

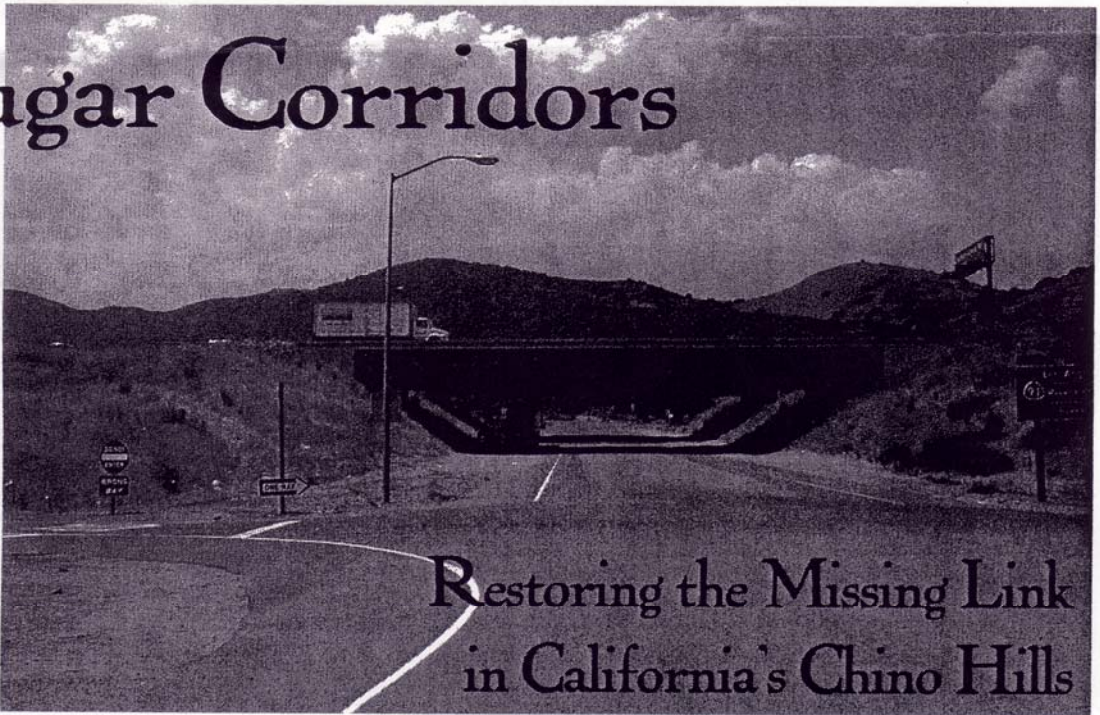
# The Road-Reporter

Spring Equinox 2003. Volume 8 #1

The Quarterly Newsletter of Wildlands Center for Preventing Roads

## Cougar Corridors

Photo courtesy of California State Parks.



Restoring the Missing Link  
in California's Chino Hills

By Alexandra Koelle

— See article on page 3 —

### Inside...

Cougar Corridors, by Alexandra Koelle. Pages 3-5

Depaving the Way, by Bethanie Walder. Pages 6-7

Odes to Roads: Roads and More Roads, by  
Rosalie Edge. Pages 8-9

Regional Reports & Updates. Pages 10-11

Wildlands CPR 2002 Annual Report. Pages 12-13

Get with the Program: ORV and Roads Program  
Updates. Pages 14-15

Biblio Notes: The Impacts of Snowmobiling and  
Cross Country Skiing on Ungulates, by Teresa  
Elise Welsh. Pages 16-18

Activist Spotlight: Lynda Bilbrough. Page 19

Policy Primer: Funding for Road Removal, by Beth  
Peluso. Pages 20-22

Check out our website at: [www.wildlandscpr.org](http://www.wildlandscpr.org)



# Cougar Corridors

## Restoring the Missing Link in California's Chino Hills

By Alexandra Koelle

On the edge of the United States' most notorious example of urban sprawl, a precedent-setting model of cooperation to save a critical biodiversity linkage has been set. The place — Coal Canyon — is a 681-acre parcel of land bisected by the Riverside Freeway (California Route 91). This small area of land within an hour's drive of Los Angeles's 15 million inhabitants currently is home to many species, including mountain lion, deer, bobcat, and the California gnatcatcher. As the only remaining viable link between the Puente-Chino Hills State Park in the north (40,000 acres) and the Santa Ana Mountains and Cleveland National Forest in the south (472,000 acres), the significance of Coal Canyon's preservation is far larger than its relatively small size.

The ecological value of the Coal Canyon area is not all that's significant about this project. In an historic precedent, state agencies have already begun removing and revegetating a paved off-ramp and underpass of State Highway 91, a 10-12 lane freeway. The road removal will compliment the state's earlier acquisition of neighboring lands to restore a functioning wildlife corridor in Coal Canyon. California State Parks and the California Department of Transportation (Caltrans) deserve recognition for their commitment to public wildlife and non-motorized recreation.

### ***In This Corner: Development Versus Diversity***

In 2000 California State Parks purchased 649 acres south of the freeway, which had been slated for development of 1,550 new houses (this land is currently undisturbed). Then, in 2001, they purchased an additional 32 acres north of the freeway, where an industrial park had been planned. Plans to restore native vegetation on the 32 acres are underway, and a BMX track and horse stables have already been removed.

The area is a remnant of California coastal sage scrub ecosystem, widely recognized as one of the most biologically diverse and threatened ecosystems in the continental U.S. Seventy to ninety percent of California coastal sage scrub ecosystems have already been lost. Coal Canyon's 681



*An aerial view of the Coal Canyon corridor area and the underpass under Highway 91 (circled). Also see close-up map on next page. Photo courtesy of California State Parks.*

acres host two federally listed species, the California gnatcatcher and Braunton's Milk-vetch, and provides nesting habitat to prairie falcons and golden eagles (Hund 2002). Coal Canyon provides a link between the two larger protected areas, which together are home to an additional 55 sensitive or threatened plant and animal species.

Other ecosystems and rare communities in the Santa Ana Mountains and Puente-Chino Hills include alluvial sage scrub, grasslands, vernal pools, southern California walnut woodland, tecate cypress forest, big cone Douglas-fir forest, Engelmann oak woodlands, the Santa Margarita River, and San Mateo Creek. The latter is the only perennial stream between Santa Barbara and the Mexican border that remains wild throughout the entire watershed (Noss et. al. 2002).

The purchased parcel and the associated road removal will provide a safe crossing for indicator species such as cougar and bobcat that would otherwise be cut off into separate "islands" by the freeway. In turn, the mobility of these larger species will provide for genetic diversity in Puente-Chino Hills and the Santa Ana Mountains, strengthening the chances for survival of smaller animal species and plants on both sides of the highway. Relegation to "island" status would have been an especially grim scenario for the Puente-Chino Hills State Park, which is too small to support its current species diversity over time. In this area, up to half of certain classes of species could be lost if the link to the south is not preserved. In the event of a localized destruction, the corridor may serve as a means for the repopulation of connected areas.

— continued on next page —



# Cougar Corridors

— continued from page 3 —

## Not Just For Cougars

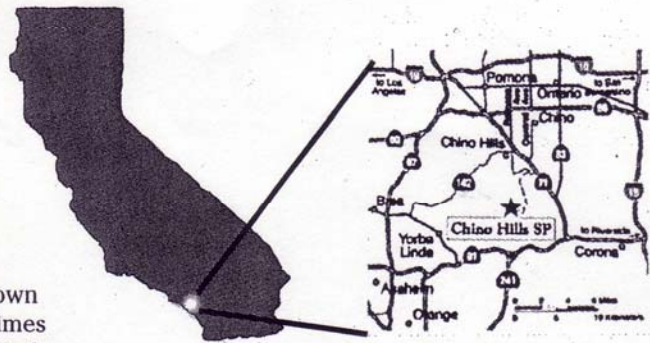
Mountain lions are considered the indicator species in this area: if the mountain lion disappears, a host of ecological changes are certain to follow. An issue paper on Coal Canyon predicts that “if larger predators became extinct, smaller omnivores and carnivores would undergo a population explosion known as a meso-predator release. They would likely become 4 to 10 times more abundant. Meso-predator release has been implicated in bird extinctions in the tropics and elsewhere, including birds (i.e. California gnatcatcher) in San Diego canyon fragments” (Hund 2002). Past wildlife crossing research indicates that crossing structures wide enough for cougars should also work for other species. Prior to rehabilitating this crossing, one radio-collared mountain lion was found to have established its territory on both sides of the freeway, crossing underneath the freeway over twenty times in a year (Beier 2002).

## To Make It Work — Remove the Road

In their paper “Evaluation of Coal Canyon Corridor,” Noss et. al. mention that we do not know what corridor traits — including length, width, and adjacent land uses — are necessary for optimal use. However, they conclude that the issue “is not how wide an ideal corridor should be but whether the extremely limited options that remain are adequate to provide a functional biological linkage.” Fortunately for cougars, gnatcatchers, and others, the Coal Canyon corridor appears to do just that (Noss et. al. 2002).

To maximize the likelihood of restoring a “functional biological linkage,” land managers considered the most obvious single impediment — the paved highway underpass — and sought to partner with Caltrans. After a public hearing in 2000 and consideration of the benefits of road removal, Caltrans joined the effort. By ripping the underpass road the agencies are well on their way to securing an effective corridor for wildlife and non-motorized recreationists.

## Locator map

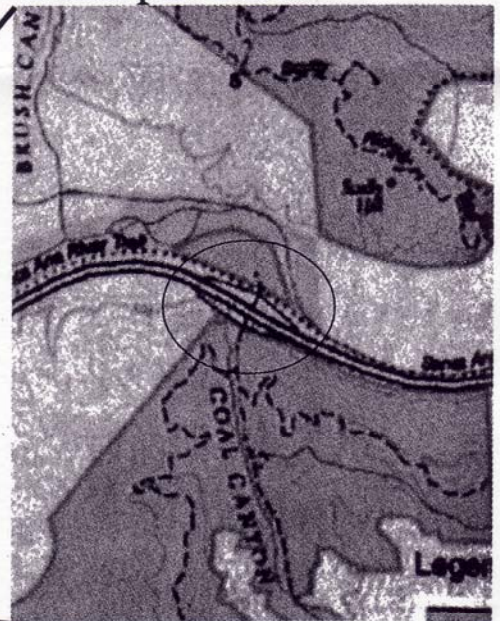


They also project that many more animals will use this route. Deer, for example, currently do not use the existing double box culvert corridor, because they cannot see to the other side. With the pavement gone and the underpass lighting removed, Caltrans is now enhancing the corridor's viability by reconfiguring the fence line adjacent to the freeway in order to divert animals into the underpass.

However, Noss et. al. emphasize that the Coal Canyon Biological Corridor should not be equated simply with its most constrictive element, the freeway underpass. The 681 acres of Coal Canyon themselves function as a crucial link, of which the improved underpass is only a part. For example, a pair of gnatcatchers is nesting in Coal Canyon, and other species of concern are found within the 681-acre linkage zone.

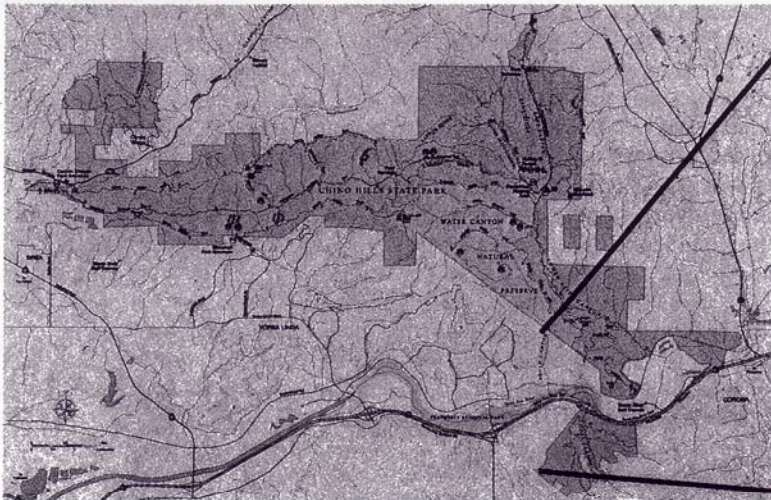
Biologists predict that species currently using culverts (mountain lion, coyote, skunk, raccoon) will be joined by those hesitant to use them (deer,

## Underpass Area



Maps from California State Parks.

## Chino Hills State Park







California gnatcatcher. Photo by Mark Alan Wilson.

rabbits, rodents, reptiles, and amphibians). California State Parks is currently removing pavement and restoring vegetation in the corridor, which will facilitate its use.

The underpass will also serve as a recreational trail linkage, allowing bikers, equestrians, and hikers to travel under the freeway to access Puente-Chino Hills from the Santa Ana Mountains and vice versa.

### **Funding for Corridor Restoration**

California State Parks purchased the lands on either side of the freeway for a total of \$53.5 million, using monies earmarked for land acquisition and a fundraising campaign that included many public and private sources. And while the 650 acres south of the freeway is undisturbed, revegetating the 32 acre parcel (north of the freeway) is estimated to cost from \$1 to \$1.2 million. State officials hope to involve citizens in the effort through volunteering.

Caltrans has generously taken on the underpass road removal and enhancements — investing roughly \$400,000 in reconfiguring the fence line alone. As with the revegetation effort, creative funding tools such as tax credits and issuing bonds help to get the job done.

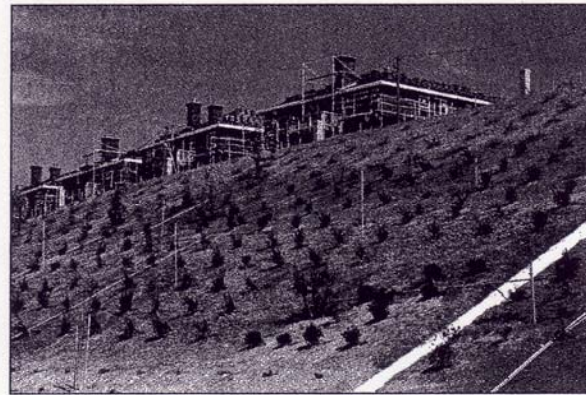
### **Team Effort**

Scientists and engineers at Caltrans, the California State Parks and California Department of Fish and Game deserve the lion's share of the credit for pursuing and implementing this project. Conservation organizations including Hills for Everyone, The Wildlands Conservancy, Friends of Tecate Cypress, Sierra Club, and the Mountain Lion Foundation also provided important assistance. Finally, two private companies, the St. Clair Company and the Pulte Home Corporation, helped make the project possible by reducing the sale price of the land and offering up development rights.

### **Conclusion**

In an evaluation submitted to California State Parks in support of the proposed project, wildlife professionals from Oregon and Arizona urged that: "Restoring a natural linkage in what is now a roaded underpass would set a global precedent. We are aware of no other restored biological corridor of this type and scale. Conservation-minded citizens throughout the world could look to Coal Canyon as an inspiring example of how an ecological error was corrected through thoughtful public action" (Noss et. al. 2002).

While conservationists are understandably scrambling to save the last percent of old growth temperate forest and roadless areas, the importance of looking at corridors within urban areas should give us hope as well. The American desire for single-family houses accessible only by car shows no signs of abating; in this context, perhaps a remarkable action of foresight is to maintain corridors within the sprawl. Of course additional private lands will be developed, and there will be edge effects from trails, roads, and inholdings. However, this makes preservation of the corridor all the more important, now and in the future. Many thanks to the State of California for setting this important and hopeful precedent for wildlife and wildlands.



Former coastal sage scrub habitat in California — and the type of development that renders it a biological desert. Photo by Mark Alan Wilson.

— Alexandra Koelle is a graduate of the Environmental Studies program at the University of Montana, and is currently a writer and editor in Missoula.

### **References**

- Beier, P., and K. Penrod. 2002. Using cougars to design a wilderness network in California's south coast ecoregion. In Proceedings of Defenders of Wildlife's Carnivores 2002 Conference, Monterey, CA.
- Hund, G.W. 2002. Preserving the Coal Canyon Biological Corridor, Orange County, CA. An Issue Paper for the California Department of Parks and Recreation, Los Lagos District. 6p.
- Krueper, R. 2003. Superintendent, Chino Hills State Park. Personal Communication.
- Noss, R., P. Beier, and W. Shaw. 2002. Evaluation of the Coal Canyon Biological Corridor. An unpublished report prepared for Hills for Everyone, Brea, CA. 15 p. Available online at: [http://www.hillsforeveryone.org/PDF\\_Files/evaluation\\_of\\_the\\_coal\\_canyon\\_biological\\_corridor.pdf](http://www.hillsforeveryone.org/PDF_Files/evaluation_of_the_coal_canyon_biological_corridor.pdf)