GANDA

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To: Stefan Galvez
California Department of Transportation

From: Loni Cooper
Date: May 14, 2008

RE: Assessment of Potential Mitigation Opportunities within Caltrans' Right-of-Way near Montara Creek, San Mateo County

1. Introduction

Garcia and Associates (GANDA) was requested to evaluate the potential to establish environmental mitigation projects within a portion of State Right of Way (ROW) held by the California Department of Transportation (Caltrans) adjacent to Montara, San Mateo County, California. This memorandum summarizes results of our field review and provides recommendations for potential mitigation opportunities for wetlands and the California red-legged frog (*Rana draytonii*).

2. Methods

Existing information sources were reviewed to identify sensitive resources known to occur in the vicinity of the existing ROW. A California Natural Diversity Data Base (CNDDB) record search of known special-status species and sensitive communities was conducted (CDFG 2008), and the National Wetland Inventory (NWI; USFWS 2008) records within the vicinity of the ROW were mapped.

The CNDDB records search within the Montara Mountain quadrangle reported a number of sensitive species within the vicinity of Montara. No records of special-status species were found on the ROW property or in areas immediately adjacent. Six records of California red-legged frog (*Rana draytonii*) were found within approximately 2.5 miles (4.0 km) of the ROW property, and one record of San Bruno elfin butterfly (*Callophrys mossii bayensis*) was found approximately 1 mile (1.6 km) from the ROW property. Based on these results, field surveys for potential habitat

of sensitive species focused on wetlands for California red-legged frog and for the elfin butterfly's larval host plant, stonecrop (*Sedum spathulifolium*).

Garcia and Associates wildlife biologist Loni Cooper conducted preliminary reconnaissance field surveys on February 14 and 19, 2008. Surveys were conducted within a section of Caltrans ROW to assess potential mitigation opportunities including, but not limited to wetlands, riparian habitat, special status species, public access, agricultural space and open space. On February 19, GANDA wildlife ecologist Joe Drennan accompanied Ms. Cooper to further evaluate areas of potential mitigation opportunities, including potential California Coastal Commission (CCC) wetland areas and potential California red-legged frog habitat. Portions of the southern ROW have been leased from the State, and consequently were not accessed during this survey. Those areas were evaluated from nearby roads and vantage points that provided for visual inspection.

Garcia and Associates GIS specialist Brian Galey compiled a map (Figure 1) identifying the boundary of the ROW property based on files provided by Caltrans. Wetland typing resources were also identified from NWI data and mapped within the immediate vicinity of the ROW property.

To evaluate the potential for wetland mitigation, the ROW was surveyed for sites which appeared to have characteristics of wetlands as defined by either the U.S. Army Corps of Engineers (ACOE) or the California Coastal Commission (CCC). Formal wetland delineations were not performed, but apparent wetland parameters were noted during field reviews of the project area. The three wetland parameters considered by the ACOE are hydrophytic vegetation, hydric soil and wetland hydrology. The ACOE definition for wetlands requires the occurrence of these three wetland parameters in order to be potential jurisdictional wetland under the ACOE. The CCC generally relies on only a single parameter to designate wetlands. Additional parameters may be considered when the existing conditions are ambiguous due to occurrence of upland features. We identified potential for CCC wetlands based primarily on the presence of hydrophytic vegetation.

3. Results and Discussion

3.1. Caltrans Right-of-Way Boundaries

The Caltrans ROW property is located within the eastern residential district of Montara (Figure 1). The ROW is approximately 64.6 acres. The ROW property is a linear swath of land that is divided by several paved residential streets. The southern boundary is located southeast of Sunshine Valley Road. The northern boundary extends past Cedar Street near the southern boundary of Daffodil Canyon, which is a potential mitigation site previously identified by Caltrans. The western boundary is defined by a line roughly parallel with Date Street. The eastern boundary is bordered by agricultural fields and Alta Vista Road.

There are two watercourses within the ROW. An unnamed creek runs from the east to the west through the northern section of the ROW. According to the NWI, this creek feeds freshwater

emergent wetlands north of 2nd Street and adjacent to the Farallone View Elementary School, both of which are near an existing wetland mitigation site for the Devil's Slide Tunnel Project. Montara Creek runs through the center of the ROW, crossing under the George Street Bridge.

3.2. Existing Conditions

3.2.1. Southern Portion

The southern portion (from Sunshine Valley Road to Hawthorne Street) of the ROW property consisted primarily of residential development, horse stables and corrals (see *Appendix of Photographs*: Photo 1, 2, 3). The area from Irving and Hawthorne Streets to the southeast of Sunshine Valley Road has been leased from the State and is consequently fenced property. At the time of our site assessment we did not have property owner approval to access the ROW and therefore we did not directly access this location. We were able to view most of the ROW to which we did not have access from paved roads (end of Hill and Jordan Streets).

Based on maps provided by Caltrans, aerial photographs and views of the properties from Sunshine Valley Road, it appeared that Dean Creek transected some of this southern section of ROW. However, observations from Jordan and Ivy Streets did not record wetland features. The area was dominated by eucalyptus trees (*Eucalyptus* spp.), Monterey pines (*Pinus radiata*), cape ivy (*Delairea odorata*) and nasturtiums (*Tropaeolum majus*).

According to NWI wetland feature data, a freshwater pond exists within the ROW property east of Hill and Jordan Streets. However, a visual observation of this area from Hill Street did not record an existing pond (Photo 4).

3.2.2. Central Portion

The area north of Hawthorne Street to Linda Vista Road is the largest portion of the ROW. The area was composed primarily of ruderal forest dominated by non-native species consisting of Monterey pine, Eucalyptus, poison oak (*Toxicodendron diversilobum*), California blackberry (*Rubus ursinus*), Himalayan blackberry (*Rubus discolor*), western sword fern (*Polystichum munitum*), periwinkle (*Vinca minor*), and pampas grass (*Cortaderia selloana*). Horse paths transect a portion of this section, including several two-track paths west of Fir Street (Photos 5, 6, 7).

3.2.3. Northern Portion

The northernmost section of the ROW property (north of Linda Vista Road) was composed primarily of Monterey cypress (*Cupressus macrocarpa*), Monterey pine, wax myrtle (*Myrica californica*) poison oak, periwinkle, and pampas grass (Photos 8, 9). A dirt road transected the area and is expected to be utilized as an access road for the potential Daffodil Canyon Mitigation site, which is currently located on property held by Caltrans. At the very northern terminus for the survey area, as terrain leads up hill toward Daffodil Canyon, vegetation is consistently dominated by Monterey cypress and pines. However, just north of the ROW the vegetation becomes more typical of coastal scrub.

It is within this northern portion of the ROW where stonecrop, the elfin butterfly's larval host plant, might be expected to occur. A CNDDB record search identified one record of San Bruno elfin butterfly (*Callophrys mossii bayensis*) approximately 1 mile (1.6 km) northeast of the northern ROW terminus. Typical habitat for stonecrop consists of open grassy ground cover and coastal chaparral vegetation. No typical habitat for stonecrop was found within the ROW.

4. Recommendations

Four areas were identified to have potential for mitigation opportunities (Figure 1):

- Area 1, a potential CCC wetland area and California red-legged frog habitat located north of Cedar Street
- Area 2, a potential CCC wetland area located near Drake Street
- Area 3, a potential CCC wetlands area and potential California red-legged frog habitat located along Montara Creek
- Area 4, a potential CCC wetland area located south of Harte Street

We found that none of the four areas satisfied the U. S. Army Corps of Engineers (ACOE) requirements for wetland definition due to an underlying sandy soil that would be unlikely to meet hydric soil criteria. We found sandy alluvial soils throughout much of the ROW property.

We found the potential for California Coastal Commission (CCC) wetlands at all four potential mitigation areas.

4.1. Area 1

Area 1 was located in the northern section of the ROW property and covered approximately 63,400 feet^2 (1.4 acres, 5890 meters^2; 0.6 hectares). A pond was located at the most southwestern section of this area and it appeared that a portion of the pond may be located within the ROW (Photo 10, 11). An unnamed intermediate creek/drainage fed into the pond (Photos 12, 13, 14, 15, 16). The unnamed creek or drainage is generally two feet wide and would likely be considered as a jurisdictional Waters of the U.S. Vegetation throughout this location consisted primarily of California blackberry, Cape ivy, stinging nettle (*Urtica dioica*), box-elder (*Acer negundo*), wax myrtle, rush (*Juncus* spp.), yellow monkey flower (*Mimulus guttatus*), vetch (*Vicia sativa*), Monterey cypress, pampas grass and eucalyptus.

Pond is outside R/W

This area had potential mitigation opportunities for CCC wetlands and for the federally threatened California red-legged frog (CRLF). Ponds could be installed and habitat for California red-legged frog could be developed. It is likely that if ponds were constructed at Area 1, they would be colonized naturally by California red-legged frogs. The nearest known occurrence of the species is at the mitigation site for the Devil's Slide Tunnel Project, located downstream from Area 1, which is within the migration distance of that species.

No Natural Source of water

A currently existing dirt road through Area 1 allows for direct access to the potential mitigation site at Daffodil Canyon, and thus it may be valuable to Caltrans in order to facilitate the mitigation potential at that site.

4.2. Area 2

Area 2 was a small potential CCC wetland located just south of Drake Street. A road side drainage ditch fed into this location via a one foot wide corrugated steel culvert (Photo 17). Dominant vegetation consisted of California blackberry, eucalyptus and Monterey cypress. Understory vegetation included curly dock (*Rumex crispus*), beet (*Beta vulgaris*), salmonberry (*Rubus spectabilis*), hedge nettle (*Stachys rigida*), ripgut brome (*Bromus diandrus*), poison hemlock (*Conium maculatum*) and umbrella sedge (*Cyperus eragrostis*) (Photos 18, 19).

The Area 2 location has potential mitigation opportunities for developing a CCC wetland. Limitations of this location include the area's close proximity to Drake Street, the small size of the area (approximately 3,470 feet^2 (0.08 acres) and the artificial roadside drainage as a water source. In addition, this location also appeared to have a well-used horse trail running east to west through the most southern section.

4.3. Area 3

Area 3 was approximately 3.5 acres of riparian habitat along Montara Creek (Photo 20-26). The dominant vegetation throughout this location consisted primarily of willows (*Salix* spp.), curly dock, ripgut brome, hedge nettle, stinging nettle, Himalayan blackberry, western sword fern (*Polystichum munitum*), periwinkle and pampas grass. Stands of eucalyptus were present outside the riparian zone.

The 3 to 5 foot swath of Montara Creek is likely to be a jurisdictional Waters of the U. S. We also found that the location supported potential mitigation opportunity for enhancement to a potential CCC wetland and potential habitat for CRLF. North of the George Street Bridge the topographic gradient is too steep for ideal CRLF habitat; however, southwest of the George Street Bridge, Montara Creek widens and provides greater potential for CRLF habitat creation.

May not be w/in R/W

Limitations of this area are the ruderal nature of the forest, dominated by eucalyptus, the proximity of Montara Creek to residential homes, and the fragmentation of this area by paved roads (Elm and George Streets). Along the southwest portion of Montara Creek, adjacent residential yards appear to allow access to the creek from Date Street. Furthermore, there are numerous paths (foot paths and two-track vehicle paths) throughout the forest adjacent to Montara Creek.

4.4. Area 4

Area 4 was located just south of Harte Street and was approximately 0.4 acres (Photos 27, 28, 29). Dominant vegetation throughout this location consisted of watercress (*Nasturtium officinale*),

stinging nettle, rush, horsetail (*Equisetum arvense*), poison hemlock, cape ivy, calla lily (*Zantedeschia* spp.), California blackberry and Himalayan blackberry.

This location was considered to be potential CCC wetland. It is fed by two roadside drainage ditches. The top outlet, located at Hawthorne Street, fed this location from approximately 45 degree slope above this area and the second outlet drains from Harte Street into the northern section of the area. The location offers opportunities to enhance existing potential CCC wetlands. The limitations of this area include the small size of the area, the proximity and fragmenting effects of paved residential streets, and the water quality limitations of being fed by artificial road side drainages.

4.5. Recreational Resources

The potential for development of recreational resources, including parks, open space and horse trails, was not formally evaluated. It was observed during field surveys that a majority of the area between Harte and Drake Street has been used as a *de facto* system of walking and horse trails. The current use of the area suggests that it may be suitable to consider for development of a county-level park.

Sources Cited

California Department of Fish and Game (CDFG). 2008. California Natural Diversity Data Base, ver. 3.0.5. Wildlife and Habitat Data Analysis Branch, Sacramento, California. Updated January 2008.

United States Fish and Wildlife Service (USFWS). 2008. National Wetlands Inventory website. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. http://www.fws.gov/nwi/.

Figure 1. Montara Creek potential resources

San Mateo County, California

Caltrans Montara Creek Potential Mitigation Opportunity Assessment Appendix of Photographs

Photo 1 – Southern Portion

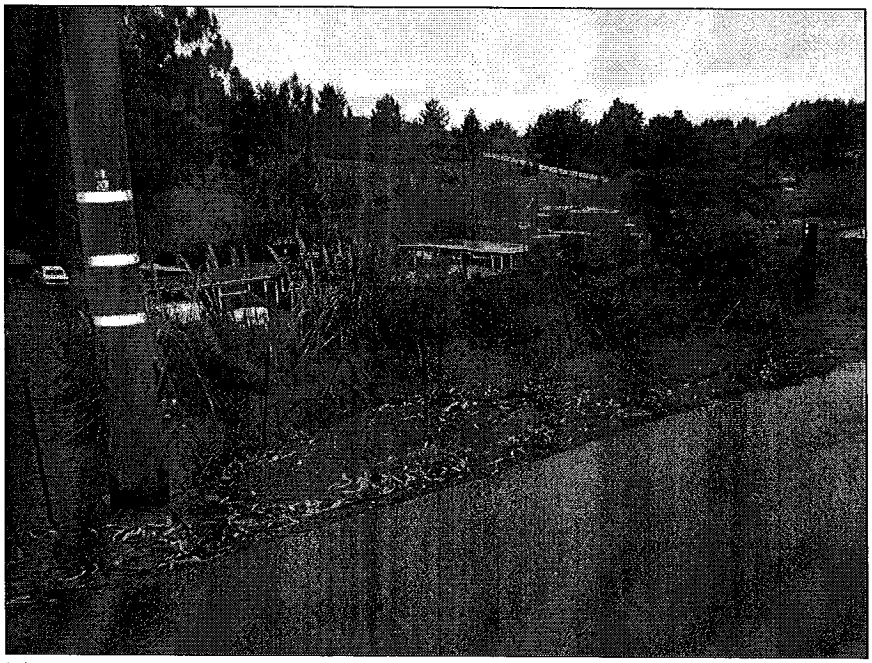

Photo 2 – Southern Portion

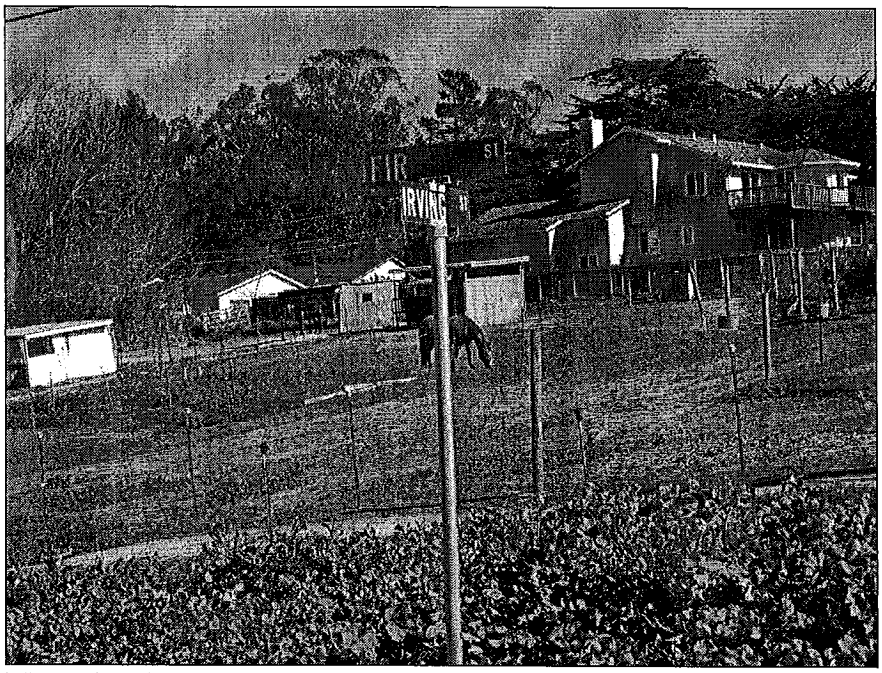

Photo 3 – Southern Portion

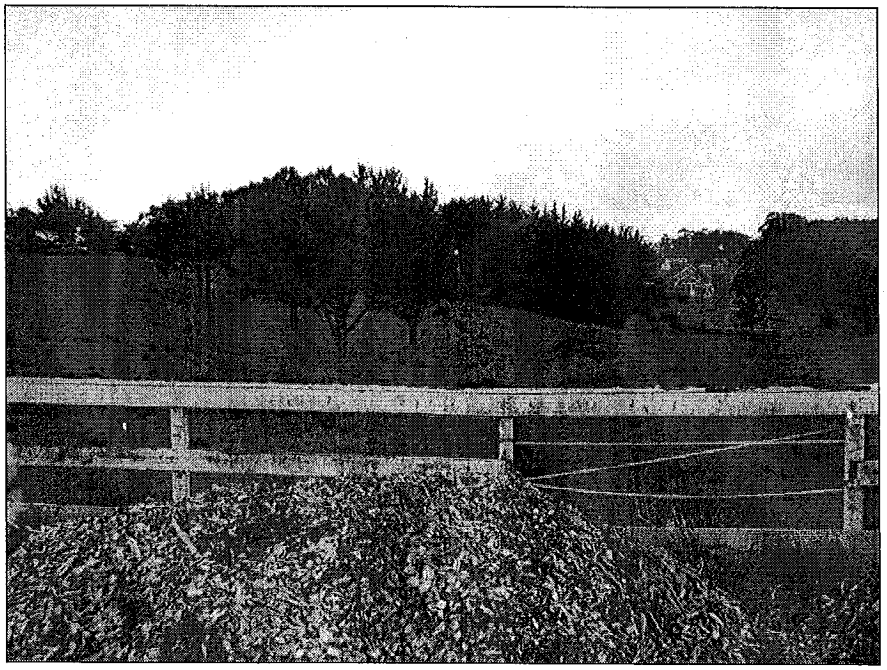

Photo 4 – Southern Portion

Photo 5 – Central Portion

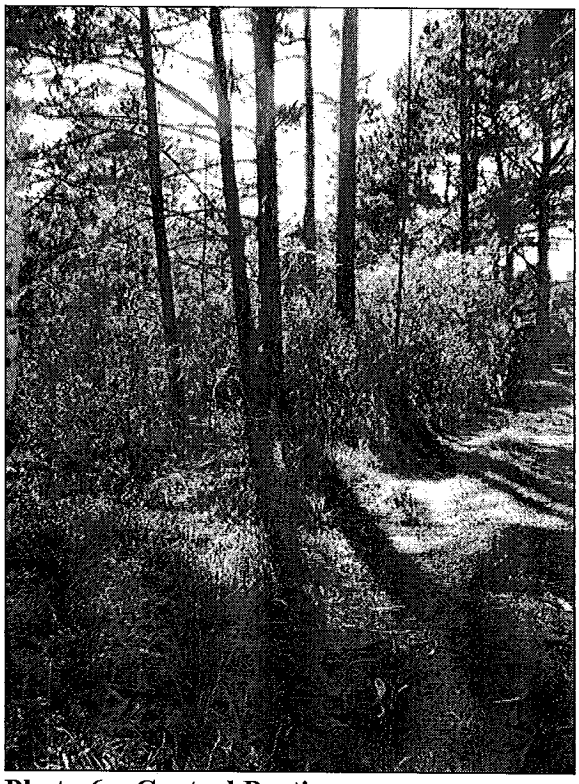

Photo 6 – Central Portion

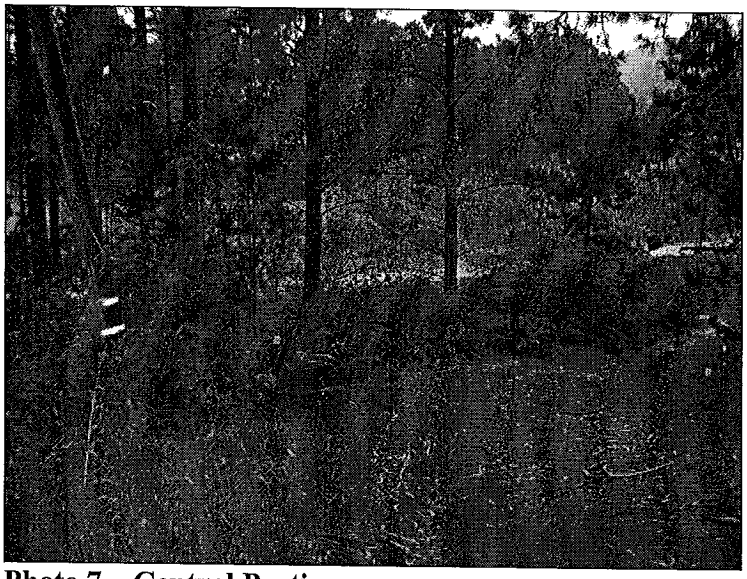

Photo 7 – Central Portion

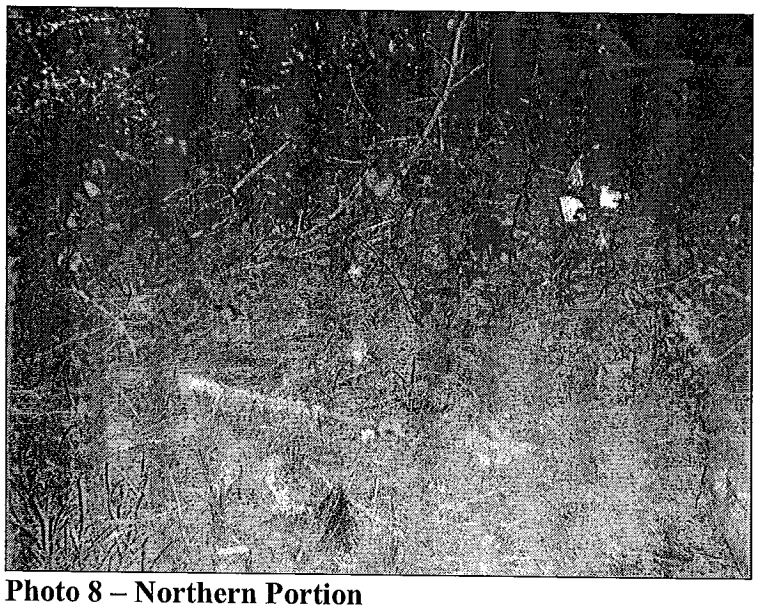

Photo 8 – Northern Portion

Photo 9 – Northern Portion

Photo 10 – Area 1

Photo 11 – Area 1

Photo 12 – Area 1

Photo 13 – Area 1

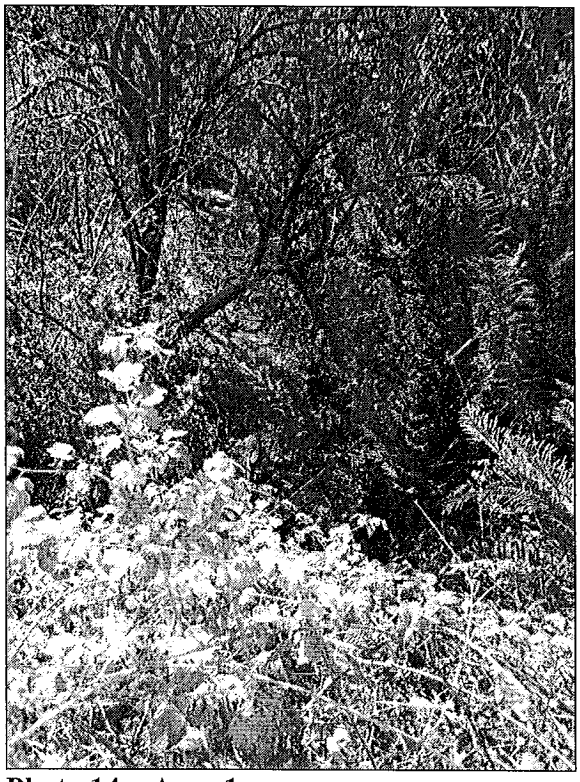

Photo 14 – Area 1

Photo 15 – Area 1

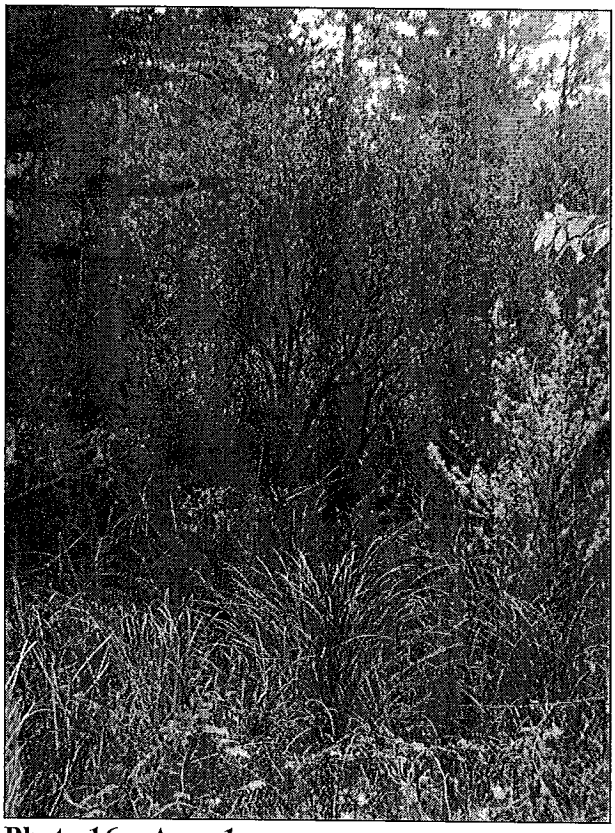

Photo 16 – Area 1

Photo 17 – Area 2

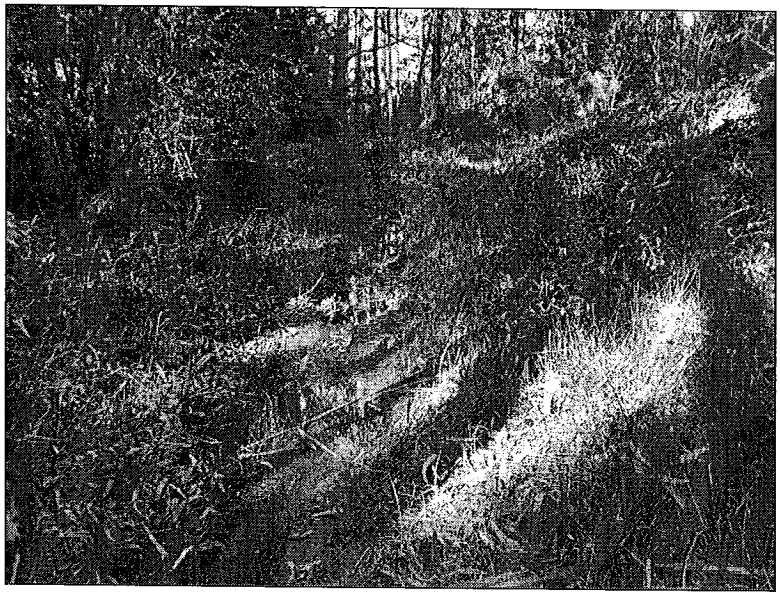

Photo 18 – Area 2

Photo 19 – Area 2

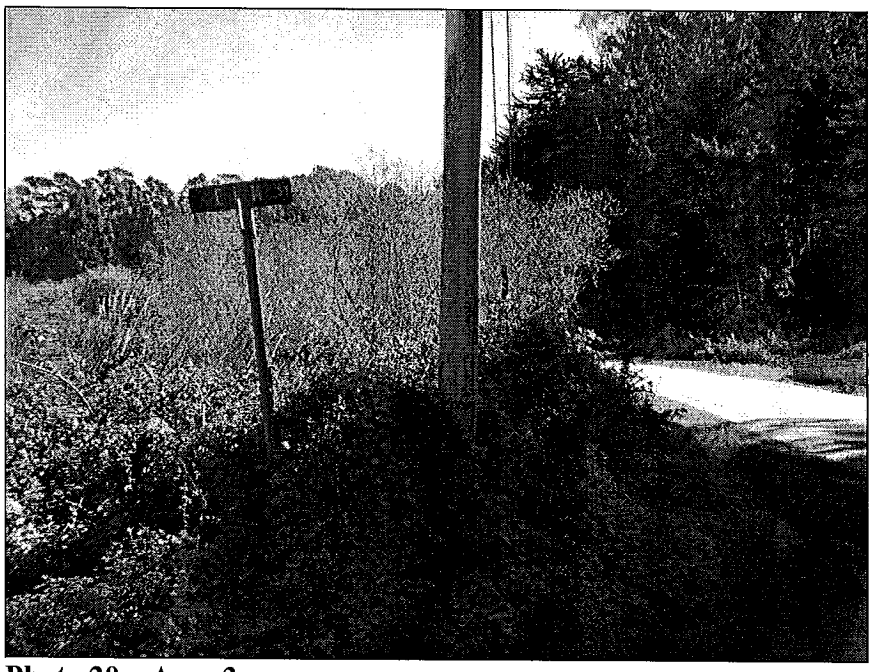

Photo 20 – Area 3

Photo 21 – Area 3

Photo 22 – Area 3

Photo 23 – Area 3

Photo 24 – Area 3

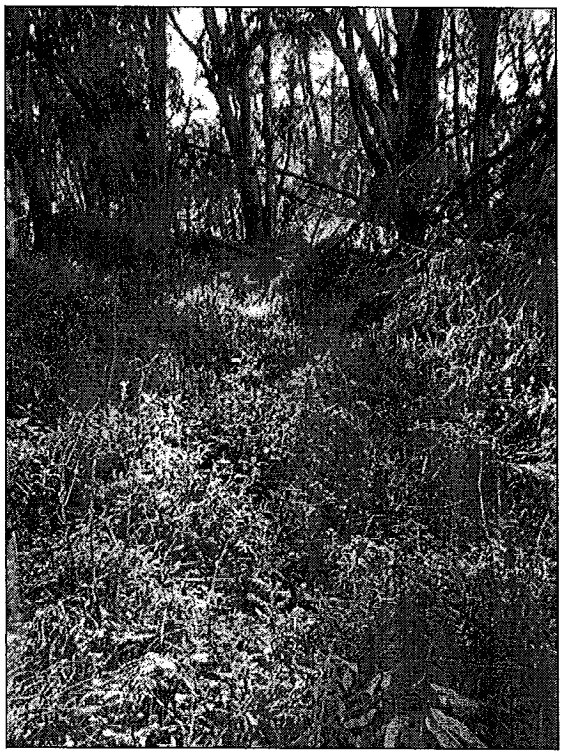

Photo 25 – Area 3

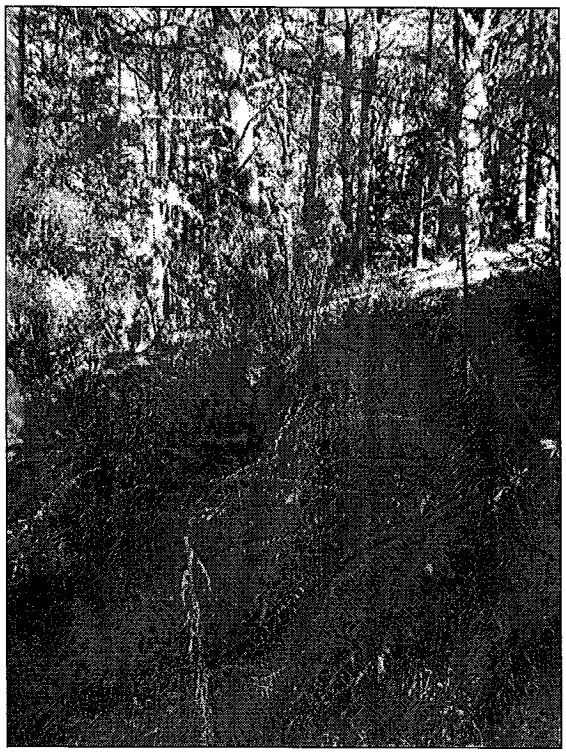

Photo 26 – Area 3

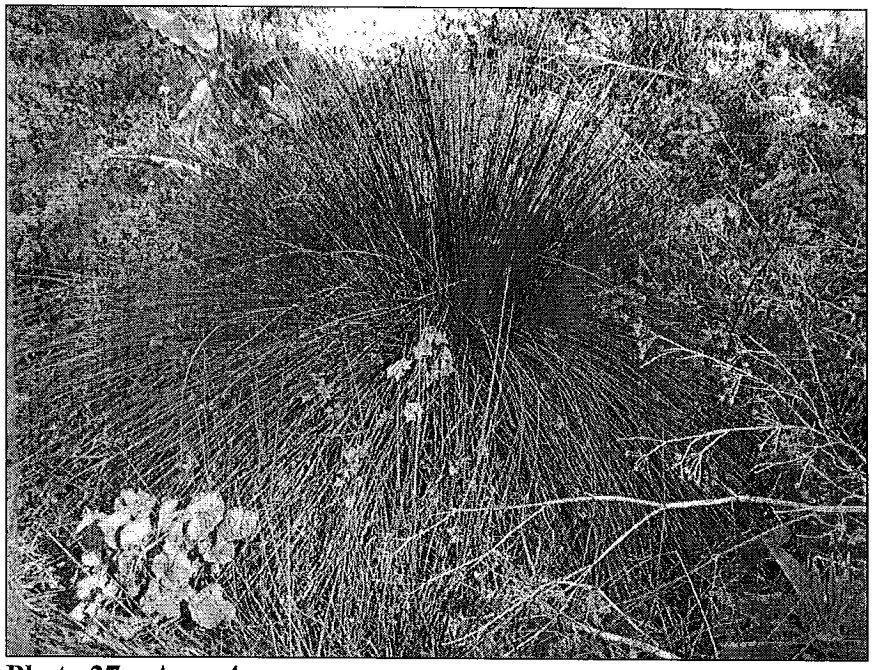

Photo 27 – Area 4

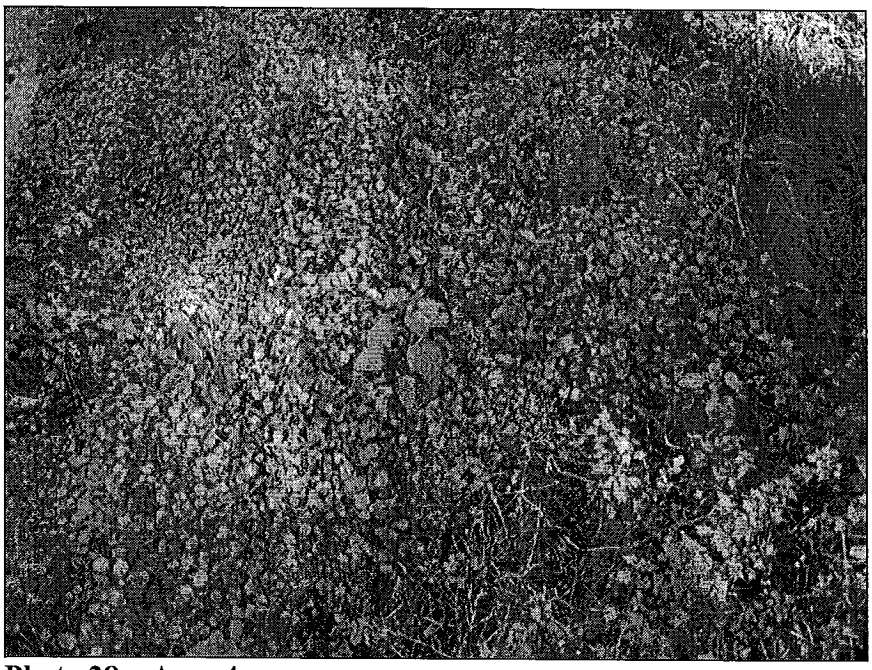

Photo 28 – Area 4

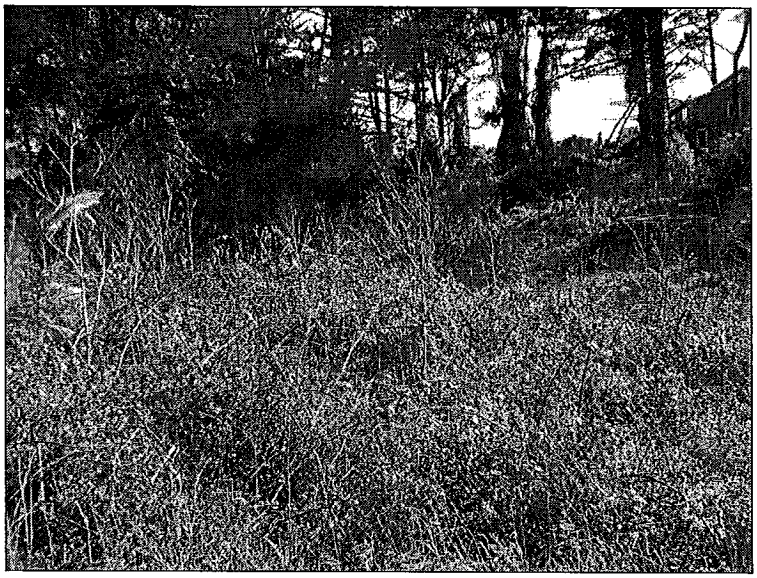

Photo 29 – Area 4