Legros Project

Morro Shoulderband Snail (*Helminthoglypta walkeriana*) Habitat Assessment Report

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Submitted to:

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Introduction

TENERA Environmental has recently completed a supplemental Morro shoulderband snail habitat assessment of a residential infill lot in Los Osos, California currently owned by Mr. Richard Legros. The objective of the habitat assessment was to evaluate the property for the presence of suitable habitat for the federally endangered Morro shoulderband snail (*Helminthoglypta walkeriana*). Tenera biologist Dan Dugan (Federal Permit # TE 067992-0) conducted surveys of the property on 10 June 2005 and again on 15 June 2005, before and after compulsory weed abatement activities. The results of the habitat assessment survey are intended to assist the U.S. Fish and Wildlife Service (USFWS) making a concurrence determination for a residential construction project on the site.

Project Site Location and Description

The proposed project site is located in western San Luis Obispo County, California, in the southern region of the unincorporated town of Los Osos (Figure 1). The property, designated APN 074-471-002, is in an unspecified section of Township 30S and Range 11E of the Morro Bay South, Calif. quadrangle (USGS 7.5 minute). The lot is located at 2285 Bay Vista Lane and can be reached from Los Osos Valley Road by turning left (south) on to Bayview Heights Drive and then proceeding approximately 0.48 miles up the hill to Bay Vista Lane, which intersects with Bayview Heights Drive from the north (Figure 2). The project site is the second lot on the left side (west) of the street (Figure 3).

The project site is a fenced residential infill lot located outside the Wastewater Service Area. The lot is 8,000 square feet (0.18-acres) in size and rectangular in shape, with 70 feet of frontage on Bay Vista Drive. The lot is one of two remaining undeveloped lots on Bay Vista Lane and is bounded to the north, south, and east (across Bay Vista Lane) by developed lots. A vacant residential lot supporting a mixture of native maritime chaparral vegetation and introduced plants and shrubs occupies land to the west of the project site. A six-foot high wooden fence along the western property boundary separates the project site from potential snail habitat to the west.

The parcel is located at an elevation of approximately 250 feet on the moderately sloping, sandy foothills that overlook the community of Los Osos and the Morro Bay Estuary. Soils on the site consist of well-drained sandy loam described on the county soils survey as Baywood fine sand (2 to 9 percent slopes). The site supports a ruderal plant community that is subject to annual weed abatement activities and has been cleared of native woody shrubs. The resulting plant community is a mixture of pioneering native species, re-sprouting native shrubs, invasive grasses, and various exotic plant species (see site photographs). Dominant plant species on the site include non-native veldt grass (*Ehrharta calycina*) and native deerweed (*Lotus scoparius*), California croton (*Croton californicus*), and California poppy (*Eschscholzia californica*). Other remnant native plant species on the site include black sage (*Salvia mellifera*), California sagebrush

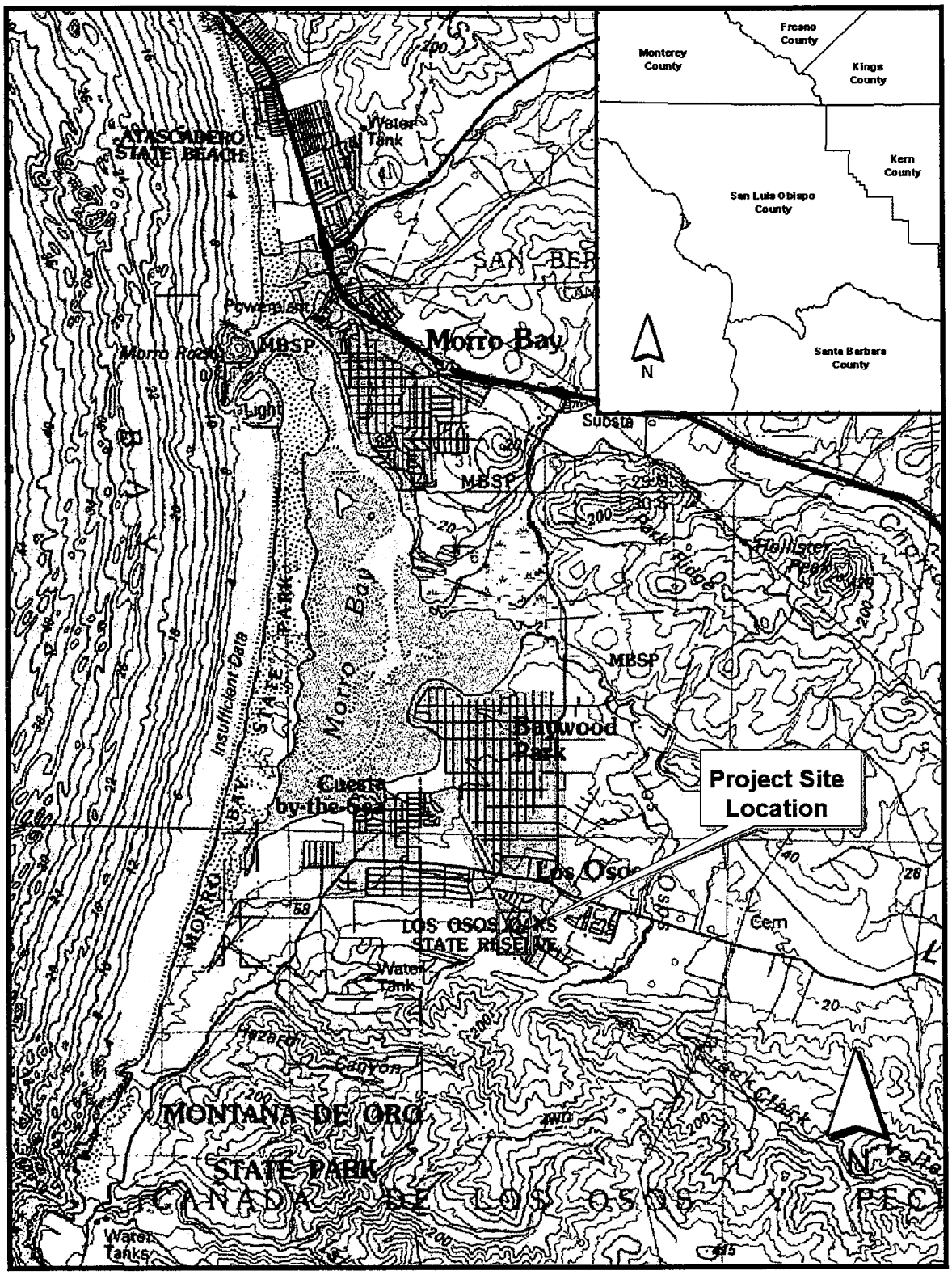


Figure 1. Regional view of project location.

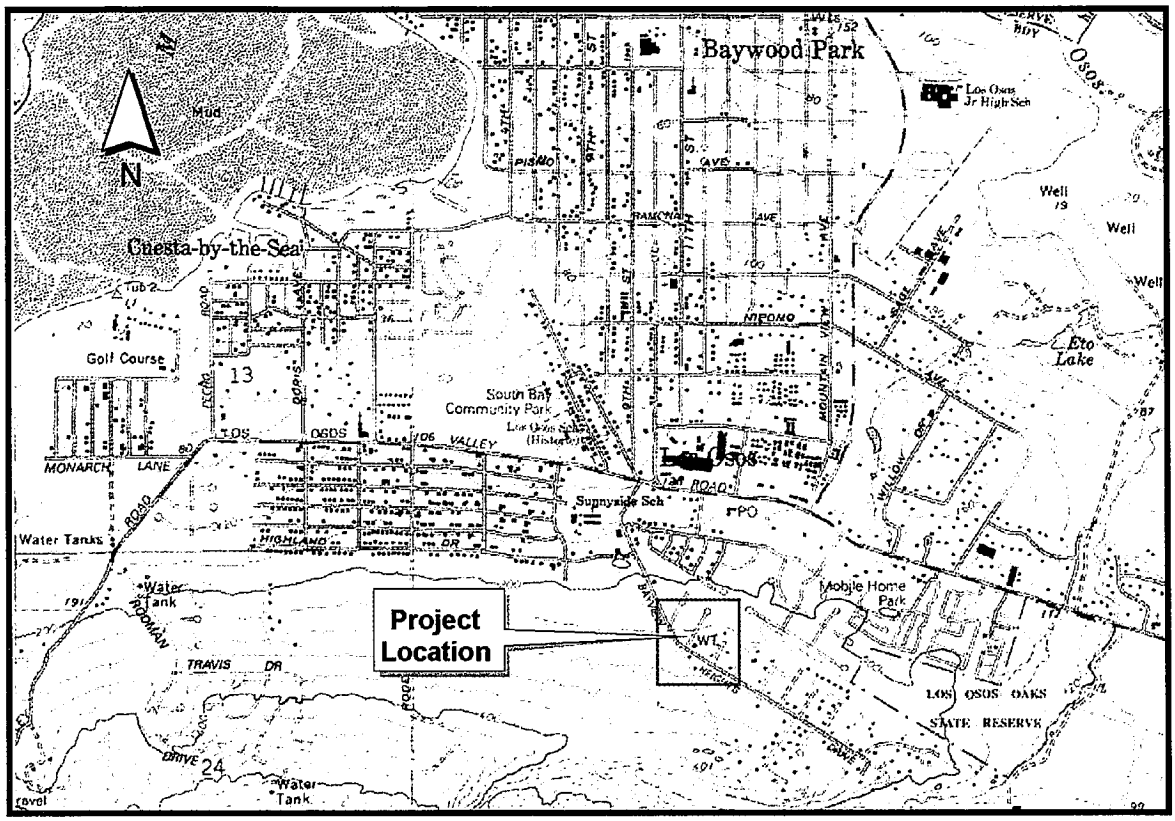


Figure 2. Topographic view of Los Osos showing project location.

Figure 3. Aerial view of project site showing surrounding habitat and residential development.

(*Artemisia californica*), and coast live oak (*Quercus agrifolia*) (2 small shrub/trees). Patches of non-native fig-marigold (*Carpobrotus edule*), Conicosia (*Conicosia pugioniformis*), and Alyssum (*Alyssum* sp.) were also noted on the property.

Project Description

The project site is currently in the process of being sold/purchased and the new owner plans to build a detached single-family residence on the lot. No specific design for site improvements has been developed, however, due to the size of the lot it can be assumed that the structure, additional site improvements, and landscaping would occupy most, if not all, of the site.

Previous Site Surveys

A protocol survey effort of the property was initiated on February 4, 2004. A total of six live Morro shoulderband snails were located in low-growing vegetation along the south fence during the first survey. No live Morro shoulderband snails or empty shells were found anywhere else on the property. The survey results established the presence of the Morro shoulderband snail on the lot. However, the snails were found in relatively low value habitat consisting of low growing grasses, California poppy, and a small piece of decaying wood. The habitat bordered the south fence of the property and was adjacent to the end of a cinderblock wall. The area where the snails were located remains shaded during morning hours but receives direct sun during the afternoon hours and would be unlikely to offer suitable conditions for snails during the summer months. Observations strongly suggest that the snails encountered during the survey were transient on the site during wet conditions and originated from vegetation or some other feature of higher habitat value on the adjoining (developed) lot. However, because the presence of the Morro shoulderband snail was established, indicating a potential for incidental take during construction, and there appeared to be limited opportunity on the lot for avoidance of the "occupied " habitat during site development, participation in an approved Habitat Conservation Plan was recommended.

Survey Results

Habitat assessment surveys of the property were conducted by Tenera biologist Dan Dugan (USFWS Federal Permit # TE 067992-0) on 10 June 2005, before annual weed abatement activities, and again on 15 June 2005, after completion of the weed abatement work. The survey effort consisted of a canvassing of the property to document current habitat conditions and a visual search of vegetation and objects that might provide suitable refuge for Morro shoulderband snails (MSS).

No live Morro shoulderband snails or empty shells were found during either of the habitat assessment surveys. The introduced European brown garden snail (*Helix aspersa*) was encountered in abundance in vegetation along the fences and beneath brushy vegetation (mostly deerweed) in the central part of the lot. A number of the *H. aspersa* observed on the site following the weed abatement work appeared to be in poor, dessicated condition

and either dead or dying. The affected snails were located primarily in the central part of the lot where deerweed had been cropped close to the ground during weed abatement.

Discussion

The project site is a fenced infill lot bordered by developed residential lots to the north, south, and across Bay Vista Lane to the east. The site has been largely cleared of woody maritime chaparral vegetation and is subject to compulsory annual weed/fire abatement. Periodic weed abatement activities may, under some habitat conditions, alter the structure of vegetation in a beneficial way for Morro shoulderband snails by increasing the amount of low-growing brushy/woody vegetation. However, in conjunction with the clearance of native woody vegetation, regular weed abatement mowing is more likely to result in the incremental degradation of habitat suitability for the Morro shoulderband snail. As the ecological value of habitat on a site declines, the potential for the occurrence of Morro shoulderband snails on a site can be expected to decrease. Since weed abatement is compulsory for lot owners in Los Osos, particularly infill lots in close proximity to residential structures, it can be expected that the habitat value of many of the remaining infill lots will decline over time.

No Morro shoulderband snails were located during the recent habitat assessment surveys and the results of the surveys indicate relatively poor habitat suitability for the species. Dense veldt grass and low growing vegetation along the south fence offered refuge and some marginal habitat for Morro shoulderband snails prior to weed abatement, however, the amount and suitability of available refuge was greatly decreased following weed/fire abatement activities. The dominant shrubby plant on the lot is deerweed, a pioneering, native species that is common in dune scrub/maritime chaparral plant communities. Deerweed offers potentially suitable habitat for Morro shoulderband snails, however the occurrence of Morro shoulderband snails in and around deerweed may be related more to the composition and structure of the surrounding plant community than to the suitability of deerweed as habitat. Reeves (2000) found a negative predictive value for quadrats containing deerweed, black sage, California sagebrush, Conicosia, wild buckwheat (*Eriogonum parvifolium*), and California aster (*Lessingia filaginifolia* var. *Californica*). In other words, the greater the abundance of these plant species, the less likely that live Morro shoulderband snails would be found. This negative predictive value was cited as a function of the population abundance of plant species assemblages and not the abundance of any single species. The plant species assemblage on the project site consists primarily of species for which a negative predictive value was indicated. None of the plant species for which Reeves found a positive predictive value were present on the site.

Given the marginal habitat conditions, the potential for occupation of vegetation on the site by Morro shoulderband snails appears to be low, particularly during the dry summer months following annual weed abatement. Ornamental vegetation on adjoining developed lots and mixed maritime chaparral/ornamental vegetation on the undeveloped lot to the west offers the nearest suitable year-round refuge for snails. However, the live

specimens found on the site during the protocol survey effort in 2004 indicate that individual Morro shoulderband snails may periodically occur in vegetation adjacent to the south fence. Such occurrences are likely to be temporary during wet conditions. Habitat on the lot would not be expected to offer suitable year round refuge for Morro shoulderband snails or factor significantly into recovery efforts for the species. Given the circumstances, the following protection measures are proposed to ensure that no impacts to individual Morro shoulderband snails occur during project implementation:

- Construction should occur during the dry season (June through September) when Morro shoulderband snails are aestivating and unlikely to migrate into work areas.
- The applicant should retain a qualified biologist to conduct a thorough pre-activity survey of the construction site no more than 24 hours prior to the initiation of site work. The Service shall be contacted immediately if snails are located during this survey. Grubbing, grading, or other site disturbing activities shall not be initiated until all MSS issues are resolved.

Recommendations

The results of this habitat assessment, in conjunction with the implementation of the proposed Morro shoulderband snail protection measures, may allow the U.S. Fish and Wildlife Service to issue a determination of concurrence that construction of a residential structure on the project site will not result in impacts to the Morro shoulderband snail. It should be noted that a concurrence determination does not allow "take" of MSS to occur and all construction activity must cease immediately if the species is found during the development of the site. Section 9 of the Endangered Species Act prohibits any activity that could result in the "take" of listed species such as *H. walkeriana*. The meaning of "*take*" as defined in Section 3(18) of the ESA is "*to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct.*"

We recommend that a request for a concurrence determination be forwarded to the USFWS. If a concurrence determination is issued by the Service, then the buyer of the property should not encounter permitting delays due to Morro shoulderband snail issues other than ensuring that the proposed protection measures are implemented. There are a couple of options available if USFWS issues a non-concurrence determination for the project. In some instances relocation of the project footprint or redesign of the project may substantially lower the potential for the take of Morro shoulderband snails and allow the USFWS to issue a concurrence determination based on the revised design. However, the limited area of the project site does not appear to offer a viable option for redesign of the project. The other available option is to obtain an incidental take authorization through participation in a Habitat Conservation Plan (HCP).

Participation in an HCP may be accomplished through preparation of an individual plan or enrollment in a community-wide plan. The Los Osos Community Services District is currently developing a community-wide HCP as mitigation for the "take" of MSS and

impacts to MSS habitat anticipated during the construction of the proposed sewer project. Currently, the option to participate in the community-wide HCP being prepared by the LOCSD is not available to owners of property located outside the Wastewater Service Area; unfortunately the lot at 2285 Bay Vista Lane is located outside this area. Therefore, if the USFWS is unable to issue a determination of concurrence for a residential development project on the lot, the options for proceeding are limited to preparing an individual HCP, or waiting until participation in another approved community-wide HCP is possible. Currently it is uncertain when such a plan, applicable to land outside the LOCSD Wastewater Service area, would be available for landowner participation. Consequently, if a determination of non-concurrence is issued then the preparation of a low-effect individual HCP is likely to be the most expeditious option for moving forward with the permitting process.

References

Reeves, Ed. 2000. Habitat and Distribution of the Morro Shoulderband Snail. California Polytechnic State University. Prepared for California Parks and Recreation (Standard Agreement C9749001). 21 pp.

USFWS, U.S. Fish and Wildlife Service. 2003. Survey Guidelines for the Morro Shoulderband Snail (*Helminthoglypta walkeriana*). http://ventura.fws.gov/SurveyProt/morrosnail.htm

Site Photographs

View of project site from Bay Vista Lane in 2005 prior to weed abatement (facing west).

View of project site from Bay Vista Lane in 2005 following weed abatement (facing west).

View of habitat along southern property line (facing east) from the southwest property corner prior to weed abatement.

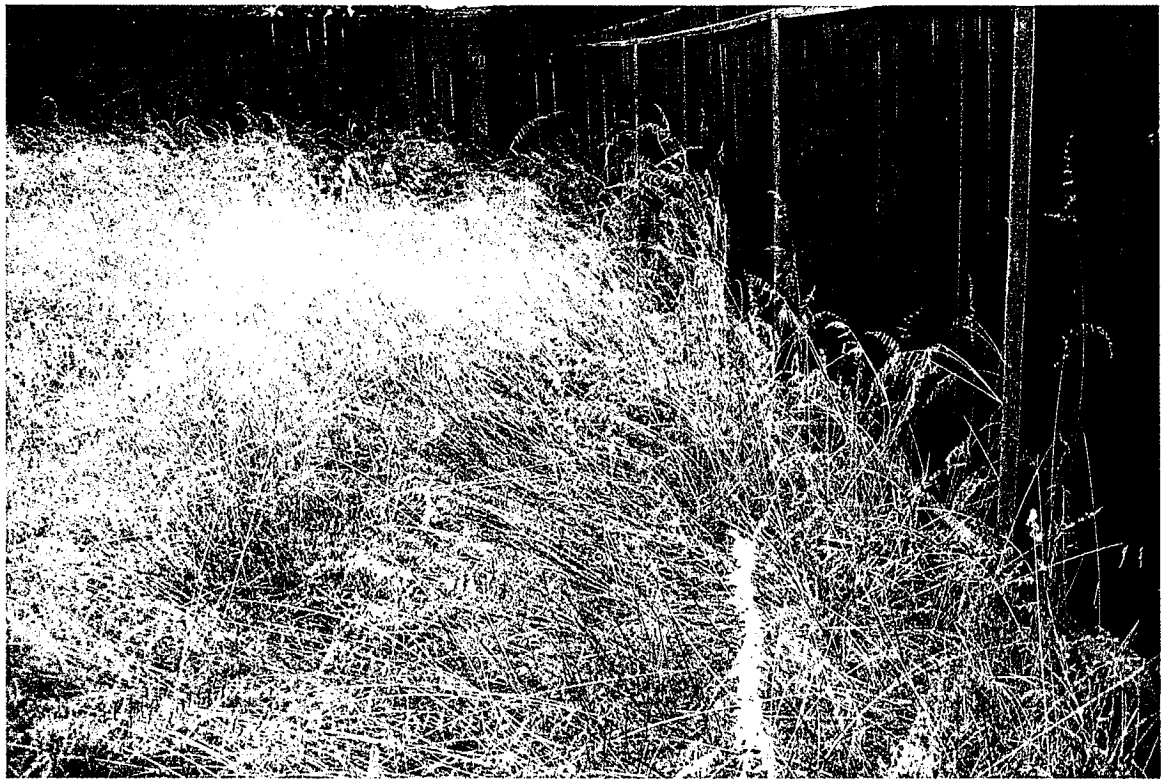
View of habitat along southern property line (facing east) from the southwest property corner following weed abatement.

View showing habitat along western property line from southwest property corner (facing north) prior to weed abatement.

View showing habitat along western property line from southwest property corner (facing north) prior to weed abatement.

View showing habitat in central part of lot (facing east) prior to weed abatement.

View showing habitat in central part of lot (facing east) following weed abatement.



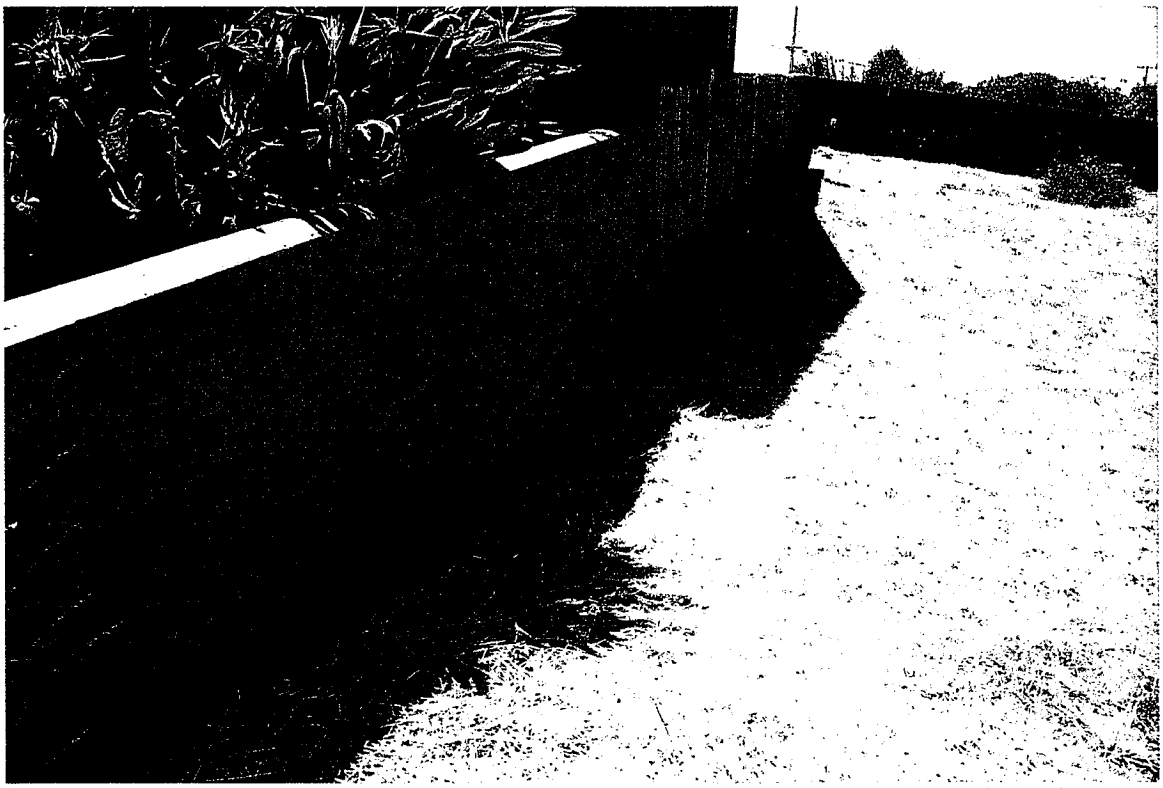
View showing habitat along northern property boundary (facing west) prior to weed abatement.

View showing habitat along northern property boundary (facing west) following weed abatement.

View looking west from Bay Vista Lane prior to weed abatement.

View looking west from Bay Vista Lane following weed abatement.

View showing habitat adjacent to cinder block wall along southern property boundary prior to weed abatement.



View showing habitat adjacent to cinder block wall along southern property boundary following weed abatement