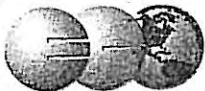


APPENDIX K

Valley Elderberry Longhorn Beetle Survey



September 27, 2006

Mr. George Carpenter
Attorney at Law
141 Morella Court
Roseville, California 95747

RE: *South Sutter Specific Plan, Sutter County, California – Valley Elderberry Longhorn Beetle Survey*

Dear Mr. Carpenter:

On behalf of the Measure M Group, ECORP Consulting, Inc. (ECORP) has conducted a survey for blue elderberry shrubs (*Sambucus mexicana*), host plant for the federally threatened Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*, VELB) within the 7,500 ±-acre South Sutter County Specific Plan Area (Plan Area). The Plan Area is located east of Power Line Road, south of Howsley Road, and west of Natomas Road in southern Sutter County. State Highway 99/70 divides the site into two unequal portions. The Sutter/Sacramento County line parallels the southernmost portion of the Plan Area (Figure 1 – *Project Site and Vicinity*). The site corresponds to portions of Sections 21, 22, 23, 26, 27, 28, 31, 32, 33, 34, and 35 of Township 11 North, Range 4 East as well as portions of Sections 1, 2, 3, 4, 5, 8, 9, 10, 11, and 12 of Township 10 North, Range 4 East (MDBM) of the "Pleasant Grove, California" "Verona, California" "Taylor Monument, California," and "Rio Linda, California" 7.5-minute quadrangles (U.S. Department of the Interior, Geological Survey (USGS) 1981, 1978, 1980, and 1992, respectively). The Plan Area is located within the Lower Sacramento River Watershed (#18020109, U.S. Department of Interior, Geological Survey 1978).

Valley Elderberry Longhorn Beetle Life History

The Valley elderberry longhorn beetle was officially listed as a threatened species in 1980 (USFWS 1980) and is therefore protected pursuant to the federal Endangered Species Act of 1973, as amended. The current known distribution of this species is patchy throughout California's Central Valley and associated foothills, to an elevation of approximately 3,000 feet

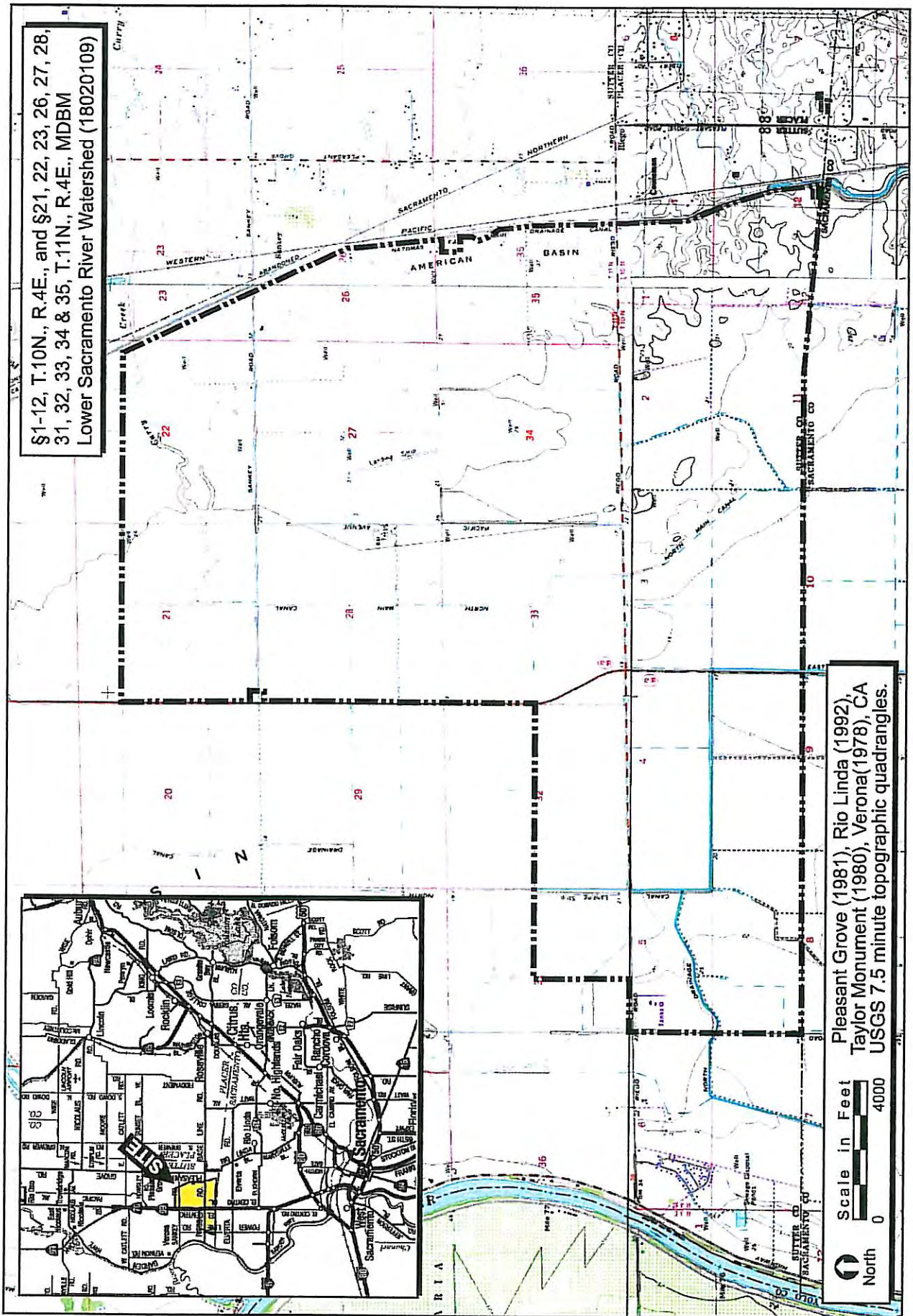


FIGURE 1. Project Site and Vicinity

(USFWS 1999). Blue elderberry shrubs generally occur in riparian and woodland communities throughout this range.

This insect is completely dependent on its host plant, blue elderberry, during all stages of its life cycle. Female beetles lay their eggs in crevices on the stems or on the leaves of elderberry shrubs. Hatched larvae bore into the stems and reside there for one to two years. The fifth instar larvae create exit holes in the stems, then immediately plug the holes, and remain inside the stems through pupation (Talley, 2003). Adult beetles emerge through the exit holes from late March through June. Adults forage on elderberry leaves and flowers. The adult stage is short lived.

Site Conditions

The majority of the Plan Area has been historically leveled and farmed for cultivated rice (*Oryza sativa*). Irrigation water is mechanically pumped from groundwater wells into the rice fields or cells via a system of man-made canals. The fields remain flooded until the fall harvest when each field is drained through manually controlled gates into a matrix of drainage ditches. Individual fields are separated by small upland checks or larger levees, some of which are used as access roads.

Other vegetation communities observed on-site include non-irrigated and irrigated pastures. A field south of the Sankey Road/Natomas Road intersection has not been leveled and appears to be utilized for non-irrigated hay crops, such as oats or wheat. An irrigated pasture used for cattle grazing is located on the north side of Sankey Road, immediately west of Natomas Road. Plant species observed in the irrigated pasture included ryegrass (*Lolium multiflorum*), Bermuda grass (*Cynodon dactylon*), clover (*Trifolium spp.*), alfalfa (*Medicago sativa*), and Kentucky fescue (*Festuca arundinaceae*). A rural residence is located near the irrigated pasture on Sankey Road.

Trees are limited in distribution and are largely associated with the larger drainages. These include Goodding's black willow (*Salix gooddingii*) and Fremont's cottonwood (*Populus fremontii*).

A food distribution warehouse, farm equipment dealer, cement mixing plant, and farm buildings are located along Pacific Avenue south of Sankey Road. A rural residence, farm buildings, grain silos, and an airstrip are located along Riego Road immediately east of Power Line Road.

Surrounding land uses include primarily rice agriculture with scattered rural residences. The Natomas East Main Drainage Canal is located immediately east of the Plan Area and the Cross Canal is located approximately one mile north of the property.

Methods

ECORP Biologist and Botanist Dustin Brown and Debora Sykes surveyed the Plan Area for the presence of VELB and its elderberry host plant on August 23, 24, and 25, 2006. The surveys were conducted via visual observation while driving and walking along all paved and unpaved roads within the Plan Area. Binoculars (10x42) were used to assist in the surveys. All surveys were conducted in accordance with the *Conservation Guidelines for the Valley Elderberry Longhorn Beetle* (USFWS, 1999).

Results

No elderberry shrubs were identified within the South Sutter Specific Plan Area during the August, 2006 surveys. VELB surveys are valid for a time period of two years (USFWS, 1999).

If you have any questions regarding the findings of this survey, please feel free to call me at (916) 782-9100.

Sincerely,



^{for:}
Dustin R. Brown
Biologist

CC: Pierre Martinez / Lennar Communities
Francine Dunn / EDAW
Peter Balfour / ECORP Consulting, Inc.

References

- Talley, T. 2003. Identifying the role of spatial, habitat quality and landscape properties in influencing the metapopulation dynamics of a rare, fragmented species. Thesis proposal, introduction and objectives. 19 January 2003. Department of Environmental Science and Policy, University of California, Davis. Available at: http://www.des.ucdavis.edu/students/ttalley/current_projects/thesis_intro_obj.htm.
- U.S. Department of the Interior, Fish and Wildlife Service (USFWS). 1980. Listing the Valley Elderberry Longhorn Beetle as a Threatened Species with Critical Habitat. Final Rule. Federal Register 45(155): 52803-52807.
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