> Sediment Deposits (B2)(Nonriverine) <input type="checkbox"/> Drift Deposits (B3)(Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in PLoWed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1)(Nonriverine) <input type="checkbox"/> Sediment Deposits (B2)(Nonriverine) <input type="checkbox"/> Drift Deposits (B3)(Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water Marks (B1)(Riverine) <input type="checkbox"/> Sediment Deposits (B2)(Riverine) <input type="checkbox"/> Drift Deposits (B3)(Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface water present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ Water table present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ Saturation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
---	---

Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: No hydrology indicators noted.

Wetland Determination Data Form - Arid West Region

Project/Site Santa Margarita Quarry City Atascadero County San Luis Obispo Sampling Date 1/30/2008
 Applicant/Owner Lehigh Hanson Inc. State CA Sampling Point 3
 Investigator(s) WRA, Inc. Section, Township, Range _____
 Landform (hillslope, terrace, etc.) hillslope Local Relief (concave, convex, none) none Slope(%) _____
 Subregion(LRR) LRR C (Medit. CA) Lat: 35.424317 Long: -120.572696 Datum: UTM Zone10N
 Soil Map Unit Name Cieneba-Andregg complex, 30 to 75 percent slopes NWI classification none

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

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soil Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Remarks: Sample point is located on a hillside. Taken as a reference to compare to points taken in gully bottoms.	

VEGETATION

Tree stratum (use scientific names)	Absolute % cover	Dominant Species?	Indicator Status	Dominance Test Worksheet	
1. <u>Quercus agrifolia</u>	<u>10</u>	<u>Y</u>	<u>NL</u>	Number of Dominant Species that are OBL, FACW, or FAC?	<u>1</u> (A)
2. _____				Total number of dominant species across all strata?	<u>2</u> (B)
3. _____				% of dominant species that are OBL, FACW, or FAC?	<u>50</u> (A/B)
4. _____					
Tree Stratum Total Cover: <u>10</u>				Prevalence Index Worksheet	
<u>Sapling/Shrub Stratum</u>				Total % cover of: _____ Multiply by: _____	
1. _____				OBL species _____ x1 _____	
2. _____				FACW species _____ x2 _____	
3. _____				FAC species <u>85</u> x3 <u>255</u>	
4. _____				FACU species <u>3</u> x4 <u>12</u>	
Sapling/Shrub Stratum Total Cover: _____				UPL species <u>13</u> x5 <u>65</u>	
<u>Herb Stratum</u>				Column Totals _____ (A) <u>332</u> (B)	
1. <u>Unidentifiable annual grasses</u>	<u>85</u>	<u>Y</u>	<u>FAC</u>	Prevalence Index = B/A = <u>3.3</u>	
2. <u>Torilis arvensis</u>	<u>3</u>		<u>NL</u>		
3. <u>Pteridium aquilinum var. pubescens</u>	<u>3</u>		<u>FACU</u>		
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
Herb Stratum Total Cover: <u>91</u>				Hydrophytic Vegetation Indicators	
<u>Woody Vine Stratum</u>				<input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is <= 3.0 ¹ <input type="checkbox"/> Morphological adaptations (provide supporting data in remarks) <input type="checkbox"/> Problematic hydrophytic vegetation ¹ (explain)	
1. _____				¹ Indicators of hydric soil and wetland hydrology must be present.	
2. _____					
Woody Vine Stratum Total Cover: _____				Hydrophytic Vegetation Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
% Bare ground in herb stratum <u>9</u>		% cover of biotic crust _____			

Remarks: Unidentifiable grasses are unlikely to be wetland species, but were considered FAC to be conservative. Species observed in the vicinity include Avena barbata (NL), Hordeum murinum (NI), and Cynosurus echinatus (NL).

Profile description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
0-18	7.5R3/3	100					Loamy sand

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5)(LRR C) <input type="checkbox"/> 1cm Muck (A9)(LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 1cm Muck (A9) (LRR C) <input type="checkbox"/> 2cm Muck (A10)(LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (explain in remarks)
<input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5)(LRR C) <input type="checkbox"/> 1cm Muck (A9)(LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)

³Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
--	---

Remarks: No rocks in upper 18", only loose sandy soil.

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1)(Nonriverine) <input type="checkbox"/> Sediment Deposits (B2)(Nonriverine) <input type="checkbox"/> Drift Deposits (B3)(Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in PLoWed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1)(Nonriverine) <input type="checkbox"/> Sediment Deposits (B2)(Nonriverine) <input type="checkbox"/> Drift Deposits (B3)(Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water Marks (B1)(Riverine) <input type="checkbox"/> Sediment Deposits (B2)(Riverine) <input type="checkbox"/> Drift Deposits (B3)(Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface water present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ Water table present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ Saturation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: No hydrology indicators noted.

Wetland Determination Data Form - Arid West Region

Project/Site Santa Margarita Quarry City Atascadero County San Luis Obispo Sampling Date 1/30/2008

Applicant/Owner Lehigh Hanson Inc. State CA Sampling Point 4

Investigator(s) WRA, Inc. Section, Township, Range _____

Landform (hillslope, terrace, etc.) draw Local Relief (concave, convex, none) _____ Slope(%) _____

Subregion(LRR) LRR C (Medit. CA) Lat: 35.423422 Long: -120.570977 Datum: UTM Zone10N

Soil Map Unit Name Cieneba-Andregg complex, 30 to 75 percent slopes NWI classification _____

Are climatic/hydrologic conditions on-site typical for this time of year? Yes No (If no, explain in remarks)

Are any of the following significantly disturbed? Vegetation Soil Hydrology Are "Normal Circumstances" present? Yes No

Are any of the following naturally problematic? Vegetation Soil Hydrology (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soil Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Remarks: Point taken on a steep slope just above the Salinas River in a very slight topographic draw. This feature has no OHW indicators and would not be considered a "waters."	

VEGETATION

Tree stratum (use scientific names)	Absolute % cover	Dominant Species?	Indicator Status	
1. <u>Quercus agrifolia</u>	<u>35</u>	<u>Y</u>	<u>NL</u>	Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC? <u>1</u> (A) Total number of dominant species across all strata? <u>3</u> (B) % of dominant species that are OBL, FACW, or FAC? <u>33</u> (A/B)
2. _____				
3. _____				
4. _____				
Tree Stratum Total Cover: <u>35</u>				Prevalence Index Worksheet Total % cover of: _____ Multiply by: _____ OBL species _____ x1 _____ FACW species _____ x2 _____ FAC species <u>28</u> x3 <u>84</u> FACU species _____ x4 _____ UPL species <u>62</u> x5 <u>310</u> Column Totals <u>90</u> (A) <u>394</u> (B) Prevalence Index = B/A = <u>4.4</u>
Sapling/Shrub Stratum				
1. <u>Ceanothus cuneatus</u>	<u>20</u>	<u>Y</u>	<u>NL</u>	
2. _____				
3. _____				
4. _____				
Sapling/Shrub Stratum Total Cover: <u>20</u>				
Herb Stratum				Hydrophytic Vegetation Indicators <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is <= 3.0 ¹ <input type="checkbox"/> Morphological adaptations (provide supporting data in remarks) <input type="checkbox"/> Problematic hydrophytic vegetation ¹ (explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
1. <u>Unidentifiable annual grasses</u>	<u>28</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Yucca whipplei</u>	<u>5</u>		<u>NL</u>	
3. <u>Torilis arvensis</u>	<u>2</u>		<u>NL</u>	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
Herb Stratum Total Cover: <u>35</u>				
Woody Vine Stratum				Hydrophytic Vegetation Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
1. _____				
2. _____				
Woody Vine Stratum Total Cover: _____				
% Bare ground in herb stratum <u>65</u>		% cover of biotic crust _____		

Remarks: Unidentifiable grasses are unlikely to be wetland species, but were considered FAC to be conservative. Species observed in the vicinity include Avena barbata (NL), Hordeum murinum (NI), and Cynosurus echinatus (NL).

Profile description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ¹		
0-6	10YR3/4	100					sand	
6-12	10YR3/4	40					coarse sand	
6-12	10YR7/1	60					gravel	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5)(LRR C) <input type="checkbox"/> 1cm Muck (A9)(LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 1cm Muck (A9) (LRR C) <input type="checkbox"/> 2cm Muck (A10)(LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (explain in remarks)
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³Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
--	---

Remarks: Starting at about 10", there's solid rock that easily crumbles into coarse sand & gravel when struck with the shovel.

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1)(Nonriverine) <input type="checkbox"/> Sediment Deposits (B2)(Nonriverine) <input type="checkbox"/> Drift Deposits (B3)(Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in PLoWed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1)(Nonriverine) <input type="checkbox"/> Sediment Deposits (B2)(Nonriverine) <input type="checkbox"/> Drift Deposits (B3)(Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water Marks (B1)(Riverine) <input type="checkbox"/> Sediment Deposits (B2)(Riverine) <input type="checkbox"/> Drift Deposits (B3)(Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface water present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ Water table present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ Saturation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: No hydrology indicators noted.

Wetland Determination Data Form - Arid West Region

Project/Site Santa Margarita Quarry City Atascadero County San Luis Obispo Sampling Date 1/30/2008

Applicant/Owner Lehigh Hanson Inc. State CA Sampling Point 5

Investigator(s) WRA, Inc. Section, Township, Range _____

Landform (hillslope, terrace, etc.) gully Local Relief (concave, convex, none) _____ Slope(%) _____

Subregion(LRR) LRR C (Medit. CA) Lat: 35.424329 Long: -120.571233 Datum: UTM Zone10N

Soil Map Unit Name Cieneba-Andregg complex, 30 to 75 percent slopes NWI classification _____

Are climatic/hydrologic conditions on-site typical for this time of year? Yes No (If no, explain in remarks)

Are any of the following significantly disturbed? Vegetation Soil Hydrology Are "Normal Circumstances" present? Yes No

Are any of the following naturally problematic? Vegetation Soil Hydrology (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soil Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Remarks: _____ _____ _____	

VEGETATION

Tree stratum (use scientific names)	Absolute % cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC? <u>0</u> (A) Total number of dominant species across all strata? <u>2</u> (B) % of dominant species that are OBL, FACW, or FAC? <u>0</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Tree Stratum Total Cover: _____				Prevalence Index Worksheet Total % cover of: _____ Multiply by: _____ OBL species _____ x1 _____ FACW species _____ x2 _____ FAC species <u>44</u> x3 <u>132</u> FACU species <u>3</u> x4 <u>12</u> UPL species <u>66</u> x5 <u>330</u> Column Totals <u>103</u> (A) <u>474</u> (B) Prevalence Index = B/A = <u>4.6</u>
Sapling/Shrub Stratum				
1. <i>Toxicodendron diversilobum</i>	60	Y	NL	
2. <i>Quercus agrifolia</i>	3	_____	NL	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Sapling/Shrub Stratum Total Cover: <u>63</u>				
Herb Stratum				Hydrophytic Vegetation Indicators <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is <= 3.0 ¹ <input type="checkbox"/> Morphological adaptations (provide supporting data in remarks) <input type="checkbox"/> Problematic hydrophytic vegetation ¹ (explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
1. <i>Unidentifiable annual grasses</i>	44	Y	FAC	
2. <i>Sanicula crassicaulis</i>	3	_____	NL	
3. <i>Pteridium aquilinum var. pubescens</i>	3	_____	FACU	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Herb Stratum Total Cover: <u>50</u>				
Woody Vine Stratum				Hydrophytic Vegetation Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
Woody Vine Stratum Total Cover: _____				
% Bare ground in herb stratum _____		% cover of biotic crust _____		

Remarks: Gully bottom is mostly full of dead leaf debris under Toxicodendron. Veg data taken at edge of gully bottom between leaf debris and Toxicodendron. Unidentifiable grasses are unlikely to be wetland species, but were considered FAC to be conservative. Species observed in the vicinity include Avena barbata (NL), Hordeum murinum (NI), and Cynosurus echinatus (NL).

Profile description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
0-18	10YR3/3	100					Loamy sand

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5)(LRR C) <input type="checkbox"/> 1cm Muck (A9)(LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 1cm Muck (A9) (LRR C) <input type="checkbox"/> 2cm Muck (A10)(LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (explain in remarks)
---	---	---

³Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
--	---

Remarks: The sandy soil is loamier near the surface, and more like coarse sand at 8".

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1)(Nonriverine) <input type="checkbox"/> Sediment Deposits (B2)(Nonriverine) <input type="checkbox"/> Drift Deposits (B3)(Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in PLoWed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1)(Nonriverine) <input type="checkbox"/> Sediment Deposits (B2)(Nonriverine) <input type="checkbox"/> Drift Deposits (B3)(Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water Marks (B1)(Riverine) <input type="checkbox"/> Sediment Deposits (B2)(Riverine) <input type="checkbox"/> Drift Deposits (B3)(Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface water present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ Water table present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ Saturation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present ? <input type="checkbox"/> Yes <input type="checkbox"/> No
---	--

Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks:

Wetland Determination Data Form - Arid West Region

Project/Site Santa Margarita Quarry City Atascadero County San Luis Obispo Sampling Date 1/30/2008

Applicant/Owner Lehigh Hanson Inc. State CA Sampling Point 6

Investigator(s) WRA, Inc. Section, Township, Range _____

Landform (hillslope, terrace, etc.) ephemeral drainage Local Relief (concave, convex, none) concave Slope(%) _____

Subregion(LRR) LRR C (Medit. CA) Lat: 35.425114 Long: -120.57648 Datum: UTM Zone10N

Soil Map Unit Name Cieneba-Andregg complex, 30 to 75 percent slopes NWI classification none

Are climatic/hydrologic conditions on-site typical for this time of year? Yes No (If no, explain in remarks)

Are any of the following significantly disturbed? Vegetation Soil Hydrology Are "Normal Circumstances" present? Yes No

Are any of the following naturally problematic? Vegetation Soil Hydrology (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soil Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Remarks: Point taken in a drainage at a point where water might pool, where water could collect after draining off the steep hillside as the slope flattens out near the river. However, no clear OHW marks were noted. Most water appears to drain subsurface.	

VEGETATION

Tree stratum (use scientific names)	Absolute % cover	Dominant Species?	Indicator Status	Dominance Test Worksheet
1. _____	_____	_____	_____	Number of Dominant Species that are OBL, FACW, or FAC? <u>1</u> (A)
2. _____	_____	_____	_____	Total number of dominant species across all strata? <u>4</u> (B)
3. _____	_____	_____	_____	% of dominant species that are OBL, FACW, or FAC? <u>25</u> (A/B)
4. _____	_____	_____	_____	
Tree Stratum Total Cover: _____				
Sapling/Shrub Stratum				
1. <i>Toxicodendron diversilobum</i>	30	Y	NL	Prevalence Index Worksheet Total % cover of: _____ Multiply by: _____ OBL species _____ x1 _____ FACW species _____ x2 _____ FAC species <u>45</u> x3 <u>135</u> FACU species _____ x4 _____ UPL species <u>80</u> x5 <u>400</u> Column Totals <u>125</u> (A) <u>535</u> (B) Prevalence Index = B/A = <u>4.3</u>
2. <i>Quercus agrifolia</i>	10	Y	NL	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Sapling/Shrub Stratum Total Cover: <u>40</u>				
Herb Stratum				
1. <i>Unidentifiable annual grasses</i>	45	Y	FAC	Hydrophytic Vegetation Indicators <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is <= 3.0 ¹ <input type="checkbox"/> Morphological adaptations (provide supporting data in remarks) <input type="checkbox"/> Problematic hydrophytic vegetation ¹ (explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
2. <i>Torilis arvensis</i>	40	Y	NL	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Herb Stratum Total Cover: <u>85</u>				
Woody Vine Stratum				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2. _____	_____	_____	_____	
Woody Vine Stratum Total Cover: _____				
% Bare ground in herb stratum <u>5</u>		% cover of biotic crust _____		

Remarks: Veg data taken in gully bottom. 10% cover of moss is also present. Unidentifiable grasses are unlikely to be wetland species, but were considered FAC to be conservative. Species observed in the vicinity include *Avena barbata* (NL), *Hordeum murinum* (NI), and *Cynosurus echinatus* (NL).

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ¹		
0-18	10YR3/3						coarse sand	

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

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

Indicators for Problematic Hydric Soils³:

- | | | |
|--|---|---|
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> 1cm Muck (A9) (LRR C) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> 2cm Muck (A10)(LRR B) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Mucky Mineral (F1) | <input type="checkbox"/> Reduced Vertic (F18) |
| <input type="checkbox"/> Stratified Layers (A5)(LRR C) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> 1cm Muck (A9)(LRR D) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Other (explain in remarks) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Redox Dark Surface (F6) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Depleted Dark Surface (F7) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Vernal Pools (F9) | |

³Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present ? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Secondary Indicators (2 or more required)

- | | | |
|--|--|--|
| Primary Indicators (any one indicator is sufficient) | | |
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) | <input type="checkbox"/> Water Marks (B1)(Riverine) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) | <input type="checkbox"/> Sediment Deposits (B2)(Riverine) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) | <input type="checkbox"/> Drift Deposits (B3)(Riverine) |
| <input type="checkbox"/> Water Marks (B1)(Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input checked="" type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Sediment Deposits (B2)(Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3)(Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in PLoWed Soils (C6) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input checked="" type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | | <input type="checkbox"/> Shallow Aquitard (D3) |
| | | <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

Surface water present? Yes No Depth (inches): _____

Water table present? Yes No Depth (inches): _____

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

Wetland Hydrology Present ? Yes No

Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: Topographic position and knowledge of upstream conditions used as indicators that this feature may have wetland hydrology during periods of moderate to heavy rainfall. Very slight signs of water flow, likely from large rainfall events. Water would otherwise drain subsurface through the sandy soil. Clear indicators of ordinary high water are not present.

Wetland Determination Data Form - Arid West Region

Project/Site Santa Margarita Quarry City Atascadero County San Luis Obispo Sampling Date 1/30/2008
 Applicant/Owner Lehigh Hanson Inc. State CA Sampling Point 7
 Investigator(s) WRA, Inc. Section, Township, Range _____
 Landform (hillslope, terrace, etc.) draw/drainage Local Relief (concave, convex, none) none Slope(%) _____
 Subregion(LRR) LRR C (Medit. CA) Lat: 35.424833 Long: -120.576707 Datum: UTM Zone10N
 Soil Map Unit Name Cieneba-Andregg complex, 30 to 75 percent slopes NWI classification none

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

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soil Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Remarks: Sample point is in the bottom of a gully that shows no flow downstream (close to the river). However, a very small amount of flowing water is present at this point. No clear OHW marks are present.	

VEGETATION

Tree stratum (use scientific names)	Absolute % cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC? <u>1</u> (A) Total number of dominant species across all strata? <u>2</u> (B) % of dominant species that are OBL, FACW, or FAC? <u>50</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Tree Stratum Total Cover: _____				Prevalence Index Worksheet Total % cover of: _____ Multiply by: _____ OBL species _____ x1 _____ FACW species _____ x2 _____ FAC species <u>60</u> x3 <u>180</u> FACU species _____ x4 _____ UPL species <u>20</u> x5 <u>100</u> Column Totals <u>80</u> (A) <u>280</u> (B) Prevalence Index = B/A = <u>3.5</u>
Sapling/Shrub Stratum				
1. <u>Toxicodendron diversilobum</u>	<u>10</u>	<u>Y</u>	<u>NL</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Sapling/Shrub Stratum Total Cover: <u>10</u>				
Herb Stratum				Hydrophytic Vegetation Indicators <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is <= 3.0 ¹ <input type="checkbox"/> Morphological adaptations (provide supporting data in remarks) <input type="checkbox"/> Problematic hydrophytic vegetation ¹ (explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
1. <u>Unidentifiable annual grasses</u>	<u>60</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Sanicula crassicaulis</u>	<u>5</u>	_____	<u>NL</u>	
3. <u>Torilis arvensis</u>	<u>5</u>	_____	<u>NL</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Herb Stratum Total Cover: <u>70</u>				
Woody Vine Stratum				Hydrophytic Vegetation Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
Woody Vine Stratum Total Cover: _____				
% Bare ground in herb stratum <u>30</u>		% cover of biotic crust _____		

Remarks: Unidentifiable grasses are unlikely to be wetland species, but were considered FAC to be conservative. Species observed in the vicinity include Avena barbata (NL), Hordeum murinum (NI), and Cynosurus echinatus (NL).

Profile description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
0-7	10YR3/3	100					coarse sand
7+							rock

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5)(LRR C) <input type="checkbox"/> 1cm Muck (A9)(LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> 1cm Muck (A9) (LRR C) <input type="checkbox"/> 2cm Muck (A10)(LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (explain in remarks)
<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	<p>³Indicators of hydric vegetation and wetland hydrology must be present.</p>

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)	
<input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1)(Nonriverine) <input type="checkbox"/> Sediment Deposits (B2)(Nonriverine) <input type="checkbox"/> Drift Deposits (B3)(Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water Marks (B1)(Riverine) <input type="checkbox"/> Sediment Deposits (B2)(Riverine) <input type="checkbox"/> Drift Deposits (B3)(Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in PLoWed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)	

Field Observations: Surface water present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Depth (inches): <u>.25</u> Water table present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Depth (inches): <u>0 (surface)</u> Saturation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Depth (inches): <u>0 (surface)</u> (includes capillary fringe)	Wetland Hydrology Present ? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
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Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: No obvious OHWM or bed & bank, but a small amount of water is flowing in this feature. Bottom is about 24" wide on average. However, little or no flow can be seen downstream--flow is apparently subsurface in this area. Subsoil does not react with alpha, alpha dipirydyl. The water seen in this feature is probably residual runoff from recent rains. This feature is likely dry throughout most of the year.

Wetland Determination Data Form - Arid West Region

Project/Site Santa Margarita Quarry City Atascadero County San Luis Obispo Sampling Date 1/30/2008

Applicant/Owner Lehigh Hanson Inc. State CA Sampling Point 8

Investigator(s) WRA, Inc. Section, Township, Range _____

Landform (hillslope, terrace, etc.) hillslope Local Relief (concave, convex, none) concave Slope(%) _____

Subregion(LRR) LRR C (Medit. CA) Lat: 35.42479 Long: -120.576666 Datum: UTM Zone10N

Soil Map Unit Name Cieneba-Andregg complex, 30 to 75 percent slopes NWI classification none

Are climatic/hydrologic conditions on-site typical for this time of year? Yes No (If no, explain in remarks)

Are any of the following significantly disturbed? Vegetation Soil Hydrology Are "Normal Circumstances" present? Yes No

Are any of the following naturally problematic? Vegetation Soil Hydrology (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soil Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Remarks: Point taken as an upslope reference point for comparison to Sample Point 7.	

VEGETATION

Tree stratum (use scientific names)	Absolute % cover	Dominant Species?	Indicator Status	Dominance Test Worksheet
1. <u>Quercus agrifolia</u>	40	Y	NL	Number of Dominant Species that are OBL, FACW, or FAC? <u>1</u> (A)
2. _____				Total number of dominant species across all strata? <u>3</u> (B)
3. _____				% of dominant species that are OBL, FACW, or FAC? <u>33</u> (A/B)
4. _____				
Tree Stratum Total Cover: <u>40</u>				
Sapling/Shrub Stratum				
1. <u>Toxicodendron diversilobum</u>	30	Y	NL	Prevalence Index Worksheet
2. _____				Total % cover of: _____ Multiply by: _____
3. _____				OBL species _____ x1 _____
4. _____				FACW species _____ x2 _____
Sapling/Shrub Stratum Total Cover: <u>30</u>				FAC species <u>70</u> x3 <u>210</u>
Herb Stratum				
1. <u>Unidentifiable annual grasses</u>	70	Y	FAC	FACU species <u>2</u> x4 <u>8</u>
2. <u>Sanicula crassicaulis</u>	2		NL	UPL species <u>72</u> x5 <u>360</u>
3. <u>Pteridium aquilinum var. pubescens</u>	2		FACU	Column Totals <u>144</u> (A) <u>578</u> (B)
4. _____				Prevalence Index = B/A = <u>4.0</u>
5. _____				Hydrophytic Vegetation Indicators
6. _____				<input type="checkbox"/> Dominance Test is >50%
7. _____				<input type="checkbox"/> Prevalence Index is <= 3.0 ¹
8. _____				<input type="checkbox"/> Morphological adaptations (provide supporting data in remarks)
Herb Stratum Total Cover: _____				<input type="checkbox"/> Problematic hydrophytic vegetation ¹ (explain)
Woody Vine Stratum				
1. _____				¹ Indicators of hydric soil and wetland hydrology must be present.
2. _____				
Woody Vine Stratum Total Cover: _____				Hydrophytic Vegetation Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
% Bare ground in herb stratum _____ % cover of biotic crust _____				

Remarks: Unidentifiable grasses are unlikely to be wetland species, but were considered FAC to be conservative. Species observed in the vicinity include Avena barbata (NL), Hordeum murinum (NI), and Cynosurus echinatus (NL).

Profile description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
0-10	10YR3/3	100					Loamy sand
10+							rock

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5)(LRR C) <input type="checkbox"/> 1cm Muck (A9)(LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> 1cm Muck (A9) (LRR C) <input type="checkbox"/> 2cm Muck (A10)(LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (explain in remarks)
<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	<p>³Indicators of hydric vegetation and wetland hydrology must be present.</p>

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1)(Nonriverine) <input type="checkbox"/> Sediment Deposits (B2)(Nonriverine) <input type="checkbox"/> Drift Deposits (B3)(Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water Marks (B1)(Riverine) <input type="checkbox"/> Sediment Deposits (B2)(Riverine) <input type="checkbox"/> Drift Deposits (B3)(Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in PLoWed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)	

Field Observations: Surface water present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth (inches): _____ Water table present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth (inches): _____ Saturation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: No hydrology indicators noted.

Wetland Determination Data Form - Arid West Region

Project/Site Santa Margarita Quarry City Atascadero County San Luis Obispo Sampling Date 1/30/2008

Applicant/Owner Lehigh Hanson Inc. State CA Sampling Point 9

Investigator(s) WRA, Inc. Section, Township, Range _____

Landform (hillslope, terrace, etc.) draw Local Relief (concave, convex, none) none Slope(%) _____

Subregion(LRR) LRR C (Medit. CA) Lat: 35.424023 Long: -120.576586 Datum: UTM Zone10N

Soil Map Unit Name Cieneba-Andregg complex, 30 to 75 percent slopes NWI classification none

Are climatic/hydrologic conditions on-site typical for this time of year? Yes No (If no, explain in remarks)

Are any of the following significantly disturbed? Vegetation Soil Hydrology Are "Normal Circumstances" present? Yes No

Are any of the following naturally problematic? Vegetation Soil Hydrology (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soil Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Remarks: Point taken in a dry draw. No OHWM, no sign of surface flow, no bed & bank. No saturation in upper 18".	

VEGETATION

Tree stratum (use scientific names)	Absolute % cover	Dominant Species?	Indicator Status	Dominance Test Worksheet
1. <u>Quercus agrifolia</u>	10	Y	NL	Number of Dominant Species that are OBL, FACW, or FAC? <u>1</u> (A)
2. _____				Total number of dominant species across all strata? <u>5</u> (B)
3. _____				% of dominant species that are OBL, FACW, or FAC? <u>20</u> (A/B)
4. _____				
Tree Stratum Total Cover: 10				
Sapling/Shrub Stratum				
1. <u>Toxicodendron diversilobum</u>	25	Y	NL	Prevalence Index Worksheet Total % cover of: _____ Multiply by: _____ OBL species _____ x1 _____ FACW species _____ x2 _____ FAC species <u>18</u> x3 <u>36</u> FACU species <u>10</u> x4 <u>40</u> UPL species <u>92</u> x5 <u>460</u> Column Totals <u>120</u> (A) <u>536</u> (B) Prevalence Index = B/A = <u>4.5</u>
2. <u>Cercocarpus betuloides</u>	15	Y	NL	
3. _____				
4. _____				
Sapling/Shrub Stratum Total Cover: 40				
Herb Stratum				
1. <u>Torilis arvensis</u>	40	Y	NL	Hydrophytic Vegetation Indicators <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is <= 3.0 ¹ <input type="checkbox"/> Morphological adaptations (provide supporting data in remarks) <input type="checkbox"/> Problematic hydrophytic vegetation ¹ (explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
2. <u>Unidentifiable annual grasses</u>	18	Y	FAC	
3. <u>Agoseris sp.</u>	15		NL-FAC	
4. <u>Pteridium aquilinum var. pubescens</u>	10		FACU	
5. <u>Sanicula crassicaulis</u>	2		NL	
6. _____				
7. _____				
8. _____				
Herb Stratum Total Cover: 85				
Woody Vine Stratum				
1. _____				Hydrophytic Vegetation Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2. _____				
Woody Vine Stratum Total Cover: _____				
% Bare ground in herb stratum <u>15</u>		% cover of biotic crust _____		

Remarks: Unidentifiable grasses are unlikely to be wetland species, but were considered FAC to be conservative. Species observed in the vicinity include Avena barbata (NL), Hordeum murinum (NI), and Cynosurus echinatus (NL).

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ¹		
0-8	10YR3/2	100					Loamy sand	
8-18	7.5Y3/3	100					Loamy sand	

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

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5)(LRR C) <input type="checkbox"/> 1cm Muck (A9)(LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<p>Indicators for Problematic Hydric Soils³:</p> <input type="checkbox"/> 1cm Muck (A9) (LRR C) <input type="checkbox"/> 2cm Muck (A10)(LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (explain in remarks)
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	<p>³Indicators of hydric vegetation and wetland hydrology must be present.</p>

<p>Restrictive Layer (if present): Type: _____ Depth (inches): _____</p>	<p>Hydric Soil Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
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Remarks:

HYDROLOGY

<p>Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)</p> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1)(Nonriverine) <input type="checkbox"/> Sediment Deposits (B2)(Nonriverine) <input type="checkbox"/> Drift Deposits (B3)(Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in PLoWed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)	<p><u>Secondary Indicators (2 or more required)</u></p> <input type="checkbox"/> Water Marks (B1)(Riverine) <input type="checkbox"/> Sediment Deposits (B2)(Riverine) <input type="checkbox"/> Drift Deposits (B3)(Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)
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<p>Field Observations: Surface water present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ Water table present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ Saturation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ (includes capillary fringe)</p>	<p>Wetland Hydrology Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
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Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: No hydrology indicators noted.

Wetland Determination Data Form - Arid West Region

Project/Site Santa Margarita Quarry City Atascadero County San Luis Obispo Sampling Date 1/30/2008

Applicant/Owner Lehigh Hanson Inc. State CA Sampling Point 10

Investigator(s) WRA, Inc. Section, Township, Range _____

Landform (hillslope, terrace, etc.) draw/drainage Local Relief (concave, convex, none) none Slope(%) _____

Subregion(LRR) LRR C (Medit. CA) Lat: 35.425108 Long: -120.579043 Datum: UTM Zone10N

Soil Map Unit Name Cieneba-Andregg complex, 30 to 75 percent slopes NWI classification none

Are climatic/hydrologic conditions on-site typical for this time of year? Yes No (If no, explain in remarks)

Are any of the following significantly disturbed? Vegetation Soil Hydrology Are "Normal Circumstances" present? Yes No

Are any of the following naturally problematic? Vegetation Soil Hydrology (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soil Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Remarks: Sample point is in a draw/gully bottom that contains flowing water closer to the river (in lower areas to the north, off-site). Near river, sediment and debris has been deposited, and the water flows through this. Water flow in upslope portions of this draw appears to happen subsurface or not at all. No clear OHW marks are present in the vicinity of the sample point.

VEGETATION

Tree stratum (use scientific names)	Absolute % cover	Dominant Species?	Indicator Status	Dominance Test Worksheet
1. _____	_____	_____	_____	Number of Dominant Species that are OBL, FACW, or FAC? <u>1</u> (A)
2. _____	_____	_____	_____	Total number of dominant species across all strata? <u>4</u> (B)
3. _____	_____	_____	_____	% of dominant species that are OBL, FACW, or FAC? <u>25</u> (A/B)
4. _____	_____	_____	_____	
Tree Stratum Total Cover: _____				
Sapling/Shrub Stratum				
1. <u>Quercus berberidifolia</u>	<u>30</u>	<u>Y</u>	<u>NL</u>	Prevalence Index Worksheet Total % cover of: _____ Multiply by: _____ OBL species _____ x1 _____ FACW species _____ x2 _____ FAC species <u>30</u> x3 <u>90</u> FACU species <u>5</u> x4 <u>20</u> UPL species <u>95</u> x5 <u>475</u> Column Totals <u>130</u> (A) <u>585</u> (B) Prevalence Index = B/A = <u>4.5</u>
2. <u>Toxicodendron diversilobum</u>	<u>20</u>	<u>Y</u>	<u>NL</u>	
3. <u>Cercocarpus betuloides</u>	<u>5</u>	<u></u>	<u>NL</u>	
4. _____	_____	_____	_____	
Sapling/Shrub Stratum Total Cover: <u>55</u>				
Herb Stratum				
1. <u>Torilis arvensis</u>	<u>35</u>	<u>Y</u>	<u>NL</u>	
2. <u>Unidentifiable annual grasses</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>	
3. <u>Carduus pycnocephalus</u>	<u>5</u>	<u></u>	<u>NL</u>	
4. <u>Pteridium aquilinum var. pubescens</u>	<u>5</u>	<u></u>	<u>FACU</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Herb Stratum Total Cover: <u>75</u>				
Woody Vine Stratum				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
Woody Vine Stratum Total Cover: _____				
% Bare ground in herb stratum <u>25</u>		% cover of biotic crust _____		

Hydrophytic Vegetation Indicators

Dominance Test is >50%

Prevalence Index is <= 3.0¹

Morphological adaptations (provide supporting data in remarks)

Problematic hydrophytic vegetation¹ (explain)

¹ Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present ? Yes No

Remarks: An additional 45% canopy cover of Quercus agrifolia is present, but it is rooted on upper banks. Unidentifiable grasses are unlikely to be wetland species, but were considered FAC to be conservative. Species observed in the vicinity include Avena barbata (NL), Hordeum murinum (NI), and Cynosurus echinatus (NL).

Profile description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
0-18	10YR3/2	100					Loamy sand

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Stratified Layers (A5)(LRR C) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> 1cm Muck (A9)(LRR D) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Vernal Pools (F9) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 1cm Muck (A9) (LRR C) <input type="checkbox"/> 2cm Muck (A10)(LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (explain in remarks) ³ Indicators of hydric vegetation and wetland hydrology must be present.
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Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Water Marks (B1)(Nonriverine) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2)(Nonriverine) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3)(Nonriverine) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Recent Iron Reduction in PLoWed Soils (C6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input checked="" type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water Marks (B1)(Riverine) <input type="checkbox"/> Sediment Deposits (B2)(Riverine) <input type="checkbox"/> Drift Deposits (B3)(Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface water present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ Water table present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Depth (inches): <u>17</u> Saturation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Depth (inches): <u>15</u> (includes capillary fringe)	Wetland Hydrology Present ? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
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Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: Topographic position suggests that water could collect in this feature, even though there are no indications of surface flow. This is supported by the presence of saturation and a water table within 17". Negative alpha-alpha-dipuridyl test @18".

Wetland Determination Data Form - Arid West Region

Project/Site Santa Margarita Quarry City Atascadero County San Luis Obispo Sampling Date 1/31/2008

Applicant/Owner Lehigh Hanson Inc. State CA Sampling Point 11

Investigator(s) WRA, Inc. Section, Township, Range _____

Landform (hillslope, terrace, etc.) hillslope Local Relief (concave, convex, none) convex Slope(%) _____

Subregion(LRR) LRR C (Medit. CA) Lat: 35.422364 Long: -120.57802 Datum: UTM Zone10N

Soil Map Unit Name Cieneba-Andregg complex, 30 to 75 percent slopes NWI classification none

Are climatic/hydrologic conditions on-site typical for this time of year? Yes No (If no, explain in remarks)

Are any of the following significantly disturbed? Vegetation Soil Hydrology Are "Normal Circumstances" present? Yes No

Are any of the following naturally problematic? Vegetation Soil Hydrology (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soil Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Remarks: Sample point taken on nearly the highest slope on the property for reference.	

VEGETATION

Tree stratum (use scientific names)	Absolute % cover	Dominant Species?	Indicator Status	Dominance Test Worksheet
1. _____	_____	_____	_____	Number of Dominant Species that are OBL, FACW, or FAC? <u>0</u> (A)
2. _____	_____	_____	_____	Total number of dominant species across all strata? <u>3</u> (B)
3. _____	_____	_____	_____	% of dominant species that are OBL, FACW, or FAC? <u>0</u> (A/B)
4. _____	_____	_____	_____	
Tree Stratum Total Cover: _____				
Sapling/Shrub Stratum				
1. <i>Adenostoma fasciculatum</i>	45	Y	NL	Prevalence Index Worksheet Total % cover of: _____ Multiply by: _____ OBL species _____ x1 _____ FACW species _____ x2 _____ FAC species _____ x3 _____ FACU species <u>5</u> x4 <u>20</u> UPL species <u>95</u> x5 <u>475</u> Column Totals <u>100</u> (A) <u>495</u> (B) Prevalence Index = B/A = <u>5.0</u>
2. <i>Salvia mellifera</i>	20	Y	NL	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Sapling/Shrub Stratum Total Cover: <u>65</u>				
Herb Stratum				
1. <i>Lotus scoparius</i>	30	Y	NL	Hydrophytic Vegetation Indicators <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is <= 3.0 ¹ <input type="checkbox"/> Morphological adaptations (provide supporting data in remarks) <input type="checkbox"/> Problematic hydrophytic vegetation ¹ (explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
2. <i>Pteridium aquilinum var. pubescens</i>	5	_____	FACU	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Herb Stratum Total Cover: <u>35</u>				
Woody Vine Stratum				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2. _____	_____	_____	_____	
Woody Vine Stratum Total Cover: _____				
% Bare ground in herb stratum <u>65</u>		% cover of biotic crust _____		

Remarks:

Profile description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ¹		
0-10	10YR3/3	100					sand	
10-20	7.5Y5/6	100					sand	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5)(LRR C) <input type="checkbox"/> 1cm Muck (A9)(LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 1cm Muck (A9) (LRR C) <input type="checkbox"/> 2cm Muck (A10)(LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (explain in remarks)
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³Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1)(Nonriverine) <input type="checkbox"/> Sediment Deposits (B2)(Nonriverine) <input type="checkbox"/> Drift Deposits (B3)(Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in PLoWed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1)(Nonriverine) <input type="checkbox"/> Sediment Deposits (B2)(Nonriverine) <input type="checkbox"/> Drift Deposits (B3)(Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water Marks (B1)(Riverine) <input type="checkbox"/> Sediment Deposits (B2)(Riverine) <input type="checkbox"/> Drift Deposits (B3)(Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface water present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ Water table present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ Saturation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: No hydrology indicators noted.

Wetland Determination Data Form - Arid West Region

Project/Site Santa Margarita Quarry City Atascadero County San Luis Obispo Sampling Date 1/31/2008
 Applicant/Owner Lehigh Hanson Inc. State CA Sampling Point 12
 Investigator(s) WRA, Inc. Section, Township, Range _____
 Landform (hillslope, terrace, etc.) hillslope Local Relief (concave, convex, none) concave Slope(%) _____
 Subregion(LRR) LRR C (Medit. CA) Lat: 35.424058 Long: -120.580597 Datum: UTM Zone10N
 Soil Map Unit Name Cieneba coarse sandy loam, 30 to 75 percent slopes NWI classification none

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

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soil Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Remarks: Point taken as an upland reference near ridgetop on western edge of Project Area.	

VEGETATION

Tree stratum (use scientific names)	Absolute % cover	Dominant Species?	Indicator Status	Dominance Test Worksheet	
1. _____	_____	_____	_____	Number of Dominant Species that are OBL, FACW, or FAC?	<u>0</u> (A)
2. _____	_____	_____	_____	Total number of dominant species across all strata?	<u>2</u> (B)
3. _____	_____	_____	_____	% of dominant species that are OBL, FACW, or FAC?	<u>0</u> (A/B)
4. _____	_____	_____	_____		
Tree Stratum Total Cover: _____					
Sapling/Shrub Stratum				Prevalence Index Worksheet	
1. <i>Salvia mellifera</i>	40	Y	NL	Total % cover of:	Multiply by:
2. <i>Adenostoma fasciculatum</i>	35	Y	NL	OBL species _____ x1 _____	
3. <i>Eriogonum fasciculatum</i>	5		NL	FACW species _____ x2 _____	
4. _____	_____	_____	_____	FAC species _____ x3 _____	
Sapling/Shrub Stratum Total Cover: 80				FACU species <u>4</u> x4 <u>16</u>	
Herb Stratum				UPL species <u>80</u> x5 <u>400</u>	
1. <i>Pteridium aquilinum var. pubescens</i>	4		FACU	Column Totals <u>84</u> (A) <u>416</u> (B)	
2. _____	_____	_____	_____	Prevalence Index = B/A = <u>5.0</u>	
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
Herb Stratum Total Cover: 4					
Woody Vine Stratum				Hydrophytic Vegetation Indicators	
1. _____	_____	_____	_____	<input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is <= 3.0 ¹ <input type="checkbox"/> Morphological adaptations (provide supporting data in remarks) <input type="checkbox"/> Problematic hydrophytic vegetation ¹ (explain)	
2. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present.	
Woody Vine Stratum Total Cover: _____					
% Bare ground in herb stratum <u>96</u>		% cover of biotic crust <u>0</u>		Hydrophytic Vegetation Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

Remarks:

Profile description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ¹		
0-6	10YR3/3	100					sand	
6-9	10YR4/6	100					sand	
9+							rock	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5)(LRR C) <input type="checkbox"/> 1cm Muck (A9)(LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 1cm Muck (A9) (LRR C) <input type="checkbox"/> 2cm Muck (A10)(LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (explain in remarks)
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³Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
--	---

Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1)(Nonriverine) <input type="checkbox"/> Sediment Deposits (B2)(Nonriverine) <input type="checkbox"/> Drift Deposits (B3)(Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in PLoWed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1)(Nonriverine) <input type="checkbox"/> Sediment Deposits (B2)(Nonriverine) <input type="checkbox"/> Drift Deposits (B3)(Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water Marks (B1)(Riverine) <input type="checkbox"/> Sediment Deposits (B2)(Riverine) <input type="checkbox"/> Drift Deposits (B3)(Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface water present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ Water table present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ Saturation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: No hydrology indicators noted.

Wetland Determination Data Form - Arid West Region

Project/Site Santa Margarita Quarry City Atascadero County San Luis Obispo Sampling Date 1/31/2008

Applicant/Owner Lehigh Hanson Inc. State CA Sampling Point 13

Investigator(s) WRA, Inc. Section, Township, Range _____

Landform (hillslope, terrace, etc.) draw/drainage Local Relief (concave, convex, none) none Slope(%) _____

Subregion(LRR) LRR C (Medit. CA) Lat: 35.423579 Long: -120.579818 Datum: UTM Zone10N

Soil Map Unit Name Cieneba-Andregg complex, 30 to 75 percent slopes NWI classification none

Are climatic/hydrologic conditions on-site typical for this time of year? Yes No (If no, explain in remarks)

Are any of the following significantly disturbed? Vegetation Soil Hydrology Are "Normal Circumstances" present? Yes No

Are any of the following naturally problematic? Vegetation Soil Hydrology (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soil Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Remarks: Point taken near the top of a draw/intermittent upland drainage with steep surrounding slopes. Questionable signs of water flow likely due to looseness of soil (sand) contributing to exaggerated erosion. No clear OHW marks are present.	

VEGETATION

Tree stratum (use scientific names)	Absolute % cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC? <u>0</u> (A) Total number of dominant species across all strata? <u>2</u> (B) % of dominant species that are OBL, FACW, or FAC? <u>0</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Tree Stratum Total Cover: _____				Prevalence Index Worksheet Total % cover of: _____ Multiply by: _____ OBL species _____ x1 _____ FACW species _____ x2 _____ FAC species _____ x3 _____ FACU species <u>1</u> x4 <u>4</u> UPL species <u>75</u> x5 <u>375</u> Column Totals <u>76</u> (A) <u>379</u> (B) Prevalence Index = B/A = <u>5.0</u>
Sapling/Shrub Stratum				
1. <i>Prunus ilicifolia</i>	70	Y	NL	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Sapling/Shrub Stratum Total Cover: <u>70</u>				
Herb Stratum				
1. <i>Eriogonum fasciculatum</i>	5	Y	NL	
2. <i>Pteridium aquilinum var. pubescens</i>	1	_____	FACU	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Herb Stratum Total Cover: <u>6</u>				
Woody Vine Stratum				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
Woody Vine Stratum Total Cover: _____				
% Bare ground in herb stratum <u>94</u>		% cover of biotic crust _____		Hydrophytic Vegetation Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Remarks:

Profile description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ¹		
0-18	10YR3/2	100					loamy sand	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5)(LRR C) <input type="checkbox"/> 1cm Muck (A9)(LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 1cm Muck (A9) (LRR C) <input type="checkbox"/> 2cm Muck (A10)(LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (explain in remarks)
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³Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
--	--

Remarks: Extreme erosion on the site suggests that it would be necessary to dig one meter or more through accumulated sand before non-eroded soil is reached.

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1)(Nonriverine) <input type="checkbox"/> Sediment Deposits (B2)(Nonriverine) <input type="checkbox"/> Drift Deposits (B3)(Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in PLoWed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1)(Riverine) <input type="checkbox"/> Sediment Deposits (B2)(Riverine) <input type="checkbox"/> Drift Deposits (B3)(Riverine) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface water present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ Water table present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ Saturation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: Erosion is evident, and leaves and twigs have collected in the bottom of the draw, but there is little to suggest that it was caused by water rather than gravity and natural processes. Any water drainage in this draw is likely to happen subsurface.

Wetland Determination Data Form - Arid West Region

Project/Site Santa Margarita Quarry City Atascadero County San Luis Obispo Sampling Date 1/31/2008

Applicant/Owner Lehigh Hanson Inc. State CA Sampling Point 14

Investigator(s) WRA, Inc. Section, Township, Range _____

Landform (hillslope, terrace, etc.) hillslope Local Relief (concave, convex, none) none Slope(%) _____

Subregion(LRR) LRR C (Medit. CA) Lat: 35.42305 Long: -120.576662 Datum: UTM Zone10N

Soil Map Unit Name Cieneba-Andregg complex, 30 to 75 percent slopes NWI classification none

Are climatic/hydrologic conditions on-site typical for this time of year? Yes No (If no, explain in remarks)

Are any of the following significantly disturbed? Vegetation Soil Hydrology Are "Normal Circumstances" present? Yes No

Are any of the following naturally problematic? Vegetation Soil Hydrology (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soil Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Remarks: Sample point taken near top of hillslope for reference.	

VEGETATION

Tree stratum (use scientific names)	Absolute % cover	Dominant Species?	Indicator Status	Dominance Test Worksheet
1. _____	_____	_____	_____	Number of Dominant Species that are OBL, FACW, or FAC? <u>0</u> (A)
2. _____	_____	_____	_____	Total number of dominant species across all strata? <u>3</u> (B)
3. _____	_____	_____	_____	% of dominant species that are OBL, FACW, or FAC? <u>0</u> (A/B)
4. _____	_____	_____	_____	
Tree Stratum Total Cover: _____				
Sapling/Shrub Stratum				
1. <u>Adenostoma fasciculatum</u>	50	Y	NL	Prevalence Index Worksheet Total % cover of: _____ Multiply by: _____ OBL species _____ x1 _____ FACW species _____ x2 _____ FAC species _____ x3 _____ FACU species <u>10</u> x4 <u>40</u> UPL species <u>90</u> x5 <u>450</u> Column Totals <u>100</u> (A) <u>490</u> (B) Prevalence Index = B/A = <u>4.9</u>
2. <u>Cercocarpus betuloides</u>	20	Y	NL	
3. <u>Ceanothus cuneatus</u>	10	_____	NL	
4. <u>Arctostaphylos glauca</u>	10	_____	_____	
Sapling/Shrub Stratum Total Cover: <u>90</u>				
Herb Stratum				
1. <u>Pteridium aquilinum var. pubescens</u>	10	Y	FACU	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Herb Stratum Total Cover: <u>10</u>				
Woody Vine Stratum				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
Woody Vine Stratum Total Cover: _____				
% Bare ground in herb stratum <u>90</u>		% cover of biotic crust _____		

Remarks:

Profile description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ¹		
0-10	10YR3/3	100					loamy sand	
10-15	10YR4/6	100					loamy sand	
15+							rock	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5)(LRR C) <input type="checkbox"/> 1cm Muck (A9)(LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 1cm Muck (A9) (LRR C) <input type="checkbox"/> 2cm Muck (A10)(LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (explain in remarks)
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³Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
--	---

Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1)(Nonriverine) <input type="checkbox"/> Sediment Deposits (B2)(Nonriverine) <input type="checkbox"/> Drift Deposits (B3)(Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in PLoWed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1)(Nonriverine) <input type="checkbox"/> Sediment Deposits (B2)(Nonriverine) <input type="checkbox"/> Drift Deposits (B3)(Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water Marks (B1)(Riverine) <input type="checkbox"/> Sediment Deposits (B2)(Riverine) <input type="checkbox"/> Drift Deposits (B3)(Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface water present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ Water table present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ Saturation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: No hydrology indicators noted.

Wetland Determination Data Form - Arid West Region

Project/Site Santa Margarita Quarry City Atascadero County San Luis Obispo Sampling Date 1/31/2008
 Applicant/Owner Lehigh Hanson Inc. State CA Sampling Point 15
 Investigator(s) WRA, Inc. Section, Township, Range _____
 Landform (hillslope, terrace, etc.) hillslope Local Relief (concave, convex, none) none Slope(%) _____
 Subregion(LRR) LRR C (Medit. CA) Lat: 35.423727 Long: -120.575586 Datum: UTM Zone10N
 Soil Map Unit Name Cieneba-Andregg complex, 30 to 75 percent slopes NWI classification none

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

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soil Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Remarks: Point taken on hillside.	

VEGETATION

Tree stratum (use scientific names)	Absolute % cover	Dominant Species?	Indicator Status	Dominance Test Worksheet
1. <u>Quercus agrifolia</u>	20	Y	NL	Number of Dominant Species that are OBL, FACW, or FAC? <u>1</u> (A)
2. _____				Total number of dominant species across all strata? <u>4</u> (B)
3. _____				% of dominant species that are OBL, FACW, or FAC? <u>25</u> (A/B)
4. _____				
Tree Stratum Total Cover: <u>20</u>				
Sapling/Shrub Stratum				
1. <u>Adenostoma fasciculatum</u>	25	Y	NL	Prevalence Index Worksheet Total % cover of: _____ Multiply by: _____ OBL species _____ x1 _____ FACW species _____ x2 _____ FAC species <u>4</u> x3 <u>12</u> FACU species <u>3</u> x4 <u>12</u> UPL species <u>52</u> x5 <u>260</u> Column Totals <u>59</u> (A) <u>284</u> (B) Prevalence Index = B/A = <u>4.8</u>
2. <u>Ceanothus cuneatus</u>	7		NL	
3. _____				
4. _____				
Sapling/Shrub Stratum Total Cover: <u>32</u>				
Herb Stratum				
1. <u>Unidentifiable annual grasses</u>	4	Y	FAC	Hydrophytic Vegetation Indicators <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is <= 3.0 ¹ <input type="checkbox"/> Morphological adaptations (provide supporting data in remarks) <input type="checkbox"/> Problematic hydrophytic vegetation ¹ (explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
2. <u>Pteridium aquilinum var. pubescens</u>	3	Y	FACU	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
Herb Stratum Total Cover: <u>7</u>				
Woody Vine Stratum				
1. _____				Hydrophytic Vegetation Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2. _____				
Woody Vine Stratum Total Cover: _____				
% Bare ground in herb stratum <u>93</u>		% cover of biotic crust _____		

Remarks: Unidentifiable grasses are unlikely to be wetland species, but were considered FAC to be conservative. Species observed in the vicinity include Avena barbata (NL), Hordeum murinum (NI), and Cynosurus echinatus (NL).

Profile description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
0-10	10YR3/3						Loamy sand
10-18	10YR3/6						Loamy sand

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5)(LRR C) <input type="checkbox"/> 1cm Muck (A9)(LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 1cm Muck (A9) (LRR C) <input type="checkbox"/> 2cm Muck (A10)(LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (explain in remarks)
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³Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1)(Nonriverine) <input type="checkbox"/> Sediment Deposits (B2)(Nonriverine) <input type="checkbox"/> Drift Deposits (B3)(Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in PLoWed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1)(Nonriverine) <input type="checkbox"/> Sediment Deposits (B2)(Nonriverine) <input type="checkbox"/> Drift Deposits (B3)(Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water Marks (B1)(Riverine) <input type="checkbox"/> Sediment Deposits (B2)(Riverine) <input type="checkbox"/> Drift Deposits (B3)(Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface water present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ Water table present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ Saturation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: No hydrology indicators noted.

Wetland Determination Data Form - Arid West Region

Project/Site Santa Margarita Quarry City Atascadero County San Luis Obispo Sampling Date 1/31/2008

Applicant/Owner Lehigh Hanson Inc. State CA Sampling Point 16

Investigator(s) WRA, Inc. Section, Township, Range _____

Landform (hillslope, terrace, etc.) ephemeral drainage Local Relief (concave, convex, none) none Slope(%) _____

Subregion(LRR) LRR C (Medit. CA) Lat: 35.422329 Long: -120.576165 Datum: UTM Zone10N

Soil Map Unit Name Cieneba-Andregg complex, 30 to 75 percent slopes NWI classification none

Are climatic/hydrologic conditions on-site typical for this time of year? Yes No (If no, explain in remarks)

Are any of the following significantly disturbed? Vegetation Soil Hydrology Are "Normal Circumstances" present? Yes No

Are any of the following naturally problematic? Vegetation Soil Hydrology (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soil Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>Remarks: Point taken near the access road in the largest drainage on the property, determined to be a "Waters of the US." OHW marks include deposition, shelving, and the presence of water-deposited litter & debris. Disturbance: The nearby access road has apparently increased both flow and sedimentation in this feature. Sediment (sand) has filled the channel so that the original width cannot be determined, and upland plants are partially buried.</p>	

VEGETATION

Tree stratum (use scientific names)	Absolute % cover	Dominant Species?	Indicator Status	Dominance Test Worksheet
1. _____	_____	_____	_____	Number of Dominant Species that are OBL, FACW, or FAC? <u>0</u> (A)
2. _____	_____	_____	_____	Total number of dominant species across all strata? <u>5</u> (B)
3. _____	_____	_____	_____	% of dominant species that are OBL, FACW, or FAC? <u>0</u> (A/B)
4. _____	_____	_____	_____	
Tree Stratum Total Cover: _____				
Sapling/Shrub Stratum				
1. <u>Cercocarpus betuloides</u>	15	Y	NL	Prevalence Index Worksheet Total % cover of: _____ Multiply by: _____ OBL species _____ x1 _____ FACW species _____ x2 _____ FAC species _____ x3 _____ FACU species _____ x4 _____ UPL species <u>55</u> x5 <u>275</u> Column Totals <u>55</u> (A) <u>275</u> (B) Prevalence Index = B/A = <u>5.0</u>
2. <u>Adenostoma fasciculatum</u>	15	Y	NL	
3. <u>Toxicodendron diversilobum</u>	10	Y	NL	
4. <u>Quercus berberidifolia</u>	10	Y	NL	
Sapling/Shrub Stratum Total Cover: <u>50</u>				
Herb Stratum				
1. <u>Torilis arvensis</u>	5	Y	NL	Hydrophytic Vegetation Indicators <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is <= 3.0 ¹ <input type="checkbox"/> Morphological adaptations (provide supporting data in remarks) <input type="checkbox"/> Problematic hydrophytic vegetation ¹ (explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Herb Stratum Total Cover: <u>5</u>				
Woody Vine Stratum				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2. _____	_____	_____	_____	
Woody Vine Stratum Total Cover: _____				
% Bare ground in herb stratum <u>95</u>		% cover of biotic crust _____		

Remarks: No herbaceous vegetation in channel bottom-- channel completely filled with eroded sand. Much of nearby herbaceous stratum is too small to ID or be significant.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ¹		
0-4	10YR4/6	100					sand	sand is coarse and washed clean.
4-15	10YR3/3	100					loamy sand	
15-19	10YR4/4	80					loamy sand	saturated.
15+		20					rock	

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

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

Indicators for Problematic Hydric Soils³:

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

- 1cm Muck (A9) (LRR C)
- 2cm Muck (A10)(LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (explain in remarks)

³Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present ? Yes No

Remarks: At least the upper 4-12" of soil (sand) has been deposited by stormwater runoff. Water appears to be perched on a layer of bedrock that starts around 15".

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

Secondary Indicators (2 or more required)

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

- 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 Depth (inches): _____

Water table present? Yes No Depth (inches): 17

Saturation Present? Yes No Depth (inches): 13
(includes capillary fringe)

Wetland Hydrology Present ? Yes No

Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: Both flow and sediment deposition have been greatly increased by runoff from the nearby road. A great deal of sand has recently washed off the road and into this gully. Flow appears to be intermittent and infrequent (only after heavy rainfall), and probably happens mostly subsurface. Negative alpha-alpha dipuridyl test from 15-18". OHW marks include deposition, shelving, and the presence of water-deposited litter & debris.

Wetland Determination Data Form - Arid West Region

Project/Site Santa Margarita Quarry City Atascadero County San Luis Obispo Sampling Date 1/31/2008
 Applicant/Owner Lehigh Hanson Inc. State CA Sampling Point 17
 Investigator(s) WRA, Inc. Section, Township, Range _____
 Landform (hillslope, terrace, etc.) gully Local Relief (concave, convex, none) none Slope(%) _____
 Subregion(LRR) LRR C (Medit. CA) Lat: 35.421052 Long: -120.577209 Datum: UTM Zone10N
 Soil Map Unit Name Cieneba coarse sandy loam, 30 to 75 percent slopes NWI classification none

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

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soil Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Remarks: Sample point taken in an erosional gully south of the Project Area. Surface water flow in this feature would only happen after heavy rainfall events. Any other flow would be subsurface in sandy material. No clear OHW marks are present.	

VEGETATION

Tree stratum (use scientific names)	Absolute % cover	Dominant Species?	Indicator Status	Dominance Test Worksheet	
1. _____	_____	_____	_____	Number of Dominant Species that are OBL, FACW, or FAC?	0 (A)
2. _____	_____	_____	_____	Total number of dominant species across all strata?	2 (B)
3. _____	_____	_____	_____	% of dominant species that are OBL, FACW, or FAC?	0 (A/B)
4. _____	_____	_____	_____		
Tree Stratum Total Cover: _____					
Sapling/Shrub Stratum					
1. <i>Adenostoma fasciculatum</i>	65	Y	NL	Prevalence Index Worksheet Total % cover of: _____ Multiply by: _____ OBL species _____ x1 _____ FACW species _____ x2 _____ FAC species _____ x3 _____ FACU species _____ x4 _____ UPL species <u>90</u> x5 <u>450</u> Column Totals <u>90</u> (A) <u>450</u> (B) Prevalence Index = B/A = <u>5.0</u>	
2. <i>Salvia mellifera</i>	25	Y	NL		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
Sapling/Shrub Stratum Total Cover: 90					
Herb Stratum					
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is <= 3.0 ¹ <input type="checkbox"/> Morphological adaptations (provide supporting data in remarks) <input type="checkbox"/> Problematic hydrophytic vegetation ¹ (explain) ¹ Indicators of hydric soil and wetland hydrology must be present.	
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
Herb Stratum Total Cover: _____					
Woody Vine Stratum					
1. _____	_____	_____	_____	Hydrophytic Vegetation Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
2. _____	_____	_____	_____		
Woody Vine Stratum Total Cover: _____					
% Bare ground in herb stratum _____		% cover of biotic crust _____			

Remarks: Gully bottom is shaded by shrubs on upper slopes, and soil is buried in sand and leaf litter, preventing significant herbaceous growth.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ¹		
0-9	10YR3/3	100					sand	coarse
9-18	10YR4/6	100					sand	coarse

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

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

Indicators for Problematic Hydric Soils³:

- | | | |
|--|---|---|
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> 1cm Muck (A9) (LRR C) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> 2cm Muck (A10)(LRR B) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Mucky Mineral (F1) | <input type="checkbox"/> Reduced Vertic (F18) |
| <input type="checkbox"/> Stratified Layers (A5)(LRR C) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> 1cm Muck (A9)(LRR D) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Other (explain in remarks) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Redox Dark Surface (F6) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Depleted Dark Surface (F7) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Vernal Pools (F9) | |

³Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present ? Yes No

Remarks: Upper 4+ inches is sand eroded from upper slopes.

HYDROLOGY

Wetland Hydrology Indicators:

Secondary Indicators (2 or more required)

- | | | |
|--|--|--|
| <u>Primary Indicators (any one indicator is sufficient)</u> | | |
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) | <input type="checkbox"/> Water Marks (B1)(Riverine) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) | <input checked="" type="checkbox"/> Sediment Deposits (B2)(Riverine) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) | <input type="checkbox"/> Drift Deposits (B3)(Riverine) |
| <input type="checkbox"/> Water Marks (B1)(Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input checked="" type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Sediment Deposits (B2)(Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3)(Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in PLoWed Soils (C6) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | | <input type="checkbox"/> Shallow Aquitard (D3) |
| | | <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:
 Surface water present? Yes No Depth (inches): _____
 Water table present? Yes No Depth (inches): _____
 Saturation Present? Yes No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present ? Yes No

Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: Erosion and runoff after heavy rain events are evident. However, there are no clear OHW marks. The watershed area is too small and the gully is too steep to support frequent or prolonged flow.

Wetland Determination Data Form - Arid West Region

Project/Site Santa Margarita Quarry City Atascadero County San Luis Obispo Sampling Date 1/31/2008

Applicant/Owner Lehigh Hanson Inc. State CA Sampling Point 18

Investigator(s) WRA, Inc. Section, Township, Range _____

Landform (hillslope, terrace, etc.) _____ Local Relief (concave, convex, none) _____ Slope(%) _____

Subregion(LRR) LRR C (Medit. CA) Lat: 35.420294 Long: -120.576902 Datum: UTM Zone10N

Soil Map Unit Name Cieneba-Andregg complex, 30 to 75 percent slopes NWI classification _____

Are climatic/hydrologic conditions on-site typical for this time of year? Yes No (If no, explain in remarks)

Are any of the following significantly disturbed? Vegetation Soil Hydrology Are "Normal Circumstances" present? Yes No

Are any of the following naturally problematic? Vegetation Soil Hydrology (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soil Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Remarks: Sample point is in a very overgrown drainage on the southwest side of the property.	

VEGETATION

Tree stratum (use scientific names)	Absolute % cover	Dominant Species?	Indicator Status	Dominance Test Worksheet
1. _____	_____	_____	_____	Number of Dominant Species that are OBL, FACW, or FAC? _____ (A)
2. _____	_____	_____	_____	Total number of dominant species across all strata? _____ (B)
3. _____	_____	_____	_____	% of dominant species that are OBL, FACW, or FAC? _____ (A/B)
4. _____	_____	_____	_____	
Tree Stratum Total Cover: _____				
Sapling/Shrub Stratum				Prevalence Index Worksheet
1. <u>Salvia mellifera</u>	40	Y	NL	Total % cover of: _____ Multiply by: _____
2. <u>Heteromeles arbutifolia</u>	22	Y	NL	OBL species _____ x1 _____
3. <u>Adenostema fasciculatum</u>	15	_____	NL	FACW species _____ x2 _____
4. <u>Ceanothus cuneatus</u>	8	_____	NL	FAC species _____ x3 _____
Sapling/Shrub Stratum Total Cover: 85				FACU species _____ x4 _____
Herb Stratum				UPL species <u>90</u> x5 <u>450</u>
1. <u>Eriogonum fasciculatum</u>	5	Y	NL	Column Totals <u>90</u> (A) <u>450</u> (B)
2. _____	_____	_____	_____	Prevalence Index = B/A = <u>5.0</u>
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Herb Stratum Total Cover: 5				
Woody Vine Stratum				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
Woody Vine Stratum Total Cover: _____				
% Bare ground in herb stratum _____ % cover of biotic crust _____				Hydrophytic Vegetation Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Remarks: Drainage bottom is shaded by shrubs on upper slopes, and soil is buried in leaf litter, preventing significant herbaceous growth.

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ¹		
0-10	10YR3/3	50					sand	coarse
0-10	10YR3/2	50					loamy sand	
10-18	10YR3/4	100					sand	sand is very coarse, almost gravel

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

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

Indicators for Problematic Hydric Soils³:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)(LRR C)
- 1cm 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)

- 1cm Muck (A9) (LRR C)
- 2cm Muck (A10)(LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (explain in remarks)

³Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present ? Yes No

Remarks: 2" layer of leaf litter on top of soil. Upper 4" of soil has white mold in it (in the root zone). Heavy gravelly layer starting around 13" -- this is apparently decomposed bedrock.

HYDROLOGY

Wetland Hydrology Indicators:

Secondary Indicators (2 or more required)

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)

- 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 Depth (inches): _____
 Water table present? Yes No Depth (inches): _____
 Saturation Present? Yes No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present ? Yes No

Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: Point taken in an erosional gully. Soil is damp, but not saturated. No OHWM, but channel is 18-24" wide based on topography.

Wetland Determination Data Form - Arid West Region

Project/Site Santa Margarita Quarry City Atascadero County San Luis Obispo Sampling Date 1/31/2008

Applicant/Owner Lehigh Hanson Inc. State CA Sampling Point 19

Investigator(s) WRA, Inc. Section, Township, Range _____

Landform (hillslope, terrace, etc.) _____ Local Relief (concave, convex, none) _____ Slope(%) _____

Subregion(LRR) LRR C (Medit. CA) Lat: 35.419388 Long: -120.576744 Datum: UTM Zone10N

Soil Map Unit Name Cieneba-Andregg complex, 30 to 75 percent slopes NWI classification _____

Are climatic/hydrologic conditions on-site typical for this time of year? Yes No (If no, explain in remarks)

Are any of the following significantly disturbed? Vegetation Soil Hydrology Are "Normal Circumstances" present? Yes No

Are any of the following naturally problematic? Vegetation Soil Hydrology (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input type="checkbox"/> No
Remarks: Sample point taken in a large erosional gully which appears to be full of sediment washed off of the nearby quarry.	

VEGETATION

Tree stratum (use scientific names)	Absolute % cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC? _____ (A) Total number of dominant species across all strata? _____ (B) % of dominant species that are OBL, FACW, or FAC? _____ (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Tree Stratum Total Cover: _____				Prevalence Index Worksheet Total % cover of: _____ Multiply by: _____ OBL species _____ x1 _____ FACW species _____ x2 _____ FAC species _____ x3 _____ FACU species _____ x4 _____ UPL species <u>90</u> x5 <u>450</u> Column Totals <u>90</u> (A) <u>450</u> (B) Prevalence Index = B/A = <u>5.0</u>
Sapling/Shrub Stratum				
1. <u>Adenostema fasciculatum</u>	<u>45</u>	_____	<u>NL</u>	
2. <u>Salvia mellifera</u>	<u>35</u>	_____	<u>NL</u>	
3. <u>Ceanothus cuneatus</u>	<u>7</u>	_____	<u>NL</u>	
4. <u>Arctostaphylos glauca</u>	<u>3</u>	_____	<u>NL</u>	
Sapling/Shrub Stratum Total Cover: <u>90</u>				
Herb Stratum				Hydrophytic Vegetation Indicators <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is <=/= 3.0 ¹ <input type="checkbox"/> Morphological adaptations (provide supporting data in remarks) <input type="checkbox"/> Problematic hydrophytic vegetation ¹ (explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Herb Stratum Total Cover: <u>0</u>				
Woody Vine Stratum				Hydrophytic Vegetation Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
Woody Vine Stratum Total Cover: _____				
% Bare ground in herb stratum _____ % cover of biotic crust _____				

Remarks: The only vegetation actually rooted in the channel bottom is Salvia mellifera with 30% cover.

Profile description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ¹		
0-12	10YR4/6	100					sand	sand is coarse, washed clean
12-15	10YR3/4	70					loamy sand	
12-15	10YR3/3	30					loamy sand	
15-18	10YR3/4	100					loamy sand	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5)(LRR C) <input type="checkbox"/> 1cm Muck (A9)(LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 1cm Muck (A9) (LRR C) <input type="checkbox"/> 2cm Muck (A10)(LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (explain in remarks)
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5)(LRR C) <input type="checkbox"/> 1cm Muck (A9)(LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)

³Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Remarks: Soil is moist near the surface.

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1)(Nonriverine) <input checked="" type="checkbox"/> Sediment Deposits (B2)(Nonriverine) <input type="checkbox"/> Drift Deposits (B3)(Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in PLoWed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1)(Nonriverine) <input checked="" type="checkbox"/> Sediment Deposits (B2)(Nonriverine) <input type="checkbox"/> Drift Deposits (B3)(Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water Marks (B1)(Riverine) <input type="checkbox"/> Sediment Deposits (B2)(Riverine) <input type="checkbox"/> Drift Deposits (B3)(Riverine) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface water present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ Water table present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ Saturation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present ? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
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Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: Point is in an erosional channel. The erosion seen here appears to be man-induced, from an exposed slope at the top of the hill. Erosional channel is 12" wide at the bottom, 18-24" wide above this; total sand deposited in channel ia about 6' wide in the channel bottom. A great deal of water appears to have flowed in this channel recently.

Wetland Determination Data Form - Arid West Region

Project/Site Santa Margarita Quarry City Atascadero County San Luis Obispo Sampling Date 1/31/2008

Applicant/Owner Lehigh Hanson Inc. State CA Sampling Point 20

Investigator(s) WRA, Inc. Section, Township, Range _____

Landform (hillslope, terrace, etc.) _____ Local Relief (concave, convex, none) _____ Slope(%) _____

Subregion(LRR) LRR C (Medit. CA) Lat: 35.419358 Long: -120.576172 Datum: UTM Zone10N

Soil Map Unit Name Cieneba-Andregg complex, 30 to 75 percent slopes NWI classification _____

Are climatic/hydrologic conditions on-site typical for this time of year? Yes No (If no, explain in remarks)

Are any of the following significantly disturbed? Vegetation Soil Hydrology Are "Normal Circumstances" present? Yes No

Are any of the following naturally problematic? Vegetation Soil Hydrology (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soil Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Remarks: Sample point taken on sandy, disturbed soil slope near quarry pit. Problematic vegetation: grasses too young to identify.	

VEGETATION

Tree stratum (use scientific names)	Absolute % cover	Dominant Species?	Indicator Status	Dominance Test Worksheet
1. _____	_____	_____	_____	Number of Dominant Species that are OBL, FACW, or FAC? _____ (A)
2. _____	_____	_____	_____	Total number of dominant species across all strata? _____ (B)
3. _____	_____	_____	_____	% of dominant species that are OBL, FACW, or FAC? _____ (A/B)
4. _____	_____	_____	_____	
Tree Stratum Total Cover: _____				
Sapling/Shrub Stratum				Prevalence Index Worksheet
1. _____	_____	_____	_____	Total % cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL species _____ x1 _____
3. _____	_____	_____	_____	FACW species _____ x2 _____
4. _____	_____	_____	_____	FAC species <u>15</u> x3 <u>45</u>
Sapling/Shrub Stratum Total Cover: _____				FACU species _____ x4 _____
Herb Stratum				UPL species <u>15</u> x5 <u>75</u>
1. <i>Erodium cicutarium</i>	15		NL	Column Totals <u>30</u> (A) <u>120</u> (B)
2. <i>Unidentifiable annual grasses</i>	15		FAC	Prevalence Index = B/A = <u>4.0</u>
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Herb Stratum Total Cover: 30				
Woody Vine Stratum				Hydrophytic Vegetation Indicators
1. _____	_____	_____	_____	<input type="checkbox"/> Dominance Test is >50%
2. _____	_____	_____	_____	<input type="checkbox"/> Prevalence Index is <= 3.0 ¹
Woody Vine Stratum Total Cover: _____				<input type="checkbox"/> Morphological adaptations (provide supporting data in remarks)
% Bare ground in herb stratum _____ % cover of biotic crust _____				<input type="checkbox"/> Problematic hydrophytic vegetation ¹ (explain)

Remarks: Many dead weeds from last year are present, probably Brassica or Centaurium solstitialis. Unidentifiable grasses are unlikely to be wetland species, but were considered FAC to be conservative. Species observed in the vicinity include Avena barbata (NL), Hordeum murinum (NI), and Cynosurus echinatus (NL).

Wetland Determination Data Form - Arid West Region

Project/Site Santa Margarita Quarry City Atascadero County San Luis Obispo Sampling Date 1/31/2008
 Applicant/Owner Lehigh Hanson Inc. State CA Sampling Point 21
 Investigator(s) WRA, Inc. Section, Township, Range _____
 Landform (hillslope, terrace, etc.) hillslope Local Relief (concave, convex, none) none Slope(%) _____
 Subregion(LRR) LRR C (Medit. CA) Lat: 35.421141 Long: -120.576325 Datum: UTM Zone10N
 Soil Map Unit Name Cieneba coarse sandy loam, 30 to 75 percent slopes NWI classification none

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

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soil Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Remarks: Point taken near slope-top for reference.	

VEGETATION

Tree stratum (use scientific names)	Absolute % cover	Dominant Species?	Indicator Status	Dominance Test Worksheet	
1. _____	_____	_____	_____	Number of Dominant Species that are OBL, FACW, or FAC?	0 (A)
2. _____	_____	_____	_____	Total number of dominant species across all strata?	3 (B)
3. _____	_____	_____	_____	% of dominant species that are OBL, FACW, or FAC?	0 (A/B)
4. _____	_____	_____	_____		
Tree Stratum Total Cover: _____					
Sapling/Shrub Stratum				Prevalence Index Worksheet	
1. <i>Ceanothus cuneatus</i>	50	Y	NL	Total % cover of:	Multiply by:
2. <i>Adenostoma fasciculatum</i>	30	Y	NL	OBL species _____	x1 _____
3. <i>Salvia mellifera</i>	20	Y	NL	FACW species _____	x2 _____
4. _____	_____	_____	_____	FAC species _____	x3 _____
Sapling/Shrub Stratum Total Cover: 100				FACU species _____	x4 _____
Herb Stratum				UPL species <u>100</u>	x5 <u>500</u>
1. _____	_____	_____	_____	Column Totals <u>100</u> (A) <u>500</u> (B)	
2. _____	_____	_____	_____	Prevalence Index = B/A = <u>5.0</u>	
3. _____	_____	_____	_____	Hydrophytic Vegetation Indicators	
4. _____	_____	_____	_____	<input type="checkbox"/> Dominance Test is >50%	
5. _____	_____	_____	_____	<input type="checkbox"/> Prevalence Index is <= 3.0 ¹	
6. _____	_____	_____	_____	<input type="checkbox"/> Morphological adaptations (provide supporting data in remarks)	
7. _____	_____	_____	_____	<input type="checkbox"/> Problematic hydrophytic vegetation ¹ (explain)	
8. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present.	
Herb Stratum Total Cover: _____					
Woody Vine Stratum				Hydrophytic Vegetation Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
Woody Vine Stratum Total Cover: _____					
% Bare ground in herb stratum <u>100</u>		% cover of biotic crust _____			

Remarks: Vegetation is thick chaparral ~8' tall.

Profile description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ¹		
0-18	10YR3/2	100					Loamy sand	Sand is finer than elsewhere on site.

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5)(LRR C) <input type="checkbox"/> 1cm Muck (A9)(LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 1cm Muck (A9) (LRR C) <input type="checkbox"/> 2cm Muck (A10)(LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (explain in remarks)
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³Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1)(Nonriverine) <input type="checkbox"/> Sediment Deposits (B2)(Nonriverine) <input type="checkbox"/> Drift Deposits (B3)(Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in PLoWed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1)(Nonriverine) <input type="checkbox"/> Sediment Deposits (B2)(Nonriverine) <input type="checkbox"/> Drift Deposits (B3)(Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water Marks (B1)(Riverine) <input type="checkbox"/> Sediment Deposits (B2)(Riverine) <input type="checkbox"/> Drift Deposits (B3)(Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface water present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ Water table present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ Saturation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: No hydrology indicators observed.

Wetland Determination Data Form - Arid West Region

Project/Site Santa Margarita Quarry City Atascadero County San Luis Obispo Sampling Date 3/27/2008

Applicant/Owner Lehigh Hanson Inc. State CA Sampling Point 22

Investigator(s) WRA, Inc. Section, Township, Range _____

Landform (hillslope, terrace, etc.) draw Local Relief (concave, convex, none) none Slope(%) _____

Subregion(LRR) LRR C (Medit. CA) Lat: 35.421141 Long: -120.576325 Datum: UTM Zone10N

Soil Map Unit Name Cieneba-Andregg complex, 30 to 75 percent slopes NWI classification none

Are climatic/hydrologic conditions on-site typical for this time of year? Yes No (If no, explain in remarks)

Are any of the following significantly disturbed? Vegetation Soil Hydrology Are "Normal Circumstances" present? Yes No

Are any of the following naturally problematic? Vegetation Soil Hydrology (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soil Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Remarks: Point taken in a draw on the western side of the property. Despite topographic position, there is little evidence that this feature ever conducts flowing surface water. No OHW marks are present.	

VEGETATION

Tree stratum (use scientific names)	Absolute % cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC? <u>0</u> (A) Total number of dominant species across all strata? <u>3</u> (B) % of dominant species that are OBL, FACW, or FAC? <u>0</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Tree Stratum Total Cover: _____				Prevalence Index Worksheet Total % cover of: _____ Multiply by: _____ OBL species _____ x1 _____ FACW species _____ x2 _____ FAC species <u>10</u> x3 <u>30</u> FACU species <u>30</u> x4 <u>120</u> UPL species <u>45</u> x5 <u>225</u> Column Totals <u>85</u> (A) <u>375</u> (B) Prevalence Index = B/A = <u>4.4</u>
<u>Sapling/Shrub Stratum</u>				
1. <i>Toxicodendron diversilobum</i>	20	Y	NL	
2. <i>Prunus ilicifolius</i>	10	Y	NL	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Sapling/Shrub Stratum Total Cover: <u>30</u>				
<u>Herb Stratum</u>				
1. <i>Thalictrum fendleri</i> var. <i>polycarpum</i>	30	Y	FACU	
2. <i>Claytonia perfoliata</i> ssp. <i>mexicana</i>	10		FAC	
3. <i>Torilis arvensis</i>	10		NL	
4. <i>Marah fabaceus</i>	5		NL	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Herb Stratum Total Cover: <u>55</u>				
<u>Woody Vine Stratum</u>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
Woody Vine Stratum Total Cover: _____				
% Bare ground in herb stratum <u>45</u>		% cover of biotic crust _____		Hydrophytic Vegetation Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <small>¹Indicators of hydric soil and wetland hydrology must be present.</small>

Remarks:

Profile description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ¹		
0-4	10YR3/3	100					sand	many fine roots
4-12	10YR3/3	80					sand	coarse
4-12		20					gravel	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5)(LRR C) <input type="checkbox"/> 1cm Muck (A9)(LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 1cm Muck (A9) (LRR C) <input type="checkbox"/> 2cm Muck (A10)(LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (explain in remarks)
---	---	---

³Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
--	---

Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1)(Nonriverine) <input type="checkbox"/> Sediment Deposits (B2)(Nonriverine) <input type="checkbox"/> Drift Deposits (B3)(Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in PLoWed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1)(Nonriverine) <input type="checkbox"/> Sediment Deposits (B2)(Nonriverine) <input type="checkbox"/> Drift Deposits (B3)(Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water Marks (B1)(Riverine) <input type="checkbox"/> Sediment Deposits (B2)(Riverine) <input type="checkbox"/> Drift Deposits (B3)(Riverine) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface water present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ Water table present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ Saturation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: Erosion is evident, and leaves and twigs have collected in the bottom of the draw, but there is little to suggest that it was caused by water rather than gravity and natural processes. Any water drainage in this feature is likely to happen subsurface.

Wetland Determination Data Form - Arid West Region

Project/Site Santa Margarita Quarry City Atascadero County San Luis Obispo Sampling Date 3/27/2008

Applicant/Owner Lehigh Hanson Inc. State CA Sampling Point 23

Investigator(s) WRA, Inc. Section, Township, Range _____

Landform (hillslope, terrace, etc.) draw/drainage Local Relief (concave, convex, none) none Slope(%) _____

Subregion(LRR) LRR C (Medit. CA) Lat: 35.421141 Long: -120.576325 Datum: UTM Zone10N

Soil Map Unit Name Cieneba-Andregg complex, 30 to 75 percent slopes NWI classification none

Are climatic/hydrologic conditions on-site typical for this time of year? Yes No (If no, explain in remarks)

Are any of the following significantly disturbed? Vegetation Soil Hydrology Are "Normal Circumstances" present? Yes No

Are any of the following naturally problematic? Vegetation Soil Hydrology (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soil Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Remarks: Point taken in same drainage as points 10, 13, and 22, near northern edge of property. A better-defined channel is present north of this point (off-site), but no channel is evident here. No OHW marks are present.	

VEGETATION

Tree stratum (use scientific names)	Absolute % cover	Dominant Species?	Indicator Status	Dominance Test Worksheet
1. _____	_____	_____	_____	Number of Dominant Species that are OBL, FACW, or FAC? <u>1</u> (A)
2. _____	_____	_____	_____	Total number of dominant species across all strata? <u>2</u> (B)
3. _____	_____	_____	_____	% of dominant species that are OBL, FACW, or FAC? <u>50</u> (A/B)
4. _____	_____	_____	_____	
Tree Stratum Total Cover: _____				
Sapling/Shrub Stratum				Prevalence Index Worksheet
1. _____	_____	_____	_____	Total % cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL species _____ x1 _____
3. _____	_____	_____	_____	FACW species _____ x2 _____
4. _____	_____	_____	_____	FAC species <u>35</u> x3 <u>105</u>
Sapling/Shrub Stratum Total Cover: _____				FACU species _____ x4 _____
Herb Stratum				UPL species <u>62</u> x5 <u>310</u>
1. <i>Hordeum murinum</i>	40	Y	NI	Column Totals <u>97</u> (A) <u>415</u> (B)
2. <i>Claytonia perfoliata ssp. mexicana</i>	30	Y	FAC	Prevalence Index = B/A = <u>4.3</u>
3. <i>Thysanocarpus curvipes</i>	15		NL	
4. <i>Carduus pycnocephalus</i>	5		NL	
5. <i>Unidentifiable perennial grass</i>	5		FAC	
6. <i>Amsinckia menziesii var. intermedia</i>	2		NL	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Herb Stratum Total Cover: <u>97</u>				
Woody Vine Stratum				Hydrophytic Vegetation Indicators
1. _____	_____	_____	_____	<input type="checkbox"/> Dominance Test is >50%
2. _____	_____	_____	_____	<input type="checkbox"/> Prevalence Index is <= 3.0 ¹
Woody Vine Stratum Total Cover: _____				<input type="checkbox"/> Morphological adaptations (provide supporting data in remarks)
% Bare ground in herb stratum <u>3</u> % cover of biotic crust _____				<input type="checkbox"/> Problematic hydrophytic vegetation ¹ (explain)

Remarks:

SOIL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ¹		
0-4	10YR3/3	100					Loamy sand	many fine roots
4-18	10YR3/3	100					sand	coarse, with gravel-sized rock

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

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

Indicators for Problematic Hydric Soils³:

- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)(LRR C)
- 1cm 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)

- 1cm Muck (A9) (LRR C)
- 2cm Muck (A10)(LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (explain in remarks)

³Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present ? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

Secondary Indicators (2 or more required)

- 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)

- 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 Depth (inches): _____
 Water table present? Yes No Depth (inches): _____
 Saturation Present? Yes No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present ? Yes No

Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: No hydrology indicators observed.

Wetland Determination Data Form - Arid West Region

Project/Site Santa Margarita Quarry City Atascadero County San Luis Obispo Sampling Date 3/27/2008
 Applicant/Owner Lehigh Hanson Inc. State CA Sampling Point 24
 Investigator(s) WRA, Inc. Section, Township, Range _____
 Landform (hillslope, terrace, etc.) draw Local Relief (concave, convex, none) none Slope(%) _____
 Subregion(LRR) LRR C (Medit. CA) Lat: 35.421141 Long: -120.576325 Datum: UTM Zone10N
 Soil Map Unit Name Cieneba-Andregg complex, 30 to 75 percent slopes NWI classification none

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

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soil Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Remarks: A draw with marginal indicators of surface flow after rain events. No clear OHW marks are present. About 20' south of the sample point, the feature is covered in dense Toxicodendron.	

VEGETATION

Tree stratum (use scientific names)	Absolute % cover	Dominant Species?	Indicator Status	Dominance Test Worksheet
1. _____	_____	_____	_____	Number of Dominant Species that are OBL, FACW, or FAC? <u>1</u> (A)
2. _____	_____	_____	_____	Total number of dominant species across all strata? <u>3</u> (B)
3. _____	_____	_____	_____	% of dominant species that are OBL, FACW, or FAC? <u>33</u> (A/B)
4. _____	_____	_____	_____	
Tree Stratum Total Cover: _____				
Sapling/Shrub Stratum				
1. <u>Toxicodendron diversilobum</u>	<u>20</u>	<u>Y</u>	<u>NL</u>	Prevalence Index Worksheet Total % cover of: _____ Multiply by: _____ OBL species _____ x1 _____ FACW species _____ x2 _____ FAC species <u>25</u> x3 <u>75</u> FACU species <u>15</u> x4 <u>60</u> UPL species <u>17</u> x5 <u>85</u> Column Totals <u>57</u> (A) <u>220</u> (B) Prevalence Index = B/A = <u>3.9</u>
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Sapling/Shrub Stratum Total Cover: <u>20</u>				
Herb Stratum				
1. <u>Claytonia perfoliata ssp. mexicana</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is <= 3.0 ¹ <input type="checkbox"/> Morphological adaptations (provide supporting data in remarks) <input type="checkbox"/> Problematic hydrophytic vegetation ¹ (explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
2. <u>Thalictrum fendleri var. polycarpum</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>	
3. <u>Marah fabaceus</u>	<u>5</u>	_____	<u>NL</u>	
4. <u>Torilis arvensis</u>	<u>5</u>	_____	<u>NL</u>	
5. <u>Sanicula crassicaulis</u>	<u>5</u>	_____	<u>NL</u>	
6. <u>Unidentifiable annual grasses</u>	<u>5</u>	_____	<u>FAC</u>	
7. <u>Saxifraga californica</u>	<u>2</u>	_____	<u>NL</u>	
8. _____	_____	_____	_____	
Herb Stratum Total Cover: <u>57</u>				
Woody Vine Stratum				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2. _____	_____	_____	_____	
Woody Vine Stratum Total Cover: _____				
% Bare ground in herb stratum <u>43</u>		% cover of biotic crust _____		

Remarks: Unidentifiable grasses are unlikely to be wetland species, but were considered FAC to be conservative. Species observed in the vicinity include Avena barbata (NL), Hordeum murinum (NI), and Cynosurus echinatus (NL).

Profile description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ¹		
0-12	10YR3/2	100					loamy sand	10% gravel in profile

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5)(LRR C) <input type="checkbox"/> 1cm Muck (A9)(LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 1cm Muck (A9) (LRR C) <input type="checkbox"/> 2cm Muck (A10)(LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (explain in remarks)
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³Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Remarks: Soil surface is gravelly.

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1)(Nonriverine) <input type="checkbox"/> Sediment Deposits (B2)(Nonriverine) <input type="checkbox"/> Drift Deposits (B3)(Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in PLoWed Soils (C6) <input checked="" type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1)(Nonriverine) <input type="checkbox"/> Sediment Deposits (B2)(Nonriverine) <input type="checkbox"/> Drift Deposits (B3)(Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water Marks (B1)(Riverine) <input type="checkbox"/> Sediment Deposits (B2)(Riverine) <input type="checkbox"/> Drift Deposits (B3)(Riverine) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface water present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ Water table present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ Saturation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present ? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
---	---

Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: Topographic position used as an indicator that this feature may conduct surface water during heavy rainfall events. Very marginal indicators of hydrology. Drainage patterns are not continuous along the length of the feature-- some areas have no indication of ever having flowing water. No clear indicators of OHW are present.

Wetland Determination Data Form - Arid West Region

Project/Site Santa Margarita Quarry City Atascadero County San Luis Obispo Sampling Date 3/27/2008
 Applicant/Owner Lehigh Hanson Inc. State CA Sampling Point 25
 Investigator(s) WRA, Inc. Section, Township, Range _____
 Landform (hillslope, terrace, etc.) draw/drainage Local Relief (concave, convex, none) none Slope(%) _____
 Subregion(LRR) LRR C (Medit. CA) Lat: 35.421141 Long: -120.576325 Datum: UTM Zone10N
 Soil Map Unit Name Cieneba-Andregg complex, 30 to 75 percent slopes NWI classification none

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

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soil Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Remarks: Point taken in same drainage as Point 24, but further north/downstream. Flowing surface water is present approximately 25' to the north (off-site), in a channel approximately 3' wide. This feature was not considered a "Water of the US" because there are no sufficient OHW marks within the Project Area.	

VEGETATION

Tree stratum (use scientific names)	Absolute % cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC? <u>1</u> (A) Total number of dominant species across all strata? <u>2</u> (B) % of dominant species that are OBL, FACW, or FAC? <u>50</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Tree Stratum Total Cover: _____				Prevalence Index Worksheet Total % cover of: _____ Multiply by: _____ OBL species _____ x1 _____ FACW species _____ x2 _____ FAC species <u>70</u> x3 <u>210</u> FACU species <u>10</u> x4 <u>40</u> UPL species <u>42</u> x5 <u>210</u> Column Totals <u>122</u> (A) <u>460</u> (B) Prevalence Index = B/A = <u>3.8</u>
Sapling/Shrub Stratum				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
Sapling/Shrub Stratum Total Cover: _____				Hydrophytic Vegetation Indicators <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is <= 3.0 ¹ <input type="checkbox"/> Morphological adaptations (provide supporting data in remarks) <input type="checkbox"/> Problematic hydrophytic vegetation ¹ (explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
Herb Stratum				
1. <u>Unidentifiable annual grasses</u>	40	Y	FAC	
2. <u>Torilis arvensis</u>	30	Y	NL	
3. <u>Claytonia perfoliata ssp. mexicana</u>	20		FAC	
4. <u>Unidentifiable perennial grass</u>	10		FAC	
5. <u>Marah fabaceus</u>	10		NL	
6. <u>Thalictrum fendleri var. polycarpum</u>	10		FACU	
7. <u>Amsinckia menziesii var. intermedia</u>	2		NL	
8. _____	_____	_____	_____	Hydrophytic Vegetation Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Herb Stratum Total Cover: <u>122</u>				
Woody Vine Stratum				Hydrophytic Vegetation Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	Hydrophytic Vegetation Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Woody Vine Stratum Total Cover: _____				
% Bare ground in herb stratum <u>0</u>		% cover of biotic crust _____		

Remarks: Unidentifiable grasses are unlikely to be wetland species, but were considered FAC to be conservative. Species observed in the vicinity include Avena barbata (NL), Hordeum murinum (NI), and Cynosurus echinatus (NL).

Profile description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ¹		
0-4	10YR3/2	100					loamy sand	charcoal in profile
4-12	10YR3/3	100					gravelly sand	very coarse

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5)(LRR C) <input type="checkbox"/> 1cm Muck (A9)(LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 1cm Muck (A9) (LRR C) <input type="checkbox"/> 2cm Muck (A10)(LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (explain in remarks)
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³Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
--	---

Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1)(Nonriverine) <input type="checkbox"/> Sediment Deposits (B2)(Nonriverine) <input type="checkbox"/> Drift Deposits (B3)(Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in PLoWed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Water Marks (B1)(Riverine) <input type="checkbox"/> Sediment Deposits (B2)(Riverine) <input type="checkbox"/> Drift Deposits (B3)(Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)	

Field Observations: Surface water present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ Water table present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Depth (inches): 0 Saturation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Depth (inches): 0 (includes capillary fringe)	Wetland Hydrology Present ? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
---	---

Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: Flowing water comes out of the ground within this feature, starting approximately 25' north of this point (outside or almost outside of the Project Area boundary). This water appears to be residual runoff from recent rains and is only exposed for a short distance before flowing subsurface again. Clear, continuous OHW marks are not present.

Wetland Determination Data Form - Arid West Region

Project/Site Santa Margarita Quarry City Atascadero County San Luis Obispo Sampling Date 3/27/2008

Applicant/Owner Lehigh Hanson Inc. State CA Sampling Point 26

Investigator(s) WRA, Inc. Section, Township, Range _____

Landform (hillslope, terrace, etc.) ephemeral drainage Local Relief (concave, convex, none) none Slope(%) _____

Subregion(LRR) LRR C (Medit. CA) Lat: 35.421141 Long: -120.576325 Datum: UTM Zone10N

Soil Map Unit Name Cieneba-Andregg complex, 30 to 75 percent slopes NWI classification none

Are climatic/hydrologic conditions on-site typical for this time of year? Yes No (If no, explain in remarks)

Are any of the following significantly disturbed? Vegetation Soil Hydrology Are "Normal Circumstances" present? Yes No

Are any of the following naturally problematic? Vegetation Soil Hydrology (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soil Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>Remarks: Sample point is in the longest, best-defined drainage within the Project Area. OHW marks (deposition) indicate that this feature is a "Waters of the US." However, it is apparent that the nearby road and other quarry operations have increased both flow and sedimentation in this feature beyond normal levels, thus exaggerating flow indicators. Sediment (sand) has filled the channel in recent years.</p>	

VEGETATION

<u>Tree stratum</u> (use scientific names)	<u>Absolute % cover</u>	Dominant Species?	Indicator Status	Dominance Test Worksheet
1. _____	_____	_____	_____	Number of Dominant Species that are OBL, FACW, or FAC? <u>2</u> (A)
2. _____	_____	_____	_____	Total number of dominant species across all strata? <u>5</u> (B)
3. _____	_____	_____	_____	% of dominant species that are OBL, FACW, or FAC? <u>40</u> (A/B)
4. _____	_____	_____	_____	
Tree Stratum Total Cover: _____				
<u>Sapling/Shrub Stratum</u>				Prevalence Index Worksheet
1. <u>Toxicodendron diversilobum</u>	15	Y	NL	Total % cover of: _____ Multiply by: _____
2. <u>Cercocarpus betuloides</u>	10	Y	NL	OBL species _____ x1 _____
3. <u>Prunus ilicifolius</u>	5	_____	NL	FACW species _____ x2 _____
4. <u>Salvia apiana</u>	5	_____	NL	FAC species <u>80</u> x3 <u>240</u>
Sapling/Shrub Stratum Total Cover: <u>35</u>				FACU species <u>5</u> x4 <u>20</u>
<u>Herb Stratum</u>				UPL species <u>92</u> x5 <u>460</u>
1. <u>Unidentifiable annual grasses</u>	40	Y	FAC	Column Totals <u>177</u> (A) <u>720</u> (B)
2. <u>Claytonia perfoliata ssp. mexicana</u>	40	Y	FAC	Prevalence Index = B/A = <u>4.1</u>
3. <u>Torilis arvensis</u>	30	Y	NL	
4. <u>Saxifraga californica</u>	20	_____	NL	Hydrophytic Vegetation Indicators
5. <u>Pteridium aquilinum var. pubescens</u>	5	_____	FACU	<input type="checkbox"/> Dominance Test is >50%
6. <u>Sanicula crassicaulis</u>	5	_____	NL	<input type="checkbox"/> Prevalence Index is <= 3.0 ¹
7. <u>Amsinckia menziesii var. intermedia</u>	2	_____	NL	<input type="checkbox"/> Morphological adaptations (provide supporting data in remarks)
8. _____	_____	_____	_____	<input type="checkbox"/> Problematic hydrophytic vegetation ¹ (explain)
Herb Stratum Total Cover: <u>142</u>				¹ Indicators of hydric soil and wetland hydrology must be present.
<u>Woody Vine Stratum</u>				Hydrophytic Vegetation Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
Woody Vine Stratum Total Cover: <u>0</u>				
% Bare ground in herb stratum <u>0</u>		% cover of biotic crust _____		

Remarks: Unidentifiable grasses are unlikely to be wetland species, but were considered FAC to be conservative. Species observed in the vicinity include Avena barbata (NL), Hordeum murinum (NI), and Cynosurus echinatus (NL).

Profile description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ¹		
0-10	7.5Y4/6	80					sand	
0-10		20					gravel	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5)(LRR C) <input type="checkbox"/> 1cm Muck (A9)(LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 1cm Muck (A9) (LRR C) <input type="checkbox"/> 2cm Muck (A10)(LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (explain in remarks)
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³Indicators of hydric vegetation and wetland hydrology must be present.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1)(Nonriverine) <input type="checkbox"/> Sediment Deposits (B2)(Nonriverine) <input type="checkbox"/> Drift Deposits (B3)(Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in PLoWed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1)(Riverine) <input type="checkbox"/> Sediment Deposits (B2)(Riverine) <input type="checkbox"/> Drift Deposits (B3)(Riverine) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface water present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ Water table present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Depth (inches): 0 Saturation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Depth (inches): 0 (includes capillary fringe)	Wetland Hydrology Present ? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
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Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: Saturated soil with flow patterns: A "Waters of the US." OHW marks (deposition) are present. Soil is vegetated with upland plants--this is a result of heavy sediment deposition and mostly subsurface flow in the coarse, erosive soil. This feature clearly drains the surrounding hills after precipitation, but would be dry throughout most of the year.

Wetland Determination Data Form - Arid West Region

Project/Site Santa Margarita Quarry City Atascadero County San Luis Obispo Sampling Date 3/27/2008
 Applicant/Owner Lehigh Hanson Inc. State CA Sampling Point 27
 Investigator(s) WRA, Inc. Section, Township, Range _____
 Landform (hillslope, terrace, etc.) hillslope Local Relief (concave, convex, none) concave Slope(%) _____
 Subregion(LRR) LRR C (Medit. CA) Lat: 35.421141 Long: -120.576325 Datum: UTM Zone10N
 Soil Map Unit Name Cieneba-Andregg complex, 30 to 75 percent slopes NWI classification none

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

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soil Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Remarks: Paired upland point with point 26.	

VEGETATION

Tree stratum (use scientific names)	Absolute % cover	Dominant Species?	Indicator Status	Dominance Test Worksheet
1. <u>Quercus agrifolia</u>	65		NL	Number of Dominant Species that are OBL, FACW, or FAC? <u>2</u> (A)
2. _____				Total number of dominant species across all strata? <u>5</u> (B)
3. _____				% of dominant species that are OBL, FACW, or FAC? <u>40</u> (A/B)
4. _____				
Tree Stratum Total Cover: 65				
Sapling/Shrub Stratum				
1. <u>Toxicodendron diversilobum</u>	40	Y	NL	Prevalence Index Worksheet Total % cover of: _____ Multiply by: _____ OBL species _____ x1 _____ FACW species _____ x2 _____ FAC species <u>40</u> x3 <u>120</u> FACU species <u>20</u> x4 <u>80</u> UPL species <u>158</u> x5 <u>790</u> Column Totals <u>218</u> (A) <u>990</u> (B) Prevalence Index = B/A = <u>4.5</u>
2. <u>Quercus agrifolia</u>	10		NL	
3. <u>Cercocarpus betuloides</u>	5		NL	
4. <u>Pinus sabiniana</u>	2		NL	
Sapling/Shrub Stratum Total Cover: 57				
Herb Stratum				
1. <u>Unidentifiable annual grasses</u>	20	Y	FAC	Hydrophytic Vegetation Indicators <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is <= 3.0 ¹ <input type="checkbox"/> Morphological adaptations (provide supporting data in remarks) <input type="checkbox"/> Problematic hydrophytic vegetation ¹ (explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
2. <u>Torilis arvensis</u>	20	Y	NL	
3. <u>Claytonia perfoliata ssp. mexicana</u>	20	Y	FAC	
4. <u>Pteridium aquilinum var. pubescens</u>	20	Y	FACU	
5. <u>Carduus pycnocephalus</u>	5		NL	
6. <u>Sanicula crassicaulis</u>	5		NL	
7. <u>Thysanocarpus curvipes</u>	5		NL	
8. <u>Saxifraga californica</u>	1		NL	
Herb Stratum Total Cover: 96				
Woody Vine Stratum				
1. _____				
2. _____				
Woody Vine Stratum Total Cover: _____				
% Bare ground in herb stratum <u>4</u> % cover of biotic crust _____				Hydrophytic Vegetation Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Remarks: Unidentifiable grasses are unlikely to be wetland species, but were considered FAC to be conservative. Species observed in the vicinity include Avena barbata (NL), Hordeum murinum (NI), and Cynosurus echinatus (NL).

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ¹		
0-12	10YR3/3	100					loamy sand	no gravel in profile

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

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5)(LRR C)</p> <p><input type="checkbox"/> 1cm Muck (A9)(LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Vernal Pools (F9)</p> <p><input type="checkbox"/> 1cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2cm Muck (A10)(LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (explain in remarks)</p> <p>³Indicators of hydric vegetation and wetland hydrology must be present.</p>
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<p>Restrictive Layer (if present):</p> <p>Type: _____</p> <p>Depth (inches): _____</p>	<p>Hydric Soil Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
---	--

Remarks:

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (any one indicator is sufficient)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1)(Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2)(Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3)(Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p> <p><input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Biotic Crust (B12)</p> <p><input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in PLoWed Soils (C6)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	<p>Secondary Indicators (2 or more required)</p> <p><input type="checkbox"/> Water Marks (B1)(Riverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2)(Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3)(Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
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<p>Field Observations:</p> <p>Surface water present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____</p> <p>Water table present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____</p> <p>Saturation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth (inches): _____ (includes capillary fringe)</p>	<p>Wetland Hydrology Present ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
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Describe recorded data (stream guage, monitoring well, aerial photos, etc.) if available.

Remarks: No hydrology indicators observed.

APPENDIX B. Representative Photographs



Appendix B. Representative Photographs

Top: Northern mixed chaparral community, found throughout most of the RPA Area.

Bottom: A typical dry draw within the RPA Area.





Appendix B. Representative Photographs

Top and bottom: The main access road through the RPA Footprint, looking north, near sample point 16 and the potentially jurisdictional drainage (immediately left of the road).





Appendix B. Representative Photographs

Top: Erosion from access road.

Bottom: Recently-deposited sand in the potentially jurisdictional drainage. Note sand surrounding upper stems of *Toxicodendron* (left).





Appendix B. Representative Photographs

Top: The bed of the potentially jurisdictional drainage channel at P26.

Bottom: The convergence of the potentially jurisdictional drainage (left) and an erosional channel from the access road (right, P1).





Appendix B. Representative Photographs

Sample points P22 (top) and P23 (bottom), both located in the same dry draw.





Appendix B. Representative Photographs

Sample points P24 (top) and P25 (bottom), both located in a non-jurisdictional draw.





Appendix B. Representative Photographs

Top: Upland reference sample point P11.

Bottom: Upland reference sample point P27.



APPENDIX C. Plant Species Observed in the RPA Area

Appendix C. Plant species observed in the RPA Area

FAMILY	SCIENTIFIC NAME*	COMMON NAME	INDICATOR STATUS**	ORIGIN	FORM
Adoxaceae [Caprifoliaceae]	<i>Sambucus nigra</i> ssp. <i>caerulea</i> [S. <i>mexicana</i>]	blue elderberry	FAC	native	evergreen shrub
Agavaceae [Liliaceae]	<i>Hesperoyucca</i> [<i>Yucca</i>] <i>whipplei</i>	chaparral yucca	NL	native	perennial herb
Anacardiaceae	<i>Rhus aromatica</i> [R. <i>trilobata</i>]	skunkbrush	NI	native	deciduous shrub
Anacardiaceae	<i>Toxicodendron diversilobum</i>	poison oak	NL	native	deciduous shrub
Apiaceae	<i>Anthriscus caucalis</i>	bur chervil	NL	non-native	annual herb
Apiaceae	<i>Apiastrum angustifolium</i>	wild parsley	NL	native	annual herb
Apiaceae	<i>Bowlesia incana</i>	hoary bowlesia	FACU	native	annual herb
Apiaceae	<i>Conium maculatum</i>	poison hemlock	FACW	non-native	perennial herb
Apiaceae	<i>Sanicula bipinnatifida</i>	purple sanicle	NL	native	perennial herb
Apiaceae	<i>Sanicula crassicaulis</i>	Pacific sanicle	NL	native	perennial herb
Apiaceae	<i>Tauschia hartwegii</i>	Hartweg's tauschia	NL	native	perennial herb
Apiaceae	<i>Torilis arvensis</i>	hedge parsley	NL	non-native	annual herb
Apocynaceae [Asclepiadaceae]	<i>Asclepias eriocarpa</i>	Kotolo milkweed	FAC	native	perennial herb
Asteraceae	<i>Achyrachaena mollis</i>	blow wives	NL	native	annual herb
Asteraceae	<i>Acourtia microcephala</i>	sacapellote	NL	native	perennial herb
Asteraceae	<i>Artemisia californica</i>	California sage scrub	NL	native	evergreen shrub
Asteraceae	<i>Artemisia douglasiana</i>	mugwort	NL	native	perennial herb
Asteraceae	<i>Artemisia dracunculus</i>	wild tarragon	NL	native	perennial herb
Asteraceae	<i>Baccharis pilularis</i>	coyotebrush	NL	native	evergreen shrub
Asteraceae	<i>Baccharis salicifolia</i>	mulefat	FACW	native	evergreen shrub
Asteraceae	<i>Carduus pycnocephalus</i>	Italian thistle	NL	non-native	annual herb
Asteraceae	<i>Centaurea melitensis</i>	tocalote	NL	non-native	annual herb
Asteraceae	<i>Centaurea solstitialis</i>	yellow starthistle	NL	non-native	annual herb
Asteraceae	<i>Cirsium occidentale</i> var. <i>occidentale</i>	cobwebby thistle	NL	native	perennial herb
Asteraceae	<i>Cynara cardunculus</i>	artichoke thistle	NL	non-native	perennial herb
Asteraceae	<i>Eriophyllum confertiflorum</i>	golden yarrow	NL	native	evergreen shrub
Asteraceae	<i>Heterotheca grandiflora</i>	telegraph weed			
Asteraceae	<i>Micropus californicus</i>	slender cottonweed	NL	native	annual herb
Asteraceae	<i>Pseudognaphalium</i> [<i>Gnaphalium</i>] <i>californicum</i>	ladies' tobacco	NL	native	annual or perennial herb
Asteraceae	<i>Pseudognaphalium</i> [<i>Gnaphalium</i>] <i>luteoalbum</i>	Jersey cudweed	FACW-	non-native	annual herb
Asteraceae	<i>Senecio flaccidus</i>	chaparral ragwort	NL	native	evergreen shrub
Asteraceae	<i>Senecio vulgaris</i>	old man of the spring	NI*	native	annual herb
Asteraceae	<i>Stephanomeria elata</i>	Santa Barbara wire lettuce	NL	native	annual herb
Asteraceae	<i>Taraxacum officinale</i>	common dandelion	FACU	non-native	perennial herb

FAMILY	SCIENTIFIC NAME*	COMMON NAME	INDICATOR STATUS**	ORIGIN	FORM
Boraginaceae	<i>Amsinckia intermedia</i> [<i>A. menziesii</i> var. <i>intermedia</i>]	common fiddleneck	NL	native	annual herb
Boraginaceae	<i>Amsinckia tessellata</i> var. <i>tessellata</i>	desert fiddleneck	NL	native	annual herb
Boraginaceae	<i>Cryptantha microstachys</i>	Tejon cryptantha	NL	native	annual herb
Boraginaceae	<i>Cryptantha muricata</i>	prickly cryptantha	NL	native	annual herb
Boraginaceae	<i>Cryptantha nemaclada</i>	Colusa cryptantha	NL	native	annual herb
Boraginaceae [Hydrophyllaceae]	<i>Eriodictyon traskiae</i>	Pacific yerba santa	NL	native	evergreen shrub
Boraginaceae [Hydrophyllaceae]	<i>Eucrypta chrysanthemifolia</i> var. <i>chrysanthemifolia</i>	common eucrypta	NL	native	annual herb
Boraginaceae [Hydrophyllaceae]	<i>Phacelia cicutaria</i> var. <i>cicutaria</i>	caterpillar phacelia	NL	native	annual herb
Brassicaceae	<i>Barbarea vulgaris</i>	yellow rocket	FACW	non-native	perennial herb
Brassicaceae	<i>Capsella bursa-pastoris</i>	sheperd's purse	FAC	non-native	annual herb
Brassicaceae	<i>Erysimum capitatum</i>	western wallflower	NL	native	perennial herb
Brassicaceae	<i>Hirschfeldia incana</i>	short pod mustard	NL	non-native	perennial herb
Brassicaceae	<i>Nasturtium officinale</i> [<i>Rorippa nasturtium-aquaticum</i>]	watercress	OBL	native	perennial herb
Brassicaceae	<i>Thysanocarpus curvipes</i>	fringe pod	NL	native	annual herb
Brassicaceae	<i>Thysanocarpus radians</i>	showy fringe pod	NL	native	annual herb
Caprifoliaceae	<i>Symphoricarpos mollis</i> [<i>S. hesperius</i>]	creeping snowberry	NL	native	deciduous shrub
Convolvulaceae	<i>Calystegia longipes</i>	Piute morning glory	NL	native	perennial herb
Convolvulaceae [Cuscutaceae]	<i>Cuscuta californica</i> var. <i>californica</i>	chapparal dodder	NL	native	annual herb (parasitic)
Crassulaceae	<i>Dudleya pulverulenta</i> ssp. <i>pulverulenta</i>	chalk dudleya	NL	native	perennial herb
Cucurbitaceae	<i>Marah fabacea</i> [<i>M. fabaceus</i>]	manroot	NL	native	perennial vine
Cyperaceae	<i>Carex nudata</i>	torrent sedge	FACW	native	perennial graminoid
Cyperaceae	<i>Carex obnupta</i>	slough sedge	OBL	native	perennial graminoid
Cyperaceae	<i>Carex</i> sp.	sedge	-	-	-
Dennstaedtiaceae	<i>Pteridium aquilinum</i> var. <i>pubescens</i>	bracken fern	FACU	native	fern
Dryopteridaceae	<i>Polystichum munitum</i>	western swordfern	NL	native	fern
Ericaceae	<i>Arctostaphylos glauca</i>	big-berry manzanita	NL	native	evergreen shrub
Ericaceae	<i>Arctostaphylos viscida</i>	white leaf manzanita	NL	native	evergreen shrub
Fabaceae	<i>Acmispon</i> [<i>Lotus</i>] <i>strigosus</i>	strigose lotus	NL	native	annual herb
Fabaceae	<i>Acmispon glaber</i> [<i>Lotus scoparius</i>]	deer vetch	NL	native	perennial herb
Fabaceae	<i>Amorpha fruticosa</i>	western indigo bush	FAC	native	deciduous shrub
Fabaceae	<i>Lathyrus vestitus</i> var. <i>vestitus</i>	pacific pea	NL	native	perennial herb

FAMILY	SCIENTIFIC NAME*	COMMON NAME	INDICATOR STATUS**	ORIGIN	FORM
Fabaceae	<i>Lupinus bicolor</i>	miniature lupine	NL	native	annual herb
Fabaceae	<i>Lupinus concinnus</i>	elegant lupine	NL	native	annual herb
Fabaceae	<i>Lupinus hirsutissimus</i>	stinging lupine	NL	native	annual herb
Fabaceae	<i>Lupinus truncatus</i>	blunt leaved lupine	NL	native	annual herb
Fabaceae	<i>Medicago polymorpha</i>	bur clover	NL	non-native	annual herb
Fabaceae	<i>Pickeringia montana</i>	chaparral pea	NL	native	evergreen shrub
Fabaceae	<i>Rupertia physodes</i>	California tea	NL	native	perennial herb
Fabaceae	<i>Trifolium depauperatum</i> var. <i>depauperatum</i>	dwarf sack clover	FAC	native	annual herb
Fabaceae	<i>Trifolium wormskioldii</i>	coast clover	FACW	native	perennial herb
Fabaceae	<i>Vicia villosa</i>	hairy vetch	NL	non-native	annual herb or vine
Fagaceae	<i>Quercus agrifolia</i>	coast live oak	NL	native	evergreen tree
Fagaceae	<i>Quercus berberidifolia</i>	scrub oak	NL	native	evergreen tree
Fagaceae	<i>Quercus douglasii</i>	blue oak	NL	native	deciduous tree
Fagaceae	<i>Quercus durata</i> var. <i>durata</i>	leather oak	NL	native	evergreen shrub or tree
Garryaceae	<i>Garrya elliptica</i>	coast silktassel	NL	native	evergreen shrub or tree
Geraniaceae	<i>Erodium cicutarium</i>	redstem filaree	NL	non-native	annual herb
Grossulariaceae	<i>Ribes malvaceum</i>	chaparral currant	NL	native	evergreen shrub
Grossulariaceae	<i>Ribes sanguineum</i>	redflower currant	NL	native	evergreen shrub
Grossulariaceae	<i>Ribes speciosum</i>	fuschia-flowered gooseberry	NL	native	evergreen shrub
Isoetaceae	<i>Isoetes orcuttii</i>	Orcutt's quillwort	OBL	native	fern (aquatic)
Lamiaceae	<i>Salvia apiana</i>	white sage	NL	native	evergreen shrub
Lamiaceae	<i>Salvia columbariae</i>	chia sage	NL	native	annual herb
Lamiaceae	<i>Salvia mellifera</i>	black sage	NL	native	evergreen shrub
Lamiaceae	<i>Trichostema lanatum</i>	wooly bluecurls	NL	native	evergreen shrub
Lauraceae	<i>Umbellularia californica</i>	California bay	FAC	native	evergreen tree
Liliaceae	<i>Calochortus albus</i>	white globe lily	NL	native	perennial herb
Malvaceae	<i>Malacothamnus</i> sp.	bush mallow	-	-	evergreen shrub
Montiaceae [Portulacaceae]	<i>Calandrinia ciliata</i>	redmaids	FACU*	native	annual herb
Montiaceae [Portulacaceae]	<i>Claytonia perfoliata</i> ssp. <i>mexicana</i>	miner's lettuce	FAC	native	annual herb
Myrsinaceae [Primulaceae]	<i>Anagallis arvensis</i>	scarlet pimpernel	FAC	non-native	annual herb
Onagraceae	<i>Camissoniopsis</i> [<i>Camissonia</i>] <i>intermedia</i>	no common name	NL	native	annual herb
Onagraceae	<i>Clarkia speciosa</i> ssp. <i>speciosa</i>	redspot clarkia	NL	native	annual herb
Onagraceae	<i>Clarkia unguiculata</i>	elegant clarkia	NL	native	annual herb
Onagraceae	<i>Epilobium brachycarpum</i>	annual willowherb	UPL	native	annual herb
Onagraceae	<i>Epilobium canum</i>	California fuchsia	NL	native	perennial herb

FAMILY	SCIENTIFIC NAME*	COMMON NAME	INDICATOR STATUS**	ORIGIN	FORM
Orobanchaceae	<i>Orobanche bulbosa</i>	chaparral broomrape	NL	native	perennial herb (parasitic)
Orobanchaceae [Scrophulariaceae]	<i>Pedicularis densiflora</i>	Indian warrior	NL	native	perennial herb
Oxalidaceae	<i>Oxalis pes-caprae</i>	Bermuda buttercup	NL	non-native	perennial herb
Paeoniaceae	<i>Paeonia californica</i>	California peony	NL	native	perennial herb
Papaveraceae	<i>Dendromecon rigida</i>	bush poppy	NL	native	evergreen shrub
Papaveraceae	<i>Ehrendorferia [Dicentra] chrysantha</i>	golden eardrops	NL	native	perennial herb
Papaveraceae	<i>Eschscholzia californica</i>	California poppy	NL	native	perennial herb
Papaveraceae	<i>Platystemon californicus</i>	creamcups	NL	native	annual herb
Phrymaceae [Scrophulariaceae]	<i>Mimulus aurantiacus</i>	sticky monkeyflower	NL	native	evergreen shrub
Phrymaceae [Scrophulariaceae]	<i>Mimulus fremontii</i>	Fremont's monkeyflower	NL	native	annual herb
Phrymaceae [Scrophulariaceae]	<i>Mimulus guttatus</i>	seep monkeyflower	OBL	native	annual or perennial rhizomatous herb
Pinaceae	<i>Pinus sabiniana</i>	foothill pine	NL	native	evergreen tree
Plantaginaceae [Scrophulariaceae]	<i>Antirrhinum multiflorum</i>	chaparral snapdragon	NL	native	annual or perennial herb
Plantaginaceae [Scrophulariaceae]	<i>Collinsia heterophylla</i>	purple Chinese houses	NL	native	annual herb
Plantaginaceae [Scrophulariaceae]	<i>Keckiella cordifolia</i>	heartleaf keckiella	NL	native	evergreen shrub
Plantanaceae	<i>Platanus racemosa</i>	western sycamore	FACW	native	deciduous tree
Poaceae	<i>Aira caryophyllea</i>	silver hairgrass	NL	non-native	annual graminoid
Poaceae	<i>Avena barbara</i>	slender wild oat	NL	non-native	annual graminoid
Poaceae	<i>Bromus diandrus</i>	ripgut brome	NL	non-native	annual graminoid
Poaceae	<i>Bromus hordeaceus</i>	soft chess	FACU	non-native	annual graminoid
Poaceae	<i>Bromus madritensis</i>	foxtail chess	NI	non-native	annual graminoid
Poaceae	<i>Cynosurus echinatus</i>	hedgehog dogtail	NL	non-native	annual graminoid
Poaceae	<i>Elymus glaucus</i>	blue wildrye	FACU	native	perennial graminoid
Poaceae	<i>Festuca [Vulpia] microstachys</i>	small fescue	NL	native	annual graminoid
Poaceae	<i>Festuca [Vulpia] myuros</i>	rattail fescue	FACU	non-native	annual graminoid
Poaceae	<i>Festuca perennis [Lolium multiflorum]</i>	Italian ryegrass	FAC	non-native	annual or biennial graminoid
Poaceae	<i>Hordeum murinum</i>	foxtail barley	NI	non-native	annual graminoid
Poaceae	<i>Melica imperfecta</i>	smallflower melic	NL	native	perennial graminoid
Poaceae	<i>Melica torreyana</i>	Torrey's melic	NL	native	perennial graminoid
Poaceae	<i>Muhlenbergia rigens</i>	deergrass	FACW	native	perennial graminoid

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Poaceae	<i>Stipa</i> [<i>Nassella</i>] <i>pulchra</i>	purple needlegrass	NL	native	perennial graminoid
Polemoniaceae	<i>Leptosiphon</i> [<i>Linanthus</i>] <i>parviflorus</i>	variable linanthus	NL	native	annual herb
Polemoniaceae	<i>Linanthus californicus</i> [<i>Leptodactylon californicum</i>]	California linanthus	NL	native	evergreen shrub
Polemoniaceae	<i>Navarretia atractyloides</i>	hollyleaf navarretia	NL	native	annual herb
Polemoniaceae	<i>Navarretia squarrosa</i>	skunkweed	NL	native	annual herb
Polygonaceae	<i>Chorizanthe biloba</i> var. <i>biloba</i>	two lobed spineflower	NL	native	annual herb
Polygonaceae	<i>Eriogonum elongatum</i>	longstem buckwheat	NL	native	perennial herb
Polygonaceae	<i>Eriogonum fasciculatum</i>	California buckwheat	NL	native	evergreen shrub
Pteridaceae	<i>Adiantum capillus-veneris</i>	southern maiden hair fern	FACW	native	fern
Pteridaceae	<i>Adiantum jordanii</i>	California maiden hair fern	NL	native	fern
Pteridaceae	<i>Pellaea andromedifolia</i>	coffee fern	NL	native	fern
Pteridaceae	<i>Pellaea mucronata</i>	birdfoot fern	NL	native	fern
Pteridaceae	<i>Pentagramma triangularis</i>	goldback fern	NL	native	fern
Ranunculaceae	<i>Clematis lasiantha</i>	chaparral clematis	NL	native	perennial herb or vine
Ranunculaceae	<i>Delphinium parryi</i> ssp. <i>parryi</i>	Parry's larkspur	NL	native	perennial herb
Ranunculaceae	<i>Enemion</i> [<i>Isopyrum</i>] <i>occidentale</i>	western false rue anemone	NL	native	perennial herb
Ranunculaceae	<i>Thalictrum fendleri</i> var. <i>polycarpum</i> [<i>T. polycarpum</i>]	Fendler's meadow rue	FACU	native	perennial herb
Rhamnaceae	<i>Ceanothus cuneatus</i> var. <i>cuneatus</i>	buckbrush	NL	native	evergreen shrub
Rhamnaceae	<i>Ceanothus leucodermis</i>	chaparral whitethorn	NL	native	evergreen shrub
Rhamnaceae	<i>Ceanothus oliganthus</i>	hairy ceanothus	NL	native	evergreen shrub
Rhamnaceae	<i>Frangula</i> [<i>Rhamnus</i>] <i>californica</i>	coffeeberry	NL	native	evergreen shrub
Rhamnaceae	<i>Rhamnus crocea</i>	redberry	NL	native	evergreen shrub
Rosaceae	<i>Adenostoma fasciculatum</i>	chamise	NL	native	evergreen shrub
Rosaceae	<i>Cercocarpus betuloides</i> var. <i>betuloides</i>	birch-leaf mountain mahogany	NL	native	evergreen shrub
Rosaceae	<i>Drymocallis</i> [<i>Potentilla</i>] <i>glandulosa</i>	no common name	FAC	native	perennial herb
Rosaceae	<i>Heteromeles arbutifolia</i>	toyon	NL	native	evergreen shrub
Rosaceae	<i>Prunus emarginata</i>	bitter cherry	NL	native	deciduous shrub or tree
Rosaceae	<i>Prunus ilicifolia</i>	holly-leaf cherry	NL	native	evergreen shrub
Rosaceae	<i>Rubus ursinus</i>	California blackberry	FACW	native	deciduous to evergreen shrub
Rubiaceae	<i>Galium andrewsii</i> ssp. <i>andrewsii</i>	phlox-leaved bedstraw	NL	native	perennial herb
Rubiaceae	<i>Galium aparine</i>	common bedstraw	FACU	native	annual herb
Rubiaceae	<i>Galium californicum</i>	California bedstraw	NL	native	perennial herb
Rubiaceae	<i>Galium porrigens</i>	climbing bedstraw	NL	native	evergreen vine or shrub
Salicaceae	<i>Populus fremontii</i>	Fremont's cottonwood	FACW	native	deciduous tree
Salicaceae	<i>Salix exigua</i>	sandbar willow	OBL	native	deciduous shrub
Salicaceae	<i>Salix laevigata</i>	red willow	FACW	native	deciduous tree

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Salicaceae	<i>Salix lasiolepis</i>	arroyo willow	FACW	native	deciduous tree
Saxifragaceae	<i>Micranthes [Saxifraga] californica</i>	no common name	NL	native	perennial herb
Solanaceae	<i>Solanum xanti</i>	chaparral nightshade	NL	native	perennial herb or subshrub
Themidaceae [Liliaceae]	<i>Dichelostemma capitatum</i>	blue dicks	NL	native	perennial herb
Urticaceae	<i>Parietaria hespera</i>	pellitory	NL	native	annual herb
Verbenaceae	<i>Verbena lasiostachys</i>	vervain	FAC	native	perennial herb
Violaceae	<i>Viola pedunculata</i>	johnny jump-up	NL	native	perennial herb
Violaceae	<i>Viola purpurea</i> ssp. <i>purpurea</i>	goosefoot violet	NL	native	perennial herb
Viscaceae	<i>Phoradendron serotinum</i>	mistletoe	NL	native	evergreen shrub (parasitic on <i>Populus</i>)

*Plants were primarily identified using *The Jepson Manual Second Edition* (B.G. Baldwin et al 2012), to the taxonomic level necessary to determine rarity. Some plants were cross referenced and identified using *The Jepson Manual* (Hickman 1993) as some agencies and jurisdictions may base rarity on older names. Names given follow B.G. Baldwin et al (2012), with synonyms from Hickman (1993) noted in brackets.

**wetland indicator status from Reed (1988)