

De Anza College Wildlife Corridor Stewardship Team comments to the CVSP Task Force Members

by Julie Phillips (Morgan Family Chair in Environmental Studies, Tule Elk Biologist), Pat Cornely (Executive Director, Kirsch Center for Environmental Studies), Tanya Diamond, Lead Field Studies Instructor, Badger Biologist, Diana Martinez (Instructor), Ryan Phillips (Raptor Biologist/Conservation Biologist), Henry Coletto Field Consultant, Former Game Warden Santa Clara County, Field Studies Interns: Zari Aziz, Matthew Daily, Veronica Davis, Melissa Dekoven, Rosita Fakhrevaezi, Derek Lance Freihofer, Charles Gleaves, Jessica Gonzalez, Josh Goodwin, Lakhena Howey, Rick Malupo, Jana Marquardt, Stephen Navarra, Lori Parsons, Alan Smith, Pete Woolhouse

To establish the presence of wildlife species and wildlife corridors, a corridor analyses based on data collection must be performed (Beier 1992, 1993, Clevenger 2001, 2005, Federal Highway Administration 200a, Gloyne 2001, Noss 1987, Penrod, 2001). The CVSP DEIR and a subsequent Gavilan College DEIR made many false assumptions about wildlife presence and connectivity because there was no data collection or analyses performed.

De Anza College's Environmental Stewardship Program began a ten year project in 2005 researching movement corridors along the 37th parallel for connectivity between the outer (Santa Cruz Mountains) and inner coastal range (Diablo Range) in California. Since January 2007, an ongoing data collection effort has been conducted by the Stewardship team at De Anza College.

According to several wildlife corridor experts and the Santa Clara Habitat Conservation Plan, Coyote Valley serves as a critical wildlife corridor and habitat for many species (Thorne *et al* 2002, 2006, draft 2008). The proposed Gavilan campus development would result in severely impacting wildlife movement through this critical corridor.

Methods:

Our methods to determine wildlife presence and movement patterns consisted of formal tracking (scats, tracks, and visible observation), digital field cameras located at culverts and wildlife crossing locations, and observational data from different agencies (Halfpenny, 1996). Field data was collected weekly along a transect encompassing the northern and southern sections of Coyote Valley.

For each data point, the field interns GPSed the location, classified the habitat type, activity, sample age, proximity to human activity, and other information. Each data point was measured, photographed, and recorded onto data sheets. All data points were downloaded weekly and then mapped into an orthophoto (1m resolution 2005 USGS) and habitat layers consisting of vegetation, riparian corridors, wetlands, soil type, slope, roads, and urban layers using a GIS program (ArcMap ERSI 9.1).

Results:

Over the last 15 months we have collected over a 2,400 data points. These data points were then utilized to develop a connectivity map for the Coyote Valley Wildlife corridor. This connectivity map demonstrates that many wildlife species are utilizing the Highway 101 culverts to move from east to west and west to east. These culverts allow wildlife to travel from the east hills, such as Coyote Ridge, and including the Mount. Hamilton region of the Diablo Range, under Highway 101 to access the Coyote Creek County Park and then disperse into Coyote Valley and surrounding hills, including the Santa Cruz Mountains. The data also demonstrates that Coyote Creek County Park appears to be the core area of this corridor.

Many different species utilize Highway 101 culverts to travel under the highway. The picture, figure 1, below is the same culvert with multi-species use within a 1 month surveillance period. One of the 101 culverts was also utilized by a mountain lion. These data points of wildlife use of Highway 101 culverts were then mapped in GIS to develop a preliminary connectivity map for the Highway 101 corridor. This preliminary connectivity map demonstrates that many wildlife species are utilizing the Highway 101 culverts to move from east to west and west to east.

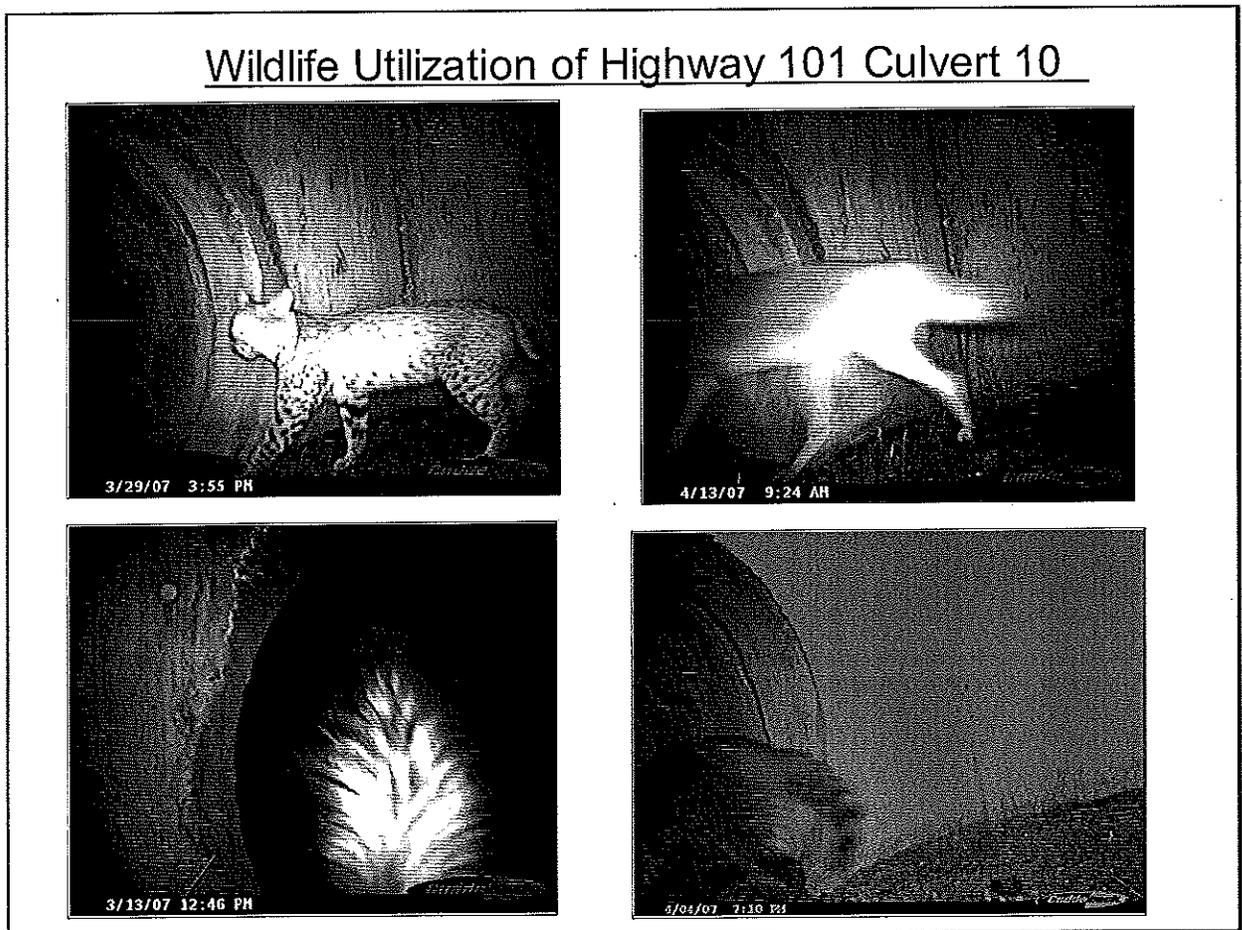


Figure 1: Multiple species' use of Highway 101 culvert

For the past 4 months, we have concentrated our data collection throughout the valley floor itself. We have found a highly significant amount of wildlife movement and utilization of valley habitat within Coyote Valley. Multiple species such as bobcat, coyotes, and deer have been tracked from Coyote Creek habitat along Bailey Road to the Fisher Creek culvert and IBM. Wildlife has been recorded crossing Bailey Road and Santa Teresa Road into adjacent agricultural fields into the proposed development area. Multiple species have also been identified traveling along both Laguna Road and Richmond Road east, west, north, and south directions, including in and out of agricultural fields. For example, along Laguna Road, multiple species tracks were observed, heading east and west out of the agricultural fields, please see figure 1 below. Laguna Road is adjacent to the proposed development.

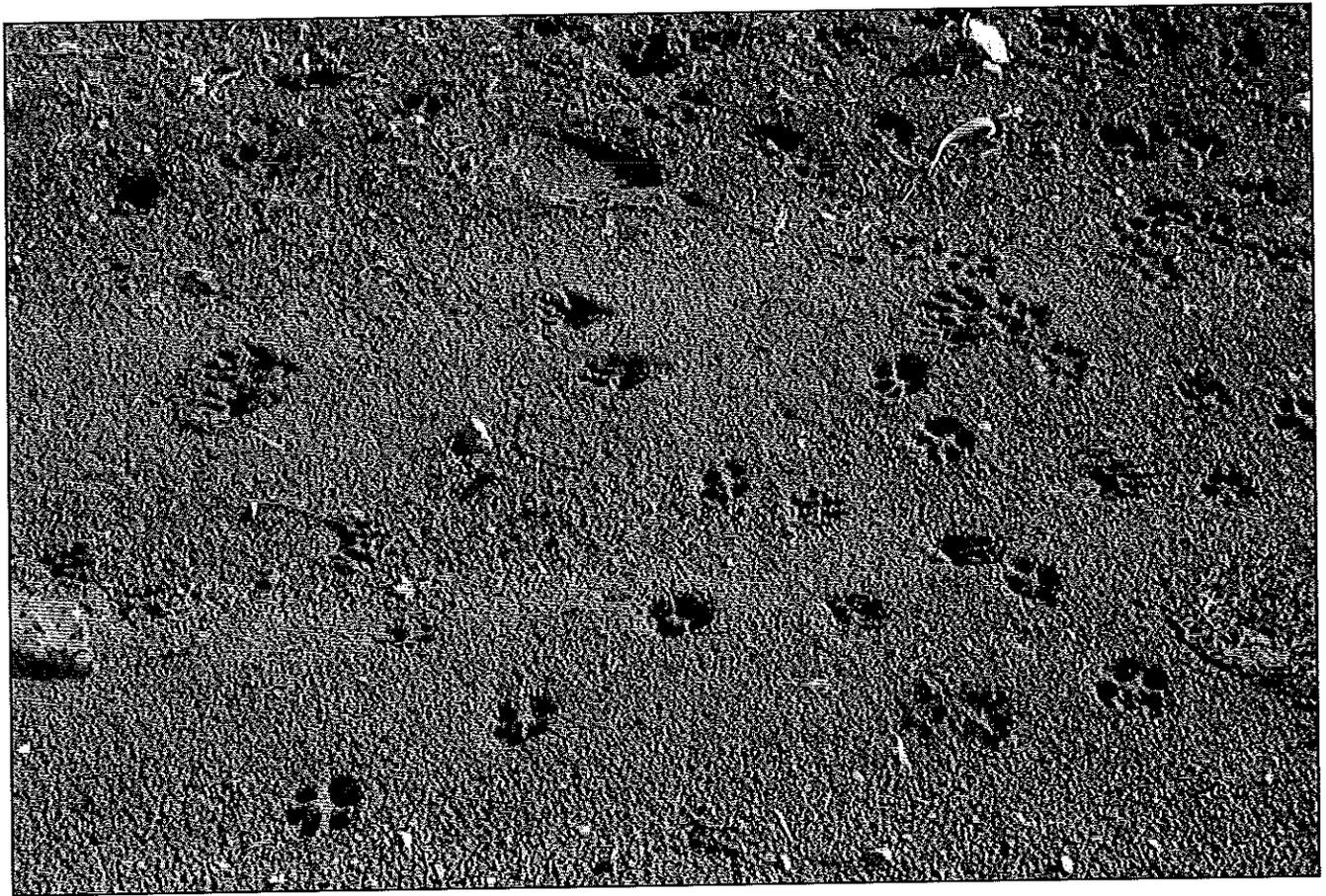


Figure 1: Laguna Transect, Multiple species use

Along the east portion of the Laguna Road transect we used different colored flags representing different wildlife species, to mark tracks found along the road side. The red flags are bobcat tracks, the orange are coyote tracks, and the blue are raccoon. Many of these tracks are heading in and out of the agricultural fields, heading east, west, north and south. Below, is a picture, figure 2, of the data collected from the transect work.

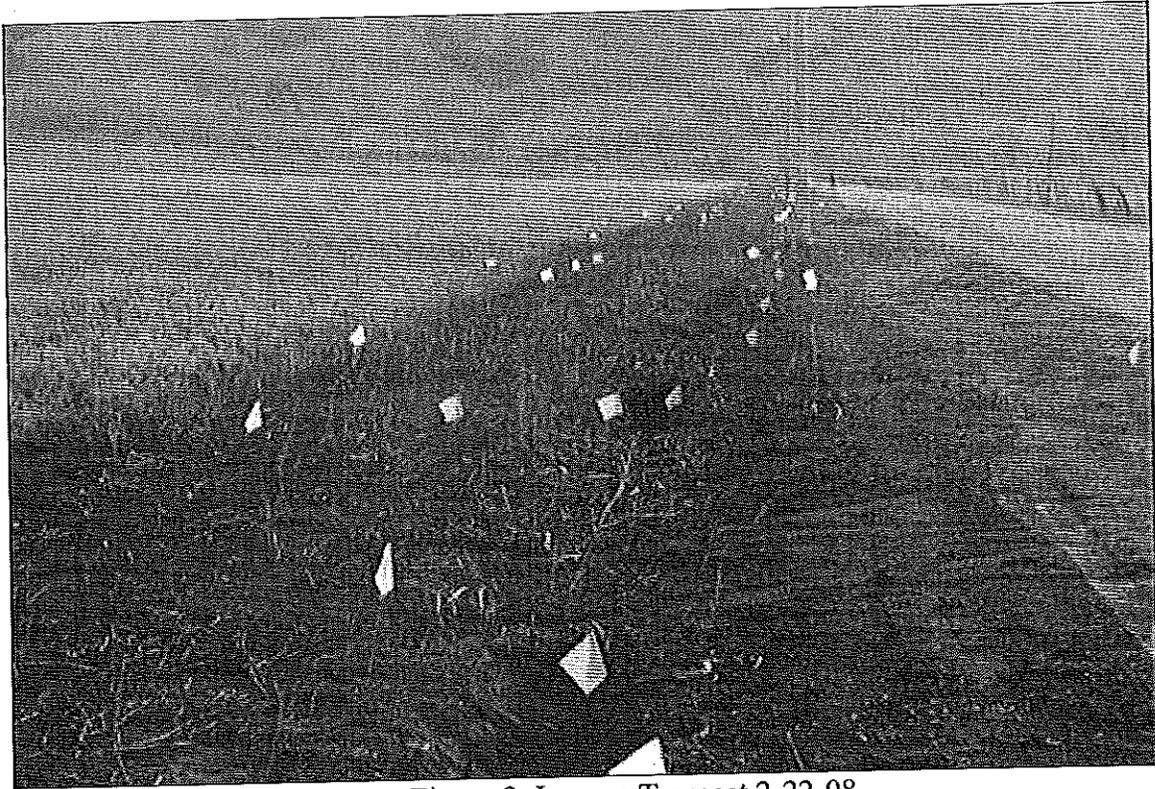
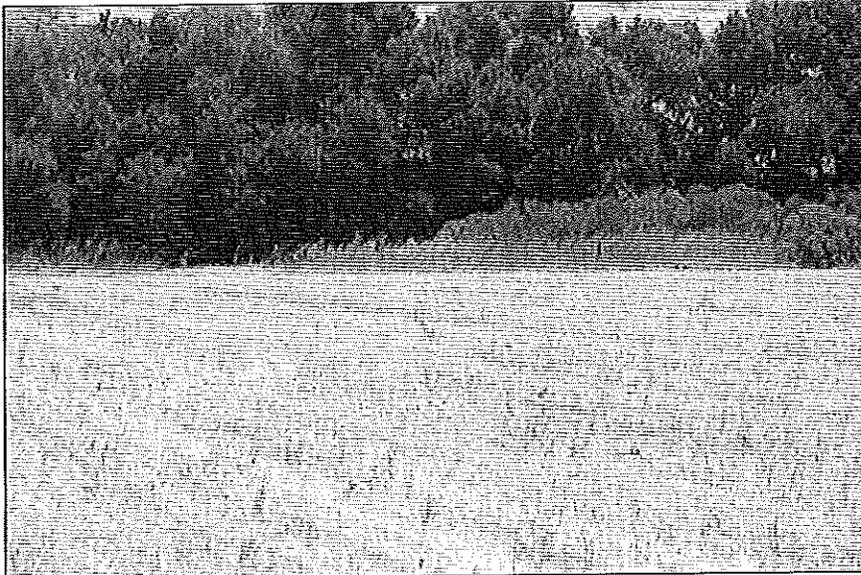


Figure 2: Laguna Transect 2-22-08

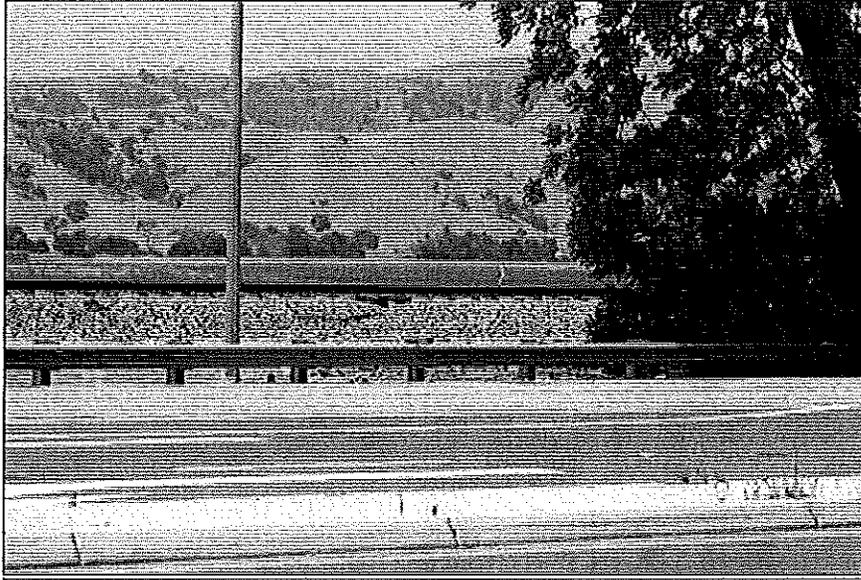
Three culverts located in the North section of Coyote Valley all have unrestricted access for wildlife to travel from the east hills to Coyote Creek habitat. In terms of a truly free barrier corridor, five surveyed culverts allow for wildlife to cross under Highway 101 into Coyote Creek habitat, in which wildlife can then travel through an orchard and hay field to Monterey Highway, in which the divider has not begun into Coyote Valley, then up into the hills. See pictures below of the orchard and hay field adjacent to Monterey Highway where there is no divider.



Hay field with access into Coyote Creek County Park



Orchard with access into Coyote Creek County Park



Monterey Highway north of Bailey Ave. without divider and access into Coyote Valley



Tulare Hill was also found be a high use area by species such as coyote, fox, badger, and many prey species which would attract predators to come up to hunt.

Impact to Wildlife Corridors

In the northern section of Coyote Valley, the Santa Teresa Hills, along with Tulare Hill, extends eastward towards Coyote Creek and the Diablo Mountain Range. This area is geographically the closest point between the Santa Cruz Mountain Range and the Diablo Range in the northern section of Coyote Valley. Even though this area is geographically the closest between the two mountain ranges, in the northern section of Coyote Valley, it does not mean that this is the only spot for wildlife dispersal or a corridor. "Corridors can be defined as any space identifiable by species using it that facilitates the movement of animals or plants over time between two or more patches of otherwise disjunct habitat" (Lidicker 1999, Corridor Ecology Hilty, Lidicker, Merenlender, 2006. Pg.90). **The "heavily disturbed agricultural and developed areas on the Coyote Valley Floor" is currently providing a wildlife corridor for species of Coyote Valley for species that come from both mountain ranges and ones which are already in the valley.**

As members of the De Anza Wildlife Corridor Stewardship Team, our tracking team has been focusing on Bailey Avenue to Highway 101 and South over the past several months. We have been making our way up Bailey Avenue from the Santa Teresa intersection and moving westward. Each day that we have been out on Bailey we have seen heavy amounts of animal signs (track or scat) on both the northern and southern sides of the road. The most common signs we have seen up to date have been coyote (*Canis lantrons*), raccoon (*Procyon lotor*), bobcat (*Lynx rufus*), wild boar (*Sus srofa*) and white-tailed deer (*Odocoileus hemoinus*). The earlier draft environmental impact reports state that "although wildlife species may disperse across, or occasionally forage at the shoulder of Bailey Avenue, wildlife use in this area is expected to be limited due to lack of cover and traffic disturbance". On two occasions we viewed and recorded a coyote (*C. lantrons*) utilizing the habitat quite close to and where the Gavilan College Coyote Campus project vision site is. The first coyote (*C. lantrons*) was seen at night, it was attempting to cross Bailey from the IBM property, however the car deferred it from crossing the road at the time. The second coyote (*C. lantrons*) we saw observed on 3/8/08, and was running north through Gavilan's project site. This animal ran across Bailey Road, about 50 feet in front of an oncoming car and crossed down into a small ditch in front of IBM property, see figure 1.



Figure 1: Live Coyote Sighting, running west through Sobrato Agricultural fields 3/8/08

Impacts to Wildlife Corridors

At the northern end of the Coyote Valley, the Santa Teresa Hills and Tulare Hill extend eastward to Coyote Creek, so that only the narrow Coyote Creek/Highway 101 corridor separates the foothills of the Santa Cruz Mountains to the west and the foothills of the Diablo Range (in the form of Coyote Ridge) to the east. As a result, this area is likely important for dispersal between the two ranges by wildlife that are less likely to cross the broader, more heavily disturbed agricultural and developed areas on the Coyote Valley floor. Such wildlife species include American badgers, bobcats.

mountain lions, and coyotes. The project site is located adjacent to hills to the west and north that serve as important habitat for these species. However, being on the valley floor and being surrounded to the east and south by extensive agricultural lands, the project site is not located in an area that is expected to be used heavily by animals dispersing between the Santa Cruz and Diablo mountain ranges. The project site provides no distinctive or particularly valuable habitats that would be used (e.g., for foraging or cover) by such dispersing individuals.

These assumptions, which were not made on any data collection results, are completely false. The assumptions are also detrimental in making false claims about wildlife connectivity. Along the Bailey transect many tracks and scats were recorded adjacent and viewed within the proposed development site. We recorded numerous tracks of coyotes (*C. latrans*), bobcats (*L. rufus*) heading north out of the agricultural fields onto Bailey road Bailey Avenue and also heading south into the agricultural fields.. Please see figure 2, below, as an example of data collection along the Bailey transect. Each flag represents a track within the agricultural fields of the proposed development site, which was viewed and recorded along the roadside. Flags were used to indicate tracks observed directly across the fence within the agricultural field. For each track, a picture was recorded and verified. Orange flags represent bobcat tracks, yellow flags represent coyote tracks, red flags represent fox tracks, and blue flags represent raccoon tracks.

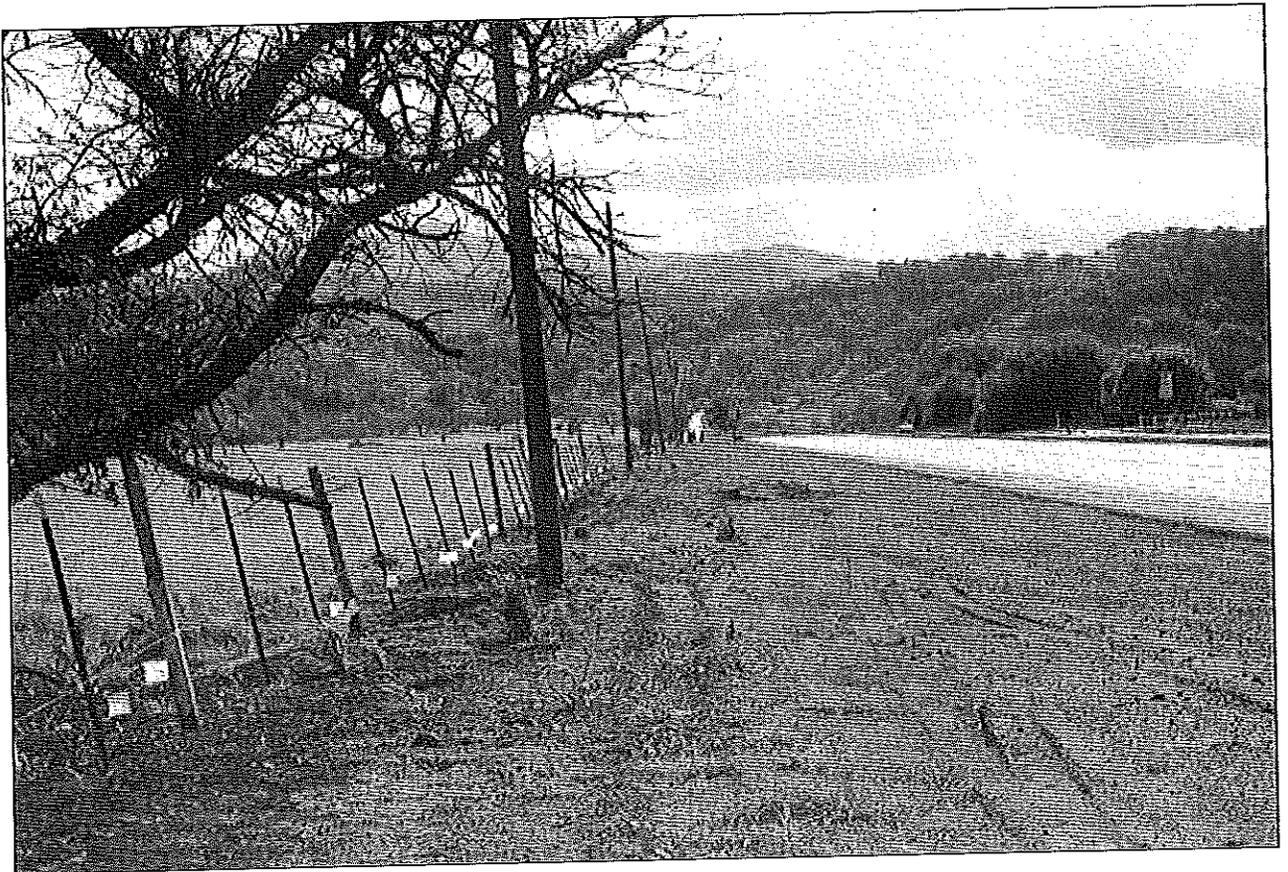


Figure 2: Multiple Species Use of Sobrato Agricultural Fields and surrounding areas in Coyote Valley

On another field research day we were focused around the Fisher Creek culvert. We were able to identify at least five different wildlife species utilizing the culvert and the surrounding area. We were able to record the tracks of a coyote (*C. lantrans*), which were heading north from the edge of Bailey Avenue along Fisher Creek, (about 20 feet to the east of the creek). The Coyote was heading towards the riparian area of the creek. The riparian vegetation of Fisher Creek gives cover for species. Many studies have previously shown that wildlife will follow riparian corridors to travel by (Hilty et al 2006). Fisher Creek runs adjacent to the proposed development site and would be highly significantly impacted by the development plans. We also noted tracks of a coyote (*C. lantrans*) coming out of the riparian vegetation on the same day. **We have clearly found and documented that wildlife species are moving on the floor of Coyote Valley.**

One should not be surprised that such high animal use happens on the “heavily disturbed agricultural and developed areas on the Coyote Valley floor”. These agricultural lands provide a home for a variety of rodents, which are the main prey for several predators found on the Coyote Valley floor. We have not gone a day in Coyote Valley with out seeing several California ground squirrels (*Spermophilus beecheyi*). We have also seen numerous rabbits, a type of cottontail. California ground squirrels (*S. beecheyi*) and rabbits are only a couple types of the prey sources along Bailey Avenue. Animals are not only moving but are also foraging on the floor of Coyote Valley. However, the DEIR states, “The project site provides no distinctive particularly valuable habitats that would be used (e.g., for foraging or cover) by such dispersing individuals”. Not only have we found evidence of predators foraging (e.g. multiple kill sites), “predator(s) forage(s) outside of its usual habitat to take advantage of a prey resource...” (Corridor Ecology Hilty, Lidicker, Merenlender, Pg. 140). We have found extensive wildlife signs of movement and foraging along Bailey Avenue. From our findings we know that agricultural lands are of high value to wildlife that forage.

“Corridors may encompass altered or natural areas of vegetation and provide connectivity that allows biota to spread or move among habitat fragments through areas otherwise devoid of preferred habitat” (Andreassen, Ims, and, Steinset 1996, Perault and Lomolino 2000, Corridor Ecology Hilty, Lidicker, Merenlender 2006 Pg. 90). The Gavilan DEIR fails to mention in section 3.8 Biological Resources, in Impacts to Wildlife Corridors, the Fisher Creek culvert. Culverts facilitate movement of wildlife species. In late 2007 our team found an existing culvert along side Bailey Avenue, which Fisher Creek runs under. This passage offers and allows several species of wildlife to successfully move within the valley. Many of the species have been found using this riparian corridor through finding tracks and scat in the culvert have been Bobcats (*L. rufus*), Coyotes (*C. lantrans*), Raccoons (*P. lotor*), and as well multiple other small mammal species. This culvert provides cover and protection for species from traffic disturbance and allows them to move through the valley floor near the project site. This culvert in itself is a wildlife corridor on the Valley’s floor, see figure 3.



Figure 3, Fisher Creek Culvert located at Bailey road

The valley floor of Coyote Valley is a wildlife corridor. As previously noted “Corridors may encompass altered or natural areas of vegetation and provide connectivity that allows biota to spread or move among habitat fragments through area otherwise devoid of preferred habitat” (Andreassen, Ims, and, Steinset 1996, Perault and Lomolino 2000, *Corridor Ecology* Hilty, Lidicker, Merenlender 2006). The floor of Coyote Valley may encompass altered vegetation but it still serves as an important area for animal survival and dispersal between the Diablo Mountain Range and the Santa Cruz Mountain Range. Coyote Valley currently is full of wildlife of all types. Along Bailey Avenue has a variety of wildlife species that utilize the resources in the area. **If this project were to be implemented it would have a highly significant impact to this existing wildlife corridor and the regional movement of species, thus completely halting the natural movement that wildlife species have implemented themselves. This movement has enabled them to be able to exist in the last remaining large open space in the area of Santa Clara County.**

Comments and Questions for CVSP Task Force Members dated 4-14-08:

The CVSP Task Force has not responded to our earlier comments and questions (or any of the over 1,000 pages of comments and questions to the CVSP DEIR), as far as we can tell. **First, we ask that you not send forward your CVP vision to the City Council as it has not undergone the essential environmental and fiscal review necessary to maintain the public trust.** To do so will be a complete betrayal to every person, organization, resource agency, and other institutions who commented and participated in the CVSP process, including the CVSP DEIR. If you decide to send forward your Plan

(versus a CEQA required Project), we formally request that you attach this report to your “Coyote Valley Plan: A Vision for Sustainable Development” when submitted to the City Council on April 22, 2008:

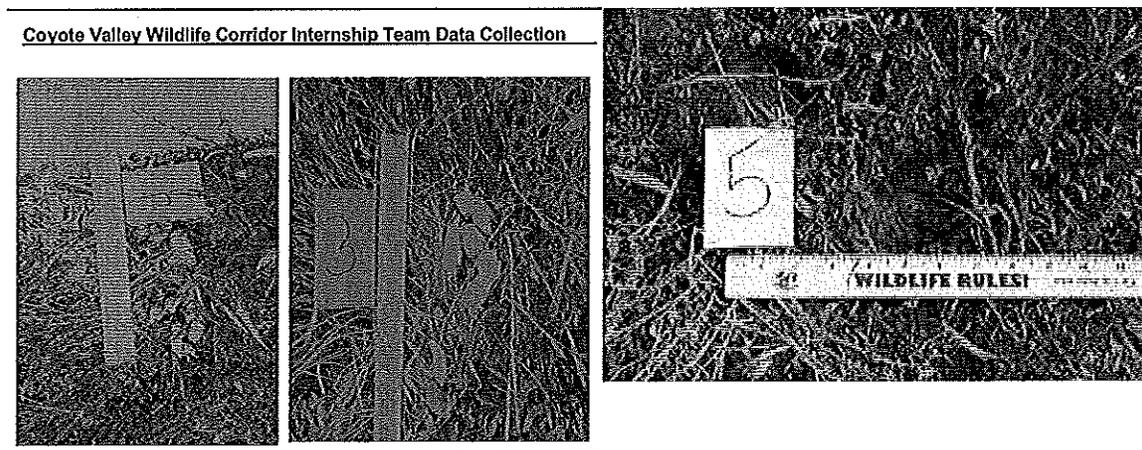
- 1) How can the DEIR claim that the development would pose a “Less Than Significant Impact” to the habitat, which is functioning as a critical corridor?
- 2) How can the DEIR claim that the development would pose as Less Than Significant Impact when this corridor has been cited as a critical corridor by the California Wilderness Coalition and by the Santa Clara Habitat Conservation Plan?
- 3) How is the loss of this critical corridor going to be mitigated for when it is the first open space for wildlife to cross between the Diablo Range and Santa Cruz mountains in Santa Clara?
- 4) How can it legally be claimed as a Less Than Significant Impact when we were able to collect data within just four months showing that there is a highly significant amount wildlife movement and utilization of the proposed development site?
- 5) How is the high increase in the volume of traffic that will increase wildlife mortality going to be mitigated within the final EIR?
- 6) How can you conclude that the CVSP is a “A Vision for Sustainable Development” and ask the City Council for the City of San Jose to do the same – based on an inaccurate and incomplete scientific assessment and fiscal analysis of the project?
- 7) **Under what criteria are you deciding that this development “plan” can support the title “sustainable”? The plan, as far as we can ascertain, was never titled “sustainable” until this latest version (i.e. Coyote Valley Specific Plan). We would consider this use of the word sustainable as “greenwashing”.**
- 8) How can you ask the City of San Jose to accept a “Vision or Plan” that had more negative comments on the planning work than possibly any other plan in the history of Santa Clara County?
- 9) Why would you send forward a Plan or Vision that has not had any public response or involvement in addressing the hundreds of issues raised by organizations, members of the public, public agencies, community leaders and public officials?
- 10) Is the submittal of a CVSP Task Force “plan” versus “project” a strategy to circumvent the environmental and fiscal review required?

Reference

Hilty, Jodi A., William Z. Lidicker Jr., Adina M. Merenlender. *Corridor Ecology The Science and Practice of Linking Landscapes for Biodiversity Conservation*. Washington DC: Island Press, 2006.

Conclusion:

Coyote Valley Ecological Area consists of highly suitable habitat for many wildlife species. From our data collection, we have found consistent high use of the habitat by wildlife. We have also found that along the bike trail, when it is exposed to Highway 101's noise and light from the automobile traffic, species tend to avoid those areas of the bike trails. At some locations we have found that game trails become multi-species use in avoidance of the highway. The pictures below are of a bobcat scat, coyote scat, and deer track at the same location. This indicates that increased traffic and light from the proposed development will negatively impact wildlife use of the some sections of the corridor.



We have also been receiving quarterly reports of road kill data from Santa Clara County Animal Control. A road kill data base can help identify where wildlife is trying to move unsuccessfully. These areas can then be modified in terms of using fencing to guide animals to existing culverts. Or to identify areas of high animal use to implement a land bridge, overpass, or modify a high use road into a tunnel. There is already a high mortality rate for wildlife moving throughout the proposed development area, an increase in traffic volume would result in a higher rate of wildlife mortality.

Poor planning will lead to costly problems and damage which could be avoided if the plan is modified in a manner that is based on the best available science, data collection, and expertise, which is all readily available to your staff if you make the effort to work with us.

Will this wildlife corridor, which has been identified as a critical connectivity region by corridor experts, be cut off by the development plans or will there be discussions with DEIR staff for plans on how keep the wildlife corridor intact (Thorne et al 2002) ?

According to several wildlife corridor/connectivity experts and the Santa Clara Habitat Conservation Plan, Coyote Valley is a critical wildlife corridor and habitat for many species (Thorne *et al* 2002, 2006, draft 2008). At the Sierra Azul Wildlife Connectivity Decision Makers Workshop, hosted by the Elkhorn Slough Coastal Training Program, on January 29, 2007, a presentation on a Wildlife Corridor Analyses for North American Badger (*Taxidea taxus*) within the Coyote Valley region by Tanya Diamond, graduate student at San Jose State University. In attendance were WRA environmental consultants who participated in writing the DEIR. This presentation included several corridor analyses showing that Coyote Valley consists of both critical core habitat and a corridor for badgers, which are a Species of Special Concern (Dept. of Fish & Game, 1986). Please see attachment of corridor analyses.

This data collection effort was spurned by the concern the wildlife species such as Tule elk, badgers, mountain lions, bobcat, deer, foxes, coyotes, and many other species would lose a critical habitat that serves as important connectivity. It has been demonstrated that corridors can facilitate the movement of species through habitat patches by providing connectivity (Hilty *et al* 2006, Soule and Gilpin 1991).

Connectivity between habitat patches is critical to maintain genetic viability and maintain viable populations of wildlife (Noss, 1987, Buza *et al* 2000). Wildlife corridors facilitate the movement for wildlife species to find mates, resources, and for juveniles to disperse out of their parental home range (Beier 1983). This is a very important concern for badgers as they exist in small populations and low densities because of their large home ranges. Further efforts will be made to see if badgers should be federally listed. Genetic isolation of badgers due to fragmentation from the proposed development could result in badgers becoming a listed species which results in very costly future management efforts for developers, the City of San Jose, and resource agencies. Please see Tanya Diamond's comments on the DEIR for further information about North American badger populations and connectivity issues within the region.

Questions assembled by Stewardship Research team to the City of San Jose planning staff and leadership and the Coyote Valley Specific Plan Task Force:

Why was this analyses or any mention of wildlife corridor for badgers left out of the DEIR? Especially when great efforts on many people's part and time were made to get this information to the DEIR staff while they were writing the DEIR?

Why weren't these methods which are used to establish wildlife presence and corridors not conducted by the DEIR staff?

Why was it stated that badgers would be less likely to cross heavily disturbed agricultural field when that is on of the most common types of habitat for badgers to forage in and travel through (Dept. of Fish & Game, Species of Special Concern report, draft in progress)?

Knowing that a scientific evaluation consisting of data collection should have been conducted by the methods we have been utilizing, why did the DEIR staff not conduct their own analysis and data collection effort? Because of the fact that Coyote Valley has been identified as a critical wildlife corridor and the fact that it is one of the first places for wildlife to cross from the Hamilton Region of the Diablo Range to the Santa Cruz Mountains, this should have been a high priority for in-depth research.

As wildlife biologists, who specialize in corridor design, we ask why didn't the DEIR consultants conduct this type of data collection of wildlife use throughout the valley floor?