Appendix C

Biological Resources Assessment
Jurisdictional Drainage and Wetland Delineation

Rincon Consultants, Inc.
180 North Ashwood Avenue
Ventura, California 93003

805 644 4455
FAX 644 4240

info@rinconconsultants.com
www.rinconconsultants.com

July 5, 2013
Project Number: 12-00651

Stephanie Diaz, Contract Planner
City of Goleta
130 Cremona Drive, Suite B
Goleta, CA 93117

Subject: **Results of a Biological Resources Assessment for the Cortona Apartments Project located at 6830 Cortona Drive, City of Goleta, Santa Barbara County, California**

Dear Ms. Diaz:

Rincon Consultants, Inc. (Rincon) is pleased to provide a biological resources assessment to support the proposed Cortona Apartments Project Environmental Impact Report (EIR). The proposed Cortona Apartments project involves a Development Plan for 176 apartments contained within eight residential buildings (four two-story and four three-story) within the city of Goleta, Santa Barbara County, California. The following assessment is based on existing data and 2013 survey efforts completed for this site.

Project Location and Description

The project site is located at 6830 Cortona Drive within the city of Goleta, Santa Barbara County (assessor's parcel number 073-140-016). The project site is bounded on its north by the Union Pacific Railroad (approximately 35 feet north of the project site) and U.S. Highway 101 (approximately 175 feet north of the project site), on its east and west by existing business park development, and on its south by Cortona Drive and business park development. Figure 1 shows the site's location within the region and Figure 2 depicts the location of the site within Goleta.

Methodology

Rincon conducted an updated review of relevant databases within 5 miles of Segment 17, including sensitive resource occurrences from the California Department of Fish and Wildlife (CDFW) *California Natural Diversity Data Base* (CNDDB), *Biogeographic Information and Observation System* (BIOS – www.bios.dfg.ca.gov), the U.S. Fish and Wildlife Service (USFWS) *Critical Habitat Portal* (http://criticalhabitat.fws.gov), and the California Native Plant Society (CNPS) online *Inventory of Rare and Endangered Plants of California* (California Native Plant Society, 2013). Previous reports were reviewed including a Biological Resources Update (Rindlaub 2008), a Biological Assessment (Tierney 2009), an Arborist Report (McPherson 2009), and a Non-Wetland Clarification (Rindlaub 2009). Other sources of information about the site included aerial photographs, topographic maps, climatic data, and project plans. In addition, Rincon reviewed the City of Goleta Land Use and Zoning, the Final EIR General Plan/Coastal Land Use Plan (City of Goleta 2006), and Santa Barbara County Coastal Zoning Ordinance – Chapter 35, Article II (1997) for determination of Environmental Sensitive Habitat Areas (ESHA) that may be present within the project boundaries.

This analysis incorporates the results of a reconnaissance level survey within the project site boundary conducted on June 10, 2013 by Rincon Senior Biologist Julie Broughton and Associate Biologist Lindsay Griffin. The field reconnaissance survey documented existing site conditions and the potential presence of sensitive biological resources, including sensitive plant and wildlife species, sensitive plant communities, jurisdictional waters and wetlands, and habitat for nesting birds. The results of the survey were compared to existing biological reports to assess any changes within the project boundary. The field biologists surveyed the project site on foot and recorded the biological resources present onsite such as plant and wildlife species.

Existing Site Conditions

The field reconnaissance level survey confirmed conditions within the Cortona Apartments project boundaries appear to be the same as during previous site visits in 2008 and 2009. Plant communities observed during the 2013 survey were identified based on *A Manual of California Vegetation, Second Edition* (Sawyer et al., 2009) while previous surveys were based on the *A Manual of California Vegetation* (Sawyer and Keeler-Wolf 1995). Updates to habitat nomenclature are addressed on an individual basis below.

The project site is dominated by both native and non-native plant communities including *Baccharis pilularis* Shrubland Alliance (coyote brush scrub), California Annual Semi-Natural Stand, and California Coastal Upland Cismontane Stand. Within the previous report (Tierney 2009) only the coyote brush scrub and California Annual Semi-Natural Stand were identified in addition to a Purple Needlegrass Series (*Nassella pulchra* Herbaceous Alliance in Sawyer et al., 2009). The Purple Needlegrass Series was identified at the southwestern corner of the site and about 2,000 square feet in size. During the 2013 survey, this stand was estimated to cover about 100 square feet. The central area may have contained an expanded population but the area had recently been mowed. Due to the reduced percent coverage, the Purple Needlegrass Series was not identified as a distinct plant community during the 2013 survey.

The dominant plant community present is California Annual Semi-Natural Stands made up of multiple species of non-native weedy annual grasses and herbs. Identification to alliance level was not feasible due to a lack of dominant plant species and recent mowing of the habitat restricting definitive percent coverage. Plant species found within this habitat include wild oats (*Avena fatua*), ripgut brome (*Bromus diandrus*), red brome (*Bromus madritensis* ssp. *rubens*), crabgrass (*Digitaria* sp.), foxtail (*Hordium murinum*), mustards (*Brassica nigra* and *Hirschfeldia incana*), red-leaved filaree (*Erodium cicutarium*), and wild radish (*Raphanus sativus*).

Coyote brush scrub habitat is present along the northern and western edges of the project site. This habitat is dominated by coyote brush (*Baccharis pilularis*) interspersed with open areas dominated by wild radish, blue elderberry (*Sambucus nigra* ssp. *caerulea*), and weedy herbs and grasses.

California Coastal Upland Cismontane Stand, dominated by native and non-native trees, is located in the northeast and southeast sections of the project site. Trees found within this habitat include coast live oak (*Quercus agrifolia*), Canary Island palm (*Phoenix canariensis*), Mexican fan palm (*Washingtonia robusta*), deodar cedar (*Cedrus deodara*), and Italian stone pine (*Pinus pinea*) with an understory dominated by non-native grasses and herbs. These trees were identified and assessed in the Arborist Report (McPherson 2009). No new non-native trees were observed during the 2013 survey.

The project site provides habitat for wildlife species that occur in open weedy fields, shrub habitat and tree stands. Bird species observed on-site include: house finch (*Carpodacus mexicanus*), American crow (*Corvus brachyrhynchos*), black phoebe (*Sayornis nigricans*), American goldfinch (*Spinus tristis*), yellow warbler (*Dendroica petechia*), northern mockingbird (*Mimus polyglottos*), western scrub-jay (*Aphelocoma californica*), Anna's hummingbird (*Calypte anna*), bushtit (*Psaltriparus minimus*), song sparrow (*Melospiza melodia*), mourning dove (*Zenaida macroura*), and red-tailed hawk (*Buteo jamaicensis*). California ground squirrel (*Otospermophilus beecheyi*), brush rabbit (*Sylvilagus bachmani*), and western fence lizard (*Sceloporus occidentalis*) were also observed.

Sensitive Biological Resources Impact Assessment

***Special Status Plants*.** A search of the CNDDB records identified 12 special status plant species tracked within 5 miles of the project site. The 12 special status plant species are found in chaparral, coastal dune/bluff scrub, marshes and weeps, vernal pools, and coastal scrub habitats. None of these plant communities were found within the project boundaries. No special status plant species were identified during the either the 2009 or 2013 biological assessment surveys for this site. Special status plants are not expected to occur within the project site due to the lack of suitable habitats and the highly disturbed nature of the area.

***Sensitive Plant Communities*.** A search of the CNDDB records identified one special status plant community tracked within 5 miles of the project site. This community, Southern Coastal Salt Marsh, is associated with near shore marine tidal influences. During the 2013 survey no sensitive plant communities were present nor were any of the individual indicator species associated with the communities observed.

Within the 2006 Goleta General Plan/Coastal Land Use Plan Chapter 4.0 Conservation Element (GP/CP) and Coastal Zoning Ordinance Chapter 35-97 (1997) coastal sage scrub, California native oak woodland, and native grassland habitats on the project site are identified as Environmentally Sensitive Habitat Area (ESHA). On Figure 4-1 of the GP/CP, coastal sage scrub is identified as occurring along the northern-most boundary within the project site. The GP/CP defines Coastal Sage Scrub habitat as a drought-tolerant, Mediterranean habitat characterized by soft-leaved, shallow-rooted subshrubs such as California sagebrush (*Artemisia californica*), coyote brush, California encelia (*Encelia californica*), goldenbush (*Ericameria ericoides*), giant wild rye (*Elymus condensatus*), and annual non-native grasses. Of these species only coyote brush was observed within the project boundaries. The National Vegetation Classification Hierarchy as Applied to California Vegetation identifies coastal sage scrub as a macrogroup of multiple alliances, none of which includes coyote brush as the dominant alliance species.

Previous biological studies (Tierney 2009) included habitat descriptions and a detailed focus study to determine the classification of the on-site scrub community. The determination that the coyote brush habitat found on site was not considered coastal sage scrub or any other unique, rare or fragile community was confirmed during the 2013 surveys. Therefore, although the project site contains a City of Goleta mapped ESHA (coastal sage scrub), this habitat was not found within the project boundary or nearby areas.

Although purple needlegrass was observed within the project boundary, there were not enough individual specimens present to be collectively identified as a foothill grassland habitat. Additionally, although coast live oak trees were observed within the project boundary, associated

understory and woodland species were lacking and thus these trees were not collectively identified as an oak woodland.

***Special Status Wildlife*.** A search of the CNDDB records identified 11 special status wildlife species tracked within 5 miles of the project site. Nine of the special status wildlife species require coastal dune/bluff habitat, open native grasslands, coastal marsh, or the presence of perennial flowing or ponded water none of which is present within the project boundary. The remaining two special status species were the ferruginous hawk (*Buteo regalis*) and the monarch butterfly (*Danaus plexippus*).

The ferruginous hawk is a wintering species and would not have been expected to be present during late spring surveys. Although the site could be used for foraging during the winter, the site is not an important foraging habitat location for the species given existing disturbances, surrounding development, and the availability of higher quality expanses of grassland habitat in the region.

Although eucalyptus trees are found approximately 100 feet north of the project site, the monarch butterfly host and food plants are absent from within the project site and there are no historical reports of monarch butterflies using these trees for roosting aggregations.

Although not identified in the CNDDB search, a yellow warbler (California Species of Special Concern when nesting) was observed within the project boundary during the 2013 survey. While this species was observed and the site provides suitable foraging habitat, the site lacks suitable nesting habitat (willow riparian). Therefore, impacts to nesting yellow warblers are not expected.

No other special status species were observed during either the 2009 or 2013 surveys nor are they expected to occur within the project site due to the lack of preferred habitats.

The project site does contain habitat that can support nesting birds, including raptors, protected under the California Fish and Game (CDFG) Code Section 3503 and the Migratory Bird Treaty Act (MBTA). Native trees, ornamental trees and woody palms, and woody shrubs are present within and adjacent to the project site that could provide suitable nesting habitat. However, no active or previously occupied nests were observed in the vegetation during the 2013 survey.

***Wildlife Movement Corridors*.** Wildlife movement corridors, or habitat linkages, are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. Such linkages may serve a local purpose, such as providing a linkage between foraging areas, or they may be regional in nature.

During the 2013 field reconnaissance survey the potential presence of wildlife movement corridors was assessed. Within the proposed project site there is a low potential for wildlife to move locally through the site due to lack of connectivity with other adjacent undeveloped spaces and the highly urbanized characteristic of the surrounding areas. Therefore, the project site is not located within a corridor that facilitates wildlife movement on a local or regional basis.

***Jurisdictional Drainages and Wetlands*.** A separate evaluation for Jurisdictional Drainages and Wetlands evaluation report has been prepared for this project. Per the GP/CP (Policy CE 3: Protection of Wetlands), wetlands are any area that meets the definition of a wetland as defined by

the California Coastal Commission, California Department of Fish and Wildlife, and the U.S. Fish and Wildlife Service. The City of Goleta uses presence of a single indicator (soil, hydrology, or plants) to determine the boundary of a wetland. Based on the findings in the Jurisdictional Drainages and Wetlands evaluation report, previously published reports (Rindlaub 2009) and observations made during the reconnaissance surveys, no features observed within the project site are expected to be subject to the jurisdiction of the U.S. Army Corps of Engineers, CDFW or the Los Angeles Regional Water Quality Control Board. It is noted that the regulatory agencies make the final jurisdictional determination.

***Protected Trees*.** Within the City there is currently no specific tree protection plan in place; however, the City follows County regulations for protected trees. Native tree protection within the County of Santa Barbara is restricted to the protection of deciduous oaks only, none of which were identified within the project boundary either in 2009 Arborist Report or during the 2013 surveys. Protection of trees within the City is regulated by Section 4.0 Conservation Element (CE) of the *Goleta General Plan/Coastal Land Use Plan* (September 2006; General Plan) and the Draft *State of the Goleta Urban Forest Report: An Urban Resource Assessment for the City of Goleta* (dated November 17, 2009; herein referred to as the Goleta Urban Forest Report) and Title 15 Building and Construction; Chapter 15.09 Grading, Erosion, and Sediment Control, Appendix A Grading Ordinance Guidelines for Native Oak Tree Removal. The objective of General Plan Policy CE 9: Protection of Native Woodlands is to maintain and protect existing native trees and woodlands as a valuable resource needed to support wildlife and provide visual amenities. Protected trees area defined (General Plan Policy CE 9.1) as oaks (*Quercus* spp.), walnut (*Juglans californica*), sycamore (*Platanus racemosa*), cottonwood (*Populus* spp.), willows (*Salix* spp.), or other native trees that are not otherwise protected in Environmentally Sensitive Habitat Areas (ESHAs). Protected trees can include: 1) Heritage Trees, which are defined as an outstanding specimen because of size, form, shape, age, color, rarity, genetic constitution, or other distinctive features; 2) a distinctive community landmark; 3) a specimen associated with a historic person, place, event or period; 4) a representative of a crop gown by ancestors and their successors that is at risk of disappearing from cultivation; or, 5) a specimen recognized by members of a community as deserving heritage recognition.

Currently within the City there are no legal administrative processes for protecting any Heritage tree or tree of significance on public or private property. The Goleta Urban Forest Report includes references to City ordinances adopted from the County of Santa Barbara at the time of City's incorporation although none directly pertain to native tree protection or mitigation measures related to native tree removal. The objective of the Grading Ordinance Guidelines is to protect both deciduous and live oaks impacted by grading in both agricultural and non-agricultural development. During non-agricultural development protected live oak trees include trees of eight inches diameter at breast height (DBH) or greater and count towards calculating mitigation.

Coast live oak trees (*Quercus agrifolia*) were observed during the 2013 survey and had been previously documented within the Arborist Report (2009). A review of the Arborist Report and observations made during the survey found no new protected trees within the project site. Additionally, all protection measures and mitigation requirements presented in the Arborist Report met both the County's and the City's regulatory requirements.

While the Arborist Report includes preservation directives for all trees native and non-native during construction activities, County and City regulatory requirements do not enforce these directives for trees other than oaks (*Quercus* sp.).

Proposed Mitigation Measures

The following mitigation measures are recommended to reduce potential impacts to sensitive biological resources to less than significant:

- **BIO – 1: Nesting Bird Surveys** – If vegetation removal or construction activities are expected to commence during the avian breeding season (typically February to August but variable based on seasonal climatic conditions) a survey for active nests shall be conducted by a qualified biologist at the site one week prior to any scheduled tree removal. If active nests are located, then all project work shall be conducted at a distance determined by a qualified avian biologist to ensure that active nests are not disturbed and that the young have fledged and are independent of the adults. Project activities may encroach into the buffer at the discretion of a qualified biological monitor.
- **BIO – 2: Tree Protection** – Construction impacts to the coast live oaks which are to be preserved should be minimized. A tree protection zone (dripline plus five feet) should be established prior to any ground disturbance by the installation of exclusionary fencing. If any areas of the protection zone would be intruded upon by excavation activity, areas within the protection zone should be hand dug and overseen by a qualified arborist. Mitigation for removed trees should be implemented with like species trees at a ratio of 10:1 if using one gallon container size trees or 3:1 if using 24-inch box trees (Goleta Municipal Code Title 15, Chapter 15.09 Appendix A Grading Ordinance Guidelines for Native Oak Tree Removal). A long-term maintenance program of no less than five years of monitoring should be implemented to assure mitigation success.

Conclusion

Based on survey results, special status plant and wildlife species have a low potential to occur on-site and a low probability of being impacted by the project. Mapped coastal sage scrub habitat or other protected ESHAs are not present within the project boundary. Jurisdictional drainages and wetlands , as defined by the City's one criteria requirement, were not found on site.

A variety of bird species, including raptors, may nest on-site and potentially be impacted by project activities. In addition, protect native trees are present on-site. Should these resources be impacted by the project, mitigation measures have been proposed that would reduce impacts to a less than significant level.

Based the results of our survey and on our review of previously prepared biological reports, no new significant impacts to biological resources are expected as a result of the proposed project.

We appreciate the opportunity to assess you with this important project. Please contact us with any questions.

Sincerely,
RINCON CONSULTANTS, INC.

Julie Broughton
Senior Biologist

Steven J. Hongola
Biological Program Manager

Attachment: Figure 1 - Regional Location
Figure 2 - Project Location
Figure 3-4 - Site Photographs

References

CNPS 2013. *Inventory of Rare and Endangered Plants 8th Edition*, http://cnps.site.aplus.net/cgi-bin/inv/inventory.cgi (accessed June 25, 2013)

Jepson Flora Project (eds.) 2013. *Jepson eFlora*, http://ucjeps.berkeley.edu/IJM.html (accessed on June 25, 2013)

McPherson, D. 2009. *Tree Protection Plan, 6830 Cortona Drive*, dated August 23, 2009.

Rindlaub, K. 2009. *6830 Cortona Drive – Non-Wetland Report Clarification*. Letter Report to Harwood White, dated August 13, 2009.

Tierney, R. 2009. Biological Assessment, dated August 14, 2009.

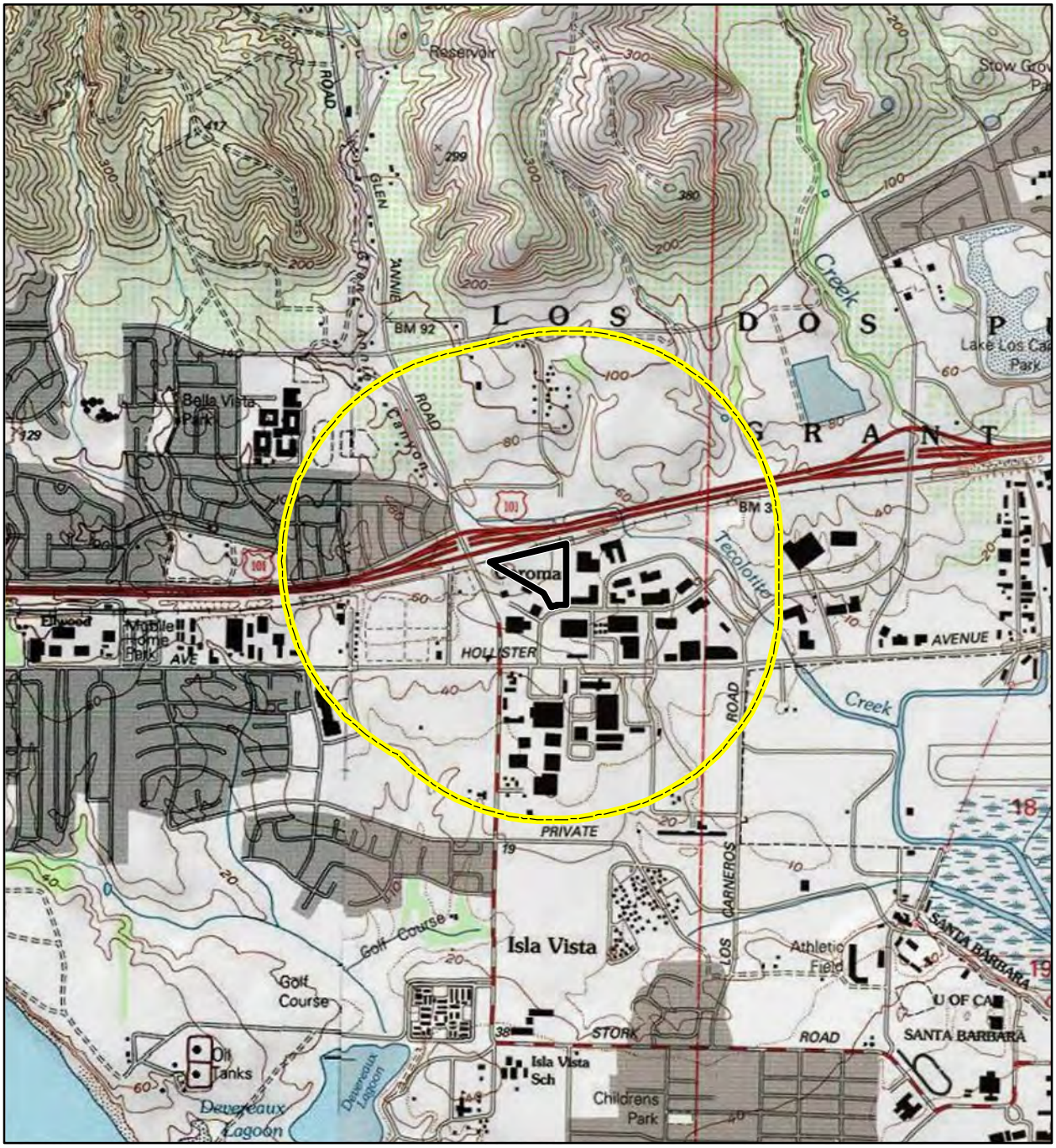
Imagery provided by ESRI and its licensors © 2013.

★ Project Location

Regional Location

Figure 1

City of Goleta



Imagery provided by ESRI and its licensors, 2013. USGS Topo, Copyright: © 2013 National Geographic Society. Ventura and Dos Pueblos Canyon Quadrangles. The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may have changed since the original topographic map was assembled.

Project Area

One-Half Mile Buffer

N

0 1,000 2,000 Feet

0 250 500 Meters

1:24,000

Project Location Map

Figure 2

City of Goleta

Photograph 1. View looking northwest across the project site. Note recently mowed California annual semi-natural stand dominated by non-native grasses.

Photograph 2. View looking east across the project site. Coyote brush scrub is on the right, oak woodland and cismontane semi-natural stand at arrow.

Photograph 3. Cismontane semi-natural stand at northeast corner of the site.

Photograph 4. View from north looking south across the site. Oak woodland is on the left.

Site Photographs Figure 3

Photograph 5. View looking north from Cortona Road entrance.

Photograph 6. View looking west across the south edge of the coyote brush scrub.

Photograph 7. View looking north at the eastern boundary of the coyote brush scrub.

Photograph 8. View looking north near eastern boundary of coyote brush scrub.

Site Photographs Figure 4

Rincon Consultants, Inc.
180 North Ashwood Avenue
Ventura, California 93003

805 644 4455
FAX 644 4240

info@rinconconsultants.com
www.rinconconsultants.com

July 5, 2013
Project Number: 12-00651

Stephanie Diaz, Contract Planner
City of Goleta
130 Cremona Drive, Suite B
Goleta, CA 93117

Subject: **Results of a Jurisdictional Drainage and Wetland Evaluation for the Cortona Apartments Project, City of Goleta, Santa Barbara County, California**

Dear Ms. Diaz:

Rincon Consultants, Inc. (Rincon) is pleased to provide the results of an evaluation for jurisdictional drainages and wetlands to support the proposed Cortona Apartments Project Environmental Impact Report (EIR). The proposed Cortona Apartments project involves a Development Plan for 176 apartments contained within eight residential buildings (four two-story and four three-story) within the city of Goleta, Santa Barbara County, California. The evaluation was conducted to determine the presence/absence of drainages and wetlands within the project site that could be potentially subject to the jurisdiction of the United States Army Corps of Engineers (USACE), Central Coast Regional Water Quality Control Board (RWQCB) and California Department of Fish and Wildlife (CDFW). The following assessment is based on existing data and a 2013 survey completed for this site.

Any proposed development in areas identified as jurisdictional waters and/or wetlands may be subject to the permit requirements of the USACE, under Section 404 of the Clean Water Act (CWA), RWQCB, under Section 401 of the Clean Water Act and the Porter-Cologne Water Quality Control Act and a Streambed Alteration Agreement from the CDFW pursuant to Section 1600 et. seq. of the California Fish and Game Code. Actual jurisdictional areas are determined by the state and federal authorities at the time that permits are requested. This report is not intended for agency submittal during future acquisition of any regulatory permits necessary for the project.

Project Location and Description

The project site is located at 6830 Cortona Drive within the city of Goleta, Santa Barbara County (assessor's parcel number 073-140-016). The project site is bounded on its north by the Union Pacific Railroad (approximately 35 feet north of the project site) and U.S. Highway 101 (approximately 175 feet north of the project site), on its east and west by existing business park development and on its south by Cortona Drive and business park development. Figure 1 shows the site's location within the region, while Figure 2 illustrates the location of the site within Goleta.

Methodology

Per the City of Goleta's General Plan/Coastal Plan (GP/CP) - Policy CE 3: Protection of Wetlands, wetlands are any area that meets the definition of a wetland as defined by the California Coastal Commission, CDFW, and the U.S. Fish and Wildlife Service using presence of a single indicator (hydrophytic vegetation, hydric soils, and wetland hydrology) to determine the presence of a wetland. Evaluation for potential jurisdictional drainages and wetlands, for this project, was based on the presence of a single indicator.

The project site was inspected to evaluate the presence/absence of waters of the United States (U.S.), including wetlands potentially subject to USACE jurisdiction and thus, Section 404 of CWA. The wetland delineation was conducted in accordance with the *Wetlands Delineation Manual* (Environmental Laboratory 1987), *Guidelines for Jurisdictional Determinations for Waters of the United States in the Arid Southwest* (United States Army Corps of Engineers 2001), *Jurisdictional Determination Form Instructional Guidebook* (United States Environmental Protection Agency and United States Army Corps of Engineers 2007), *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (United States Army Corps of Engineers 2008a), *A Field Guide to the Identification of the Ordinary High Water mark (OHWM) in the Arid West Region of the Western United States* (2008b), and Code of Federal Regulations sections that pertain to factors constituting the ordinary high water mark (OHWM) for non-wetland waters ("other waters") (33 CFR 328.3 and 33 CFR 328.4). RWQCB jurisdiction was evaluated in accordance with the previously listed methodologies to identify waters subject to federal jurisdiction and thus, mirrors the lateral limits of federal jurisdiction pursuant to Section 401 of the CWA. The evaluation of RWQCB jurisdiction will follow such methods until the State Water Resources Control Board's Wetland and Riparian Area Protection Policy is fully developed and officially implemented. Appendix A presents a discussion of pertinent regulations and definitions pertaining to jurisdictional waters.

Literature Review

Prior to the field survey, Rincon reviewed aerial imagery depicting the proposed project area (Google Earth 2013, the Web Soil Survey (United States Department of Agriculture, Natural Resource Conservation Service 2013, existing reports previously prepared for the project, and other available background information to better characterize the nature and extent of jurisdictional drainages and riparian habitats potentially occurring on the project site. The *National Wetlands Inventory* (NWI) (United States Department of the Interior, Fish and Wildlife Service 2013 was reviewed to determine if any wetland and/or non-wetland waters had been previously documented and mapped on or in the vicinity of the proposed project site. The *National Hydric Soils List by State: California* (United States Department of Agriculture, Natural Resources Conservation Service 2013 were also reviewed to determine if any soil map unit types mapped on or in the vicinity of the proposed project site were classified as hydric.

Field Survey

Rincon Senior Biologist Julie Broughton and Associate Biologist Lindsay Griffin conducted the jurisdictional drainage and wetland evaluation within the project site on June 10, 2013. The entire site was surveyed for the presence of any potentially jurisdictional features including development of a comprehensive plant list and visual survey for hydrological features.

Potential presence of hydrophytic vegetation (i.e., wetland plants) was determined by creating a species list (Appendix C) for those plants found within the project limits and then assigning an indicator status category to each species using Lichvar (2012).

To establish whether hydric soils were present, a soil pit was dug to determine the presence or absence of positive field indicators for hydric soils as described in *Field Indicators of Hydric Soils in the United States, A Guide for Identifying and Delineating Hydric Soils,* ver. 7.0 (United States Department of Agriculture, Natural Resources Conservation Service 2010) and *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (United States Army Corps of Engineers 2008a). Soil color was determined using a Munsell® (2000) Soil Color Chart.

The potential presence of wetland hydrology was determined by the presence or absence of primary and secondary indicators, such as surface water and drainage patterns, respectively. Data points were considered to be within a jurisdictional wetland if the area met the criteria for all three factors. One sample point (Figure 3) was established at a potentially representative location to determine the presence or absence of wetland indicators. Sampling information was entered into the United States Army Corps of Engineers' Wetland Determination Data Form – Arid West Region (Appendix B).

Environmental Setting

The project site is located within the Goleta Valley on a narrow coastal shelf between the Pacific coast and the steep southern slopes of the Santa Ynez Mountains. The coastal shelf slopes gently from the beaches up to the foothills of the mountains, with elevations ranging from sea level to about 600 feet above mean sea level (msl). North of the foothill area, the front of the Santa Ynez Mountains rises steeply, providing a dramatic visual backdrop to the community. Elevations along the crest of the mountains reach as high as about 3,500 feet. The project site is located at the northern edge of the coastal shelf, at the base of the mountains.

Several streams drain the slopes of the Santa Ynez Mountains and the coastal plain, traversing in a generally north-south direction and draining into the Pacific Ocean. These drainages provide riparian wildlife habitat, aid in groundwater recharge, and add to the scenic character of the area. There are no drainages or riparian habitat either crossing or adjacent to the project site. The nearest drainage is Glen Annie Creek that passes the project site to the north of Highway 101, drains east to Los Carneros Road, and empties into the Goleta Slough.

Water appears to move across the project site via sheet flow in a northwest to southeast pattern following the topography.

Vegetation

Vegetation communities and land cover types are classified based on descriptions provided in the *CDFG's Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986) and *A Manual of California Vegetation* (Sawyer et al. 2009). Project site vegetative cover is categorized into three vegetative types. The project site's vegetation communities and land cover types include primarily native and non-native upland plant communities including the following:

- Coyote Brush Scrub (*Baccharis pilularis* Shrubland Alliance), a native shrub that inhabits river mouths, streamsides, terraces, stabilized dunes of coastal bars, spits along the coastline, coastal bluffs, open slopes and ridges. Important associate species within the alliance are California sagebrush (*Artimisia californica*), California buckwheat (*Eriogonum fascicularis*) and annual grasses.

- California Annual Semi-Natural Stands includes multiple species of non-native weedy annual grasses and herbs. Plant species found within this habitat included wild oats (*Avena fatua*), ripgut brome (*Bromus diandrus*), red brome (*Bromus madritensis* ssp. *rubens*), crabgrass (*Digitaria* sp.), foxtail (*Hordium murinum*), mustards (*Brassica nigra* and *Hirschfeldia incana*), red-leaved filaree (*Erodium cicutarium*), and wild radish (*Raphanus sativus*).

- California Coastal Upland Cismontane Stand includes native and non-native evergreen or winter-deciduous trees found in warmer coastal environments in southern and central California. Trees found within this habitat include coast live oak (*Quercus agrifolia*), Canary Island palm (*Phoenix canariensis*), Mexican fan palm (*Washingtonia robusta*), deodar cedar (*Cedrus deodara*), and Italian stone pine (*Pinus pinea*).

A plant inventory was developed with identification to the lowest taxonomic level possible. Taxonomic nomenclature for plant species is in accordance with *The Jepson Manual* (Baldwin et al. 2012). Wetland indicator status for plant species present on-site are based on *Arid West 2012 Final Regional Weland Plant List* (Lichvar 2012) and includes the following categories:

- Obligate Wetland (OBL) – Plants that occur almost always in wetlands
- Facultative Wetland (FACW) – Plants that usually occur in wetlands, but also occur in non-wetlands (i.e., uplands)
- Facultative (FAC) – Plants with a similar likelihood of occurring in both wetlands and uplands
- Facultative Upland (FACU) – Plants that usually occur in uplands, but also occur in wetlands
- Obligate Upland (UPL) – Plants that occur almost always in uplands (includes those species not listed in Lichvar [2012]).
- Need Information (NI) – Plants for which more information is needed prior to assigning an indicator status

A list of the plants observed on site and associated wetland indicator status can be found in Appendix C. The vegetation observed on site includes one upland species, eight facultative upland species and four facultative species. The remaining plants observed on site were not included within the *Arid West 2012 Final Regional Wetland Plant List.* No facultative wetland or obligate wetland species were observed during either the 2009 or 2013 surveys.

Soils

Soil sample data entered in the Wetland Determination Data Form (Appendix B) included results of hydrophytic vegetation presence, hydric soil profile description, and wetland hydrological indicators. The soil profile included 10YR 2/1 colored matrix with a clay texture found at up to 12 inches in depth. The hardness and compaction of the clay soil prohibited further digging. Although the soil contained a dark matrix, it did not contain other characteristics specifically required to meet the

definition of hydric soils indicators. For instance, the criteria for Indicator A11 (depleted below dark surface) were not satisfied because the technical description of this indicator includes the presence of a depleted or gleyed matrix with a chroma of 2 or less, starting within 12 inches of the soil surface (USACE 2008a). The soil sample remained consistent in color throughout the pit and lacked any associated indicators such as redoximorphic features, depleted matrix, or gleyed matrix.

Based on a custom soil resource report for Santa Barbara County, California South Coastal Part (Natural Resources Conservation Service 2013), the proposed project site is dominated by soil map unit Goleta Fine Sandy Loam 0 – 2% slope. Other soil units found on site include Xerorthents, cut and fill areas. Goleta Fine Sandy Loam consists of well-drained soils that formed in alluvium derived mainly from sedimentary rock. Goleta Fine Sandy Loam soils are found in valleys and toe of slopes. Xerorthents 0 – 45% slope consist of well-drained soils derived from rock, concrete, asphalt, other debris or earthy fill.

Neither of these soil types are listed on the *National Hydric Soils List by State: California* (United States Department of Agriculture, Natural Resources Conservation Service 2011). Based on soil pit data from the field survey (see Wetland Determination Data Forms in Appendix C) hydric soils are not present.

Hydrology

The Cortona Apartments project site is located within the Santa Barbara Coastal Hydrologic Unit. The project site lacked any identifiable drainages or wetlands as defined by presence of an ordinary high water mark, bed, bank, and channel or associated riparian vegetation. There are topographically high and low areas typically found within a relatively flat, previously disturbed site although no distinctive drainages, bioswales, or basins were present (Figure 4, Photograph 1). No indicators of wetland hydrology were observed.

Conclusion

Based on Rincon's evaluation of jurisdictional drainages and wetlands, the project site lacks indicators for the three wetland parameters (hydrophytic vegetation, hydric soils, and wetland hydrology). No features potentially subject to regulation under the jurisdiction of the USACE, RWQCB, CDFW, or the City's General Plan / Coastal Plan were observed. This finding is consistent with previously published studies (Rindlaub 2009, Tierney 2009) indicating the lack of jurisdictional drainages or wetlands.

We appreciate the opportunity to assist you with this important project. Please contact us with questions.

Sincerely,
RINCON CONSULTANTS, INC.

Julie Broughton
Senior Biologist

Steven J. Hongola
Biological Program Manager

Attachment: *Figure 1 - Regional Location*
Figure 2 - Project Location
Figure 3 – Soil Sampling Location Map
Appendix A - Regulatory Overview and Definitions
Appendix B - Wetland Determination Form
Appendix C - Plant Inventory List

References

Baldwin, B.W. et al. (eds.) 2012. The Jepson Manual – Vascular Plants of California. University of California Press.

California, State of. 2006. *Fish and Game Code*. Available at: http://www.leginfo.ca.gov/calaw.html

Lichvar, R.W. 2012. The National Wetland Plant List; Arid West 2012 Final Regional Wetland Plant List. ERDC/CRREL TR-12-11. Hanover, NH: U.S. Army Corps of Engineers, Cold Regions Research and Engineering Laboratory.

Munsell®. 2000. *Munsell® Soil Color Charts*. GretagMacbeth. New Windsor, New York.

Rindlaub, K. 2009. *6830 Cortona Drive – Non-Wetland Report Clarification*. Letter Report to Harwood White, dated August 13, 2009.

Tierney, R. 2009. Biological Assessment, dated August 14, 2009.

United States Army Corps of Engineers (USACE), Environmental Laboratory. 1987. Corps of Engineers Wetland Delineation Manual, Technical Report Y-87-1, U.S. Army Engineers Waterways Experiment Station, Vicksburg, Miss.

United States Army Corps of Engineers (USACE). 2001. Guidelines for Jurisdictional Determinations for Waters of the United States in the Arid Southwest.

United States Army Corps of Engineers (USACE). 2007. Jurisdictional Determination Form Instructional Guidebook.

United States Army Corps of Engineers (USACE). 2008a. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0).* Engineer Research and Development Center, ERDC/EL TR-08-28.

United States Army Corps of Engineers (USACE). 2008b. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States.

United States Department of Agriculture, Natural Resources Conservation Service. 2013. *Web Soil Survey*. National Cooperative Soil Survey. Available at: http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm

United States Department of Agriculture, Natural Resources Conservation Service. 2010. *National Hydric Soils List by State: California*. Available at: ftp://ftp-fc.sc.egov.usda.gov/NSSC/Hydric_Soils/Lists/ca.xls

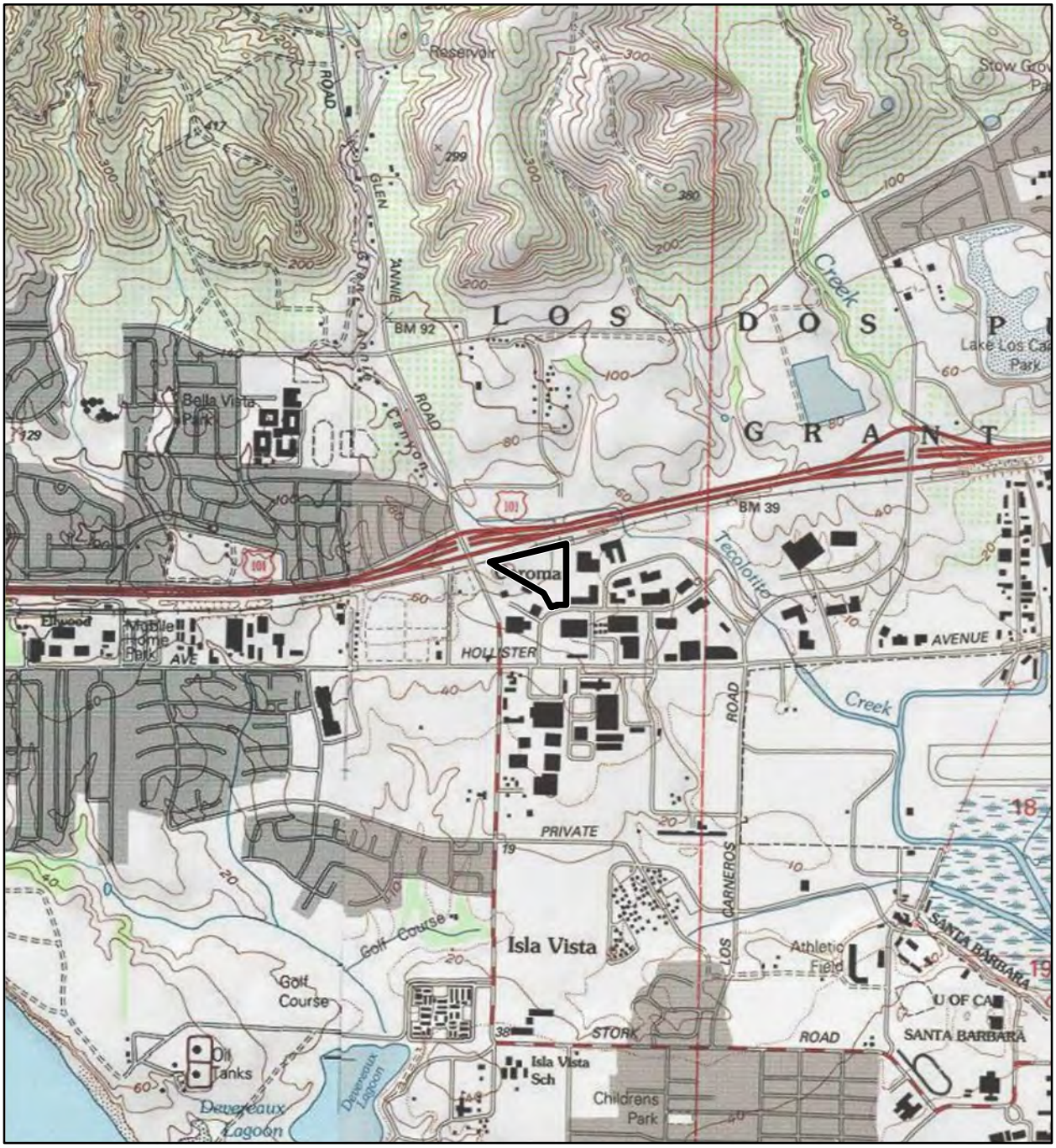
Imagery provided by ESRI and its licensors © 2013.

Project Location

Regional Location

Figure 1

City of Goleta



Imagery provided by ESRI and its licensors, 2013. USGS Topo, Copyright: © 2013 National Geographic Society. Ventura and Dos Pueblos Canyon Quadrangles. The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may have changed since the original topographic map was assembled.

Project Area

N

0 1,000 2,000 Feet

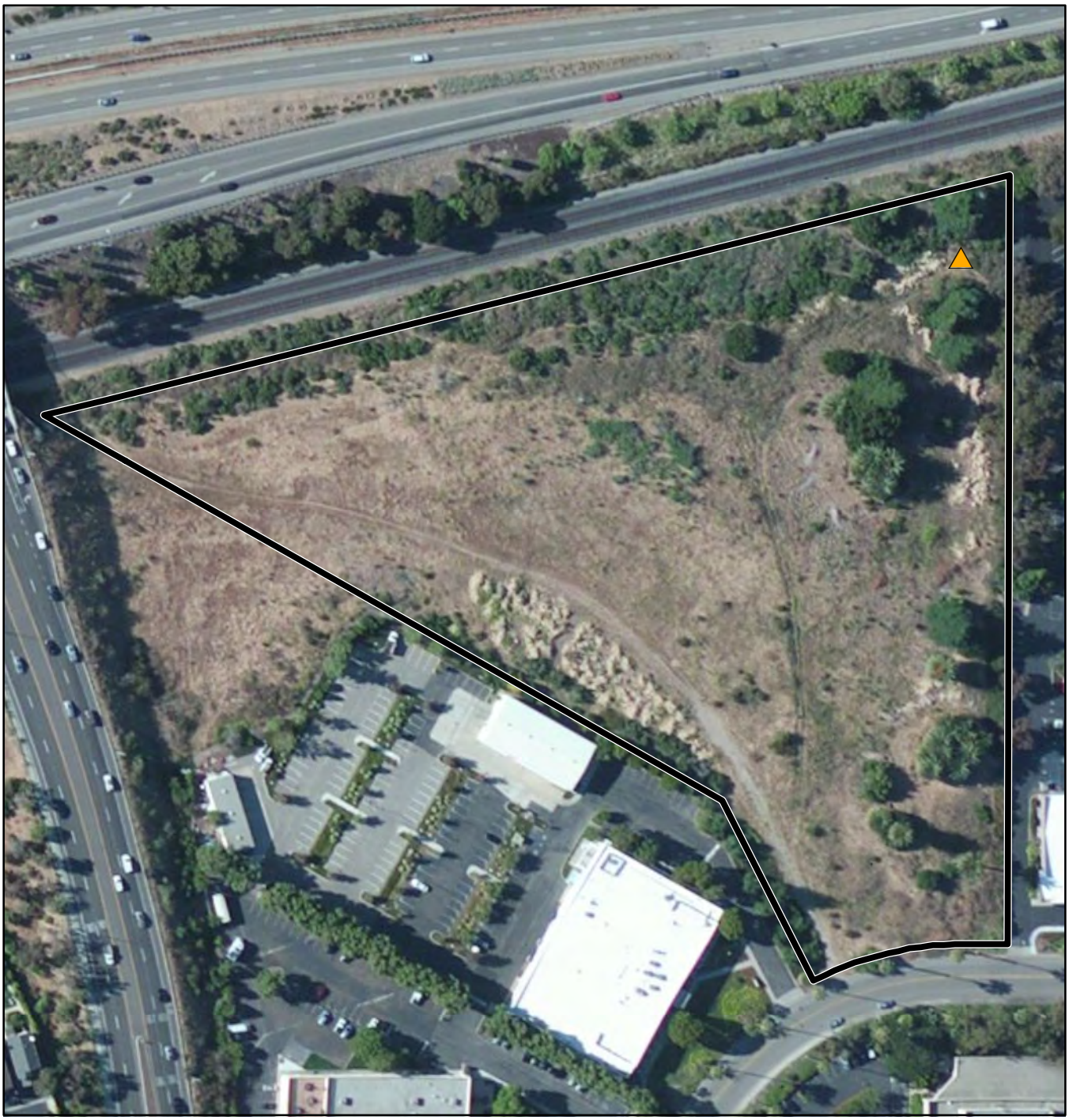
0 250 500 Meters

1:24,000

Project Location Map

Figure 2

City of Goleta



Imagery provided by ESRI and its licensors © 2013.

Project Area

Sampling Location

N

0 75 150 Feet

Soil Sampling Location

Figure 3

Appendix A

Regulatory Overview and Definitions

USACE Jurisdiction

The USACE, under provisions of Section 404 of the CWA and USACE implementing regulations, has jurisdiction over the waters of the U.S. "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. USACE jurisdictional limits are typically identified by the presence of an OHWM. The OHWM is the 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. The USACE defines wetlands as containing three parameters: hydrophytic vegetation, hydric soils, and wetland hydrology.

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 Federal Register 41, 217 1986). In addition, a Supreme Court ruling (South Waste Agency of North Cook County [SWANCC] vs. USACE, January 9, 2001) determined that the USACE exceeded its statutory authority by asserting CWA 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 USACE 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. 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 USACE 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.

USACE Headquarters in Washington, D.C. issued substantive guidance on June 5, 2007, to its District Offices as to how to apply these rulings. Based on this guidance, additional quantitative, qualitative, and other physical data is required for the USACE to make a determination of jurisdictional authority. This determination is reviewed by the USEPA.

In accordance with the Rapanos guidance, the USACE will assert jurisdiction over TNWs, non-navigable tributaries of TNWs that are RPWs, and wetlands that are adjacent to TNWs and directly abut RPWs. TNWs include all of the "navigable waters of the U.S.," defined in 33 CFR Part 329 and by pertinent federal court decisions. RPWs convey water flow seasonally, typically for at least 3 months. In addition, non-navigable tributaries that are not relatively permanent (non-RPWs), wetlands adjacent to non-RPWs, and wetlands adjacent to but that do not directly abut a RPW will be found jurisdictional based on a fact-specific analysis that they have a significant nexus with a TNW. The significant nexus

evaluation considers the volume, duration, and frequency of water flow in the tributary and the proximity of the tributary to a TNW, as well as the hydrologic, ecologic, and other functions performed by the tributary and all of its adjacent wetlands.

RWQCB Jurisdiction

The SWRCB and each of nine local RWQCB have jurisdiction over "waters of the State" pursuant to the Porter-Cologne Water Quality Control Act which are defined as any surface water or groundwater, including saline waters, within the boundaries of the State. The SWRCB has issued general Waste Discharge Requirements (WDRs) regarding discharges to "isolated" waters of the State (Water Quality Order No. 2004-0004-DWQ, Statewide General Waste Discharge Requirements for Dredged or Fill Discharges to Waters Deemed by the U.S. Army Corps of Engineers to be Outside of Federal Jurisdiction). The local RWQCB enforces actions under this general order for isolated waters not subject to federal jurisdiction, and is also responsible for the issuance of water quality certifications pursuant to Section 401 of the CWA for waters subject to federal jurisdiction.

CDFW Jurisdiction

The CDFW has regulatory authority over any work within rivers, streams, and lakes in the State of California pursuant to Section 1600 et. seq. of the California Fish and Game Code (State of California 2006) on public, private, and agricultural lands. Water features that are regulated by CDFW include all rivers, streams, or lakes, including man-made watercourses with or without wetlands, if they contain a definable bed and bank and support a fish or wildlife resource. CDFW jurisdiction also extends to the outer drip-line of riparian vegetation associated with rivers, streams, and lakes.

City of Goleta Jurisdiction

The City of Goleta General Plan/Coastal Land Use Plan (GP/CP) Conservation Element 3 preserves, protects, and enhances the functions and values of Goleta's wetlands. Within the GP/CP *Wetlands* are defined as any area that meets the definition of a wetland as defined by the California Coastal Commission, California Department of Fish and Wildlife, and U.S. Fish and Wildlife Service. The most protective of definitions shall be applied and used to determine the boundary of a wetland. The City of Goleta uses the identification of a single indicator (soil, hydrology, or plants) to determine the boundary of a wetland.

Wetland Waters

The USACE defines wetlands as containing three factors or parameters: hydrophytic vegetation, hydric soils, and wetland hydrology (Environmental Laboratory 1987, United States Army Corps of Engineers 2008). The following is a discussion of each of these parameters.

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 published the *National List of Plant Species That Occur In Wetlands* (1988), which

separates vascular plants into the following five 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 USACE 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. In addition, an area needs to contain at least 5% vegetative cover to be considered as a vegetated wetland.

Hydric soils are saturated and/or inundated for a sufficient duration during the growing season to develop anaerobic or reducing conditions. Sufficient duration cannot be defined due to the vast differences in chemistry and mineral composition in soils from site to site and region to region, but can be as short as two weeks during the growing season. Field indicators of hydric soils include, but are not limited to observation of redoximorphic features (e.g., concentrations of oxidized minerals such as iron) and detection of hydrogen sulphide gas. Documentation of a soil as hydric must be verified in the field.

Wetland hydrology is inundation and/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 primary and secondary field indicators, such as surface soil cracks and drainage patterns, respectively.

Non-wetland Waters

The USACE defines the lateral limits for other waters or non-wetlands waters to occur where the physical characteristics representing an OWHM are observed (33 CFR 328.3, 33 CFR 329.11, United States Army Corps of Engineers 2005). The following includes a list of the physical characteristics or indicators that are used to identify the OHWM for other waters:

- Natural line impressed on the bank
- Shelving
- Changes in the character of soil
- Destruction of terrestrial vegetation
- Presence of litter and debris
- Wracking

- Vegetation matted down, bent, or absent
- Sediment sorting
- Leaf litter disturbed or washed away
- Scour
- Deposition
- Multiple observed flow events
- Bed and banks
- Water staining
- Change in plant community

Appendix B

Wetland Determination Data Form

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Cortona Apartments Project City/County: Goleta/Santa Barbara Sampling Date: 6/10/13

Applicant/Owner: City of Goleta State: CA Sampling Point: 1

Investigator(s): JBroughton, LGriffin Section, Township, Range: T4N, R29W

Landform (hillslope, terrace, etc.): level bench Local relief (concave, convex, none): concave Slope (%): 1

Subregion (LRR): C - Mediterranean California Lat: 34.434230 Long: -119.867131 Datum:

Soil Map Unit Name: Goleta Fine Sandy Loam 0 – 2% slope NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (●) No ( ) (If no, explain in Remarks.)

Are Vegetation [X] Soil [ ] or Hydrology [ ] significantly disturbed? Are "Normal Circumstances" present? Yes (●) No ( )

Are Vegetation [ ] Soil [ ] or Hydrology [ ] naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks: Indicators of hydrophytic vegetation, hydric soils, and wetland hydrology were absent, therefore the the sample point is not located within a wetland. Soil was high in clay content, was difficult to dig, and was extremely friable during excavation of pit.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.	0		
2.			
3.			
4.			
Total Cover:	0 %		
Sapling/Shrub Stratum			
1.	0		
2.			
3.			
4.			
5.			
Total Cover:	0 %		
Herb Stratum			
1. *Phalaris aquatica*	90	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	90 %		
Woody Vine Stratum			
1.	0		
2.			
Total Cover:	0 %		

% Bare Ground in Herb Stratum 10 % % Cover of Biotic Crust 0 %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species		x 2 =	0
FAC species		x 3 =	0
FACU species	90	x 4 =	360
UPL species		x 5 =	0
Column Totals:	90 (A)		360 (B)

Prevalence Index = B/A = 4.00

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? Yes ( ) No (●)

Remarks: Sample point was located within a monotypic stand of Phalaris aquatica. Surrounding vegetation included multiple species of non-native weedy annual grasses and herbs. Dominant hydrophytic vegetation absent.

SOIL

Sampling Point: 1

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture[3]	Remarks
0-6	10Y 2/1	100				M	Clay	
6-12	10Y 2/1	100				M	Clay	

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

[3]Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

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

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

Indicators for Problematic Hydric Soils[4]:

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

[4]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks: Soil pit located in center of topographic low spot. Soil matrix was consistent throughout the depth of the pit. No hydric soil indicators present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

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

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

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

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks: No wetland hydrology indicators observed.

Appendix C

Plant Inventory List

Scientific Name	Common Name	Native?	Wetland
Acacia mearnsii	black wattle	No	
Asclepias fascicularis	narrowleaf milkweed	Yes	FAC
Avena fatua	common wild oats	No	
Baccharis pilularis	coyote brush	Yes	
Brassica rapa	common mustard	No	FACU
Bromus catharticus	rescue grass	No	
Bromus diandrus	ripgut brome	No	
Bromus hordeaceus	soft chess	No	FACU
Bromus madritensis ssp. *rubens*	red brome	No	UPL
Carduus pycnocephalus	Italian thistle	No	
Cedrus deodara	deodar cedar	No	
Centaurea melitensis	tocalote	No	
Cortaderia selloana	pampas grass	No	FACU
Crepis capillaris	smooth hawksbeard	No	FACU
Cynodon dactylon	bermuda grass	No	
Erodium cicutarium	redstem filaree	No	
Eucalyptus sp.	blue gum	No	
Foeniculum vulgare	fennel	No	
Helminthotheca echioides (Picris echioides)	bristly ox-tongue	No	FACU
Hirschfeldia incana	short podded mustard	No	
Heteromeles arbutifolia	toyon	Yes	
Lolium rigidum	annual ryegrass	No	
Medicago polymorpha	bur clover	No	FACU
Olea europaea	olive	No	
Pennisetum setaceum	fountain grass	No	
Phalaris aquatica	Harding grass	No	FACU
Phoenix canariaensis	Canary Island palm	No	
Pinus pinea	Italian stone pine	No	
Plantago lanceolata	English plantain	No	FAC
Pseudognaphalium luteoalbum	everlasting	No	FAC
Quercus agrifolia	coast live oak	Yes	
Raphanus sativus	wild radish	No	
Ricinus communis	castor bean	No	FACU
Rumex crispus	curly dock	No	FAC
Sambucus nigra ssp. *caerulea*	elderberry	Yes	
Sisymbrium irio	London rocket	No	
Stipa (Nasella) pulchra	foothill needlegrass	Yes	
Stipa (Piptatherum) miliaceum	smilo grass	No	
Vicia sativa ssp. *sativa*	garden vetch	No	

ARID WEST 2012 FINAL REGIONAL WETLAND PLANT LIST

Lichvar, R.W. 2012. The National Wetland Plant List. ERDC/CRREL TR-12-11. Hanover, NH: U.S. Army Corps of Engineers, Cold Regions Research and Engineering Laboratory.

BIOLOGICAL ASSESSMENT

6830 Cortona Drive
Goleta, California 93116

May 6, 2009
Revised August 14, 2009

Prepared for:

Harwood White
Land Use Consultant
1553 Knoll Circle Drive
Santa Barbara, Ca. 93103
(805) 962-5620

Prepared by:

Rachel Tierney Consulting
P. O. Box 1113
Santa Barbara, Ca. 93102
(805) 957-1100

TABLE OF CONTENTS

1.0 INTRODUCTION

This report concerns an 8.86-acre undeveloped property (APN 17-140-16) located at 6830 Cortona Drive, Goleta California (Figure 1: Aerial Photograph and Location Map; Figure 2: Base Map). The project consists of 171 rental units in six two-story buildings and one three-story building (Figure 3: Site Plan). In addition to the seven apartment buildings totaling 70,836 square feet, the site plan includes a one-story communal recreation building of 2,491 square feet, a pool and a 672 square foot maintenance building. Parking for 322 cars is provided and separate areas for 30 bicycles are proposed.

This project provides 7,435 square feet of private open space, patios and decks for the individual apartments. Not including driveways, sidewalks, carports and trash areas, the project contains 153,648 square feet, more than 3.5 acres, of common open space. The maximum residential building coverage is 30% of the lot area, and 40% of the lot area is open space.

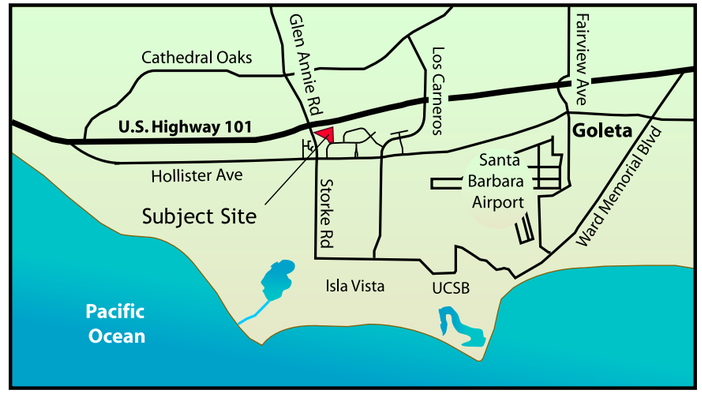
1.1 Scope of this Report

The primary purpose of this *revised* report is to address biological resources located within and nearby this site that may be disturbed if the proposed project is built. The biological setting of the site is described. A list of sensitive plants and animals that are known from the general region, and a discussion of the potential for their presence (or use) on-site, is contained in the report. The presence and significance (if present) of sensitive habitat (coastal sage scrub, wetlands, native grassland and coast live oaks) is also discussed.

The first draft of this report focused primarily on the coyotebrush (*Baccharis pilularis*) located along the northern boundary of the site. This cluster of shrubs is identified in the Goleta General Plan / Coastal Land Use Plan (GP/CP) as an Environmentally Sensitive Habitat Area (ESHA) and mapped as coastal sage scrub, a protected plant community in the City of Goleta on Figure 4-1 in the GP/CP. The discussion regarding the coyotebrush, which was first placed in the main body of the report, is now contained in Appendix 3 of this *revised* Biological Assessment.

1.2 Survey Dates, Methods and Personnel

Rachel Tierney (biologist) visited the site on April 23, May 28, and August 12, 2009. The entire site was walked, with special attention given to the northern portion of the lot.



Vicinity Map

SCALE

0 25’ 50’ 100’ 150’ 250’

N

Figure 1: Aerial Photo and Location

6830 Cortona Drive

August 14, 2009

RACHEL• TIERNEY CONSULTING

U.S. HIGHWAY 101

S.P.R.R.

STORKE ROAD

CORTONA DRIVE

APN 73-140-16
8.86 ACRES

APN 73-140-15

UNIMPROVED OPEN FIELD

METAL WAREHOUSE

BASIS OF BEARINGS
N 01°23'30" W 760.60' R-1 & R-2
760.48' M. (MON. TO MON.)

SCALE
0 25' 50' 100' 150' 250'

N

Figure 2: Base Map

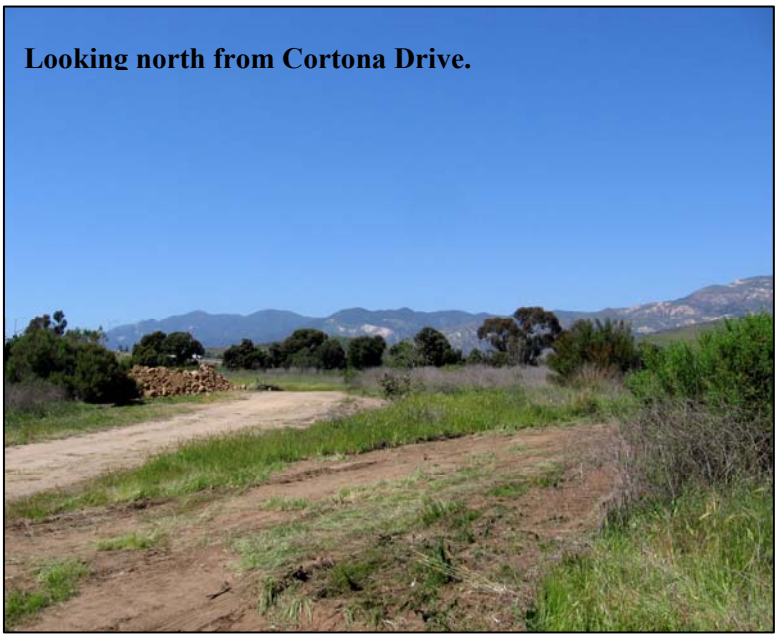
6830 Cortona Drive

August 14, 2009

RACHEL TIERNEY CONSULTING

Binoculars were used to aid in the observation of wildlife on this property during the field survey. All plants encountered were tallied. Wildlife or wildlife sign (tracks, scat, diggings, nests, and/or remains) were noted. Discussion regarding wildlife use of the site relied heavily on reports of neighboring projects and personal contacts (Tierney and Collins, 2008, P. Collins, 2009). The site was again visited on August 13, 2009 with Lisa Stratton, (Director of Ecosystem Management, CCBER) to determine if the Cheatle Center for Biodiversity and Ecological Restoration would be interested in joining up for a possible in-lieu fee off-site restoration project.

A list of **sensitive plant and animal species** known within the City limits is contained in Table 4-1 of the General Plan (City of Goleta, 2006). Additional plant species potentially occurring on site were compiled by conducting a search of all records contained by the California Native Plant Society including State and Federally-listed species, for the USGS quadrangle (Goleta) where the site is located, and adjacent quadrangles to the east and west (Dos Pueblos and Santa Barbara). Plants that are restricted to habitats that are not found on site, such as beachfront dunes or estuaries, were omitted from this list. The preliminary research provided a list of sensitive species that may occur within the project site. Vegetation was mapped using the tree survey and shrub outline (verified in the field) on the site plan (Figure 4).



Looking north from Cortona Drive.

Nomenclature for plants follows the Jepson Manual (Hickman 1993). Nomenclature for wildlife follows Jennings (1987) for reptiles and amphibians, Baker et al. (2003) for mammals, and American Ornithologists' Union (1982) with its more recent supplements for birds.

U.S. HIGHWAY 101

S.P.R.R.

STORKE ROAD

CORTONA DRIVE

3
3-STORY

4
2-STORY

5
2-STORY

6
2-STORY

7
2-STORY

8
2-STORY

1
2-STORY

2
2-STORY

2-STORY

FIRE HAMMERHEAD

DENSE RED GUM

SAND DUNE

THE LINE

N 90.00'00" W 770.49' M.R.

TABULATIONS

APN	11-140-16			
LOT SIZE	8.86 ACRES (386,022 sf.)			
ZONE	DR-20 (174 UNITS MAX)			
		1 BED	2 BED	3 BED
RESIDENTIAL UNITS	1st FLOOR	21 UNITS	45 UNITS	6 UNITS
	2nd FLOOR	21 UNITS	45 UNITS	6 UNITS
	3rd FLOOR	21 UNITS	4 UNITS	N/A
	TOTAL UNITS	63 UNITS	96 UNITS	12 UNITS
	GRAND TOTAL	171 UNITS		
CLUB HOUSE / OFFICE	2,471 S.F.			

PARKING

PARKING REQUIRED		
	61 1-BED UNITS @ 1 SPACE PER UNIT	63 SPACES
	108 2-BED UNITS @ 2 SPACE PER UNIT	216 SPACES
	VISITOR PARKING @ .25 SPACE PER UNIT	43 SPACES
	TOTAL REQUIRED SPACES	322 SPACES
PARKING PROVIDED		
	CARPORT	166 SPACES
	CARPORT ACCESSIBLE	2 SPACES
	UNCOVERED	148 SPACES
	ACCESSIBLE UNCOVERED SPACES	6 SPACES
	TOTAL PROVIDED SPACES	322 SPACES

SITE COVERAGE

DRIVEWAYS =	82,631 S.F.	21.4 %
CARPORTS =	21,114 S.F.	5.5 %
SIDEWALKS =	33,601 S.F.	8.7 %
BUILDINGS =	73,340 S.F.	19.0 %
COMMON OPEN SPACE =	167,901 S.F.	43.5 %
PRIVATE OPEN SPACE =	7,435 S.F.	1.9 %
TOTAL SITE AREA =	386,022 S.F.	100 %

N

SITE PLAN

171 UNITS

SCALE: 1" = 40'-0"

330 EAST CANON PERDIDO
SANTA BARBARA, CA 93101
805.962.4575

ARCHITECTS
CARL SCHNEIDER, AIA

LICENSED ARCHITECT
CARL SCHNEIDER
L/C #C12850
REN.
STATE OF CALIFORNIA

CORTONA APARTMENTS

6830 Cortona Drive, Goleta, CA

N

SCALE

0 25' 50' 100' 150' 250'

Figure 3: Site Plan

6830 Cortona Drive

August 14, 2009

RACHEL TIERNEY CONSULTING

2.0 ENVIRONMENTAL DESCRIPTION

2.1 Site Description

The site is located immediately south of the Southern Pacific Railroad and Highway 101 and east of Storke Road. Cortona Drive is situated to the south. Elevations range from 31 feet above sea level at Cortona Drive to 49 feet above sea level at the northwestern corner of the site. The vegetation established on the undeveloped parcel shows signs of past disturbance. Plants established are overwhelmingly non-natives, common in locations where soils have been graded or otherwise disrupted. Non-native trees and a number of coast live oaks are scattered along the eastern portion of the site. A strip of coyotebrush and non-native grasses and weeds (Italian thistle, Harding grass, mustards, castor bean and sweet fennel) are established parallel to the berm supporting the SPRR at the northern limit of the site and also along the western property boundary (Figure 3: Vegetation).

2.2 Characteristics of the Surrounding Area

The parcel is one of two remaining undeveloped sites within the Cortona/Castillian Drive area. Immediately surrounding the parcel, land use consists of office buildings and light industry. Further a field, a 245-acre (approximate) open space identified as "agricultural for managed production of resources" (City of Goleta, 2008) is situated north of Highway 101, bordered to the north by agricultural land. To the east and north of the highway is the Los Carneros Lake Park. To the west is residential development.

Hollister Avenue dominates the landscape south of the site. Commercial development, including shopping centers, lines the avenue. Three large parcels within ½ mile of the site along Hollister Avenue remain undeveloped.

3.0 PLANTS AND WILDLIFE

3.1 Plant Communities

A plant community is a recognizable assemblage of plant species. The overall appearance is created by the particular species present, as well as their size, abundance, and distribution relative to one another. Dominant species, those whose presence most influences the community environment and composition, are often the largest or the most abundant and may be a single species or several co-dominant species.

Classification treatments of plant communities typically apply a hierarchical structure, where the higher levels of the hierarchy include a more generalized grouping and the lower levels of the hierarchy narrow groups into more defined communities. The following treatment of plant communities follows two traditional classification systems: one by Sawyer and Keeler-Wolf (1995), and the recent treatment by the California Natural Diversity Database (California Department of Fish and Game, 2003). Both systems describe "natural communities" of California, those that occur in relatively undisturbed areas. However, due to past soil disturbance (e.g. farming; construction of the railroad), the vegetation at the Cortona site is very much altered from the natural state referenced in these treatments. The communities and tree species discussed below are shown on Figure4. A list of all species found onsite is contained in Appendix 1.

California Annual Grassland Series (Sawyer Keeler Wolf, 1995)
Non-Native Grassland (CDFG, 2003) – Alliance level only. Onsite community does not fit into any natural association.


Weedy Grassland Community

The onsite weedy grassland community is made up of common European grasses and annual weeds often seen on disturbed coastal sites in this area. Unlike the typical annual or non-native grassland described in the classification treatments, few native, annual, spring flowering broad-leaf plants are present. The most abundant grass species are wild oats (*Avena fatua*), ripgut (*Bromus diandrus*) and foxtail (*Hordeum murinum*). Non-native broadleaf herbs include bur clover (*Medicago polymorpha*), red stem filaree (*Erodium cicutarium*), ox tongue (*Picris echioides*), Italian thistle (*Carduus pycnocephalus*), bindweed (*Convolvulus arvensis*), wild radish (*Raphanus sativus*) and black mustard *(Brassica nigra*). Native species located within the site boundaries are limited to several purple needlegrass plants (*Nassella pulchra*), coyote brush (*Baccharis pilularis*) and scattered coast live oak trees (*Quercus agrifolia*).

Coyotebrush Series
(Sawyer Keeler Wolf, 1995)
Coyotebrush Scrub
(CDFG 2003) – Alliance level only.

The area mapped as Coyotebrush Scrub along the northern property line is an open shrub community dominated by *Baccharis pilularis*, a native shrub known to frequent disturbed areas. The shrub is primarily established along the edge of the mapped area, with an assortment of broad-leaf weeds, including Italian thistle (*Carduus pycnocephalus*), sweet fennel (*Foeniculum vulgare*) and castor bean (*Ricinus communis*), established within the interior of the mapped region, where it appears an elongated mound of soil had been deposited at some time in the past. Many of the non-native grasses and forbs listed in the grassland series are found here as understory plants. A discussion of whether or not this community, comprised of this single native species, would fall under the term "coastal sage scrub" is presented in Appendix 3.


Coyotebrush and Italian Thistle, Northern Boundary

Purple Needlegrass Series
(Sawyer Keeler Wolf, 1995)
Wild Oats - Purple Needlegrass (*Nassella pulchra*) 41.150.03 CDFG

A small patch (about 2,000 square feet) of purple needlegrass is located at the southwestern corner of the site at the interface of the non-native grassland and coyotebrush scrub (See Figure 4: Vegetation). Small Clusters of native grasses are often


Small patch of native purple needlegrass in foreground. View to the northeast.

Figure 4: Vegetation Map

found within non-native grasslands within the County. The size of this cluster is not considered significant. [1]

Trees (Native and Non-Native) Established on Site

Twelve native coast live oak trees (*Quercus agrifolia*) and other non-native landscape trees including six Deodar cedars, one Italian stone pine, eight palms and several olive trees, are scattered along the eastern property boundary and mapped on Figure 4: Vegetation Map. The sizes of the trees (with the exception of the olive and palm trees), and whether they will be saved or removed during project build out, are identified in Table 1.

Table 1: Tree Inventory

Tree #	Common Name	Size: Trunk diameter at 4.5′ in inches	Recommendations [2]
1	Coast Live Oak	24	Save
2	Deodar Cedar	19 + low side limb of 7	Remove
3	Deodar Cedar	30	Save
4	Coast Live Oak	7	Remove
5	Coast Live Oak	6	Remove
6	Coast Live Oak	9 ½	Remove
7	Deodar Cedar	26, 21	Save.
8	Coast Live Oak	7 ½	Remove
9	Deodar Cedar	34	Save
10	Coast Live Oak	6	Save
11	Coast Live Oak	12	Save
12	Italian Stone Pine	12,6,8,10,8,6	Remove
13	Deodar Cedar	33	Remove
14	Coast Live Oak	12, 7	Save
15	Coast Live Oak	18, 26, 24, 24	Save
16	Coast Live Oak	9	Remove
17	Deodar Cedar	33	Save
18	Coast Live Oak	14, 5	Remove
19	Coast Live Oak	8	Remove

[1] The threshold for "significant" native grasslands in the County of Santa Barbara and the City of Goleta is ¼ acre at a minimum.

[2] Recommendations regarding tree removal and preservation are from the project arborist, Duke McPherson; see Appendix 4.

3.2 Wildlife

Widely distributed wildlife species were observed or are expected to occur at or in the immediate vicinity of the proposed project site. These include widespread species that are known to inhabit a variety of native and non-native habitats found in the Goleta Valley (e. g. ruderal fields, non-native grasslands, oaks and non-native trees and *Baccharis* scrub). Only a few species of wildlife were actually observed on or flying over the project site during the field survey. These species included western fence lizard, mourning dove, Anna's hummingbird, American crow, European starling, house finch, brush rabbit, and Botta's pocket gopher. In general, the project site is not expected to support a very diverse wildlife fauna due to its small size and the degraded nature of the vegetation on the property. A list of wildlife observed or expected onsite is contained in Appendix 2.

3.3 Sensitive Plants and Wildlife

For the purposes of this analysis, a "sensitive biological resource" refers to any rare, threatened, or endangered plant or animal species, or those species considered regionally declining by local authorities. Habitats are also considered sensitive if they exhibit a limited distribution, have high wildlife value, contain sensitive species, or are particularly susceptible to disturbance. The potential for occurrence of sensitive resources is based on site characteristics and the known regional distribution and habitat affinities of the species. This section describes the regulatory basis for protection of plants, animals and habitats.

3.3.1 Sensitive Plants

The Goleta General Plan lists three plant species as potentially occurring within the City limits: Santa Barbara honeysuckle (*Lonicera subspicata var. subspicata)*, black-flowered figwort (*Scrophularia atrata*) and Southern tarweed (*Centromadia parryi ssp. australis*). A number of other species are known within the project vicinity and these are listed in Table 1 (CNPS 2009). No sensitive plants were found during the site surveys and none are expected to be located within or immediately adjacent to the site due to disturbance.

3.3.2 Sensitive Animals

No sensitive wildlife species were observed at the project site. There are a number of sensitive wildlife species that are known to occur in the area (white tailed kite, Cooper's hawk, warbling vireo, American bittern, least bittern, tricolored blackbird). The last three birds on this list are associated with riparian or deep-water habitats not found on this site. The first three may occasionally frequent the site. The following section discusses the distribution, habitat affinities, and status of these three sensitive wildlife species.

White-tailed kite (*Elanus leucurus*)

The white-tailed kite is a California State-listed "fully protected" bird species that is known to frequent grasslands and scrublands located across Highway 101, north, northeast and northwest of the project site for foraging. This species is not currently listed as "rare" or "endangered" by the state or federal governments, but is considered to be a species of local concern by local wildlife biologists. Kite populations are known to fluctuate fairly dramatically from year-to-year, being considered quite rare in some years and common in others. Their densities seem to fluctuate in response to the relative abundance of their principal prey. White-tailed kites frequent open to moderately-open lightly grazed grasslands, savannah, orchards, and grassland-scrub habitats for foraging, and use trees, including coast live oaks, Monterey cypress, trees in orchards and rows of planted trees bordering grasslands and marshes for perching/roosting. They also use oaks, willows, cypress, pines, and occasionally shrubs such as coyote brush (*Baccharis pilularis*) for nesting (Waian 1973; Waian and Stendell 1970). Thus, open areas for foraging and trees for nesting, perching and roosting are important components of their habitat.

Along the South Coast of Santa Barbara County, white-tailed kites are an uncommon resident and local summer breeder (Lehman 1994). The number of kites found along the South Coast increases during the winter, when migrants arrive to winter along the coast. Kite numbers along the South Coast generally decrease following years when their diurnally active rodent prey populations crash (Lehman 1994). The resident kite population for the greater Goleta Valley area has been estimated at 30-35 individuals with seven territories south of Highway 101 and six or seven territories north of Highway 101 (Holmgren and Ball 2002).

White-tailed kites generally hunt from the air by hovering over a spot and then dropping to the ground to capture prey. They are an obligate predator of diurnally active small mammals that inhabit grasslands and weedy fields. Principal prey species include California voles and western harvest mice and occasionally introduced house mice (Stendall 1967). All three of these prey species show some activity during daylight hours when kites are foraging. The occurrence of these species in the kite's diet reflects the overlap of the prey's diurnal activity patterns and habitat preferences with the kite's behavioral, geographic and temporal foraging patterns. Kites will disperse in order to exploit local fluctuations in available diurnally active rodent populations (Stendall 1967). Kite populations also fluctuate in relation to the relative abundance of their principal prey, being high when vole populations are high and being low when vole populations are low.

Kites begin to leave communal roosts by February or March as birds spread out and begin to pair up and establish territories for nesting. Along the South Coast kites

generally nest from March to July but can begin nesting as early as late January and February and continue nesting into September (Lehman 1994, Waian and Stendall 1970, Waian 1973).

Use of Site and Project Area: South of Highway 101, a large communal kite roost is known from the More Mesa area. They have also been found roosting in lemon orchards east of Ward Drive. North of Highway 101, and closer to the project site, kites are known northeast of Hollister and Los Carneros Roads, at Glen Annie Canyon and in the southwest corner of the Los Carneros wetlands property (Lehman 1994).

There are no records of kites having used this site or any area within 500 feet of the property boundary, and they are not expected to forage or nest with any regularity at this site (Tierney and Collins 2008). Kites need suitable trees for nest placement and for perching that are isolated to some extent from human disturbance. They need a large enough area of suitable foraging habitat (grasslands) that support their preferred prey in order to meet the nutritional requirements for rearing a nest of young. Finally, nesting kites need foraging areas close to the nest to defend it against predators. If available foraging habitat is too far from a suitable nest tree, their prey is at low densities, there is too much human disturbance in close proximity of their nest, or if there are not suitable trees for perching and open foraging areas close enough to a nest to protect it from predators, then a kite's nest can fail. Kites will not persist in areas where levels of disturbance are high and resource levels are low (Holmgren and Ball 2002).

Cooper's hawk (*Accipiter cooperii*)

Cooper's hawks are considered by local wildlife biologists to be a species of local concern because of their restricted breeding distribution in Santa Barbara County. According to Lehman (1994), Cooper's hawks are an uncommon to fairly common transient (non-nesting) and winter visitor to wooded habitats throughout Santa Barbara County. Along the South Coast they are an uncommon localized breeder principally in foothill canyons (Lehman 1994). The largest number of Cooper's hawks occurs during the fall and early winter (September-January), when fall migrants arrive to winter in Santa Barbara County (Lehman 1994). During this time of year they can be found in a variety of wooded habitats, including oak, riparian, and urban woodlands. During the breeding season Cooper's hawks tend to be associated with oak and riparian woodlands in foothill canyons along the south-facing slopes of the Santa Ynez Mountains. While there are regular records of this species during the fall and winter in and around Lake Los Carneros, Cooper's hawks are not expected to nest in trees found in close proximity to the project site. They can however, be expected to perch/roost in trees found in the project area and to occasionally forage for birds at and in the immediate vicinity of the project site.

Table 2: Inventory of Sensitive Plants

Scientific (Common)	Family	Life form	Blooming	Communities	Elevation	CNPS
Atriplex coulteri (Coulter's saltbush)	Chenopodiaceae	Perennial herb	Mar -Oct	Coastal scrub; Valley and foothill grassland	3-450 meters	List 1B
Atriplex serenana var. davidsonii (Davidson's saltscale)	Chenopodiaceae	Annual herb	Apr-Oct	Coastal scrub	10-200 meters	List 1B
Centromadia parryi ssp. australis (Southern tarplant)	Asteraceae	Annual	May-Nov	Grasslands	0-427 meters	List 1B
Chorizanthe polygonoides var. longispina (Long-spined spineflower)	Polygonaceae	Annual	Apr-Jul	Chaparral; Coastal scrub; Grassland	30-1530 meters	List 1B
Horkelia cuneata ssp. puberula (Mesa horkelia)	Rosaceae	Perennial herb	Feb-Jul(Sept)	Chaparral; Cismontane woodland; Coastal scrub	70-810 meters	List 1B
Lasthenia conjugens (Contra Costa goldfields)	Asteraceae	Perennial herb	Mar-Jun	Cismontane woodland; Grassland	0-470 meters	List 1B
Layia heterotricha (Pale yellow Layia)	Asteraceae	Annual	Mar-Jun	Cismontane woodland; Coastal scrub; Grassland	300-1705 meters	List 1B.
Lonicera subspicata var. subspicata (Santa Barbara honeysuckle)	Caprifoliaceae	Perennial trailing shrub	May-Aug (Dec-Feb)	Chaparral; Cismontane woodland; Coastal scrub	35-1000 meters	List 1B
Quercus dumosa (Nuttall's scrub oak)	Fagaceae	Evergreen shrub	Feb-Apr	Chaparral; Coastal scrub	15-400 meters	List 1B
Scrophularia atrata (Black figwort)	Scrophulariaceae	Perennial herb	Mar-Jul	Chaparral; Coastal scrub; Riparian scrub	10-500 meters	List 1B

California Native Plant Society

List 1A: Plant Presumed Extinct in California
List 1B: Plants Rare, Threatened or Endangered in California or Elsewhere
List 2: Plants Rare in California but More Common Elsewhere
List 3: Plants About Which More Information is Needed - A Review List

Warbling Vireo (*Vireo gilvus*)

The warbling vireo is another species of local concern, which has no federal or state status. Prior to the 1950s, this species was a common nester throughout much of California (Grinnell and Miller 1944; Willett 1933). Today it is a very uncommon to rare localized breeder along the South Coast and a rather common breeder along the North Coast of Santa Barbara County (Lehman 1994). Loss of requisite oak-riparian woodland breeding habitat along with heavy nest parasitism by brown-headed cowbirds (*Molothrus ater*) are thought to be the primary factors responsible for the decline in warbling vireo populations in southern California (Garrett and Dunn 1981; Lehman 1994).

They reside in riparian and oak-riparian woodlands and are known to nest along many of the region's coastal streams. Warbling vireos are also known to nest along many of the larger streams along the South Coast (Lehman 1982). Warbling vireos are not expected to nest at or in the immediate vicinity of the project site. They are, however, expected to forage in scrub and woodland habitats found in the project area as birds move through the area during their annual spring and fall migration.

4.0 SENSITIVE HABITATS

The following sensitive habitats are addressed in this report:

1. Coastal sage scrub;
2. Coast live oaks;
3. Native grassland and
4. Wetlands.

All of these habitats (and in the cases of coast live oaks, native trees) are considered sensitive under the City of Goleta General Plan / Coastal Land Use Plan (Conservation Element).

4.1 Coastal Sage Scrub

A study, which compares the plant community found at the Cortona site and the community characteristics of coastal sage scrub, is contained in Appendix 3 if this report. The Study concludes that the on-site community, consisting of a single shrub species - coyotebrush (*Baccharis pilularis*) - scattered with numerous weeds along a repeatedly disturbed field, is *not* coastal sage scrub, which is an association of several shrub species. Coyotebrush, a plant that readily invades disturbed areas, may or may not be present within the coastal sage scrub. Coyotebrush is known from many plant communities and not restricted to coastal sage scrub.

However, the City of Goleta General Plan / Coastal Land Use Plan (Conservation Element) Figure 4-1: Map of Environmentally Sensitive Habitat Areas (ESHA) in the City of Goleta, identifies this vegetation as coastal sage scrub.

The total area of coyotebrush scrub located onsite is calculated to be approximately 36,895 square feet, or 0.85 acres. This tabulation includes that area noted as coastal sage scrub in the Goleta General Plan ESHA map as well as the coyotebrush along the western property boundary that was not mapped. Off-site mitigation is strongly recommended, both for the potential of greatly enhancing the biological value of the existing community and for fire protection of any structures that do get built (See Section 5.0).

4.2 Coast Live Oaks

Figure 4 and Table 1 identify the twelve mature [3] oak trees (*Quercus agrifolia*) located on-site by the project arborist. The diameter and estimated height of native trees are also displayed, as well as those trees that will be retained. The proposed project requires removal of eight mature coast live oak trees. These would be mitigated on-site (See Section 5.0).

4.3 Native Grasslands

A small patch – about 2,000 square feet, or 0.05 acres – of purple needlegrass (*Nassella pulchra*) is established in the northwestern corner of the site (see Figure 4). The native grass is growing adjacent to the coyotebrush scrub and interspersed with non-native European grasses and broadleaf weeds (listed in the non-native grassland discussion). The relative cover throughout most of the mapped area is at least 10%, which is the minimum relative cover for native grasslands. Small patches of native grasslands are very common throughout the County and this size is not considered a significant grassland.

4.4 Wetlands

There are no wetlands on the Cortona site, under the Federal three parameter, or under the City's single parameter guidelines. A wetland study of the Cortona site was conducted in 1998 by Katherine Rindlaub, and a follow-up letter was written on April 20, 2000. Positive indications for wetlands, once for vegetation and once for hydrology, were noted on the Data Forms in Ms. Rinlaub's report. However, in both cases the positive result was misapplied and/or taken out of context. In one case (Plot # 3) "positive wetland hydrology" was marked for ponded

[3] Mature = having a diameter at 4.5 feet above ground level of 6 inches or greater.

water found in wheel ruts. Puddles in wheel ruts are not wetlands. This is explained further in Ms. Rinlaub's discussion on the Data Form. It may have been more prudent for her to have put this remark in her discussion and to have not put a positive indication under the hydrology section. However, Ms. Rinlaub had no intention of turning a wheel rut into a wetland.

In another case (Plot #4), vegetation cover was not correctly calculated. When one determines whether or not there is a hydrophytic vegetation at an observation point (a plot), one is instructed by the Federal Corps of Engineers Wetlands Delineation Manual (which is followed whether you are using one of three parameters), to list plants in the plot starting from the most dominant (common) and then to stop adding to this list when the total cover of the plants you have listed equals at least 50%. This may be one species or several. In discussing this method with Ms. Rinlaub, it became clear that she listed *all* of the species present, instead of listing the dominant species only. If the actual method was followed, *the plot would not have had a positive hydrophytic vegetation result.* In addition, a FAC-neutral test of all the species found at the observation point was negative. This site is not a wetland. A letter form Ms. Rinlaub, further clarifying her stance on this matter, is contained in Appendix 5 of this report.

5.0 IMPACTS AND MITIGATIONS

5.1 Coyotebrush Scrub

IMPACT: The total area of coyotebrush scrub located onsite is calculated to be approximately 36,895 square feet, or 0.85 acres. This tabulation includes that area noted as coastal sage scrub in the Goleta General Plan ESHA map as well as the coyotebrush along the western property boundary that was not mapped.

►The loss of mapped ESHA habitat is considered **adverse, significant and mitigable to insignificant levels.**

MITIGATION: Off-site mitigation for impacts to the scrub habitat is strongly recommended. Due to the very low quality of the habitat, a two to one replacement ratio (2:1), or 1.70 acres, is proposed. Development and successful implementation of an "In Lieu Fee" mitigation program at a 2:1 replacement ratio would reduce the loss of mapped ESHA to **less than significant levels.**

If the habitat is retained or restored on site it would remain an isolated island of scrub, cut off from other expanses of native vegetation by existing development, the railroad, Highway 101 and Storke Road. Natural reestablishment of plants via wind and/or insect pollination would be greatly minimized. In addition, creating a restoration area onsite would require not only the 25-foot sensitive habitat buffer, but would most likely also require an additional 50 foot setback for

fire protection, greatly reducing the feasibility of the project. By contrast, applying funds to an off-site restoration project that is adjacent to a protected natural area would ensure that restored habitat could flourish and grow to its full value. Larger, continuous expanses of native vegetation provide much greater habitat value than tiny isolated patches that are separated by impassible or dangerous obstacles.

Off-site, "in-lieu fee" mitigation is suggested. This typically occurs when onsite mitigation is not feasible. The permittee provides funds to a single sponsor, generally a public agency or a non-profit organization, in-lieu of on-site mitigation. The sponsor is then required to conduct the compensatory mitigation. Initial interest and approval for an in-lieu fee joint project with the UCSB Cheatle Center for Biodiversity and Ecological Restoration are expressed in a letter from Ms. Lisa Stratton dated August 13, 2009 (See Appendix 6). Two potential sites are suggested in this letter.

The process would entail the identification of the most appropriate site (one where coastal sage scrub is the main habitat and one that is within the general area of the subject property), development of a Restoration and Mitigation Plan that details seed collection, site preparation, planting, maintenance, monitoring and reporting, and implementing the Plan. Typically there is a 3 to 5 year monitoring period.

5.2 Coast Live Oak Trees

IMPACT: Eight coast live oak trees are scheduled for removal (see Figure 4: Vegetation Map).
►Loss of individual trees is considered **adverse, significant and mitigable to insignificant levels.**

MITIGATION: The following measure will reduce the direct loss of oak trees to **less than significant levels:**

Replace each removed Coast Live Oak tree with three 24″ boxed, locally grown nursery specimens (24 boxed trees) on site and create long-term maintenance program (5 years at minimum) for their insured success. Replace any tree that dies during the period.

The Arborist Report (Appendix 4) and the Landscape Plan (Arcadia Studio 2009) contains a provision to protect the three remaining oak trees during construction. Any areas of the protected root zone intruded upon by excavation activity are to be hand dug and overseen by the project arborist. Other protective measures may be included in the landscape notes.

5.3 Nesting Raptors

IMPACT: Although no raptors were seen at the site during any of the visits, red-tailed and even red- shouldered hawks are known to breed in the area. Construction activity during the breeding season could disturb mating pairs and cause them to abandon the area. Nesting birds may leave their clutch if noise and human intrusion is severe. Birds choosing to construct nests onsite during construction are expected to be acclimated to this level of disturbance.

► Impact: Potential disturbance to nesting birds is considered **adverse, significant and mitigable.**

MITIGATION: The following measures would limit construction to non breeding periods, or surveying for and avoiding breeding pairs, and would **mitigate any potential impacts to less than significant levels.**

- Construction shall commence outside of the defined nesting season for birds if possible (i.e. before February and after July). Construction may continue past the start of this season as long as activity was started before February. Birds choosing to construct nests onsite during construction are expected to be acclimated to this level of disturbance.

- If work must start during the breeding season, a site survey shall be conducted by a qualified wildlife biologist to determine if nesting birds are present. Construction activity shall not occur within 500 feet of active raptor and/or sensitive avian nests located during this survey.

6.0 REFERENCES

American Ornithologists' Union. 1982. Thirty-fourth Supplement to the American Ornithologists' Union Checklist of North American Birds. Supplement to the Auk Vo. 99, No. 3.

Baker, R. J., L. C. Bradley, R. D. Bradley, J. W. Dragoo, M. D. Engsatrom, R. S. Hoffmann, C. A. Jones, F. Reid, D. W. Rice, and C. Jones. 2003. Revised Checklist of North American Mammals North of Mexico, 2003. Occasional Papers Museum of Texas Tech University. Number 229. 23 pp.

California Department of Fish and Game. 2003 The Vegetation Classification and Mapping Program. List of California Terrestrial Natural Communities Recognized by the California Natural Diversity Database. September 2003 Edition.

City of Goleta, 2006. General Plan/Coastal Land Use Plan, Chapter 4.0 Conservation Element. September 2006.

City of Goleta, 2008. General Plan/Coastal Land Use Plan, Chapter 2.0 Land Use Element. Revised June 2008.

Davis, F.W., P. A. Stine and D. M. Stoms. 1994. Distribution and Conservation Status of Coastal Sage Scrub in Southwestern California. International Association of Vegetation Science. (5) pp 743-756.

Holland, R.F., 1986. Preliminary descriptions of the terrestrial natural communities of California. State of California, The Resources Agency, Nongame Heritage Program, Dept. Fish & Game, Sacramento, Calif. 156 pp.

Jennings, M. R. 1987. Annotated Check List of the Amphibians and Reptiles of California Second, revised Edition. Special Publication No. 3. Southwestern Herpetologists Society. 48 pp.

Lehman, P. 1994. The Birds of Santa Barbara, County, California. Vertebrate Museum, Univ. of California, Santa Barbara, CA. 337 pp.

McBride, J. and H.F. Heady. 1968. Invasion of grassland by *Baccharis pilularis* D.C. J. Range Manage. 21:106-108.

McBride, J. R., S. Barnhart. 2002. Control of Baccharis invasion of grasslands at Mt. Tamalpais State Park. Report to the California State Parks. Unpublished.

Pickart, A.J. and J. O. Sawyer. 1998. Ecology and Restoration of Northern California Coastal Dunes. California Native Plant Society. Sacramento, CA. 152 p.

Rinlaub, K. 2000. Vegetation and Wetlands, Campus Center Project. Submitted to Suzanne Elledge Permit Processing Services. April 3, 2000

Sundberg, S. 1993. Baccharis. In J.C. Hickman, ed. The Jepson Manual: Higher plants of California. University of California Press, Berkeley and Los Angeles. 1,400 p.

Sawyer, J. and T. Keeler-Wolf. 1995. A Manual of California Vegetation. California Native Plant Society Publication.

Smith, C. 1998. A Flora of the Santa Barbara Region, California. Santa Barbara Museum of Natural History.

Stendell, R. C. 1967. Food and Feeding Behavior of the White-tailed Kite near Santa Barbara, California. MA thesis. University of California, Santa Barbara, CA. 56pp.

Tierney, R. and P. Collins. 2008. Islamic Center Biological Resources Assessment. September 15, 2008.

Waian, L. B. 1973. The behavioral ecology of the North American white-tailed kite (*Elanus leucurus majusculus*) of the Santa Barbara Coastal Plain. Ph.D. Dissertation. University of California, Santa Barbara, CA. 111pp.

Waian, L. B., and R. C. Stendall. 1970. The White-tailed Kite in California with Observations of the Santa Barbara Population. Bull. CDFG 56(3):188-198.

Westman, Walter, E. 1981. Factors Influencing the Distribution of Species of Californian Coastal Sage Scrub, Ecological Society of America. 62 (2) pp 439-466 1981

APPENDIX 1

VASCULAR PLANT LIST OBSERVED ON SITE

SCIENTIFIC NAME	COMMON NAME	NATIVE? /ASPECT*
GYMNOSPERMS		
Cedrus deodara	Deodar Cedar	I/T
Pinus pinea	Italian Stone Pine	I/T
FLOWERING PLANTS (MONOCOTS & DICOTS)		
ASCLEPIADACEAE		
Araujia sericofera	Bladder Flower	I/V
Asclepias fascicularis	Narrowleaf Milkweed	N/PH
APIACEAE		
Foeniculum vulgare	Sweet Fennel	I/PH
ARECACEAE		
Phoenix canariensis	Canary Island Palm	I/T
ASTERACEAE		
Artemisia californica	California Sagebrush	N/S
Baccharis pilularis	Coyote Bush	N/S
Carduus pycnocephalus	Italian Thistle	I/A
Gnaphalium luteo-album	Weedy Everlasting	
Heterotheca grandiflora	Telegraphweed	
Senecio vulgare	Grounsel	I/A
Sonchus asper ssp asper	Prickly Sow Thistle	I//A
Sonchus oleraceus	Sow Thistle	I/A
Xanthium strumarium	Cocklebur	I/A
BRASSICACEAE		
Brassica napus	Rapeseed	I/A
Hirschfeldia incana	Mediterranean mustard	I/B
Raphanus sativus	Wild Radish	I/B
CAPRIFOLIACEAE		
Sambucus mexicana	Elderberry	N/T
CARYOPHYLLACEAE		
Spergularia arvensis	Starwort	I/A

SCIENTIFIC NAME	COMMON NAME	NATIVE? /ASPECT*
CHENOPODIACEAE		
Atriplex lentiformis ssp breweri	Brewers Saltbush	N/S
Salsola tragus	Russian Thistle	I/A
CONVOLVULACEAE		
Convolvulus arvensis	Bindweed	I/V
EUPHORBIACEAE		
Croton californicus californicus	Croton	N/Su
Euphorbia crenulata	Chinese Caps	N/A
Ricinus communis	Castor Bean	I/S
FABACEAE		
Lupinus bicolor	Bicolor Lupine	N/A
Medicago polymorpha	Bur Clover	I/A
Vicia benghalensis	Vetch	I/A
FAGACEAE		
Quercus agrifolia	Coast Live Oak	N/T
GERANEACEAE		
Erodium botrys	Broad-Leaf Filaree	I/A
Erodium cicutarium	Redstem Filaree	I/A
Erodium moschatum	Whitestem Filaree	I/B
LAMIACEAE		
Marrubium vulgare	Horehound	I/A
MALVACEAE		
Malva parviflora	Cheeseweed	I/A
MYRTACEAE		
Eucalyptus sp	Blue Gum	I/T
MIMULACEAE		
Acacia sp	Acacia	I/T
OLEACEAE		
Olea europaea	Olive	I/T
OXALIDACEAE		
Oxalis pes-caprae	Sour Grass	I/PH

SCIENTIFIC NAME	**COMMON NAME**	**NATIVE? /ASPECT***
PAPAVERACEAE		
Eschscholzia californica	California Poppy	N/A
PLANTAGINACEAE		
Plantago lanceolata	English Plantain	I/PH
POACEAE		
Avena fatua	Wild Oats	I/AG
Avena barbata	Slender Wild Oats	I/AG
Bromus catharticus	Rescue Grass	I//PG
Bromus diandrus	Ripgut Grass	I/AG
Bromus hordeaceus	Soft Chess	I/AG
Bromus madrensis ssp rubens	Foxtail	I/AG
Cynodon dactylon	Bermuda Grass	I/PG
Hordeum glaucum	Glaucus Barley	I/AG
Lolium multiflorum	Ryegrass	I/AG
Nassella pulchra	Purple Needlegrass	N/PG
Oryzopsis miliacea	Rice Grass	I/PG
Phalaris aquatica	Harding Grass	I/PG
Poa annua	Annual bluegrass	I/AG
Piptatherum miliaceum	Smilo Grass	I/AG
Vulpia myuros	Fescue	I/AG
POLYGONACEAE		
Rumex crispus	Curly Dock	I/PH
PRIMULACEAE		
Anagallis arvensis	Scarlet Pimpernel	I/A
ROSACEAE		
Heteromeles arbutifolia	Toyon	N/T
SOLANACEAE		
Nicotiana glauca	Tree Tobacco	I/T
Solanum douglasii	Douglas Nightshade	N/Su

* N=Native; I=Introduced; A=Annual; PH=Perennial Herb; V=Vine; S=Shrub; Su=Subshrub; T=Tree; AG = Annual Grass; PG = Perennial Grass.

APPENDIX 2: Wildlife Observed and/or Expected in the Project Vicinity.

Common Name	Scientific Name	Seasonal Status
Amphibians and Reptiles		
black-bellied slender salamander	*Batrachoseps nigriventris*	RB
Pacific tree frog	*Pseudacris* (=*Hyla*) *regilla*	RB
western toad	*Bufo boreas*	RB
southern alligator lizard	*Elgaria multicarinata*	RB
western fence lizard	*Sceloporus occidentalis*	RB
western skink	*Eumeces skiltonianus*	RB
common kingsnake	*Lampropeltis getulus*	RB
gopher snake	*Pituophis catenifer*	RB
ring-necked snake	*Diadophis punctatus*	RB
Birds		
turkey vulture	*Cathartes aura*	V
Cooper's hawk	*Accipiter cooperii*	WV
sharp-shinned hawk	*Accipiter striatus*	WV
red-shouldered hawk	*Buteo lineatus*	RB
red-tailed hawk	*Buteo jamaicensis*	RB
American kestrel	*Falco sparverius*	RB
California quail	*Callipepla californica*	RB
mourning dove	*Zenaida macroura*	SB
rock pigeon	*Columba livia*	RB
barn owl	*Tyto alba*	RB
great horned owl	*Bubo virginianus*	RB
Anna's hummingbird	*Calypte anna*	RB
black-chinned hummingbird	*Archilochus alexandri*	M
Allen's hummingbird	*Selasphorus sasin*	M
acorn woodpecker	*Melanerpes formicivorus*	RB
red-breasted sapsucker	*Sphyrapicus ruber*	WV
Nuttall's woodpecker	*Picoides nuttallii*	RB
downy woodpecker	*Picoides pubescens*	RB
hairy woodpecker	*Picoides villosus*	RB
northern flicker	*Colaptes auratus*	RB
black phoebe	*Sayornis nigricans*	RB
Say's phoebe	*Sayornis saya*	WV
western kingbird	*Tyrannus verticalis*	SB
Cassin's kingbird	*Tyrannus vociferans*	RB
tree swallow	*Tachycineta bicolor*	V
violet-green swallow	*Tachycineta thalassina*	SB
No. rough-winged swallow	*Stelgidopteryx serrupennis*	SB
cliff swallow	*Hirundo pyrrhonota*	SB
barn swallow	*Hirundo rustica*	SB

Common Name	Scientific Name	Seasonal Status
western scrub-jay	*Aphelocoma californica*	RB
American crow	*Corvus brachyrhynchos*	RB
white-breasted nuthatch	*Sitta carolinensis*	RB
oak titmouse	*Bacolophus ridgwayi*	RB
bushtit	*Psaltriparus minimus*	RB
Bewick's wren	*Thryomanes bewickii*	RB
house wren	*Troglodytes aedon*	RB
ruby-crowned kinglet	*Regulus calendula*	WV
Swainson's thrush	*Catharus ustulatus*	M
hermit thrush	*Catharus guttatus*	WV
American robin	*Turdus migratorius*	WV
wrentit	*Chamaea fasciata*	RB
northern mockingbird	*Mimus polyglottos*	RB
cedar waxwing	*Bombycilla cedrorum*	WV
European starling	*Sturnus vulgaris*	I
Hutton's vireo	*Vireo huttoni*	SB
yellow-rumped warbler	*Dendroica coronata*	WV
common yellowthroat	*Geothlypis trichas*	RB
Wilson's warbler	*Wilsonia pusilla*	M
western tanager	*Piranga ludoviciana*	M
black-headed grosbeak	*Pheucticus melanocephalus*	SB
spotted towhee	*Pipilo maculatus*	RB
California towhee	*Pipilo crissalis*	RB
song sparrow	*Melospiza melodia*	RB
golden-crowned sparrow	*Zonotrichia atricapilla*	WV
white-crowned sparrow	*Zonotrichia leucophrys*	WV
dark-eyed junco	*Junco hyemalis*	RB
Brewer's blackbird	*Euphagus cyanocephalus*	RB
Common grackle	*Quiscalus quiscula*	RB
brown-headed cowbird	*Molothrus ater*	SB
northern oriole	*Icterus bullockii*	SB
house finch	*Carpodacus mexicanus*	RB
purple finch	*Carpodacus purpurius*	RB
Lawrence's goldfinch	*Carduelis lawrencei*	M
American goldfinch	*Carduelis tristis*	WV
lesser goldfinch	*Carduelis psaltria*	RB
house sparrow	*Passer domesticus*	I
Mammals		
Virginia opossum	*Didelphis virginiana*	I
ornate shrew	*Sorex ornatus*	RB
broad-footed mole	*Scapanus latimanus*	RB
California myotis	*Myotis californicus*	SB

Common Name	Scientific Name	Seasonal Status
big brown bat	*Eptesicus fuscus*	SB
Brazilian free-tailed bat	*Tadarida brasiliensis*	RB
brush rabbit	*Sylvilagus bachmani*	RB
desert cottontail	*Sylvilagus audubonii*	RB
western gray squirrel	*Sciruus griseus*	RB
Botta's pocket gopher	*Thomomys bottae*	RB
western harvest mouse	*Reithrodontomys megalotis*	RB
deer mouse	*Peromyscus maniculatus*	RB
California mouse	*Peromyscus californicus*	RB
California vole	*Microtus californicus*	RB
big-eared woodrat	*Neotoma macrotus*	RB
black rat	*Rattus rattus*	I
coyote	*Canis latrans*	V
raccoon	*Procyon lotor*	V
striped skunk	*Mephitis mephitis*	V
feral cat	*Felis catus*	I

Seasonal Status: RB = Resident Breeder; SB = Summer Breeder; M = Migrant; V = Visitor; WV = Winter Visitor; and I = Introduced Species.

APPENDIX 3: Is a Monoculture Coyotebrush Scrub a Form of Coastal Sage Scrub? (Methods, Data and Discussion)

The City of Goleta has determined that the areas vegetated with coyotebrush (*Baccharis pilularis*) are an Environmentally Sensitive Habitat Area (ESHA). The location containing the shrub is mapped as coastal sage scrub in the General Plan / Coastal Land Use Plan (Conservation Element) and *Baccharis pilularis* is identified as one of the species present in the coastal sage scrub community in this document.

The focus of this study was to determine whether or not the scrub community onsite was coastal sage scrub. This study concludes that this vegetation is clearly not coastal sage scrub, based on the definition of the community, the ecology of coyotebrush, and a comparison of three other local sites.

Methods

The "line transect" method was used to determine percent cover of vegetation within the mapped ESHA of the Cortona site. This was compared to three other sites of mapped coyotebrush-dominated coastal sage scrub ESHA within the City of Goleta, or sites vegetated with coyotebrush-dominated coastal sage scrub located close to the subject property but outside of the City limits.

At the Cortona site, a 100-foot tape measure was placed at 50-foot intervals, starting from the southern edge of the mapped ESHA (determined by the first coyotebrush shrub encountered) north towards the Southern Pacific Railroad (SPRR). The regular intervals and north to south direction of the tape provided random transect selection. The number of inches each plant species covered directly under the tape was recorded. The smallest interval of vegetation measured was 0.5 foot, which was adequate for this site, as large patches of single species were established. Percent cover (or bare ground) for each species was tabulated along each transect. Ten transects were measured at each site and the cover values were averaged. A similar method was used at the three comparison sites.

At the subject property, the tape was stopped at least 10 feet before the edge of the northern limit of shrubs to avoid including data from the area immediately adjacent to the SPRR berm, as this location may be continually effected by vegetation clearance along the railroad right of way.

City of Goleta Regulatory Setting of Mapped ESHA

There are a number of policies that address ESHAs and specifically relate to coastal sage scrub. The General Plan / Coastal Land Use Plan (Conservation Element) identifies the following sub-policies:

> **CE 1.1 Definition of Environmentally Sensitive Habitat Areas.** [GP/CP] ESHAs shall include, but are not limited to, any areas that through professional biological evaluation are determined to meet the following criteria:
>
> > a. Any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and that could be easily disturbed or degraded by human activities and developments.
> >
> > b. Any area that includes habitat for species and plant communities recognized as threatened or endangered by the state or federal governments; plant communities recognized by the State of California (in the Terrestrial Natural Communities Inventory) as restricted in distribution and very threatened; and those habitat types of limited distribution recognized to be of particular habitat value, including wetlands, riparian vegetation, eucalyptus groves associated with monarch butterfly roosts, oak woodlands, and savannas.
> >
> > c. Any area that has been previously designated as an ESHA by a competent authority.

CE 5.3 Protection of Coastal Sage Scrub and Chaparral. [GP/CP] In addition to the provisions of Policy CE 1, the following standards shall apply:

> a. For purposes of this policy, existing coastal sage scrub is defined as a drought-tolerant, Mediterranean habitat characterized by soft-leaved, shallow-rooted subshrubs such as California sagebrush (Artemisia californica), coyote bush (Baccharis pilularis), and California encelia (Encelia californica). It is found at lower elevations in both coastal and interior areas where moist maritime air penetrates inland. Chaparral is composed mainly of fire- and drought-adapted woody, evergreen, shrubs and generally occupies hills and lower mountain slopes.
>
> b. To the maximum extent feasible, development shall avoid impacts to coastal sage scrub and chaparral habitats that would destroy, isolate, interrupt, or cause a break in continuous habitat that would (1) disrupt

associated bird and animal movement patterns and seed dispersal, and (2) increase erosion and sedimentation impacts to nearby creeks or drainages.

c. Impacts to coastal sage scrub and chaparral habitats shall be minimized by providing at least a 25-foot buffer restored with native species around the perimeter of the delineated habitat area.

d. Removal of nonnative and invasive exotic species shall be allowed; revegetation shall be with plants or seeds collected within the same watershed whenever feasible.

What is Coastal Sage Scrub?

Coastal sage scrub refers to a group of plant species found, in various forms, along the California coastal foothills from the San Francisco Bay area to northern Baja California. It is characterized by low-growing aromatic shrubs adapted to the semi-arid Mediterranean climate of the coastal lowlands. Coastal scrub (a term often intermixed with coastal sage scrub) is often found on undeveloped (rocky) or shallow soils with low nitrogen content (Westman 1981). However, soil type is generally not a good indicator of its occurrence, as it can also occur on dense clays. In terms of elevation, coastal sage scrub is typically distributed above grasslands and below chaparral.

There are many different sub-categories (alliances) of coastal sage scrub. Depending on which vegetation classification system used, these sub-categories are either divided by geographic location, such as Northern, Central (or Lucian), Venturan and Diegan coastal sage scrub (Holland 1986), or more recently, classified by the dominant components of the community, regardless of the location the habitat is found (Sawyer and Keeler-Wolf 1995; CDFG, 2003).

The CDFG lists 25 separate types of coastal scrub, many of which are subdivided into smaller sub-groups (associations). Based on the floristic classification systems (separated by dominant species) the coastal scrub found in this area could fall under a number of sub-groups (Sawyer and Keeler-Wolf 1995; CDFG 2003). Based on the geographic classification systems, the coastal scrub in this area falls somewhat under Venturan Coastal Scrub (Holland 1986).

The actual groups of plants found in nature are not fixed in named categories, as they are influenced by many factors that often vary independently and affect different plants in different manners. These factors include temperatures, fog cover, slope facing, soil texture and nutrient makeup. What classification systems do is try to organize the infinite

variety of what is found in nature into a structure that can be used for communication and understanding.

Regardless of the classification system used, coastal sage scrub found in the coastal region of Santa Barbara County typically contains several (or more) of the following shrub species: *Artemisia californica* (California sagebrush), *Encelia californica* (bush sunflower), *Baccharis pilularis* (Coyotebrush), *Salvia mellifera* (black sage), *Leymus condensatus* (giant wildrye), *Eriogonum fasciculatum* (California buckwheat), *Salvia leucophylla* (purple sage), *Mimulus longiflorus* (bush monkeyflower), *Hazardia squarrosus* (sawtooth goldenbush), toyon (*Heteromeles arbutifolia*), lemonadeberry (*Rhus integrefolia*) and *Malosma laurina* (laurel sumac) along with other less important shrubs and herbaceous plants and grasses.

Why is Coastal Sage Scrub Considered Unique, Rare or Fragile?

Although it is, along with chaparral, the major shrubland type in California, some forms of coastal sage scrub are considered threatened by a large number of ecologists and government protection agencies because of the rapid reduction of the community due to development, and in some places, the occurrence of sensitive animals or plants that are restricted to this community. The recent treatment of natural plant communities in California lists some, but not all, of the alliances and/or associations of coastal sage scrub as "sensitive" (CDFG 2003). Some of these alliances are dominated by coyotebrush. However, either the community contains another dominant native component that is rare or the coyotebrush is a dwarf variety. The City of Goleta considers all expressions of coastal sage scrub found in the City to be "sensitive" (City of Goleta 2008).

Established on some of the most prized real estate in the world, most of the large expanses of this community that were present 100 years ago have been lost to development. The loss of coastal sage scrub habitat has been estimated to be as much as 70-90% (Westman 1981). A study using satellite remote sensing and GIS technology to map the remaining habitat discovered that most was on private land, with less than 4% of some associations protected in nature reserves (Davis, et al 1994).

The presence or restriction of a species of rare plant or animal to a certain sub-group of coastal scrub would also qualify a sub-group as sensitive. For example, in Orange and San Diego Counties (and to a lesser extent Riverside, San Bernardino, Los Angeles and southern Ventura Counties) coastal sage scrub dominated by California sagebrush and California buckwheat is important for the coastal California Gnatcatcher (*Polioptila californica californica*), which was listed as a Species of Special Concern in California and was listed as Threatened by the U.S. Fish and Wildlife Service in 1993 (USFWS 1993). The bird's specific habitat requirements make protection of this form of vegetation

a high conservation priority in the areas where it is found. Coastal California Gnatcatchers are *not* found in Santa Barbara County.

Is the Vegetation On-Site Coastal Sage Scrub?

The mapped ESHA vegetation onsite is composed of coyotebrush (*Baccharis pilularis*), and a large percent of non-native, broadleaf weeds. It is established on the previously disturbed extremities of the property and contains, essentially, only a single native species.

Line transects were used to help qualify and quantify the vegetation onsite, and to compare it to other coyotebrush-dominated communities in the City of Goleta and neighboring areas (e.g. east of the Bacara Hotel and north of Highway 101, just west of the City limits.

Comparison site of "typical" coyotebrush-dominated coastal sage scrub, with California sagebrush. This site is also mapped as ESHA in the City's General Plan Conservation Element.

Table A1 contains the results of the transect lines. The relative percent cover of coyotebrush at the sites range from 23.5% to 61.2%. The cover at the Cortona site falls somewhere in the mid-region of these limits (28.8 % cover of coyotebrush). The important difference between the Cortona site mapped ESHA and the other comparison sites is the percent of non-native grasses and common broadleaf weedy species.

The coyotebrush scrub found within the Cortona site consists of 59.1 % non-native species (including 44.9% weeds and 14.2% non-native grasses), while the three comparison sites contain no non-native grasses or broadleaf weeds. In addition, the community at the Cortona site consists almost entirely of coyotebrush and weeds with no other native shrubs (See Table A1).

TABLE A1: Percent Cover Values

(At Cortona and Three Off-Site Examples of Coyotebrush-Dominated Coastal Sage Scrub)

Plant Species	Cortona	Off-Site 1	Off-Site 2	Off-Site 3
Non-native grasses and broadleaf weeds				
Italian thistle (*Carduus pycnocephalus*)	34.3%	0	0	0
Harding grass (*Phalaris aquatica*)	8.4%	0	0	0
Exotic tree (Black Acacia)	5.4%	0	0	0
Annual European grasses (*Bromus diandrus; B. mollis*)	5.5%	0	0	0
Sweet fennel (*Foeniculum vulgare*)	2.2%	0	0	0
Castor bean (*Ricinus communis*)	2.0%	0	0	0
Mustards/Radish (*Brassica sp.; Raphanus sativus*)	1.0%	0	0	0
Bermuda grass (*Cynodon dactylon*)	0.3%	0	0	0
Total non-native grasses and broadleaf weeds	**59.1%**	**0**	**0**	**0**
Bare/Duff/Deadwood	10.2%	26.8%	0	10.6%
Native plants of coastal sage scrub				
Coyotebrush (*Baccharis pilularis*)	28.8%	61.2%	23.5%	34.2%
California sagebrush (*Artemisia californica*)	0	12.0%	76.5%	29.6%
Black sage (*Salvia mellifera*)	0	0	0	0
Bush sunflower (*Encelia californica*)	0	0	0	0
Giant ryegrass (*Leymus condensatus*)	0	0	0	25.6%
Elderberry	1.9%	0	0	0

Is the Vegetation Onsite Unique, Rare or Fragile?

Coyotebrush occurs from Oregon to northern Mexico. In California, it ranges from the northwestern coast south, including the peninsular and transverse ranges and the Channel Islands, and eastward to the Sierra Nevada foothills (Sundberg 1993). Coyotebrush is found in many plant communities including coastal bluffs, in coastal scrub, grasslands, chaparral and oak woodlands, from sea level to 1500 m. It sometimes occurs on serpentine soils (Sundberg 1993). It is found in either spreading or ascending in form (Sundberg 1993). Several associations of a dwarf form are considered sensitive. This type of sensitive community is not found in Santa Barbara County region.

Coyotebrush, represented as the single species, is sometimes considered a nuisance plant in the San Francisco area. It has invaded stabilized dunes in northern California, especially after yellow bush lupine has established (Pickart and Sawyer 1998). The species is considered problematic in recreation areas, especially around Mount Tamalpais, as it frequently invades grasslands requiring management practices that include its removal (McBride and Barnhart 2002).

The shrub is known to readily invade openings in scrub and freely reseeds on road cuts and other disturbed soils (Smith, 1996). Its weed-like nature is due to the abundance and anatomy of its seed. Flowers produce numerous small seed (5,000,000 per pound), each with a feathery ring of bristles that facilitate easy dispersal by the wind.

Inspection of the area of mapped ESHA on the Cortona site, as well as the area along the western property boundary where the shrub is also established but not mapped as ESHA (see Figure 4: Vegetation Map - main section), shows obvious signs of past disturbance, including large areas of fill and debris deposition, typically resulting in a high proportion of weedy, non-native plants that is now seen on-site.

In addition to current signs of disturbance at the Cortona site, a review of historic aerial photographs, taken from 1961 to 1970, show various land uses onsite (Figures 5a to 5c). The aerial photograph taken in 1961 (Figure 5a) shows the site in agricultural use. By 1964, (Figure 5b) site is cleared, however a thin line of scrub has invaded the area where it is now located along the SPRR. The photograph taken in 1970 (Figure 5c) shows the site again completely graded with no sign of vegetation. The current aerial photograph (Figure 1, main section) shows the shrubs have returned to the subject property and the area along the railroad.

Conclusion

The expression of 45% common broadleaf weeds and 29% coyotebrush (*Baccharis pilularis*) – along with non-native European grasses and bare space – would not be considered coastal sage scrub or a unique, rare or fragile community. Unlike other coyote-dominated expressions of coastal sage scrub found in the City of Goleta and neighboring areas, this site contains only coyotebrush and broad-leaf weeds, with no other coastal sage scrub shrubs. This particular species has readily invaded this disturbed site as it does in other places. The single native shrub is known in many plant communities and not restricted to coastal sage shrub associations.

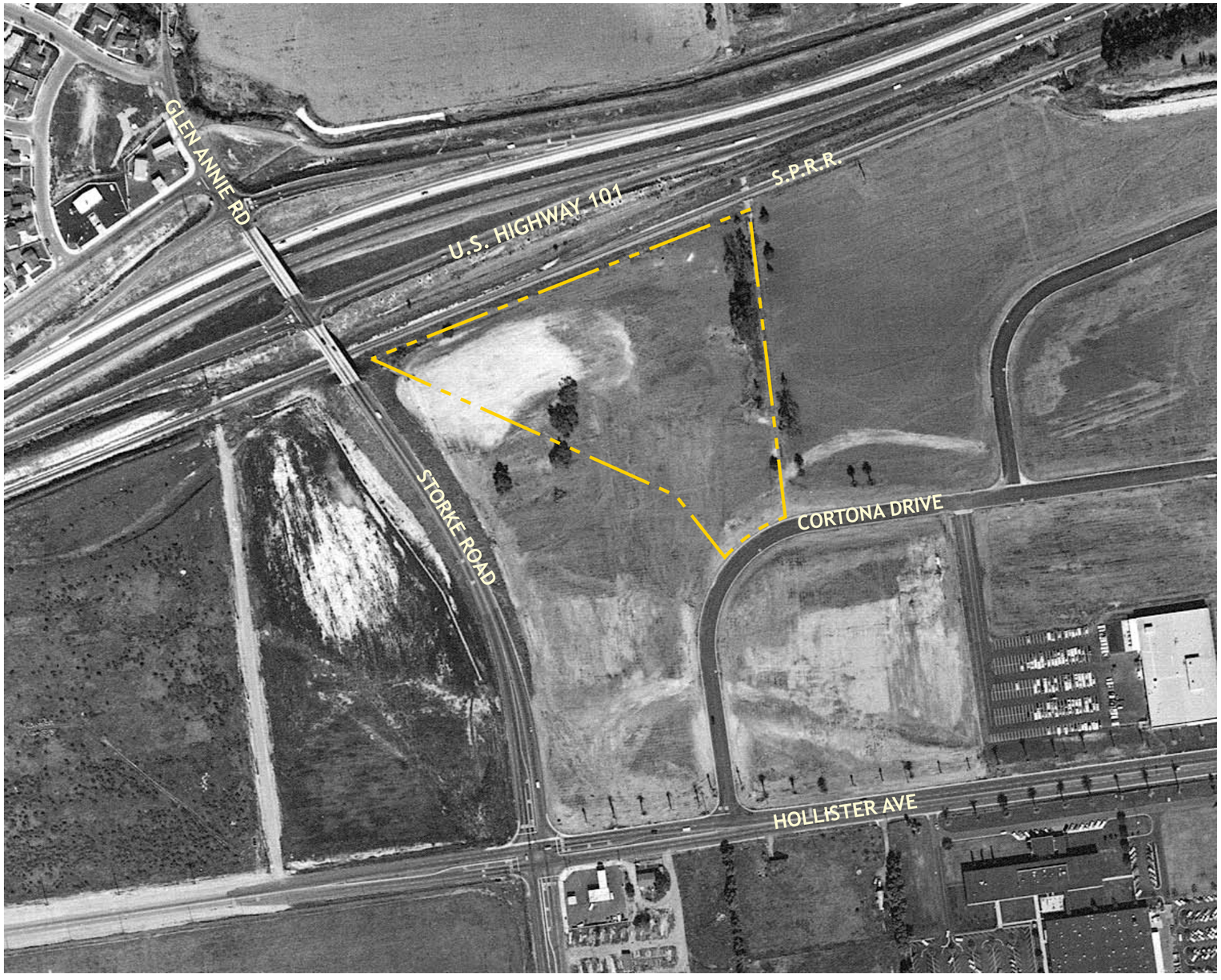
N

Figure 5a: Aerial Photo, 1961 (7-5-61)

6830 Cortona Drive

August 14, 2009

RACHEL• TIERNEY CONSULTING



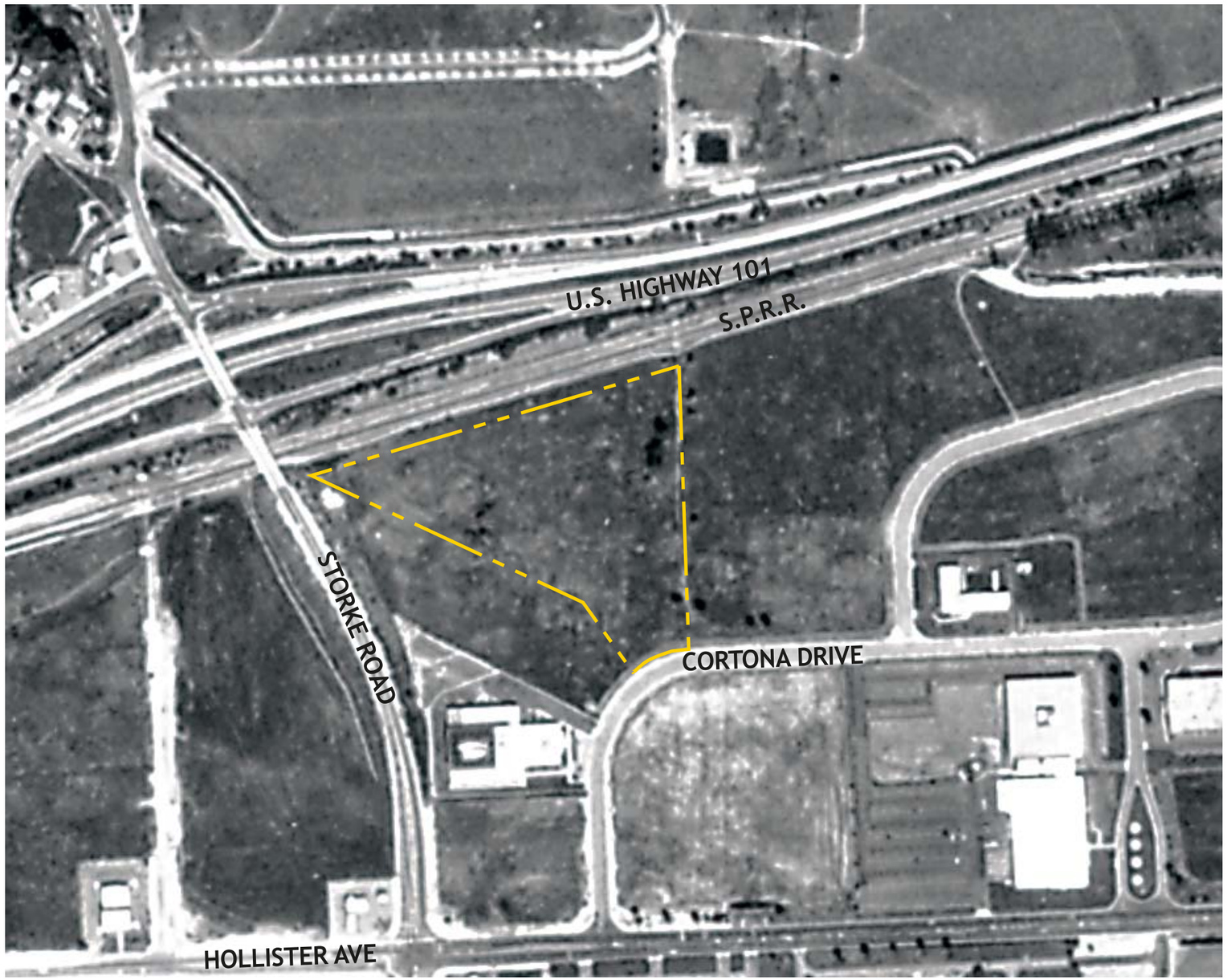
N

Figure 5b: Aerial Photo, 1964 (2-10-64)

6830 Cortona Drive

August 14, 2009

RACHEL• TIERNEY CONSULTING



N

Figure 5c: Aerial Photo, 1970 (3-22-70)

6830 Cortona Drive

August 14, 2009

RACHEL• TIERNEY CONSULTING

APPENDIX 4: ARBORIST REPORT

Duke McPherson, Arborist

201 East Mountain Drive

Santa Barbara, CA 93108

Phone 805 969-4676

E-mail: treemanduke@cox.net

August 17, 2009

John Price and Tod Berlinger
c/o Harwood White
1553 Knoll Circle Drive
Santa Barbara, CA 93103

Introduction

I was asked by Harwood White, Land Use Planner, to study the trees on the property at 6830 Cortona Drive, Goleta, California and write a Tree Protection Plan in anticipation of a building complex being planned for the property. I have visited the property on several occasions beginning August 7th and have become familiar with all trees present. A complete inventory can be found on pages 2-4 of this report detailing each tree's name both common and scientific, health, size, location, and disposition. On page 5 can be found a representational site plan showing tree varieties, locations, and their proposed dispositions. A page of Tree Preservation Measures is included on page 7. The directives are to be strictly followed throughout the construction period.

Tree Inventory

Woody Trees

The predominant woody trees are Deodar Cedars, *Cedrus deodara*, (a non-native tree) and Coast Live Oaks, *Quercus agrifolia*, (native). One Italian Stone Pine, *Pinus pinea*, is present and numbered in this survey. I did not consider the many non-native seedling European Olive trees, *Olea europaea*, and two Elderberry trees, *Sambucus mexicana*, of significant importance and so did not enter them into the inventory. All trees are loosely grouped in the eastern end of the property.

Palm Trees

Many Canary Island Palms, *Phoenix canariensis*, mostly in clumped groups are found scattered throughout the eastern end of the property among the woody trees.

The two sets of inventories follow in table form. Multiple trunk measurements in woody trees reflect multi-trunk trees:

Woody Tree Inventory

Tree #	Common Name	Size: trunk diameter at 4.5′. Approx. height in feet.	Location	Comments, Recommendations, Disposition
1	Coast Live Oak	24″ 15	North property line.	Well formed. Save.
2	Deodar Cedar	19″ + low side limb 7″ 30	North property line.	Suggest removal: will deform # 1.
3	Deodar Cedar	30″ 40	North property line.	To be removed for project construction.
4	Coast Live Oak	7″ 12	At edge of #3 canopy.	To be removed for project construction.
5	Coast Live Oak	6″ 12	On its own SW of # 1. Olive to NE.	To be removed for project. Remove Olive.
6	Coast Live Oak	9 ½″ 12	At western edge of # 7.	To be removed for project.
7	Deodar Cedar	26″, 21″ 50	First tree south of #'s 1,2,3. Olive and Elderberry at its edge.	Suggest saving. Remove Olive and Elderberry.
8	Coast Live Oak	7 ½″ 10	At SE edge of #7.	To be removed for project construction.
9	Deodar Cedar	34″ 60		Suggest saving.
10	Coast Live Oak	6″ 10	Just outside of canopy of #9.	Save
11	Coast Live Oak	12″ 15	At north side of #13.	Remove for project.
12	Italian Stone Pine	12,6,8,10,8,6″ 15	In the field west of 6,7,8.	A weedy pine. Suggest removal.

Woody Tree Inventory (continued)

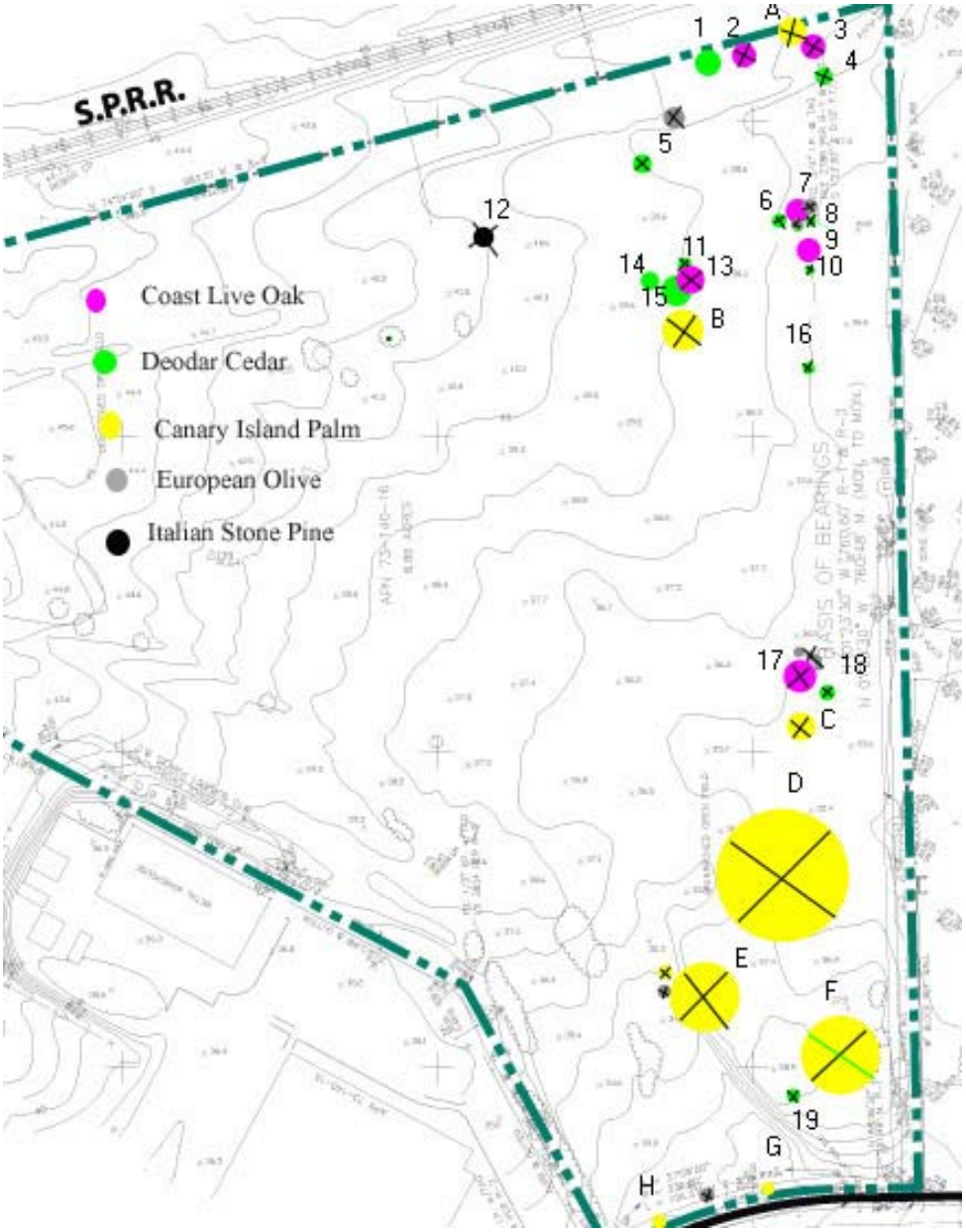
Tree #	Common Name	Size: trunk diameter at 4.5′. Approx. height in feet.	Location	Comments, Recommendations, Disposition
13	Deodar Cedar	33″ 60	Grouped with #15,14 11	Suggest removal to benefit Oak # 15.
14	Coast Live Oak	12″, 7″ 15	NW and at the edge of #15.	Save.
15	Coast Live Oak	18″, 26″, 24″, 24″ 65		A fine specimen. Save.
16	Coast Live Oak	9″ 12	SE of #15, 13	Remove for project.
17	Deodar Cedar	33″ 60	Near eastern property line approx. 1/3 up from Cortona Dr. Olive on N side.	Remove for project. Remove Olive.
18	Coast Live Oak	14″, 5″ 20	At eastern edge of #17.	Remove for project.
19	Coast Live Oak	8″ 10	Single specimen at southeast end of site.	Remove for project.

Palm Tree Inventory

Palm Letter	Common Name	Scientific Name	Description: size and sex.	Location	Comments, Recommendations
A	Canary Island Palm	Phoenix canariensis	Two medium (approx. 20′ tall) female specimens.	North property line between trees #2 & 3.	Transplant off site.
B	Canary Island Palm	Phoenix canariensis	Four med.-large males (approx. 20′-30′).	Below trees #14 & 15.	Transplant off site.
C	Canary Island Palm	Phoenix canariensis	One large female (approx. 35′).	Below trees #17 & 18.	Transplant off site.
D	Canary Island Palm	Phoenix canariensis	Eight med.-large male specimens (approx. 20′-30′).	Below Palm group “C”.	Transplant off site.
E	Canary Island Palm	Phoenix canariensis	Five med.-large males (a. 20′-30′).	SW of “D”. Olive and Elderberry.	Transplant off site. Remove Olive and Elderberry.
F	Canary Island Palm	Phoenix canariensis	One medium male (approx. 20′)	Western edge of “E”.	Transplant off site.
G	Mexican Fan Palm	Washingtonia robusta	Quite tall male.	Street tree.	Retain.
H	Mexican Fan Palm	Washingtonia robusta	Quite tall male.	Street tree.	Retain.

Site Plan

The site plan for the report, which shows all trees and palms, was originally created by Carl Schneider of CSA Architects of Santa Barbara, CA. I have adapted it for my own use to show numbered and color-coded trees for easy location and identification. Those meant for removal (I believe almost all the olive trees and palms could be transplanted) have been designated with an "X".



Discussion and Recommendations

Two major issues must be addressed regarding the trees on the property and the proposed introduction of a housing complex: mitigation for the removal of 9 Coast Live Oak trees and the consideration that construction may have on the remaining valued trees.

1. Mitigation for the removal of 9 Coast Live Oak trees will be in terms of planting three 24″ boxed locally grown nursery specimens on site and creating a long term maintenance program (5 years at minimum) for their insured success. Any trees which succumb during the period are to be replaced 1:1 with the same species.

2. Construction impacts to the three Coast Live Oaks which are to be preserved are to be kept to the minimum, particularly the mature multi-trunk specimen, #15. The protected root zone of this tree is 35′ from the center of the trunk (30′ dripline + 5′). The excavation for building foundations slightly overlaps a short segment of the outer root perimeter to the south according to the initial site plan drawn up by ASA Architects. Any areas of the protected root zone intruded upon by excavation activity are to be hand dug and overseen by the project arborist.

Care will need to be taken to protect Oak tree #1 from parking stall grading. If possible, permeable paving or a special aggregate base laid down in the areas of the protected root zone and out 5′ more will improve the chances of the tree's success.

Oak tree #14, located adjacent to #15, will be clear of possible impacts.

Tree Preservation Measures

Introduction

All construction activities, particularly soil excavation and grading within the root zones of trees, are to be overseen by myself, the project arborist.

Preservation Directives

A. All native and non-native tree species to be preserved are to have protective fencing firmly installed at a minimum of 6' from tree trunks before construction activity is initiated. In cases where it is anticipated that tree trunks may be threatened with impact from construction machinery, it may be necessary to wrap them with heavy duty rug material.

B. All trenching (for wall foundations, utility lines, etc.) and post hole digging within root zones is to be carried out manually only. All roots over 2" in diameter are to be preserved intact where possible. Those roots that are severed are to be saw cut evenly, to allow for proper healing.

C. Access roads placed over root zones shall be covered with a 3″ layer of tree chips for the duration of the project to prevent soil compaction.

D. Spoils from plaster and concrete cleaning operations shall be restricted to areas far away from tree root zones in a plastic lined pit. At the termination of activities, it shall be disposed of off site.

Report prepared by
Duke McPherson

Certified Arborist with the
International Society of Arboriculture
Certification # WE-0690A

Member of the
American Society of
Consulting Arborists
Membership # 1113

Katherine Rindlaub
Botanist
P.O. Box 31111
Santa Barbara, California 93130-1111

APPENDIX 5: K. Rinlaub Letter

August 13, 2009

Harwood White
1553 Knoll Circle Drive
Santa Barbara, CA 93103

Re: 6830 Cortona Drive – Non-Wetland Report Clarification

Dear Harwood:

The purpose of this letter is to review results of several visits to the Cortona Drive site in pursuit of wetland. I observed the site over five years to become convinced that there is no wetland on APN 073-140-016. A chronological recounting of my experience seems the logical approach to explain my conclusion. This letter also very briefly (and superficially) reviews pertinent characteristics of wetlands.

The site was highly disturbed and weedy when I first surveyed it in 1998. An old road ran from the driveway entrance on Cortona Drive to the southeast corner of the Storke Road overpass, but a southern branch ran toward the boundary with Jocelyn Electronics. Scraps of old asphalt and gravel showed the road had been paved in the past. Deep ruts in a particularly clayey area showed the road had been used during the rainy season. Topography appeared to have been affected by construction of the overpass, construction of the neighboring Jocelyn facility, and, quite possibly, by construction of the railroad. Several large, non-native trees were clustered on the northeast corner, and several large soil piles were located adjacent to the southern boundary. Castor bean was well-grown and common among the soil piles. Over the years, soil piles have come and gone, piles of rip-rap have appeared, and the lowest spots on the road were graveled, probably to improve traction. Castor bean was replaced by Harding grass next to the railroad following the series of wet years after 1998.

The purpose of my initial (June 1998) site visit was to determine whether any wetland might be present on the property, a possibility that disturbance would not alter. This question was raised when John Storrer noticed some wetland plants (curly dock [*Rumex crispus*]) when he evaluated the site as habitat for sensitive wildlife. This was a reasonable concern:

- The site is nearly flat. It is close to the historic margin of the Goleta/Devereaux Slough systems.
- 1998 was an unusually high rainfall year.
- A black-and-white aerial photograph shows a flooded pool nearby, at similar elevation, in 1969, another very wet (El Niño) year.

Consequently, it was reasonable to suppose the site might support vernal wetland. Observations from normal rainfall years and soil test pits would fill in the missing parts of the story. Results of that June 1, 1998 site visit were reported July 6, 1998 to Ken Marshall, of Dudek and Associates.

I revisited the site on November 3, 1998 with Sherri Miller, a wetland expert from Dudek and Associates. Ms. Miller was previously employed as a wetland biologist by the US Army Corps of Engineers. We did not conduct a formal wetland delineation; rather, we sited test plots on the lowest elevations, where runoff might collect. These lowest spots should show wetland characteristics if any portion of the site was a wetland.

That statement needs a bit of explanation. Three types of data are gathered to determine whether a site is classified as a wetland. These are vegetation, hydrology, and soils. All three must meet wetland criteria to qualify as wetland by the US Army Corps of Engineers (Jurisdictional Wetland). On the other hand, the California Department of Fish and Game, the US Fish and Wildlife Service, Santa Barbara County, and the City of Goleta follow the Cowardin et al. 1979 system. Under the latter protocol, only one of the three criteria must be satisfied.

A Brief and Superficial Review of Wetland Criteria Pertinent to the Subject Site

This sounds simple and straightforward, but it often is not so clear-cut in southern California. Hydrology is the key. If high soil moisture is not maintained for many weeks or months, the site is not a wetland, even if wetland indicator plants occur there. More than 50% of the dominant species must be wetland indicators to meet the wetland vegetation criterion.

Wetland indicator plants are distributed among several different categories, based on the frequency of occurrence in wetlands vs. occurrence in non-wetlands (uplands). These are presented in the *National List of Plant Species that Occur in Wetlands: California (Region O)*. by P. B. Reed, and published by the US Department of the Interior in 1988. It is important to realize that the classification system for California (Region O) encompasses many different climates, and extends from the latitude at the Oregon border to the latitude at the Baja California border. It also covers the state from the seacoast to the Sonoran and Mojave Deserts and the Modoc Plateau. The classifiers chose the latitude of the Bay Area, more-or-less the center of the State, according to Wayne Ferren (personal communication). Consequently, there have always been problems with the classification system in southern California, and a revision has been in progress for several years. A revised delineation methodology was introduced in recent years for use in arid lands to address some of these difficulties.

Cattails are "obligate" wetland plants, *i.e*., if you see cattails, the probability that you are looking at a wetland is greater than 99%. Harding grass is an example of a "Facultative +" wetland indicator. That is, if you see Harding grass, the probability that you are looking at a wetland is between 34% and 66%, (but skewed a bit toward the wetland end (the meaning of the "+" appended to "Facultative"). Essentially, Harding grass is almost as likely to appear in non-wetland as in wetland. During the series of El Nino years in the late 1990s, Harding grass spread dramatically over the hillsides visible from US Highway 101 along the coast between Goleta and Gaviota (personal observation). Does this mean that the hillsides suddenly became wetlands?

No, it shows that Harding grass needs unusually moist conditions to become established in the Santa Barbara/Goleta area. Once established, this tough, non-native perennial grass survives the drier years. Seeds of wetland indicator plants must be widely distributed, but only succeed at germination and growth when the conditions are appropriate. If the appropriate hydrological conditions (soil moisture) are present, they will grow.

Occasionally, the vegetation is dominated by facultative plants; those species equally likely to occur in non-wetlands as in wetlands. In that case the *Fac-Neutral Test* is applied to the vegetation. Because facultative plants are neutral with respect to determining presence/absence of wetland, the facultative species are withdrawn from consideration. The remaining species are used to determine whether the site is dominated by wetland vs. non-wetland species.

Hydric soil characteristics take time – decades – to develop. Their presence indicates the site has been wetland for a long time. Soils mapped around the margins of the Goleta Slough in the 1940s by the (then) Soil Conservation Service are surprisingly accurate. During construction of the Level 3 fiber-optics cable on the railroad right-of-way in 2001 and 2002, I was able to observe the soil profile in trenches at the ends of horizontal, directional drilling required to protect especially sensitive sites. One of these was the archaeological site on the subject property near the overpass. Coyote brush was the dominant plant cover, and the soil was not hydric.

A Review of the Data from Plot 3 – Plot 6 on the Cortona Drive Site

Returning to November of 1998, Ms. Miller and I dug several soil pits to determine whether any hydric soil had developed on the Cortona Drive site. The color of the soil was very dark, so we deliberately placed one test pit on nearby high ground (upland) for comparison. These test pits are reviewed below.

Plot 3 was located in the rutted area noted on June 1998. The only indicator of suitable hydrological conditions was confined to deep wheel ruts. This artifact of compaction of wet soil by a vehicle in a tiny area is indicative of conditions on the road bed rather than of the site itself. The road leads to soil piles, so the site could be contaminated by imported soil as well as by gravel and other materials brought onto the site to construct the road bed. The vegetation and hydric soils criteria were not met. *This plot is not located in wetland*.

Plot 4 was located on the lowest spot of the southeast section where the curly dock grew. Fifty percent of the dominant plant species were wetland indicators – ostensibly satisfying that criterion for wetland. However, many of these were facultative species. We applied the Fac-Neutral test (see above), which was negative (FAC and FAC^+ plants are withdrawn, $FACW^-$ is cancelled by FACU, leaving FAC^- and upland species). Neither the wetland vegetation nor the hydrology criteria for wetland were met. The soils criterion was questionable, due to the very dark color (chroma). Therefore, it was necessary to compare the soil to that of the closest area with high ground and upland vegetation, which is Plot 5. The same low chroma (color) was found on Plot 5 (see below). *Therefore this plot is not located in a wetland*.

Plot 5 was located on the highest ground to provide an unquestionably upland reference site. Both vegetation and hydrological characteristics were typical of uplands rather than wetland. The soil color was as dark as that observed in Plot 4. The dark soil color is not a reliable wetland indicator in either Plot 4 or Plot 5. *This plot is not located in a wetland*.

The results of the November 3 1998 site visit was reported on November 24, 1998 to Tom Carey, Bermant Development Company.

Plot 6. On March 31, 2000 I returned to the site to establish an additional test pit on the low point crossed by the road. This final check was implemented because the previous site visits were made late in the year, and some annual species might have been overlooked. Once again, the lowest point was in a wheel rut. The vegetation criterion was not met, although some wetland indicator species were present. The hydrology criterion was not met; even the wheel ruts had drained or dried out relatively quickly. The soil initially appeared to satisfy the criteria for hydric soil, but further observation determined that the spot was deliberately compacted to create a road bed at some past time. Consequently, the layering is artificial, and *this plot is not located in a wetland*.

The result of the March 31, 2000 site visit was submitted to Tiffany Campbell, Suzanne Elledge Permit Processing Services, on April 3, 2000.

In summary, I have been privileged to watch this site over a period of years. Studies subsequent to the initial visit in 1998 included locating soil test plots on the lowest elevation (i.e., tire ruts) I could find, and examining vegetation at the appropriate time of year. These accumulated observations confirm that that there is no wetland on the subject parcel, APN 073-140-016.

Sincerely,

Katherine Rindlaub
Botanist

cc: Rachel Tierney

Literature Cited

Cowardin, Lewis M., Virginia Carter, Francis C. Golet, and Edward T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. Office of Biological Services, Fish and Wildlife Service, US Int. Dept. FWS/OBS-79/31.

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

Rindlaub, Katherine. 2000. Vegetation and Wetlands, Campus Center Project. Letter to Tiffany Campbell, Suzanne Elledge Permit Processing Services, 629 State Street, Santa Barbara, CA. 93101 Dated April 3, 2000.

Shipman, Gordon E. 1981. Soil Survey of Santa Barbara County, California, South Coastal Part. U.S. Dept. Agriculture, U.S. Soil Conservation Service, and U.S. Forest Service in cooperation with University of California Agricultural Experiment Station.

UNIVERSITY OF CALIFORNIA, SANTA BARBARA
Katherine Rindlaub
Botanist
P.O. Box 31111
Santa Barbara, California 93130-1111

BERKELEY • DAV1S • IRVINE • LOS ANGELES • MERCED RIVERSIDE •SAN DIEGO SAN FRANCISCO SANTA BARBARA•SANTA CRUZ

VERNON AND MARY CHEADLE CENTER
FOR BIODIVERSITY AND ECOLOGICAL RESTORATION (CCBER)
DEPARTMENT OF ECOLOGY, EVOLUTION AND MARINE BIOLOGY
SANTA BARBARA, CALIFORNIA 93106-9615
CENTER FAX (805) 893-4222

FACULTY DIRECTOR
dantonio@lifesci.ucsb.edu
KATHERINE ESAU DIRECTOR
thorsch@lifesci.ucsb.edu
(805) 893-2401
HERBARIUM (805) 893-2401
VERTEBRATE COLLECTIONS (805) 893-4098
ECOSYSTEM MANAGEMENT (805) 893-4158

APPENDIX 6

Harwood A. White
Land Use Consultant
1553 Knoll Circle Drive
Santa Barbara, CA 93103
Tel (805) 962-5260
Fax (805) 957-1006
harwood@harwoodwhite.com

August 13, 2009

Dear Mr. White,

I was able to tour the site with Rachel Tierney and don't feel that the project will be impacting particularly sensitive habitat and, as such, I think a restoration project on UCSB lands would, overall, enhance regional coastal sage scrub habitat. Given the railroad setback, the wildlife corridor value of the site would be retained. I've also spoken with several planning and administrative officials here at UCSB and they have accepted mitigation funds in the past and are open to the possibility of CCBER managing such a project on a contract basis. There are a few administrative hoops to jump through, but there shouldn't be a problem. All of UCSB's land is within the Coastal Commission jurisdiction, so any project would need to fulfill their requirements which include annual monitoring reports over 5 years. We have restoration plans for a couple of sites which you could present to the City of Goleta as alternatives (or select one apriori).

The first potential project location is on lagoon island – a 20 acre mesa on the ocean side of the Campus Lagoon. This land is protected from development as ESHA, but has no dedicated funding for restoration activities except through grants I have written and a part-time staff person. We have an ongoing project there that is the result of several years of experimentation in which we control non-native annual grasses with prescribed burns and then restore coastal sage scrub to the site. We are just beginning the implementation phase and this project would help us maintain our momentum and follow up on a Coastal Fund grant we are in the process of implementing. We work with student interns and student workers and so fulfill the education and training mission of the university. We collect and grow all of our own plants from local

native areas. In this scenario we would use all the cut Baccharis from your site to create the supplemental fuel on our site to get a burn hot enough to kill the non-native seedbank.

The second site is on South Parcel, to the west of Ocean Meadows Golf Course, where about 15 of the 69 acres of degraded, dune, wetland, grassland and coastal sage scrub will be restored with mitigation funds from the North Parcel Faculty Housing Project. This leaves about 55 acres available for restoration and a portion is suitable for coastal sage scrub restoration. This site is highly degraded and restoration work will involve significant weed control efforts for fennel, pampas grass and/or mustard. This area also has an approved restoration plan from which we can identify a section for this mitigation component. This area is owned by the University and held under a conservation easement by the Land Trust for Santa Barbara. The contract could be run through LTSB or UCSB.

Sincerely,

Lisa Stratton, Ph.D.
Director of Ecosystem Management, CCBER
stratton@lifesci.ucsb.edu
805-893-4158