

October 1, 2001

Mr. Kevin McCune, Civil Engineer  
Ms. Stacy Lawson, Environmental Coordinator  
City of Lompoc  
100 Civic Center Plaza  
P.O. Box 8001  
Lompoc, CA 93438-8001

**Re: Biological Resources Site Assessment Letter of Findings for  
The Lompoc Bikepath, Allan Hancock Segment  
Lompoc, Santa Barbara County, CA**

Dear Kevin and Stacy:

Pursuant to your request, Thomas Olson Biological Consulting in collaboration with Rincon Consultants, Inc., conducted a biological resources site assessment of the proposed Allan Hancock Segment of the Lompoc Bikepath, near the northern city limits of Lompoc, CA. Construction of an adjoining segment of the bikepath that crosses the Santa Ynez River (known as the Santa Ynez River Bridge Bikepath) was completed earlier this year. Information on biological resources along that segment of the bikepath is included in a Natural Environment Study prepared by Garcia and Associates (1999).

The purpose of the site assessment was to evaluate and characterize onsite habitat types, potential occurrences of special-status species, and whether the proposed bikepath route crosses areas potentially subject to jurisdictional regulation by the U.S. Army Corps of Engineers (Corps) or the California Department of Fish and Game (CDFG). This letter report discusses the results of our site assessment.

### **STUDY AREA**

The proposed Allan Hancock Segment of the bikepath is slightly over one mile in length, beginning at the northern extent of the existing bikepath. The terminus of the existing bikepath occurs at the eastern edge of a U.S. Penitentiary agricultural field just north of the Santa Ynez River and directly across Highway 1 from Valley Rock Landscape and Building Supply and the old drive-in theater. The endpoint of the proposed Allan Hancock Segment is the southern edge of the parking lot on the Lompoc campus of Allan Hancock Community College (AHCC) campus at the northern edge of the city limits. Much of the bikepath will be located within or at the outer edge of existing access roads.

From the start at the eastern edge of the agricultural field, the bikepath route proceeds north for 590 feet, then west for 1,935 feet along well-used access roads (Figure 1). At that point, the route follows a less used dirt road in a northwest direction for 875 feet,

then northwest for 720 feet. Those portions of the bikepath route are mostly on U.S. Penitentiary property, along with a small segment that is on land owned by the City of Lompoc (City). The final 1,380 feet (slightly more than ¼ mile) are generally in a northeastern direction across City property.

The route traverses flat ground and sloping hills. The 100-foot-wide study area transect that was surveyed included the existing roads previously mentioned, as well as natural habitats, and to a lesser degree, cultivated agriculture.

## **METHODOLOGY**

Before the site visit was conducted, the California Natural Diversity Data Base (CNDDDB) was reviewed for an approximately 10-mile radius around the City of Lompoc (CDFG 2001a). The CNDDDB review assisted in identifying a list of potential special-status plants and wildlife that might occur along or near the bikepath route. The 10-mile radius was selected for use because it encompasses regional habitat diversity and overcomes some of the limitations of the CNDDDB. CDFG maintains the CNDDDB, which is based primarily on reported occurrences of special-status species and habitats. Because observations are often not reported to CDFG, the CNDDDB provides guidance about special-status species, but is not a thorough inventory of such species.

Literature review that supplemented the CNDDDB review included: (1) biological and environmental documents that were prepared previously for projects in the vicinity (Dames & Moore 1998, Garcia and Associates [GANDA] 1998, 1999a, 1999b, Thomas Olson Biological Consulting 2001); and (2) local and regional field guides (Human, no date, Lynch 1991, Lehman 1994, Smith 1998).

The field visit of the proposed bikepath route was conducted by wildlife biologist Tom Olson and plant ecologist Kevin Merk on August 24, 2001 to collect data for this report and to map the locations of habitats. City Engineer Kevin McCune accompanied Mr. Olson and Mr. Merk. While in the field, habitats were mapped onto an aerial photograph (approximate scale: 1 inch = 375 feet). Figure 1 (approximate scale: 1 inch = 315 feet) was developed from the same aerial photo coverage.

During the field survey, plant and wildlife species observed were recorded, as were habitat types. The potential need for additional survey work for sensitive biological resources was assessed. The Recommendations section of this report includes conclusions about future survey needs.

## **RESULTS AND DISCUSSIONS**

As described in the Study Area section, the proposed Allan Hancock Segment of the bikepath proceeds from the Santa Ynez River Bridge Segment about one mile to AHCC. It crosses property owned by the U.S. Penitentiary and the City. Most of the City land is part of Ken Adams Park. The route is near the northern city limits, and is included in the central portion of the Lompoc 7.5-minute USGS topographic quadrangle. Several habitat

types are traversed. The route is adjacent to one seasonal wetland and crosses over another that is contained in a culvert under a U.S. Penitentiary access road. The elevation ranges from 80 feet near the connection with the Santa Ynez River Bridge segment to 160 feet at the terminus at AHCC.

The climate of the region is Mediterranean with mild winters and relatively warm summers. Temperatures are moderated by the study area's proximity to the Pacific Ocean. The average annual precipitation for the City of Lompoc is 14 inches, with most of it falling between November and April.

Natural habitats in the region include grassland (mostly non-native, annual grassland), coastal scrub, chaparral, oak woodland, and riparian woodland. The City of Lompoc is too far inland for beach and dune habitats. Many of the non-native grasslands are grazed by cattle. Other agricultural lands included cultivated row crops, orchards, and vineyards. In addition to the natural habitats and agricultural areas are areas of various types of residential and commercial development.

### **Habitat Types**

Elements of four habitat types typical of the general area are represented on the Lompoc Allan Hancock Segment of the bikepath, including: 1) coastal scrub; 2) annual grassland; 3) seasonal wetland; and 4) ruderal/disturbed. There is an unnamed drainage course and several small depression areas located within the study area that could be determined as "waters of the United States" under the jurisdiction of the Corps. Additionally, the proposed bikepath alignment bisects a small cluster of coast live oak (*Quercus agrifolia*) trees located near the retention basin on the AHCC campus. Classification of these habitat types is based generally on Holland (1986), Sawyer and Keeler-Wolf (1995), and the Wildlife Habitat Relationship System (Mayer and Laudenslayer 1988), with modifications to better represent existing conditions in the field. Basic characteristics of these habitat types are described below. Appendices A and B include lists of plant species and wildlife species, respectively, observed during the site visit.

### **Coastal Scrub**

The coastal scrub habitat type, or vegetation community, within the study area is similar to the Central (Lucian) Coastal scrub as described by Holland (1986) and the coyote brush series as described by Sawyer and Keeler-Wolf (1995). The Coastal Scrub habitat type is characterized by soft-leaved shrubs such as coyote brush (*Baccharis pilularis* var. *consanguinea*), saw-tooth goldenbush (*Hazardia squarrosa*), and California sagebrush (*Artemisia californica*). Native perennial plant species such as deerweed (*Lotus scoparius*), wedge-leaved horkelia (*Horkelia cuneata*), and poison oak (*Toxicodendron diversilobum*) are also present within this community on the study area. This vegetation community occurs on the terrace in the central portion of the study area to the southwest of the AHCC property. Open areas within this habitat type located on the terrace contained dense occurrences of salt grass (*Distichlis spicata*) that co-mingle with the coyote brush dominated coastal scrub. Elements of this vegetation community were also

observed on the slopes along the unnamed drainage course in the southern portion of the study area. Additionally, plants typical of this habitat type were observed in the eastern portion of the study area along the U.S. Penitentiary access road.

Coastal scrub communities typically provide cover and nesting for a variety of wildlife species, such as western fence lizard (*Sceloporus occidentalis*), western rattlesnake (*Crotalus viridis*), blue-gray gnatcatcher (*Poliophtila caerulea*), wrenit (*Chamaea fasciata*), several species of white-footed mice (*Peromyscus* spp.), and gray fox (*Urocyon cinereoargenteus*). During the field visit, a number of common species were observed in coastal scrub, including California quail (*Callipepla californica*), mourning dove (*Zenaida macroura*), and western scrub-jay (*Aphelocoma californica*). Two flocks of at least 30 bushtits (*Psaltriparus minimus*) were sighted. Both red-tailed hawks (*Buteo jamaicensis*) and red-shouldered hawks (*Buteo lineatus*) foraged over this plant community.

### **Annual Grassland**

This habitat type corresponds to the non-native grassland described by Holland (1986), and the California annual grassland series as described by Sawyer and Keeler-Wolf (1995). Within the study area, this habitat type, or vegetation community, comprises the dominant area of the bikepath alignment, and is characterized by a mixture of native and introduced herbaceous plant species. Because of past and current land uses (i.e.: grazing, agriculture), most of the study area within the U.S. Penitentiary property has become compacted and dominated by non-native grasses and forbs. Common introduced grass species observed on the site included slender wild oats (*Avena barbata*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), red brome (*Bromus madritensis* ssp. *rubens*), and Italian ryegrass (*Lolium multiflorum*), along with non-native herbs such as mustard (*Brassica nigra*), yellow star-thistle (*Centaurea solstitialis*), chicory (*Cichorium intybus*), prickly lettuce (*Lactuca serriola*), and common knotweed (*Polygonum arenastrum*).

Grasslands provide foraging habitat for small mammals, which in turn serve as a prey base for a variety of animals, including snakes, raptors, and coyotes (*Canis latrans*). Numerous invertebrate species (such as insects), many of which provide a food source for larger animals such as lizards, birds, and some small mammals, can also be found within grassland communities. Other wildlife species common to grasslands include ringneck snake (*Diadophis punctatus*), gopher snake (*Pituophis melanoleucus*), red-tailed hawk, American kestrel (*Falco sparverius*), and mule deer (*Odocoileus hemionus*). Tracks and apparent bedding areas for mule deer were observed near the bikepath.

Numerous Botta's pocket gopher (*Thomomys bottae*) burrows and several California ground squirrel (*Spermophilus beecheyi*) burrows were observed in grassland areas within the study area. There is a low possibility of western spadefoot toad (*Scaphiopus [=Spea] hammondi*) using small mammal burrows for upland refuge, and the retention basin near the terminus of the bikepath route for breeding (see Figure 1). There was evidence of larger burrowing mammals as well. Several burrows and areas of digging activity of American badger (*Taxidea taxus*) were noted along the bikepath route in

annual grassland, and in coastal scrub/grassland. See the section on Special-status Species below for further discussion of spadefoot toad and badger.

### **Drainage and Seasonal Wetland**

The seasonal wetland habitat type within the study area is a combination of the vernal marsh habitat described by Holland (1986) and the creeping ryegrass series described by Sawyer and Keeler-Wolf (1995). This habitat type was observed in several locations along the proposed bikepath route. A small depression near the fence line marking the boundary between City property and U.S. Penitentiary property contained hydrophytes (i.e., water loving plants) such as brown-headed rush (*Juncus phaeocephalus*), toad rush (*Juncus bufonius*), and remnants of rabbitsfoot grass (*Polypogon monspeliensis*). Several other areas containing the seasonal wetland habitat type were observed along the unnamed drainage channel on U.S. Penitentiary property in the southwestern portion of the study area.

The drainage area is characterized by a small channel devoid of woody riparian vegetation that is surrounded by annual grassland and coastal scrub habitat. A nearly pure stand of creeping wild ryegrass (*Leymus triticoides*) dominates low areas within the upper reaches of the drainage channel. Further downslope, this patch of creeping wild ryegrass transitions into a nearly pure stand of brown-headed rush, just upslope from the headcut of the incised channel where surface runoff appears to collect from the surrounding hillsides and sits for a longer period of time than the surrounding upland annual grassland and coastal scrub habitats. The drainage channel becomes steeply incised further downslope from the headcut, and is nearly devoid of hydrophytes in the cobble-soil bed. Several gullies were observed along the eastern portion of the streambank where surface runoff from the access road and adjacent hillsides focuses water into this low point.

The areas dominated by hydrophytic plant species and the incised portion of the drainage are most likely considered waters of the United States, including wetlands as a subcategory. Given that the drainage has an incised channel (a distinct bed and bank), it would be regulated by the Corps as a water of the U.S. pursuant to Section 404 of the Clean Water Act and subject to the California Fish and Game Code Sections 1601-1603 (Streambed Alteration Agreement) if modifications were proposed.

Drainages that are dry for much of the year are often used as travel corridors by wildlife species, especially mammals. This drainage has limited value as a travel corridor because it is deeply incised. However, there was sign of several species in and adjacent to the drainage. Coyote and mule deer scat was observed. An American kestrel was observed at the edge of the drainage, as were Anna's hummingbird (*Calypte anna*), Cassin's kingbird (*Tyrannus vociferans*), and oak titmouse (*Baeolophus inornatus*). Ground-foraging species were sighted in the bottom of the drainage, including California towhee (*Pipilo crissalis*) and spotted towhee (*Pipilo maculatus*).

The proposed bikepath route crosses one other small drainage. The drainage is on level U.S. Penitentiary property in the east-west portion of the route that is adjacent to the agricultural field. The drainage crosses under the existing access road via a culvert. Construction of the actual bikepath might not affect this drainage, however if the access road is widened to accommodate the bikepath, the drainage could potentially be disturbed. Similar to the larger drainage described above, it could be considered a water of the United States and also be subject to CDFG regulatory authority.

### **Ruderal/Disturbed**

The ruderal/disturbed habitat type within the study area includes a variety of disturbed areas that have been affected by regular farming, ranching and vegetation management activities. Ruderal habitat was observed throughout the study area. Areas that fall into the ruderal habitat type include those adjacent to the retention basin on AHCC property, and along the existing dirt and paved access roads that the proposed bikepath route follows. These disturbed areas support a mixture of weedy species and non-native annual grasses and forbs. Dominant species observed in this habitat type included ripgut brome, soft chess, wild radish (*Raphanus sativa*), and telegraph weed (*Heterotheca grandiflora*).

Generally, ruderal/disturbed areas provide marginal habitat for wildlife, the value of which is much less than the adjacent annual grassland or coastal scrub habitat types. Species observed during the field visit were primarily generalists and non-native species adapted to a variety of human-disturbed habitat types. Among those noted were western fence lizard, killdeer, black phoebe (*Sayornis nigricans*), house finch (*Carpodacus mexicanus*), and Botta's pocket gopher.

### **Special-status Species**

For the purpose of this report, special-status species are those plants and wildlife listed, proposed for listing, or candidates for listing as threatened or endangered by the U.S. Fish and Wildlife Service (USFWS) under the federal Endangered Species Act (ESA); those considered "species of concern" by the USFWS; those listed or proposed for listing as rare, threatened, or endangered by CDFG under the California Endangered Species Act (CESA); animals designated as "Species of Special Concern" by CDFG; and plants occurring on lists 1B, 2, and 4 of the California Native Plant Society's *Inventory of Rare and Endangered Vascular Plants of California* (Skinner and Pavlik 1994), and those plants considered "species of local concern" by the County of Santa Barbara.

Mr. Merk and Mr. Olson developed a target list of sensitive plant and animal species that could potentially occur within the study area based on our review of the CNDDDB, previous studies from the vicinity of the study area, and other sources including their personal knowledge of the area. Field reconnaissance to identify habitat types helped refine the target list of species and focus the assessment of the actual or potential for occurrence of sensitive species on the Allan Hancock Segment of the Lompoc Bikepath.

## Special-status Plants, Local Plants and Plant Communities of Special Concern

No special-status plant species or local plants of special concern were observed along the bikepath route during the field visit conducted on August 24, 2001. The CNDDDB contains records of 17 special-status plant species and 8 plant communities of special concern that are known from relatively localized occurrences near the study area. Three of these species have the potential to occur in the native habitat types observed in the study area.

The majority of the species identified by the CNDDDB have highly specialized habitat requirements that do not occur within the proposed bikepath study area (i.e.: coastal dune, salt marsh, maritime chaparral, and riparian habitat types). Species such as beach layia (*Layia carnosa*), beach spectaclepod (*Dithyrea maritime*), Blochman's leafy daisy (*Erigeron blochmaniae*), Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*), crisp monardella (*Monardella crispera*), San Luis Obispo monardella (*M. frutescens*), Gambel's watercress (*Rorippa gambelii*), La Graciosa thistle (*Cirsium loncholepis*), and surf thistle (*C. rhotophilum*) have specific edaphic and habitat requirements that do not occur on the study area. Specifically, these species typically occur on active or stabilized sands of dunes in dune scrub, coastal scrub, and backdune freshwater marsh habitat types. Moreover, perennial species with known occurrences in the vicinity of the study area such as Eastwood's manzanita (*Arctostaphylos tomentosa* ssp. *eastwoodiana*), La Purisima manzanita (*A. purissima*), Kellogg's horkelia (*Horkelia cuneata* ssp. *sericea*), Lompoc yerba santa (*Eriodictyon capitatum*), and Lompoc sticky monkey flower (*Mimulus aurantiacus* var. *lompocensis*) would have been observable at the time of the August 24 site visit. Therefore, these species are not expected to occur in the bikepath study area.

The following discussion presents relevant ecological and range information and legal status for the three special-status plant species with the potential to occur within the study area:

- Dune larkspur (*Delphinium parryi* ssp. *blochmaniae*), a CNPS List 1B species, is a perennial herb in the buttercup family (Ranunculaceae) that typically occurs on rocky and sandy soils in coastal scrub, maritime chaparral, and coastal grassland habitat types. This species usually blooms from April through May. The CNDDDB identifies several occurrences of this species in the Lompoc vicinity, one of which is approximately two miles from the study area within the La Purisima Mission State Historical Monument. The annual grassland and coastal scrub habitat types within the study area occur on rocky and sandy soils and represent potential habitat for this species. Because the site assessment occurred in August, which is well beyond the time of year when this plant and its flowers would have been visible, the presence of this species within the study area cannot be ruled out at this time. Only seasonally timed focused surveys for this species would be able to determine its presence or absence within the study area. It is unlikely, however, that dune larkspur occurs within the portion of the bikepath route proposed for existing access roads due to the disturbed nature of these roads.

Grassland and coastal scrub habitat within and adjacent to the proposed alignment should be searched during the blooming period of this species to determine its presence or absence within the study area.

- Seaside bird's-beak (*Cordylanthus rigidus* ssp. *littoralis*), a California-listed Endangered and a CNPS List 1B species, is a yellowish-green annual herb in the figwort family (Scrophulariaceae) that grows in sandy soils of stabilized dunes covered by closed-cone pine forest, cismontane woodland, or maritime chaparral. This species is typically found in areas of recent surface soil disturbance or in areas of reduced levels of competition from shrubs and herbaceous plants. It has even been observed growing in cracks in paved roads. This species usually blooms from May through September. It is known from a number of occurrences in the Lompoc vicinity. Specifically, this species occurs on stabilized dunes in maritime chaparral on the Vandenberg Air Force Base, Burton Mesa Management Area, and La Purisima Mission State Historical Monument. The sandy soils and disturbed habitat within the study area provide suitable substrate for this species to occur. However, no individuals of this species were observed during the field visit of the proposed bikepath route. Seaside bird's beak would have been observable in flower during the August site visit. Therefore, this species is not expected to occur within the study area.
  
- Black-flowered figwort (*Scrophularia atrata*), a CNPS List 1B species, is a perennial plant in the figwort family that can inhabit a number of plant communities within the coastal terraces and mountains below 1,500 feet from southern San Luis Obispo County to Santa Barbara County. Specifically, this species occurs on sand and calcareous soils (diatomaceous shales) in closed-cone coniferous forests, maritime chaparral, coastal dunes, coastal scrub, and riparian scrub habitat types between 30 and 750 feet. It typically blooms from April through June, but can be found in bloom as late as August near the coast. The CNDDDB identifies a number of occurrences of this species in the vicinity of the study area. Appropriate habitat for this species occurs in the coastal scrub areas of the study area, as well as along the unnamed drainage in the southwestern portion of the study area. No individuals in the genus *Scrophularia* were observed during the August 24, 2001 field visit. Furthermore, a known reference site containing black-flowered figwort was visited prior to conducting the August 24, 2001 site visit. Black-flowered figwort plants were observed in flower and fruit at the reference site, and would have been identifiable during the field survey of the bikepath study area. Therefore, this species is not expected to occur within the proposed bikepath alignment.

### **Special-status Wildlife**

No special-status wildlife species were observed directly during the field visit, however sign of one was noted. Burrows of American badger were observed in the coastal scrub/grassland and annual grassland portions of the bikepath route. Nearly all the badger burrows and digging activity were found on City property.

The CNDDDB contains records for four special-status wildlife species that are known from localized areas near the study area. Only one has the potential to occur along the proposed bikepath route. California horned lizard (*Phrynosoma coronatum frontale*) could potentially occur along a portion of the route, as described below. The other three species included in the CNDDDB are not expected to occur in the study area. Because there are no perennial or intermittent streams in study area, steelhead do not occur. Similarly, because eucalyptus trees are absent from the site, there are no potential roosting sites for Monarch butterflies (*Danaus plexippus*). The retention basin on the AHCC campus adjacent to the bikepath route lacks cover and basking sites, making it unlikely that southwestern pond turtles (*Clemmys marmorata pallida*) would occur in the study area.

There are several other special-status wildlife species that occur in the region, but are not included in the CNDDDB information for the Lompoc 7.5-minute quad. Among amphibians and reptiles, California tiger salamander, western spadefoot toad, California red-legged frog (*Rana aurora draytonii*), silvery legless lizard (*Anniella pulchra pulchra*), and California horned lizard all have limited potential to occur along the bikepath route. Of the special-status birds known to occur in the region, the California horned lark (*Eremophila alpestris actia*) and grasshopper sparrow (*Ammodrammus savannarum*) have potential to occur in the study area. The scarcity of trees and large shrubs limit the likelihood of others from nesting or roosting onsite. As such, species such as white-tailed kite (*Elanus leucurus*), northern harrier (*Circus cyaneus*), and loggerhead shrike (*Lanius ludovicianus*) might forage over the site, or otherwise occur along the bikepath route infrequently, but impacts to these species are not expected. However, the oak trees near the AHCC campus should be checked for raptor nests prior to the start of construction (see the Recommendations section). Similarly, because there is no riparian habitat onsite, least Bell's vireo (*Vireo bellii pusillus*) and southwestern willow flycatcher (*Empidonax traillii extimus*) are not expected. Sensitive species of bats are not expected to occur because the study area lacks suitable roosting sites, such as bridges, old buildings, mines, caves, and trees.

Following is range and ecological information about eight special-status wildlife species that have various degrees of likelihood to occur along or near the proposed bikepath route.

- The Santa Barbara County population of California tiger salamander has been listed by USFWS as Endangered. This species requires permanent or seasonal ponds in which to breed. Breeding takes place during the rainy season (from November to April, depending on the timing of precipitation). The breeding habitat must contain surface water for a minimum of 10 weeks for eggs to be laid and hatch, and for larvae to metamorphose into adult salamanders. Known breeding ponds occur in the Los Alamos, Orcutt, and Santa Maria areas, with new locations being regularly added to the state of the knowledge as additional surveys are conducted. At present, there are no known breeding ponds in the vicinity of Lompoc. Individuals of an introduced species of tiger

salamander (*Ambystoma tigrinum*) have been found on U.S. Penitentiary property (J. Storrer, personal communication, biologist, Santa Barbara). However, the closest populations of the native California tiger salamander are: (1) the vicinity of Careaga Canyon, eight miles west of Los Alamos; and (2) the Campbell Ponds, about 10 miles to the east. Adults spend a vast majority of their lives underground in burrows that are located up to 2 kilometers (1.2 miles) from the breeding pond. These upland refuges are usually burrows made by small mammals, such as California ground squirrels and Botta's pocket gophers. Although the retention basin represents marginal breeding habitat, it has been present for only a few years. Moreover, there is an apparent lack of nearby populations of California tiger salamander that could possibly serve as sources for colonization of the basin and adjacent uplands (B. Fahey, personal communication, wildlife biologist, U.S. Fish and Wildlife Service, Ventura, CA). As such, this species is not expected to occur in the study area.

- The western spadefoot toad is a federal species of concern and a state species of concern. The breeding ecology for this species is similar to that of the California tiger salamander. Adults spend much of their lives underground in small mammal burrows and other upland refugia, even using deep cracks in the ground. Breeding takes place in a nearby permanent or seasonal pond. Spadefoot toads are known to occur in the Lompoc area. Because there are small mammal burrows in annual grassland and coastal scrub areas that are not heavily vegetated by shrubs, as well as a retention basin on AHCC property, there is a possibility of this species occurring in the study area. The possibility, however, is considered to be quite low.
  
- The California red-legged frog (*Rana aurora draytonii*) is a federal-listed Threatened species and a state species of concern. This is a formerly widespread species that has been drastically reduced in numbers and distribution in recent years. In the vicinity, this species appears to be absent from the nearby Santa Ynez River upstream of the Floradale Bridge, but is known to occur downstream of that point. Historically, this species likely occurred throughout much of the Santa Ynez River watershed. Preferred aquatic habitat for this species is characterized by dense, shrubby, or emergent riparian vegetation associated with relatively deep (greater than 2 feet) still or slow-moving water. An important microhabitat feature appears to be emergent vegetation such as willow branches or overhanging banks formed by willow or other tree root masses in contact with relatively deep water. Juvenile red-legged frogs are known to use sub-optimal habitats, including ephemeral drainages and ponds with little cover. These individuals are thought to possibly be dispersing subadults from nearby areas with more permanent water and more favorable cover. There is a low likelihood that dispersing subadults could use the retention basin on the AHCC campus adjacent to the bikepath terminus. Protocol-level surveys would be needed to further assess the occurrence of California red-legged frogs adjacent to the

study area. It should be noted that even if red-legged frogs are using the retention basin, the likelihood of impacts to this species by construction or subsequent use of the bikepath is very low.

- The California horned lizard (*Phrynosoma coronatum frontale*) is one of two subspecies (the other being the San Diego horned lizard, *P. c. blainvillei*) that are considered to be federal and state species of concern. Horned lizards are active above ground from April to October. Preferred habitat includes loose, sandy loam and sandy-gravelly soils that support scattered shrubs and/or open canopy. They are found in riparian woodland, riparian scrub, coastal scrub, annual grassland, and open areas in chaparral. The closest known occurrences to the study area are in Burton Mesa chaparral, including several within 1.5 miles of the bikepath terminus (T. Olson, personal observation; L. Hunt, personal communication, herpetologist, Santa Barbara). Along the bikepath route, there are areas of varying habitat value in the coastal scrub and annual grassland portions. These habitats occur from the main U.S. Penitentiary access road (adjacent to the agricultural field) to the edge of the AHCC campus (see Figure 1). There is potential for this species to occur in those areas.
  
- The silvery legless lizard (*Anniella pulchra pulchra*) is a federal and state species of concern. About 20 percent of the historic range of this species has been converted to uses that are incompatible with legless lizard use. This species is usually found on ancient aeolian sand deposits that support some level of shrub cover. Silvery legless lizards have been found in many areas north of the Santa Ynez River on the Burton Mesa and in the Purisima Hills (L. Hunt, personal communication). There is limited potential for this species to be found in the coastal scrub/annual grassland habitat immediately southeast of the bikepath terminus at AHCC, and in small patches of coastal scrub and coastal scrub/annual grassland in the vicinity of the dry drainage (see Figure 1).
  
- Nesting populations of the California horned lark (*Eremophila alpestris actia*) are considered to be federal and state species of concern. This species is listed as “rare” at La Purisima Mission (Human, no date) and uncommon in the Lompoc Valley (Lynch 1991). However, Lehman (1994) describes this species as a fairly common species that still breeds in the Lompoc area. Nesting usually occurs in sparsely vegetated habitats, such as areas with short grass. There is a low potential for this species to nest in the annual grassland habitat from the main U.S. Penitentiary access road to the point at which the habitat changes to one of coastal scrub/grassland (Figure 1). It appears that there has been more grazing pressure in this area, which has reduced the overall height of the vegetation. If horned larks nest in or near the study area, it would be in low densities.

- Similar to the California horned lark, nesting populations of the grasshopper sparrow (*Ammodrammus savannarum*) are considered to be federal and state species of concern. This species is found in grassy habitats and utilizes nearby shrubs as perches. Breeding habitat usually consists of fairly continuous stands of grassland, often occurring on hillsides (Garrett and Dunn 1981). Grasshopper sparrows are known to nest in some grassland habitats in northern Santa Barbara County (Lehman 1994) and have been reported by Lynch (1991) as uncommon, but regular in portions of the Lompoc Valley. There is low potential for this species to nest in the grassland and coastal scrub/grassland habitats onsite. Those habitats occur from the junction of bikepath route and the main U.S. Penitentiary access road to a point near the terminus where ruderal and disturbed areas occur (Figure 1). If this species nests in or near the study area, it would be in low densities.
  
- The American badger (*Taxidea taxus*) is recognized by the California Department of Fish and Game (CDFG) as a state species of concern (CDFG 2001b). Interestingly, the game management branch of CDFG also recognizes the same species as a furbearer and assigns a season during which it is legal to hunt and trap badgers (CDFG 2001c). Burrows and digging activity of badgers were noted during the field visit in the grassland and coastal scrub/grassland habitats. The areas with sign of this species were the same as those described above for grasshopper sparrow (see Figure 1). Badgers are known to use several burrows in a year, sometimes even in one month (Sargeant and Warner 1972). As such, a large amount of sign does not necessarily correspond to a high density of badgers. Overall, it is apparent that badgers are using the upper portions of the study area for traveling, foraging, and to some extent, denning. Construction of the bikepath would affect this species if active dens were destroyed. The route should be examined for active dens prior to construction (see Recommendations). Use of the bikepath would have non-significant impacts on badgers. The increase in noise and human disturbance is not expected to be substantial.

## CONCLUSIONS AND RECOMMENDATIONS

The study area for the Allan Hancock Segment of the Lompoc Bikepath contains four habitat types that are typical of the region, including coastal scrub, annual grassland, drainage and seasonal wetland, and ruderal/disturbed. In addition, there is a large agricultural field adjacent to, and in the southern portion of the study area. The field has been planted in corn and beans in recent years. There is a retention basin adjacent to the terminus of the bikepath on AHCC property. The drainage and seasonal wetland could potentially fall under the jurisdiction of the Corps as a “waters of the United States,” which includes wetlands.

The coastal scrub and annual grassland habitats onsite support one known sensitive wildlife species (American badger) and have the potential to include other sensitive wildlife species and one sensitive plant (dune larkspur). The retention basin has a low

potential to be used by California red-legged frog. A number of special-status species known from the region are not expected to occur within the study area because they have specific habitat requirements not found along the bikepath route.

In conclusion, the study area has two known constraints (presence of badgers and potential waters of the U.S. subject to Corps jurisdiction) and the potential occurrence of other sensitive species. Additional data collection is necessary. Following are recommendations.

1. Conduct a formal wetland delineation utilizing methodologies accepted by the Corps to determine the location and extent of Corps jurisdictional wetlands and non-wetland waters of the United States within the proposed bikepath alignment.
2. Conduct a seasonally timed focused rare plant survey to determine the presence or absence of dune larkspur within the proposed bikepath alignment.
3. If applicable, prepare a Department of the Army Nationwide permit and a CDFG Streambed Alteration Agreement for all streambank stabilization and recontouring activities prior to any grading or filling proposed for the unnamed drainage channel on Penitentiary property in the southwestern portion of the proposed bikepath alignment.
4. Conduct a survey to further evaluate the occurrence of California red-legged frogs at the retention basin on AHCC property. Following USFWS protocol, the survey should be conducted between May 1 and October 31.
5. Conduct a survey along the bikepath route in the grassland and coastal scrub/grassland areas for active badger burrows that might be damaged or destroyed by construction. Prior to construction, ensure that no badgers remain in active burrows within the construction zone by either: (1) progressively blocking each active burrow entrance with dirt and other materials; or (2) excavating the burrow to its terminus. If badgers are encountered during burrow excavation, they should be encouraged to travel in directions away from the AHCC campus. Although not surveyed, similar blocks of habitat to the north, west, and south are believed to have unoccupied burrows.
6. Prior to vegetation clearance of grading along the bikepath, check the coastal sage and grassland areas for individual horned lizards. If any are found, move them to similar habitat out of harm's way.
7. Following initial vegetation clearance in the two areas of coastal scrub and coastal scrub/annual grassland near the drainage, necessary grading should be done in two consecutive 6-inch lifts while a biologist searches for individual silvery legless lizards. If any are found, they should be moved to similar habitat out of harm's way.

8. If the bikepath is constructed during the nesting season of California horned lark, grasshopper sparrow, and raptors (approximately March through August), check for nests of these species prior to the start of construction. The nest survey should be done in coastal scrub and grassland areas for the horned lark and grasshopper sparrow, and in the oak trees near the bikepath terminus for raptors. If active nests are found, a plan for avoidance should be developed.

If you have questions or comments about this report, please contact Tom Olson or Kevin Merk directly. Thank you for the opportunity to provide these services to you.

Sincerely,

Thomas E. Olson  
Wildlife Biologist

Cc: Kevin Merk, Rincon Consultants

Attachments: References  
Appendix A – Plant Species Observed  
Appendix B – Wildlife Species Observed

**Appendix A. Plant Species Observed on the Lompoc Bike Path Extension – Alan Hancock Segment, Lompoc, California during August 24, 2001 Site Visit:**

Scientific Name	Common Name
<i>Artemisia californica</i>	California sage brush
<i>Atriplex semibaccata</i>	Australian saltbush
<i>Aster chilensis</i>	common aster
<i>Baccharis pilularis</i> var. <i>consanguinea</i>	coyote brush
<i>Brassica nigra</i>	black mustard
<i>Bromus diandrus</i>	ripgut brome
<i>Bromus hordeaceus</i>	soft chess
<i>Bromus madritensis</i> ssp. <i>rubens</i>	red brome
<i>Carpobrotus chilensis</i>	sea fig
<i>Chenopodium album</i>	white goosefoot
<i>Conium maculatum</i>	poison hemlock
<i>Cynodon dactylon</i>	Bermuda grass
<i>Cyperus eragrostis</i>	tall nut sedge
<i>Distichlis spicata</i>	salt grass
<i>Epilobium ciliatum</i>	willow herb
<i>Eremocarpus setigerus</i>	turkey mullein
<i>Eriophyllum confertiflorum</i>	golden yarrow
<i>Erodium botrys</i>	storksbill
<i>Erodium cicutarium</i>	red-stemmed filaree
<i>Foeniculum vulgare</i>	fennel
<i>Gnaphalium californicum</i>	California everlasting
<i>Hazardia squarrosa</i>	saw-tooth golden bush
<i>Hemizonia ramosissima</i>	slender tarweed
<i>Heterotheca grandiflora</i>	telegraph weed
<i>Hirschfeldia incana</i>	summer mustard
<i>Hordeum leporinum</i> ssp. <i>murinum</i>	barnyard foxtail
<i>Horkelia cuneata</i> ssp. <i>cuneata</i>	wedge-leaved horkelia
<i>Juncus balticus</i>	Baltic rush
<i>Juncus phaeocephalus</i>	brown-headed rush
<i>Lessingia filaginifolia</i>	corethrogyne
<i>Leymus condensatus</i>	giant wild ryegrass
<i>Leymus triticoides</i>	creeping wild ryegrass
<i>Lolium multiflorum</i>	Italian ryegrass
<i>Malva nicaeensis</i>	bull mallow
<i>Nassella pulchra</i>	purple needle grass
<i>Rumex crispus</i>	curly dock
<i>Silene gallica</i>	common catchfly
<i>Spergula arvensis</i>	sand spurry

<i>Toxicodendron diversilobum</i>	poison oak
<i>Verbena lasiostachya</i>	western vervain
<i>Vulpia myuros</i>	rat-tail fescue
<i>Xanthium spinosum</i>	spiny cocklebur

**Appendix B. Wildlife Species Observed on the Lompoc Bike Path Extension - Allan Hancock Segment, Lompoc, California during the August 24, 2001 Site Visit.**

<b>Common Name</b>	<b>Scientific Name</b>	<b>Habitat Type</b>
<b><i>Reptiles</i></b>		
Western fence lizard	<i>Sceloporus occidentalis</i>	CS, DW, RD
<b><i>Birds</i></b>		
Turkey vulture	<i>Cathartes aura</i>	CS, GR
Red-tailed hawk	<i>Buteo jamaicensis</i>	CS, GR
Red-shouldered hawk	<i>Buteo lineatus</i>	CS, GR, DW
American kestrel	<i>Falco sparverius</i>	DW
California quail	<i>Callipepla californica</i>	CS, DW
Killdeer	<i>Charadrius vociferus</i>	GR, DR
Anna's hummingbird	<i>Calypte anna</i>	CS, DW
Mourning dove	<i>Zenaida macroura</i>	CS, DW, DR
Nuttall's woodpecker	<i>Picoides nuttallii</i>	CS, DW
Downy woodpecker	<i>Picoides pubescens</i>	DW
Cassin's kingbird	<i>Tyrannus vociferans</i>	CS, DW
Black phoebe	<i>Sayornis nigricans</i>	DW, DR
Western scrub-jay	<i>Aphelocoma californica</i>	CS, DW, DR
American crow	<i>Corvus brachyrhynchos</i>	CS, DR
Oak titmouse	<i>Baeolophus inornatus</i>	DW
Bushtit	<i>Psaltriparus minimus</i>	CS, DW
European starling	<i>Sturnus vulgaris</i>	DR
Song sparrow	<i>Melospiza melodia</i>	CS
California towhee	<i>Pipilo crissalis</i>	DW
Spotted towhee	<i>Pipilo maculatus</i>	CS, DW
Western meadowlark	<i>Sturnella neglecta</i>	GR
Red-winged blackbird	<i>Agelaius phoeniceus</i>	GR, DW
House finch	<i>Carpodacus mexicanus</i>	DW, DR
<b><i>Mammals</i></b>		
American badger (burrows)	<i>Taxidea taxus</i>	GR
Coyote (scat, tracks)	<i>Canis latrans</i>	GR, DW
California ground squirrel (burrows)	<i>Spermophilus beecheyi</i>	GR, DW
Botta's pocket gopher (burrows)	<i>Thomomys bottae</i>	GR, DW, DR
Brush rabbit	<i>Sylvilagus bachmani</i>	CS, DW
Mule deer (scat)	<i>Odocoileus hemionus</i>	CS, DW

CS = Coastal scrub; GR = Annual grassland; DW = Drainage and seasonal wetland;  
RD = Ruderal/disturbed