

Appendix C

Wetland Delineation



Scotts Valley Town Center Specific Plan Area

Delineation of Waters of the United States And State of California

Prepared for:

The City of Scotts Valley
1 Civic Center Drive
Scotts Valley, CA 95066

Prepared by:

Rincon Consultants, Inc.
1530 Monterey Street, Suite D
San Luis Obispo, California 93401



August 2008

**City of Scotts Valley
Town Center Specific Plan Area**

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and State of California***

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1.0 INTRODUCTION

Rincon Consultants, Inc. conducted a delineation of potential waters of the United States and State of California, as well as assessed California Department of Fish and Game (DFG) jurisdiction, on the Scotts Valley Town Center Specific Plan Area located within the City of Scotts Valley in Santa Cruz County, California (Figure 1). The proposed project is the Scotts Valley Town Center Specific Plan, a document that guides the long-term development of the Scotts Valley Town Center, which would establish a downtown center along Mt. Hermon Road. The proposed Specific Plan includes two- to three-story mixed-use buildings that would have commercial retail on the first floor and residential or office above, other non-mixed-use multi-family housing, and commercial retail structures. Additionally, the proposed plan would include development of a civic center that would host a town green, library, and possibly a court house.

The project is located in the City of Scotts Valley, immediately north of the City of Santa Cruz, in Santa Cruz County. The Specific Plan area is generally bound by four roads: Mt. Hermon Road to the south, Skypark Drive to the west, and Kings Village Road and Blue Bonnet Lane to the north. A residential development just west of Scotts Valley Drive borders the Plan Area to the east.

The Specific Plan area encompasses approximately 59 total acres, which includes approximately 18 acres of vacant land, the majority of which is centrally located on the site, surrounded by a mix of retail and civic uses. The proposed Specific Plan area consists of several existing commercial land uses, and to a lesser degree public and quasi-public land uses. The site also contains commercially designated, yet undeveloped, land that was formerly used as an airport. The Specific Plan Area is made up of multiple parcels with multiple owners. The largest privately owned pieces contain functioning retail centers.

The topography of the Specific Plan area is relatively flat. The site is approximately 520 feet above mean sea level; elevations increase quickly in both north and south directions as the terrain becomes more mountainous (Figure 2). The study area supports annual grassland, vernal-moist grassland, mixed woodland, coyote brush scrub, developed (including areas of turf) and ruderal habitat types. A constructed ditch traverses the site in a northwest to southeast direction, and was identified as potential waters of the United States during a reconnaissance level survey of the property in the winter 2007. Focused surveys were conducted in April and May 2008 to inventory the site's floristic composition and delineate the extent of U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (RWQCB), and DFG jurisdiction onsite.

The purpose of the delineation of waters of the United States on the study area was to determine the location and extent of areas that meet the Corps' criteria as waters of the United States, including wetlands, pursuant to Section 404 of the Clean Water Act (1972) to assist the City of Scotts Valley with development plans of the site. In addition, this delineation assessed the extent of RWQCB jurisdiction under the Clean Water Act and Porter-Cologne Water Quality Act, as well as DFG jurisdiction, which are limited to rivers, lakes, and streams under the California Fish and Game Code Section 1600 et. seq. This preliminary jurisdictional determination used methods accepted by the Corps as detailed in the Wetlands Delineation





Specific Plan Site
City Limit

0 0.25 0.5 Miles



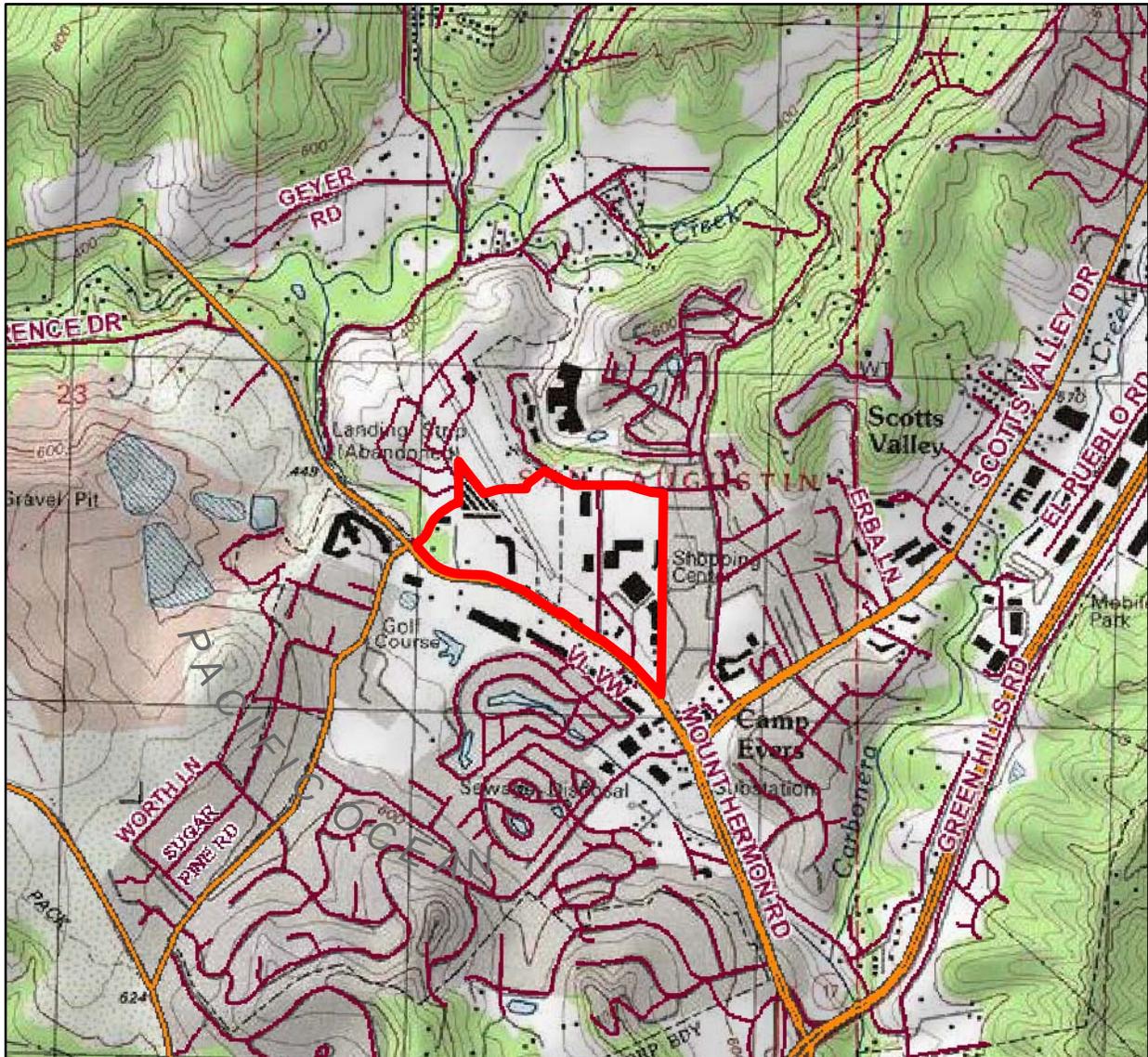
Source: US Bureau of the Census TIGER 2000 data, City of Scotts Valley, 2008 and RRM Design Group, 2008. Map images copyright © 2008 ESRI and its licensors. All rights reserved. Used by permission.

Regional Location Map

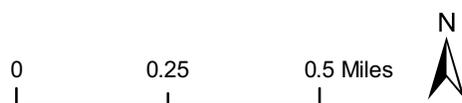
Figure 1



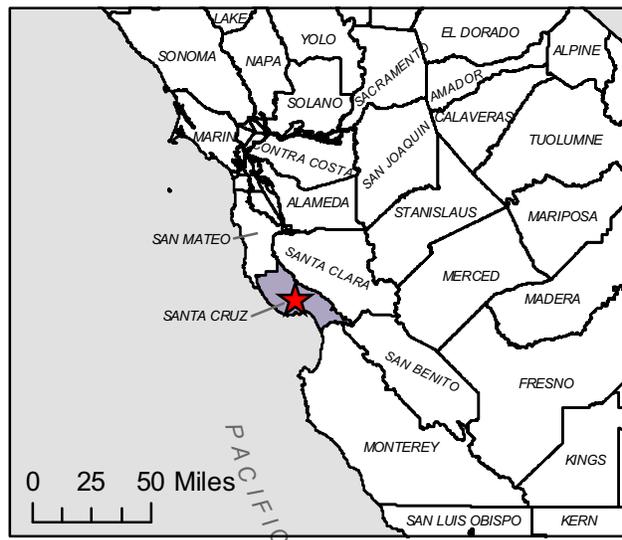
Scotts Valley Town Center Specific Plan Area
 Delineation of Waters of the United States and State of California



Source: US Bureau of the Census TIGER 2000 data and National Geographic TOPOI, 2004.



— Specific Plan Site



U.S.G.S. Topographic Map

Figure 2

Manual (Environmental Laboratory, 1987) and more recently in the Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys and Coast Regions (April 2008). Additionally, Rincon Consultants reviewed aerial photographs of the site (RRM Design Group, 2008), regional and site specific topographic maps (RRM Design Group, 2008; USGS, 1982), the Soil Survey for the Scotts Valley Area, California (www.websoilsurvey.nrcs.usda.gov), and other available background information including a biological assessment of the site (Ecosystems West, 2002) to better characterize the nature and extent of potential jurisdictional areas on the subject site. Any proposed development in areas identified as jurisdictional “waters” is subject to the permit requirements of the Corps, under Section 404 of the Clean Water Act, and would also require a Section 401 water quality certification or waiver thereof. A Streambed Alteration Agreement from the DFG may also be required.

2.0 REGULATORY OVERVIEW AND DEFINITIONS

The Corps, under provisions of Section 404 of the Clean Water Act and Corps’ implementing regulations, has jurisdiction over the “waters of the United States.” “Waters” include all waters subject to the ebb and flow of the tide, all interstate waters, all other waters (intrastate lakes, rivers, streams, mudflats, sandflats, playa lakes, natural ponds, seasonal drainage channels, etc.), all impoundments of waters otherwise defined as “waters of the U.S.”, tributaries of waters otherwise defined as “waters of the U.S.”, territorial seas, and wetlands adjacent to “waters of the U.S.”.

Areas not considered to be jurisdictional waters include non-tidal drainage and irrigation ditches excavated on dry land, artificially-irrigated areas, artificial lakes or ponds excavated on dry land used for irrigation or stock watering, small artificial water bodies such as swimming pools, and water filled depressions (51 Fed. Reg. 41, 217 1986). In addition, a Supreme Court ruling (SWANCC vs. Corps, January 9, 2001) determined that the Corps exceeded its statutory authority by asserting Clean Water Act jurisdiction over “an abandoned sand and gravel pit in northern Illinois, which provides habitat for migratory birds.” Based solely on the use of such waters by migratory birds, the Supreme Court’s holding was strictly limited to waters that are “non-navigable, isolated, and intrastate.”

The Supreme Court further addressed the extent of the Corps’ jurisdiction in *Rapanos v. U.S.* (June 19, 2006). There, a sharply divided Court issued multiple opinions, none of which garnered the support of a majority of Justices. This created substantial uncertainty as to which jurisdictional test should be used going forward. The Ninth Circuit Court of Appeal, which encompasses California, answered this in *Northern California River Watch v. City of Healdsburg* (August 11, 2006). There, the Court held that Justice Kennedy’s opinion in *Rapanos* provides the controlling rule of law. Under that rule, wetlands or other waters which are not navigable in fact are subject to the Corps jurisdiction if they have a “significant nexus” to a navigable-in-fact waterway. As Justice Kennedy explained, whether a “significant nexus” exists in any given situation will have to be decided on a case-by-case basis, depending on site-specific circumstances. Corps Headquarters in Washington, D.C. is working on substantive guidance to its District Offices as to how to apply these rulings. Pending issuance of that guidance, this report describes aquatic features on the property which meet the physical characteristics of wetlands or other waters. This represents the maximum amount of area on the property that



may constitute “waters of the United States” which are subject to Corps jurisdiction. This information will be submitted to the Corps with a request that they verify this delineation. At that time, the Corps will determine whether all, a portion, or none of these aquatic features are subject to their jurisdiction in light of these court decisions. In any event, these rulings do not alter the extent of State jurisdiction over “waters of the State” (which are subject to RWQCB jurisdiction, or “rivers, lakes or streams” subject to DFG jurisdiction.

DFG has regulatory authority over any work within rivers, lakes and streams of the State of California (California Fish and Game Code Sections 1601-1603) on public, private and agricultural lands. Features that are regulated by DFG include all rivers, streams, or lakes including man-made watercourses with or without wetlands, if they contain a definable bed and bank and have fish or wildlife habitat.

Hydrophytic vegetation dominates areas where frequency and duration of inundation or soil saturation exerts a controlling influence on the plant species present. Plant species are assigned wetland indicator status according to the probability of their occurring in wetlands. More than fifty percent of the dominant plant species must have a wetland indicator status to meet the hydrophytic vegetation criterion. The USFWS has published the *National List of Plant Species That Occur In Wetlands* (1988, revised draft 1997), which separates vascular plants into the following basic categories based on plant species frequency of occurrence in wetlands:

- Obligate wetland (OBL). Occur almost always (estimated probability >99%) under natural conditions in wetlands.
- Facultative Wetland (FACW). Usually occur in wetlands (estimated probability 67%-99%), but occasionally found in non-wetlands.
- Facultative (FAC). Equally likely to occur in wetlands or non-wetlands (estimated probability 34%-66%).
- Facultative Upland (FACU). Usually occur in non-wetlands (estimated probability 67%-99%), but occasionally found in wetlands (estimated probability 1%-33%).
- Obligate Upland (UPL). May occur in wetlands in another region, but occur almost always (estimated probability >99%) under natural conditions in non-wetlands in the region specified.

The Corps considers OBL, FACW, and FAC species to be indicators of wetlands. An area is considered to have hydrophytic vegetation when greater than 50 percent of the dominant species in each vegetative stratum (tree, shrub, and herb) fall within these categories. Any species not appearing on the USFWS list is assumed to be an upland species, almost never occurring in wetlands.

Hydric soils are saturated or inundated for a sufficient duration during the growing season to develop anaerobic or reducing conditions that favor the growth and regeneration of hydrophytic vegetation. In Central California, sufficient duration is defined as a minimum of two weeks during the growing season. Field indicators of wetland soils include observations of ponding, inundation, or saturation, dark (low chroma) soil colors, bright mottles (concentrations of oxidized minerals such as iron), or gleying, which indicates reducing conditions by a blue-grey color. Additional supporting information includes documentation of



soil as hydric or reference to wet conditions in the local soils survey, both of which must be verified in the field.

Wetland hydrology is inundation or soil saturation with a frequency and duration long enough to cause the development of hydric soils and plant communities dominated by hydrophytic vegetation. If direct observation of wetland hydrology is not possible (as in seasonal wetlands), or records of wetland hydrology are not available (such as stream gauges), assessment of wetland hydrology is frequently supported by indicators, such as water marks, drift lines, sediment deposits, or drainage patterns in wetlands.

Ordinary High Water Mark (OHWM) is that line on the shore or banks of a water course established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding area.

3.0 METHODS

The delineation of potential Section 404 “waters of the United States” and wetlands (as a subcategory of waters), RWQCB “waters of the State”, and DFG jurisdictional areas on the property was conducted on April 10 and 24, 2008 using the routine methodology as detailed in the Corps’s 1987 *Wetlands Delineation Manual*. Reconnaissance-level site visits were conducted during December 2007 that aided our characterization of the extent of potential jurisdictional areas. On this study area, normal circumstances exist because the site has been disturbed by airport construction and maintenance operations, public access, and ongoing City of Scotts Valley site management such as annual mowing for many years and is now considered normal for the site. Dumping of soils, landscape materials and other miscellaneous items has also occurred for many years, and the current circumstances are now considered normal for the site. Areas not subject to this regular type of disturbance are dominated by native habitat and therefore, are also the normal circumstance. The presence of sandy and sandy loam soil mapping units on the property classifies the site as a potential problem area, and careful attention was paid while evaluating onsite soils.

The onsite drainage ditch and adjacent topographic low areas dominated by native vegetation were the focus of the investigation. The December 2007 and April 2008 site visits followed seasonal rain events, and direct observation of hydrology on the property was possible. The potential waters of the U.S. were mapped based on the observable signs of wetland hydrology (i.e.: presence of drainage patterns and an observable ordinary high water mark within the onsite ditch). Areas containing a predominance of wetland and riparian vegetation within the drainage ditch were mapped as wetland-waters of the U.S. because all three wetland parameters were met. In most areas, the extent of Corps and RWQCB jurisdiction were identical, except in the area of vernal-moist grassland (identified as Area A and characterized by Data Point 6) located on the northeast side of the old Skypark runway, which is detailed further below.

Potential “waters” were delineated on a site-specific aerial photograph (2008) provided by RRM Design Group. Data observation points were collected in areas of the site that characterized



potential “waters” which primarily consisted of areas that contained evidence of wetland hydrology (i.e. within the drainage ditch and in topographic low areas). The OHWM and areas of prolonged ponded water and sediment deposition, as well as the extent of hydrophytic vegetation, were used to identify the potential extent of Corps and RWQCB jurisdiction. Although the onsite drainage feature is man-made, it was determined to fall under DFG jurisdiction based on the presence of a distinct bed and bank and its hydrologic connection to other natural drainage features in the region.

Data observation points were taken in the drainage feature and in areas dominated by hydrophytic plant species, as well as adjacent upland areas to characterize the extent of potential Federal and State jurisdiction. Soil pits were excavated to a depth of approximately 18 inches during the delineation. Soils were not investigated in all areas of the site (please refer to Data Point 3). Hydric soils were presumed absent in this location as the area was devoid of wetland vegetation and contained no positive indicators of wetland hydrology. Information recorded at each data point location included plant species composition (to determine the presence/absence of hydrophytic vegetation), presence/absence of indicators of wetland hydrology, and in areas containing potential wetland habitat, indicators of hydric soils.

Our final determination of potential waters of the U.S. and state of California within the subject property was based on the dominance of wetland vegetation and the presence of an observable OHWM within the onsite drainage ditch. Other indicators of wetland hydrology such as direct observation of ponded water and algal matting were also used to define the extent of potential waters. Soils were also evaluated throughout the study area, and confirmed the extent of potential jurisdictional area onsite.

4.0 RESULTS

4.1 Summary

A total of six (6) data observation points were used to delineate potential waters of the U.S. and State of California on the property. The majority of the property is upland habitat composed of annual grassland, mixed woodland, developed and ruderal habitat types. Classification of the onsite habitat types corresponds to the descriptions of natural terrestrial communities by Robert F. Holland (1986) and the vegetation series described by Sawyer and Keeler-Wolf (1995). Appendix A includes a list of plant species observed on the property and their wetland indicator status, and Appendix B illustrates the USDA soil mapping units that occur on the property. Appendix C includes the wetland determination data forms, and Appendix D includes the wetland delineation map. Appendix E includes the habitat map. Appendix F is a photo plate containing photographs of the site taken during the course of the work program.

The majority of areas identified as potential waters of the U.S. on the Scotts Valley Town Center Specific Plan Area are wetland waters as they contained a predominance of hydrophytic plant species, an observable OHWM or drainage pattern, and had hydric soil indicators. Wetland and a small patch of riparian habitat were observed onsite, and therefore areas containing these habitat types within the OHWM of the drainage feature (i.e.: positive indicator of wetland hydrology) were identified as potential wetland-waters of the U.S. The delineation of waters of the U. S. identified approximately 0.16 acre of potential wetland waters of the U.S. and



approximately 1.08 acres of waters of the state of California. As previously stated, our investigation determined that the entire reach of the onsite drainage ditch, which is approximately 0.07 acre in size, is a DFG jurisdictional area.

Potential waters of the U.S. consist of the onsite drainage ditch and adjacent seasonal wetland identified as Area B as these features are hydrologically connected to Camp Evers Creek, Carbonera Creek, the San Lorenzo River, and ultimately the Pacific Ocean further south-southeast of the site via a culvert on the south side of study area and the City of Scotts Valley's storm drain system. Area A is hydrologically isolated from the drainage ditch by the old runway and was determined to not fall within the Corps' jurisdiction. The drainage ditch and areas of vernal moist grassland (identified as Seasonal Wetland Areas A and B on the Wetland Delineation Map included in Appendix D) were also determined to fall under RWQCB jurisdiction based on the dominance of hydrophytic vegetation.

4.2 Drainages

The drainage ditch is a constructed ditch that handles seasonal runoff from the site, primarily the large sports field, skate park, and dog park located to the north and included within the study area. This constructed drainage system bisects the west-central portion of the site in a primarily north-south direction (please refer to Appendix D - Wetland Delineation Map). Review of USGS topographic maps covering the project area do not identify any natural drainage feature that existed onsite prior to the construction of the Skypark Airport.

4.3 Vegetation

The property is composed primarily of developed and ruderal habitat types, but also includes annual grassland, vernal moist grassland, mixed woodland and coyote brush scrub (please refer to the Habitat Map included as Appendix E). Areas identified as potential "waters" included the drainage ditch and vernal moist grassland areas shown on the Habitat Map. The vernal moist grassland onsite contains a diverse palette of native herbaceous wetland species, such as California oat grass (*Danthonia californica*), brown-headed rush (*Juncus phaeocephalus*), dense flowered sedge (*Carex densa*), and toad rush (*Juncus bufonius*). In addition, an obligate wetland species, Choris' popcorn flower (*Plagiobothrys chorisianus*) is also present in the topographic low areas identified as Areas A and B on the Wetland Delineation Map included in Appendix D. The vernal-moist grassland areas are likely remnants of the dominant native vegetation type that occurred in the Scotts Valley area and on the historic Skypark airport prior to development of the area.

4.4 Soils

The USDA identifies four soil mapping units within the specific plan area and include: (1) Elkhorn sandy loam, 2-9% slopes; 2) Elkhorn sandy loam, 9-15% slopes; 3) Watsonville loam, thick surface, 0-2% slopes; and 4) Zayante coarse sand 5-30% slopes (please refer to Appendix B). Three of these, which include the Elkhorn sandy loam, 2-9% slopes, Watsonville loam, and Zayante coarse sand, occur within undeveloped portions of the study area, and only two of these were evaluated in this study. The following provides a brief overview of these soil mapping units:



- **Elkhorn sandy loam, 2-9% slopes** is a very deep, well drained soil on old alluvial fans and marine terraces. Areas of other loamy soils such as Baywood and Pinto are typically included in this mapping unit. This soil has moderate shrink-swell potential and has moderately slow permeability. It is the most common soil mapping unit onsite, with the majority already developed.
- **Watsonville loam, thick surface, 0-2% slopes** is also a very deep somewhat poorly drained soil on coastal terraces, formed in alluvium. Permeability is very slow and water may be perched above a clay subsoil. This soil mapping unit occurs in the northwestern portion of the site, which includes the upper reach of the drainage ditch that was the focus of this investigation.

4.5 Hydrology

Each data observation point was examined for positive field indicators of wetland hydrology. Indicators of wetland hydrology on the site were determined if there was an observation of a drainage pattern, water marks, and sediment deposits within the natural drainage features. The preliminary Corps and RWQCB jurisdictional determination was based primarily on the presence of an observable ordinary high water mark within the drainage ditch, but also included topographic low areas adjacent to this ditch that contained a predominance of wetland vegetation.

4.6 Delineation of Waters of the U.S. and State of California

This investigation within the study area identified approximately 0.16 acre of potential wetland waters of the U.S. and approximately 1.08 acres of wetland-waters of the State of California. DFG jurisdictional area was delineated as the approximate 0.07-acre drainage ditch onsite. The location, extent and determining factors are detailed below.

The majority of the drainage ditch onsite was delineated as wetland waters based on the predominance of wetland plants and positive indicators of wetland hydrology (i.e.: an ordinary high water mark). This feature also contained hydric soil indicators. Please refer to Data Points 1, 2 and 5 for further detail. The current connection from the onsite ditch to a navigable waters of the U.S. (i.e.: Camp Evers Creek, Carbonera Creek, the San Lorenzo River and Pacific Ocean) is through a culvert on the south side of study area at Mt. Hermon Road, and the City of Scotts Valley's storm drain system.

The predominant habitat types associated with the drainage is wetland habitat in the bed of the ditch with upland annual grassland, ruderal and coyote brush scrub habitat located beyond the top of bank. Areas containing a predominance of hydrophytic vegetation within the drainage ditch were identified as wetland waters as all three parameters that define a Corps jurisdictional wetland were met. The entire onsite portion of the drainage ditch potentially falls under Corps jurisdiction pursuant to Section 404 of the CWA. In addition to the above described Corps jurisdictional areas, the large 0.92-acre seasonal wetland (identified as Area A) located east of the old Skypark runway likely falls under the RWQCB jurisdiction pursuant to the Clean Water Act and Porter-Cologne Water Quality Control Act based on the one parameter approach,



which is the predominance of hydrophytic vegetation. The drainage ditch onsite was determined to fall under DFG jurisdiction pursuant to Fish and Game Code Section 1600 et seq. because it is a drainage feature with a definable bed and bank that is hydrologically connected to other natural drainage features in the region.

5.0 CONCLUSION

Rincon Consultants determined that approximately 0.16 acres on the property designated as the drainage ditch and adjacent seasonal wetland Area B potentially fall under the Corps jurisdiction pursuant to Section 404 of the CWA. The RWQCB pursuant to Section 401 of the Clean Water Act also has jurisdiction over these areas, in addition to the 0.92-acre seasonal wetland identified as Area A to the east of the runway as it meets the definition of waters of the State pursuant to the Porter-Cologne Water Quality Act. As detailed in the CWA, any proposed construction that would place fill within areas identified as Corps jurisdictional waters would require a Department of the Army Section 404 permit and Section 401 Water Quality Certification, or waiver thereof, prior to construction. The RWQCB would also likely require Waste Discharge Requirements for the placement of fill or any activity that would remove the wetland areas. This investigation determined that the entire onsite reach of the constructed drainage ditch would likely fall under DFG jurisdiction as this area contained a bed and bank with associated wildlife habitat. Any proposed alteration of this area on the subject property may require a Streambed Alteration Agreement from the DFG pursuant to Section 1600 et. seq. of the California Fish and Game Code prior to construction.





Appendix A

Plants Species Observed

List of Plant Species Observed Onsite

Scientific Name	Common Name	Wetland Indicator Status ¹
<i>Acacia dealbata</i>	silver wattle	NI
<i>Ailanthus altissima</i>	tree of heaven	FACU
<i>Anagallis arvensis</i>	scarlet pimpernel	FAC
<i>Anthemis cotula</i>	mayweed	FACU
<i>Avena barbata</i>	slender wild oat	UPL
<i>Baccharis pilularis</i> var. <i>consanguinea</i>	coyote brush	UPL
<i>Brassica nigra</i>	black mustard	UPL
<i>Briza maxima</i>	rattlesnake grass	NI
<i>Briza minor</i>	little rattlesnake grass	FACW-
<i>Bromus diandrus</i>	ripgut brome	UPL
<i>Bromus hordeaceus</i>	soft chess	FACU-
<i>Carduus pycnocephalus</i>	Italian thistle	NI
<i>Carex densa</i>	dense flowered sedge	OBL
<i>Chenopodium album</i>	white goosefoot	FAC
<i>Conyza canadensis</i>	horseweed	FAC
<i>Cynodon dactylon</i>	Bermuda grass	FAC
<i>Cyperus eragrostis</i>	common nutsedge	FACW
<i>Danthonia californica</i>	California oat grass	FACW
<i>Deschampsia danthonioides</i>	annual hairgrass	FACW
<i>Epilobium brachycarpum</i>	fireweed	UPL
<i>Erodium botrys</i>	storksbill filaree	FACU*
<i>Eucalyptus globulus</i>	blue gum eucalyptus	UPL
<i>Eucalyptus</i> sp.	eucalyptus	NI
<i>Festuca arundinacea</i>	reed fescue	FACU
<i>Foeniculum vulgare</i>	fennel	FACU
<i>Genista monspessulanus</i>	French broom	NI
<i>Geranium carolinianum</i>	Carolina geranium	NI
<i>Heterotheca grandiflora</i>	telegraph weed	UPL
<i>Holcus lanatus</i>	velvet grass	FAC
<i>Hordeum marinum</i> ssp. <i>gussoneanum</i>	Mediterranean barley	FAC
<i>Hordeum murinum</i> ssp. <i>leporinum</i>	barnyard foxtail	NI
<i>Hypericum perforatum</i>	St. John's wort	NI
<i>Hypochaeris glabra</i>	smooth cat's ear	UPL
<i>Hypochaeris radicata</i>	rough cat's ear	FACU*
<i>Juncus bufonius</i>	toad rush	FACW
<i>Juncus phaeocephalus</i>	brown-headed rush	FACW
<i>Juncus</i> sp. (likely <i>J. mexicanus</i>)	Mexican rush	FACW
<i>Lolium multiflorum</i>	Italian ryegrass	FAC
<i>Lotus corniculatus</i>	bird's foot trefoil	FAC
<i>Lupinus bicolor</i>	Lindley's annual lupine	UPL
<i>Lupinus nanus</i>	sky lupine	UPL
<i>Lythrum hyssopifolium</i>	grass poly	FACW
<i>Malva neglecta</i>	common mallow	NI
<i>Marrubium vulgare</i>	horehound	FAC
<i>Medicago polymorpha</i>	burclover	FACU-
<i>Melilotus indica</i>	indian melilot	FAC
<i>Picris echioides</i>	prickly ox tongue	FAC*
<i>Pinus ponderosa</i>	ponderosa pine	FACU
<i>Plagiobothrys chorisianus</i>	Choris' popcorn flower	OBL



List of Plant Species Observed Onsite

Scientific Name	Common Name	Wetland Indicator Status ¹
<i>Plantago coronopus</i>	cut-leaved plantain	FAC
<i>Plantago lanceolata</i>	English plantain	FAC-
<i>Poa annua</i>	annual bluegrass	FACW-
<i>Polygonom arenastrum</i>	common knotweed	FAC
<i>Polypogon monspeliensis</i>	rabbitfoot grass	FACW+
<i>Pseudotsuga menziesii</i>	Douglas fir	NI
<i>Quercus agrifolia</i>	coast live oak	NI
<i>Raphanus sativus</i>	wild radish	UPL
<i>Rhamnus californica</i>	California coffeeberry	UPL
<i>Robinia pseudoacacia</i>	locust	FAC
<i>Rubus ursinus</i>	blackberry	NI
<i>Rumex acetosella</i>	sheep sorrel	FAC-
<i>Rumex crispus</i>	curly dock	FACW-
<i>Salix lasiolepis</i>	arroyo willow	FACW
<i>Sonchus asper</i> ssp. <i>asper</i>	prickly sow-thistle	FAC
<i>Spergula arvensis</i>	sand spurry	NI
<i>Toxicodendron diversilobum</i>	poison oak	UPL
<i>Trifolium angustifolium</i>	clover	NI
<i>Trifolium dubium</i>	little hop clover	FACU
<i>Trifolium hirtum</i>	rose clover	NI
<i>Trifolium subterraneum</i>	subterranean clover	NI
<i>Vicia villosa</i> ssp. <i>villosa</i>	hairy vetch	UPL
<i>Vinca major</i>	periwinkle	NI
<i>Vulpia bromoides</i>	brome fescue	FACW
<i>Vulpia myuros</i>	rat-tail fescue	FACU*

¹Reed, Porter B. 1988. National List of Plant Species that Occur in Wetlands: California (Region 0). U.S. Fish and Wildlife Service Biological Report 88(26.10). 135 pp.





Appendix B

USDA Soils Map

Scotts Valley Town Center Specific Plan Area
Delineation of Waters of the United States and State of California



0 250 500 Feet



USDA Soil Map

Source: Santa Cruz County, 2007 and RRM Design Group, 2008.

Appendix B

City of Scotts Valley



Appendix C

Data Sheets

Routine Wetland Determination Data Form
(1987 Corps Wetland Delineation Manual)

Project/Site: <u>Scotts Valley Town Center</u>	Date: <u>4/10/08</u>
Applicant/Owner: <u>City of Scotts Valley</u>	Data Point Number: <u>1</u>
Investigator: <u>Kevin Merk</u>	Transect ID: _____
Do Normal Circumstances Exist on the Site? <input checked="" type="radio"/> Yes <input type="radio"/> No	Community ID: <u>Drainage Ditch</u>
Is the site significantly disturbed (Atypical Situation)? Yes <input type="radio"/> No <input checked="" type="radio"/>	Location: (USGS Data; County) <u>Felton 7.5' topographic Quadrangle</u>
Is the area a potential Problem Area? Yes <input type="radio"/> No <input checked="" type="radio"/>	<u>Santa Cruz County</u>

VEGETATION (O = Dominant Species)

* Dominant/Species/Stratum/ Indicator Status	* Dominant/Species/Stratum/ Indicator Status
1. <u>Lolium multiflorum</u> <u>FAC</u>	9. _____
2. <u>Bare soil in bed with</u>	10. _____
3. <u>young plants germinating</u>	11. _____
4. <u>↳ Lythrum hyssopifolium</u> <u>FACW</u>	12. _____
5. <u>Cyperus eragrostis</u> <u>FACW</u>	13. _____
6. <u>Rumex crispus</u> <u>FACW-</u>	14. _____
7. _____	15. _____
8. _____	16. _____

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

REMARKS:

characterizes narrow drainage ditch (@ 2'w). Bare soil dominates ditch bed where ponded water persists, & Lolium forms dominant cover above the OTWM. Young plants are germinating in bed - Lythrum, Cyperus, Rumex

HYDROLOGY

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

Drainage ditch averages 2' wide in this location measured by OTWM. Positive indicators of wetland hydrology are present.

Routine Wetland Determination Data Form
(1987 Corps Wetland Delineation Manual)

PROJECT/SITE: Scotts Valley Town Center TRANSECT: DATA POINT: 1

SOILS

Map Unit Name (Series and Phase):
Watsonville loam, thick surface, 0-2% slopes
Taxonomy (Subgroup):
thermic xeric Argialbolls

Drainage Class:
Somewhat poorly drained
Field Observations

Confirm Map Unit? Yes No

Profile Description

Depth Inches	Horizon	Matrix Color	Mottle Color	Mottle Abun/Cont	Texture, Concretions, Structure, etc.
0-18"	A	10yr 6/3	7.5yr 5/6	common	sandy

Hydric Soil Indicators

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

REMARKS:

strange mix of soils - potentially from past earthwork on site. Old spoils pile present nearby. SkyPark airport has been altered in part, but appears to only be mowed annually now.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input checked="" type="radio"/> Yes <input type="radio"/> No	Is This Sampling Point Within a Wetland?
Wetland Hydrology Present?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Hydric Soils Present?	<input checked="" type="radio"/> Yes <input type="radio"/> No	

REMARKS:

Based on presence of redoximorphic features, moist soils, & observed water present in ditch during rain season, this area meets the definition of a wetland.

Investigator Signature

K. Sherk

Rincon Consultants, Inc.

Routine Wetland Determination Data Form
(1987 Corps Wetland Delineation Manual)

Project/Site: <u>Scotts Valley Town Center</u>	Date: <u>4/10/08</u>
Applicant/Owner: <u>City of Scotts Valley</u>	Data Point Number: <u>2</u>
Investigator: <u>Kevin Mork</u>	Transect ID:
Do Normal Circumstances Exist on the Site? <input checked="" type="radio"/> Yes <input type="radio"/> No	Community ID: <u>Drainage Ditch</u>
Is the site significantly disturbed (Atypical Situation)? Yes <input type="radio"/> No <input checked="" type="radio"/>	Location: (USGS Data; County)
Is the area a potential Problem Area? <u>sandy soils could mask hydric soil indicators</u> Yes <input type="radio"/> No <input checked="" type="radio"/>	<u>Felton 75' topo quad</u> <u>Santa Cruz County</u>

VEGETATION (Dominant Species)

* Dominant/Species/Stratum/ Indicator Status		* Dominant/Species/Stratum/ Indicator Status	
1. <u>Juncus phaeocephalus</u>	<u>FACW</u>	9.	
2. <u>Cyperus eragrostis</u>	<u>FACW</u>	10.	
3. <u>Lolium multiflorum</u>	<u>FAC</u>	11.	
4. <u>Lythrum hyssopifolium</u>	<u>FACW</u>	12.	
5. <u>Rumex crispus</u>	<u>FACW-</u>	13.	
6. <u>Holcus lanatus</u>	<u>FAC</u>	14.	
7.		15.	
8.		16.	

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

REMARKS:

characterizes drainage ditch in an area with more established wetland vegetation compared to data point 1. lolium dominant on banks above OTHWM with other spp. listed above in bed.

HYDROLOGY

<p>Recorded Data (Describe in Remarks):</p> <p>Stream, Lake, or Tide Gauge: <input checked="" type="checkbox"/></p> <p>Aerial Photographs: <input checked="" type="checkbox"/></p> <p>Other:</p> <p>No Recorded Data Available <input checked="" type="checkbox"/></p>	<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators</p> <p><input type="checkbox"/> Inundated</p> <p><input checked="" type="checkbox"/> Saturated in Upper 12"</p> <p><input checked="" type="checkbox"/> Water Marks</p> <p><input type="checkbox"/> Drift Lines</p> <p><input checked="" type="checkbox"/> Sediment Deposits</p> <p><input checked="" type="checkbox"/> Drainage Patterns in Wetlands</p> <p>Secondary Indicators (2 or more required)</p> <p><input type="checkbox"/> Oxidized Root Channels in Upper 12"</p> <p><input type="checkbox"/> Water-Stained Leaves</p> <p><input type="checkbox"/> Local Soil Survey Data</p> <p><input type="checkbox"/> FAC-Neutral Test</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
<p>Field Observations:</p> <p>Depth of Surface Water: <input checked="" type="checkbox"/></p> <p>Depth to Free Water in Pit: <u>~ 10-12"</u></p> <p>Depth to Saturated Soil: <u>soil moist @ surface</u></p>	

REMARKS:

Ditch with OTHWM approx. 2' wide. Pockets of algal matting are also present. Positive indicators of wetland hydrology are present.

Routine Wetland Determination Data Form
(1987 Corps Wetland Delineation Manual)

PROJECT/SITE: Scotts Valley Town Center TRANSECT: _____ DATA POINT: 2

SOILS

Map Unit Name (Series and Phase):
Watsonville loam, thick surface, 0-2% slopes
Taxonomy (Subgroup):
Thermic Xeric Argiobolls

Drainage Class:
Somewhat poorly drained
Field Observations

Confirm Map Unit? Yes No

Profile Description

Depth Inches	Horizon	Matrix Color	Mottle Color	Mottle Abun/Cont	Texture, Concretions, Structure, etc.
0-2"	A	10YR 2/1	∅		silty loam
2-18"	B	10YR 3/2	7.5 YR 5/6	common	sandy loam

Hydric Soil Indicators

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

REMARKS: in surface layer
Past earthwork in this area may have mixed sandy soils in this area. Nonetheless, reducing conditions/indicators are present. low chroma surface layer with chroma of 2+ redox features below = Hydric soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	Is This Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No
Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	
Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	

REMARKS: wetland-waters confined within 2' wide drainage ditch

Investigator Signature [Signature]

Routine Wetland Determination Data Form
(1987 Corps Wetland Delineation Manual)

Project/Site: <i>Scotts Valley Town Center</i>	Date: <i>4/10/08</i>
Applicant/Owner: <i>City of Scotts Valley</i>	Data Point Number: <i>3</i>
Investigator: <i>Kevin Merk</i>	Transect ID:
Do Normal Circumstances Exist on the Site? <input checked="" type="radio"/> Yes <input type="radio"/> No	Community ID: <i>NON-NATIVE Annual Grassland</i>
Is the site significantly disturbed (Atypical Situation)? Yes <input type="radio"/> No <input checked="" type="radio"/>	Location: (USGS Data; County) <i>Felton 7.5' quad</i>
Is the area a potential Problem Area? Yes <input type="radio"/> No <input checked="" type="radio"/>	<i>Santa Cruz County</i>

VEGETATION (= Dominant Species)

* Dominant/Species/Stratum/ Indicator Status	* Dominant/Species/Stratum/ Indicator Status
<i>#</i> 1. <i>Bromus diandrus</i> <i>NI</i>	9.
<i>#</i> 2. <i>Bromus hordeaceus</i> <i>FACU-</i>	10.
<i>#</i> 3. <i>Avena barbata</i> <i>NI</i>	11.
<i>#</i> 4. <i>Rumex acetosella</i> <i>FAC-</i>	12.
5. <i>Erodium botrys</i> <i>NI</i>	13.
6. <i>Trifolium hirtum</i> <i>NI</i>	14.
7. <i>Vicia villosa</i> <i>NI</i>	15.
8. <i>Vulpia myuros</i> <i>FACU</i>	16.

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): *0* %

REMARKS:

characterizes upland grassland habitat throughout this area. Hydrophytic vegetation criterion not met.

HYDROLOGY

Recorded Data (Describe in Remarks):

Stream, Lake, or Tide Gauge: *0*
Aerial Photographs: *0*
Other:
No Recorded Data Available

Field Observations:

Depth of Surface Water: *0*
Depth to Free Water in Pit: *0*
Depth to Saturated Soil: *0*

Wetland Hydrology Indicators:

- Primary Indicators**
- Inundated
 - Saturated in Upper 12"
 - Water Marks
 - Drift Lines
 - Sediment Deposits
 - Drainage Patterns in Wetlands
- Secondary Indicators (2 or more required)**
- Oxidized Root Channels in Upper 12"
 - Water-Stained Leaves
 - Local Soil Survey Data
 - FAC-Neutral Test
 - Other (Explain in Remarks)

REMARKS:

No indicators of wetland hydrology present

Routine Wetland Determination Data Form
(1987 Corps Wetland Delineation Manual)

PROJECT/SITE: Cob of Scotts Valley Town Center TRANSECT: _____ DATA POINT: 3

SOILS

Map Unit Name (Series and Phase): Watsonville loam, thick surface, 0-2% slopes Drainage Class: Somewhat poorly drained
 Taxonomy (Subgroup): Thermic Xeric Agrisol Field Observations: _____
 Confirm Map Unit? Yes No

Profile Description

Depth Inches	Horizon	Matrix Color	Mottle Color	Mottle Abun/Cont	Texture, Concretions, Structure, etc.
		<u>No soil put at this location</u>			

Hydric Soil Indicators

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

REMARKS:

Hydric soil presumed absent from this location based on hydrophytes & no indicators of wetland hydrology.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is This Sampling Point Within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	
Hydric Soils Present? <u>Presumed</u> Yes <input type="radio"/> No <input checked="" type="radio"/>	

REMARKS:

characterizes upland grassland habitat in study area.

Investigator Signature R. Kueh

Routine Wetland Determination Data Form (1987 Corps Wetland Delineation Manual)

Project/Site: <u>Scotts Valley Town Center</u>	Date: <u>7/10/08</u>
Applicant/Owner: <u>City of Scotts Valley</u>	Data Point Number: <u>4</u>
Investigator: <u>Kevin Meek</u>	Transect ID: _____
Do Normal Circumstances Exist on the Site? <input checked="" type="radio"/> Yes <input type="radio"/> No	Community ID: <u>Seasonal wetland-Vernally-Moist</u>
Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No	Location: (USGS Data; County) <u>Grassland</u>
Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No	<u>Felton 7.5 minute quad</u> <u>Santa Cruz County</u>

VEGETATION (Dominant Species)

* Dominant/Species/Stratum/ Indicator Status	* Dominant/Species/Stratum/ Indicator Status
1. <u>Lythrum hyssopifolium</u> FACW	9.
2. <u>Juncus baeiformis</u> FACW+	10.
3. <u>Lolium multiflorum</u> FAC	11.
4. <u>Hleus lanatus</u> FAC	12.
5. <u>Rumex crispus</u> FACW	13.
6. <u>Hordeum marinum ssp gussoneanum</u> FAC	14.
7. <u>Plagiobothrys chorisianus</u> OBL	15.
8. <u>present w/in this area</u>	16.

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100 %
but further ~~north~~^{south} than data point is shown on map.

REMARKS:

Characterizes swale off main drainage channel that runs in a north-south direction, then turns 90° to east, eventually connecting w/ main ditch in the vicinity of large willow (see DP. 5)

HYDROLOGY

Recorded Data (Describe in Remarks):

Stream, Lake, or Tide Gauge:

Aerial Photographs:

Other: _____

No Recorded Data Available

Field Observations:

Depth of Surface Water:

Depth to Free Water in Pit:

Depth to Saturated Soil:

Wetland Hydrology Indicators:

Primary Indicators

- Inundated
- Saturated in Upper 12"
- Water Marks
- Drift Lines
- Sediment Deposits

Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- Oxidized Root Channels in Upper 12"
- Water-Stained Leaves
- Local Soil Survey Data
- FAC-Neutral Test
- Other (Explain in Remarks)

REMARKS:

soil is moist compared to area of annual grassland to east. Topographic swale & observed algal matting (standing H₂O also observed during winter site visit in 2007 Dec.)

Routine Wetland Determination Data Form
(1987 Corps Wetland Delineation Manual)

PROJECT/SITE: Scotts Valley Town Center TRANSECT: _____ DATA POINT: 4

SOILS

Map Unit Name (Series and Phase): Elkhorn sandy loam, 2-9% slopes Drainage Class: well-drained
 Taxonomy (Subgroup): Thermic Pachic Agriixerolls Field Observations: _____
 Confirm Map Unit? Yes No

Profile Description

Depth Inches	Horizon	Matrix Color	Mottle Color	Mottle Abun/Cont	Texture, Concretions, Structure, etc.
0-18"	A	10YR 4/2	2.5YR 4/8	common	sandy → sandy loam

Hydric Soil Indicators

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

REMARKS:
 Sandy to sandy loam soil with redox concentrations present below 6". Chroma of 2 with mottles = hydric soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes No	Is This Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes No
Wetland Hydrology Present? <input checked="" type="radio"/> Yes No	
Hydric Soils Present? <input checked="" type="radio"/> Yes No	

REMARKS:
 Data point characterizes swale-like area dominated by seasonal wetland (vernally moist grassland) vegetation. Data point taken in upper reach/limits of wetland.

Investigator Signature K. Huerf

Routine Wetland Determination Data Form
(1987 Corps Wetland Delineation Manual)

Project/Site: <u>Scotts Valley Town Center</u>	Date: <u>4/10/08</u>
Applicant/Owner: <u>City of Scotts Valley</u>	Data Point Number: <u>5</u>
Investigator: <u>Kevin Mark</u>	Transect ID:
Do Normal Circumstances Exist on the Site? <input checked="" type="radio"/> Yes <input type="radio"/> No	Community ID: <u>Seasonal wetland/vernal-moist grassland</u>
Is the site significantly disturbed (Atypical Situation)? Yes <input type="radio"/> No <input checked="" type="radio"/>	Location: (USGS Data; County) <u>Felton 7.5 minute topographic quad</u>
Is the area a potential Problem Area? Yes <input type="radio"/> No <input checked="" type="radio"/>	<u>Santa Cruz County</u>

VEGETATION (= Dominant Species)

* Dominant/Species/Stratum/ Indicator Status	* Dominant/Species/Stratum/ Indicator Status
* 1. <u>Salix lasiolepis</u> FACW	9.
* 2. <u>Juncus sp. (not in flower - but appeared to be J. mexicanus = FACW)</u>	10.
* 3. <u>Holcus lanatus</u> FAC	11.
* 4. <u>Lolium multiflorum</u> FAC	12.
5. <u>Geranium carolinianum</u> NI	13.
6. <u>Hordeum marinum</u> FAC	14.
7. <u>ssp. gussoneanum</u>	15.
8.	16.

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 4/4 = 100 %

REMARKS:

Characterizes wetland area within ditch. One willow cluster present w/ patches of juncus adjacent - ditch contains a predominance of Lolium & Holcus with large patch of juncus

HYDROLOGY

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

Characterizes area where 2 drainage ditches converge. Average width of area is approx. 3'. Small ditch directs runoff from road is present further east - contributes to willow & wetland vegetation persistence.

Routine Wetland Determination Data Form
(1987 Corps Wetland Delineation Manual)

PROJECT/SITE: Scotts Valley Town Center TRANSECT: DATA POINT: 5

SOILS

Map Unit Name (Series and Phase):
Elkhorn sandy loam, 2-9% slopes
Taxonomy (Subgroup):
Thermic Pachic Argixerolls
Drainage Class: well-drained
Field Observations
Confirm Map Unit? Yes No

Profile Description

Depth Inches	Horizon	Matrix Color	Mottle Color	Mottle Abun/Cont	Texture, Concretions, Structure, etc.
0-18"	A	10YR 6/2	2.5YR 4/8	rare → common	sandy loam

Hydric Soil Indicators

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

REMARKS:

redox concentrations present but not as common as DP 4
Chroma of 2 with mottles = hydric soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes No	Is This Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes No
Wetland Hydrology Present? <input checked="" type="radio"/> Yes No	
Hydric Soils Present? <input checked="" type="radio"/> Yes No	

REMARKS:

wetland-water averages 3' wide in this area! are primarily contained within the drainage ditch.

Investigator Signature

K. Hark

Rincon Consultants, Inc.

Routine Wetland Determination Data Form
(1987 Corps Wetland Delineation Manual)

Project/Site: <i>Scotts Valley Town Center</i>	Date: <i>4/10/08</i>
Applicant/Owner: <i>City of Scotts Valley</i>	Data Point Number: <i>6</i>
Investigator: <i>Kevin Merik</i>	Transect ID:
Do Normal Circumstances Exist on the Site? <input checked="" type="radio"/> Yes <input type="radio"/> No	Community ID: <i>Seasonal wetland - vernal pool</i>
Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No	Location: (USGS Data; County) <i>grassland</i>
Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No	<i>Felton Quad</i> <i>Santa Cruz County</i>

VEGETATION (= Dominant Species)

* Dominant/Species/Stratum/ Indicator Status	* Dominant/Species/Stratum/ Indicator Status
* 1. <i>Poa annua</i> FACW-	9.
* 2. <i>Danthonia californica</i> FACW	10.
* 3. <i>Juncus phaeocephalus</i> FACW	11.
* 4. <i>Carex densa</i> OBL	12.
5. <i>Hypochaeris glabra</i> NI	13.
* 6. <i>Hordeum maritimum</i> ssp <i>gussoneanum</i> FAC	14.
* 7. <i>Plagiobothrys chorisianus</i> OBL	15.
* 8. <i>Juncus bufonius</i> FACW+ OBL	16.

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

REMARKS:
characterizes seasonal wetland area impounded by old runway - identified as Area A on wetland delineation map.

HYDROLOGY

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

REMARKS:
No positive indicators of wetland hydrology. Area has been modified by airport runway construction that appears to impound H₂O.

Routine Wetland Determination Data Form
(1987 Corps Wetland Delineation Manual)

PROJECT/SITE: Scotts Valley Town Center TRANSECT: DATA POINT: 6

SOILS

Map Unit Name (Series and Phase):
Elkhorn Sandy loam, 2-9% slopes
Taxonomy (Subgroup):
thermic Pachic Argixerolls

Drainage Class: well-drained
Field Observations: w/exceptions
Confirm Map Unit? Yes No

Profile Description

Depth Inches	Horizon	Matrix Color	Mottle Color	Mottle Abun/Cont	Texture, Concretions, Structure, etc.
0-16"	A	10YR 4/2	2.5YR 4/8	very rare	sandy loam with concrete & asphalt at $\dot{\circ}$ under surface

Hydric Soil Indicators

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

REMARKS:

Area is very rocky with old asphalt & concrete rubble - @ $\dot{\circ}$ under surface
took several attempts to find suitable location for soil pit.
Redox concentrations present, but very rare.
Chroma of 2 with mottles = hydric soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	Is This Sampling Point Within a Wetland? Yes <input checked="" type="radio"/> No
Wetland Hydrology Present? Yes <input checked="" type="radio"/> No	
Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No <i>* marginal *</i>	

REMARKS:

Seasonal wetland apparently formed from runway impounding surface flow. No direct connection to drainage ditch on south side of runway, therefore this area is hydrologically isolated. Area does not meet 3 parameters.

Investigator Signature

Shelli

Rincon Consultants, Inc.



Appendix D
Wetland Delineation Map



- Specific Plan Site
- Seasonal Wetland
- Drainage Ditch (0.07 Acre)
- Data Point Location
- Area A (0.92 Acre)
- Area B (0.09 Acre)
- > Jurisdictional Width/Length' (in feet)

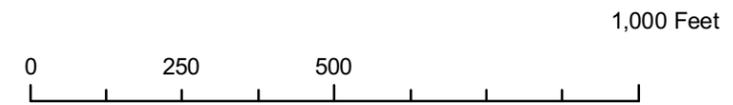
0 250 500 Feet





Appendix E

Habitat Map



Appendix F

Wetland Delineation Photo Plate



APPENDIX F - PHOTO PLATE



Photo Point 1. Northwesterly view of the middle portion of the drainage ditch. The width of the ditch in this location averages from one to three feet wide.



Photo Point 2. Southeasterly view of the bed of the ditch in the vicinity of Data Point 2 as shown on the Wetland Delineation Map.



Photo Point 3. Soils from Data Point 2. Note the dark surface layer approximately 2 inches thick (10YR2/1) and the lighter B horizon (10YR3/2) with redoximorphic features visible (7.5YR5/6).



Photo Point 4. Southeasterly view of the drainage ditch from the vicinity of Data Point 2. This photo was taken in June 2008. Note the channel vegetation is still green compared to surrounding upland vegetation.



Photo Point 5. Easterly view of seasonal wetland within a small drainage ditch connected to the main drainage ditch. This area receives surface runoff from surrounding property to the west as well as overflow from the main drainage. This photo was taken south of Data Point 4 near the 90-degree turn upstream from Data Point 5 as shown on the Wetland Delineation Map.

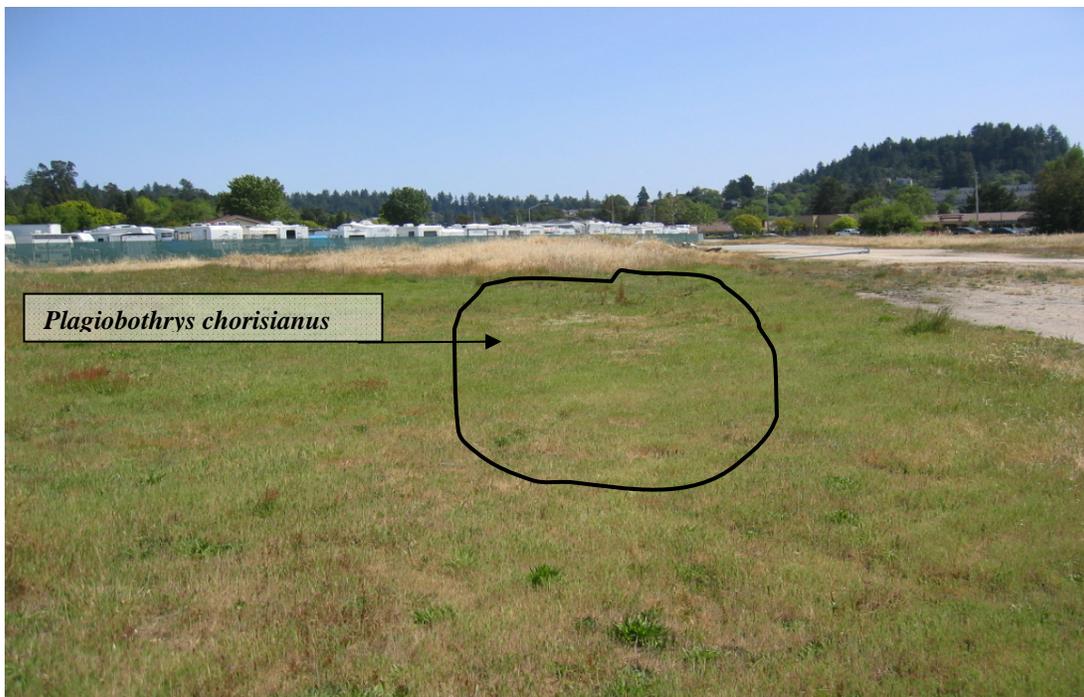


Photo Point 6. Southeasterly view of the seasonal wetland area characterized by Data Point 6. Occurrence of *Plagiobothrys chorisianus* is visible as small white patches in the center of the photo. Surface flows are apparently impounded by the runway visible on the right side of the photo.



Photo Point 7. Close up photograph of *Plagiobothrys chorisianus* onsite taken during the April 2008 field work.



Photo Point 8. Historic aerial photograph of the former Skypark Airport. No distinct natural drainage feature is apparent onsite.