Preserving Biological Diversity with Wildlife Corridors: Amending the Guidelines to the California Environmental Quality Act

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This Comment explores the concept of the "wildlife corridor" as a means of protecting biological diversity in California. The works of prominent conservation biologists are described, along with the efforts of Southern California conservationists to preserve biodiversity in the Whittier-Puente-Chino Hills, by connecting large swaths of open space with corridors through which various species can migrate. The Comment poses that the scientific community accepts the veracity of wildlife corridors, but that conservationists, despite having various legal means of protecting open space at their disposal, are still at a disadvantage when it comes to protecting wildlife species. The Comment further suggests that the conservation of biological diversity is a policy goal under the California Environmental Quality Act. It then proposes that an amendment to the CEQA Guidelines mandating consideration of impacts to wildlife corridors, defining those impacts, and suggesting mitigation measures is legally justified to meet this policy goal. Finally, the Comment proposes exact language (reviewed by leading biologists in the field) for such an amendment, and demonstrates how that amendment would benefit the Whittier-Puente-Chino Hills.

Let's start indoors. Let's start by imagining a fine Persian carpet and a hunting knife. The carpet is twelve feet by eighteen, say. That gives us 216 square feet of continuous woven material. Is the knife razor-sharp?

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If not, we hone it. We set about cutting the carpet into thirty-six equal pieces, each one a rectangle, two feet by three. Never mind the hardwood floor. The severing fibers release small tweaky noises, like the muted yelps of outraged Persian weavers. Never mind the weavers. When we’re finished cutting, we measure the individual pieces, total them up—and find that, lo, there’s still nearly 216 square feet of recognizably carpetlike stuff. But what does it amount to? Have we got thirty-six nice Persian throw rugs? No. All we’re left with is three dozen ragged fragments, each one worthless and commencing to come apart. Now take the same logic outdoors...
Wildlife corridors, used by species to migrate, breed, and feed, are increasingly believed to be one of the most effective tools available today for the conservation of biological diversity, especially in urban areas. While conservationists rely on a vast number of legal means to preserve regional ecosystems and areas of connected open space (or open space networks), including property acquisition and enforcement of environmental and land use laws, they are faced with considerable challenges in light of residential development pressures. In California, the California Environmental Quality Act (CEQA or “the Act”) provides some protection for ecosystems and open space networks, but not enough.

This Comment, presented in the context of the Whittier-Puente-Chino Hills Wildlife Corridor in Southern California, proposes an amendment to the CEQA Guidelines that would require consideration of impacts to wildlife corridors and would define on-site measures to mitigate adverse impacts to those corridors. Part I provides general background on biological diversity (“biodiversity”) and the theory of wildlife corridors. Part II discusses the Whittier-Puente-Chino Hills Corridor and the ongoing efforts to preserve it. Part III presents the legal tools utilized by conservationists in the area, and Part IV proposes the amendment and analyzes the authority to amend the CEQA Guidelines. The Comment concludes first, that agency practice and judicial decisions, among other factors, demonstrate that biodiversity is a CEQA policy goal today whether or not it was a CEQA policy goal when the state legislature passed the Act in 1970; and second, that the conservation of biodiversity is an appropriate goal for an environmental quality statute.

I. BIODIVERSITY AND WILDLIFE CORRIDORS

"Connect our last parcels of wilderness, like pearls on a necklace, and mountain lions, bobcats, and wolves might once again roam their ancestral ranges." 2

Simply stated, biological diversity is the diversity of life. Harvard biologist Edward O. Wilson suggests that biodiversity is "the key to the maintenance of the world as we know it." 3 Authors of a 1995 Defenders of Wildlife publication assert that it is "the foundation of human life" and "includes all the world's species, all the genetic variation they contain, and higher levels of biological organization-biological communities, ecosystems, landscapes and biomes." 4 Biological diversity is also defined.

as the "sum of all the different species of animals, plants, fungi, and microbial organisms living on Earth and the variety of habitats in which they live."\textsuperscript{5} Scientists estimate that more than ten million, and maybe more than one hundred million different species inhabit the Earth.\textsuperscript{6} An ecosystem is comprised of all the living organisms in a particular environment, together with the "physical and environmental factors that affect them."\textsuperscript{7} And while "[p]erhaps the greatest value of biodiversity is yet unknown,"\textsuperscript{8} species and their ecosystems are important for many reasons, including the "ecosystem services" they furnish.\textsuperscript{9} The benefits of biological diversity are described below.

Among other things, ecosystems provide recreation, such as nature observation, hiking, rafting, fishing, and hunting.\textsuperscript{10} In some areas of California, "[e]ntire regional economies, such as those at Big Sur, Mendocino, and Yosemite, are based on income from tourists seeking to discover the natural splendor of our ecosystems."\textsuperscript{11} Other economic benefits derive from harvestable natural resources, including Chinook salmon, redwood trees, wild plants, fruits, paper, and clothing.\textsuperscript{12} According to one estimate from 1990, "[a]s measured solely by income from sale of resource commodities, [California] farms and forests result in an annual income of roughly 15 billion dollars."\textsuperscript{13} Ecosystems also provide medicinal remedies, agricultural protections (e.g., wild birds and predators killing vast quantities of insect pests), and raw materials for bioengineering.\textsuperscript{14} Further, they afford environmental protections that humans cannot easily re-create: flood control, climate moderation, regulation of hydrological cycles, water and air purification, fertilization of soil and soil maintenance, and waste treatment, to name a few.\textsuperscript{15} Thus, not only does biodiversity provide substantial economic benefits, the

\textsuperscript{5} Niles Eldredge, Biodiversity, ENCARTA ONLINE ENCYCLOPEDIA, at http://encarta.msn.com/encyclopedia_761579557/Biodiversity.html (last visited Nov. 23, 2003).
\textsuperscript{6} Id.
\textsuperscript{7} Id.
\textsuperscript{8} Id.
\textsuperscript{9} NOSS & PETERS, supra note 4, at xv.
\textsuperscript{10} Deborah B. Jensen et al., California Policy Seminar Report, In Our Own Hands: A Strategy for Conserving Biological Diversity in California 3 (1990). The authors of this report indicate that in 1989 alone, over three million fishing licenses were sold in California.
\textsuperscript{11} Id.
\textsuperscript{12} Id. This article describes that of the ten to one hundred million species estimated to exist today, only 1.75 million species have been discovered and named, and of those, "only a fraction have been examined for potential medicinal, agricultural, or industrial value." \textit{Id.}
\textsuperscript{13} NOSS & PETERS, supra note 4, at xv; WILSON, supra note 3, at 319.
\textsuperscript{14} Jensen et al., supra note 10, at 6.
\textsuperscript{15} NoSS & PETERS, supra note 4, at xv; WILSON, supra note 3, at 319; Jensen et al., supra note 10, at 4, 5.
importance of natural ecosystems for aesthetic and cultural values, as well as the provision of life-sustaining processes for the human species, provides additional incentives for preservation.16

One element of a healthy ecosystem is connectivity. When it comes to conserving biodiversity, the idea that connectivity of habitat can "make or break" the persistence of a species has been discussed and studied for years.17 "Wildlife corridors" can provide this essential element. These corridors are analogous to the hallways in one's house: species use corridors to get from one habitat area to another just as humans use hallways to get from one room to another.

Biologists have also long recognized that larger habitat areas harbor more species than smaller habitat areas.18 In 1967, in the context of islands, Robert MacArthur and Edward O. Wilson hypothesized that two factors regulate the number of species on an island: the size of the island and its distance from the mainland. Specifically, the authors posited that the larger the island, the greater the number of species it contained, and the smaller the island, the higher the extinction rate.19 They attributed this to the fact that "[a]s islands become large, their topography becomes more complex... result[ing] in a growing heterogeneity of habitats... [causing] the total number of individuals [to] increas[e] and advanc[e] the number of species."20 They further speculated that species colonization rates on an island depend on that island's distance from the mainland.21 The more fragmented an island—that is, the further it is from large habitat areas that are suitable for a particular species—the higher probability that "fewer species [are] supported" on that island.22 Research and analysis conducted after MacArthur and Wilson's work confirms that smaller, isolated areas of land do suffer small populations and higher extinction rates, though the effect of island distance to other suitable habitat is less clear.23

These theories, discussed in the context of islands in water are equally applicable to "islands" of land.24 Thus, barriers to the movement

18. Id. at 8.
19. Id. at 8, 22.
20. Id. at 16-17.
21. See generally, id. at 68-144.
23. Id. In the context of birds the "extinction risk was not related to how far the fragment was from nearby suitable habitat, apparently because many birds were unable to disperse through even 100m of urban landscape." Id.
24. Id. In line with Willis and Wilson, biologists Noss, Beier, and Shaw assert that "[h]abitat fragments on continents manifest similar patterns of extinction [as islands in water]."
of species between habitat areas on land can wreak havoc on biodiversity, with especially dismal effects on threatened or endangered species or species that require larger habitat areas for breeding, feeding, and migrating.25

According to renowned biologists Reed Noss, Paul Beier, and William Shaw, "nature reserves by definition are islands of protection in an ocean of lands managed for other purposes; this makes them vulnerable to isolation and subsequent ecosystem decay."26 It follows that a small island of habitat (a reserve) disconnected from larger areas of habitat (other reserves) is likely to be more limited in species diversity. It is, biologically speaking, "at-risk," of having small species populations and high extinction rates.27

In 1975, Edwin Willis and Edward O. Wilson hypothesized that on land, "habitat islands" (as opposed to islands in water) can be connected by other strips of habitat, making it easier for species to colonize (and re-colonize, if necessary), and thereby increase their numbers and reduce the instances of inbreeding in a given population.28 Thus, small populations benefit from linkages to larger habitat areas through the "rescue effect, whereby animals dispersing into the reserve bolster populations, provide new genetic material, and help prevent local extinctions."29 By providing a venue for immigration and genetic exchange, linkages between open space reserves can increase species population size and decrease the otherwise high rates of extinction associated with small, isolated islands of land.

The Ninth Circuit has even recognized the efficacy of wildlife corridors. Marble Mountain Audubon Society v. Rice addressed the adequacy of an Environmental Impact Statement (EIS) prepared under the National Environmental Protection Act.30 The court found that the Forest Service did not adequately consider impacts to a biological corridor in its EIS.31 In so holding, the court endorsed five critical features of wildlife corridors as suggested by biologists Paul Beier and
Steve Loe. Those features are: 1) wide-ranging animals use corridors to travel, migrate, and meet mates; 2) plants propagate; 3) genetic interchange occurs; 4) "populations can move in response to environmental change and natural disasters;" and 5) "[i]ndividuals can recolonize habitats from which populations have been locally extirpated."

Despite the seemingly widespread acceptance of the necessity of connected open space, not all biologists acknowledge the value of wildlife corridors. Some criticize the value of wildlife corridors in the fight to save biological diversity, suggesting that wildlife corridors may enable fire, disease, and parasites to spread. Others suggest that the land used to create corridors is too costly. Still others point out that some research shows that increased predation by non-native predators using corridors can threaten native species. However, "where the choice is between habitat fragmentation . . . or a corridor" in urban areas, corridors may be the best option. Importantly, this is not to suggest that swaths of open space connected by corridors are preferable to larger, non-fragmented areas of land. Rather, where large, non-fragmented areas of open space do not exist, but where wildlife corridors can connect smaller parcels, those connected areas will better maintain biodiversity than "islands" of open space will.

II. DEVELOPMENT PRESSURES AND LAND CONSERVATION IN THE WHITTIER-PUENTE-CHINO HILLS

Michael Soulé maintains that "isolated remnants [of open space] suffer predictable, cumulative losses of species [and] . . . [i]t follows that connectivity should be maintained or restored wherever possible."

32. Id. at 181, n.2.
34. Id. (citing Daniel Simberloff & James Cox, Consequences and Costs of Conservation Corridors, 1 CONSERVATION BIOLOGY 63-71 (1987)); see also, Thwaites, supra note 28, at 34 (discussing the spread of a deadly African livestock disease through wildlife). Scientists have never documented any ecological catastrophes caused by conservation corridors. Beier & Loe, supra note 33, at 435; see also, Daniel Simberloff et al., Movement Corridors: Conservation Bargains or Poor Investments?, 6 CONSERVATION BIOLOGY 493, 498 (1992) [hereinafter "Simberloff et al."].
35. See generally, Simberloff et al, supra note 34, at 495, 498-501.
36. E-mail from Chris Haas, Wildlife Biologist, U.S. Geological Survey, to Jennifer Schlotterbeck, July 10, 2003 (on file with author) (describing research Mr. Haas conducted in the Puente-Chino Hills, which showed that domestic cats were highly associated with the narrowest part of the study area-around La Habra Heights and Hacienda Heights, which could prompt some to argue that negative impacts on native species were possible through increased predation by non-natives predators).
such an effort is underway in urban Southern California, earning the attention of renowned biologists, the national press, and state and congressional representatives, not to mention countless state and local governmental agencies and non-profit organizations.

The Whittier Hills, Puente Hills, Chino Hills, and the Santa Ana Mountains ("Whittier-Puente-Chino Hills"), which comprise part of the Cleveland National Forest in Southern California, connect via numerous wildlife corridors and together comprise a habitat area totaling more than 512,000 acres. Known to locals as simply "the corridor," various organizations have been fighting to preserve the area for over twenty years. While the successful acquisition of key corridor linkages is promising, several residential developments, if approved, could...
threaten the corridor's long-term viability by severely impacting wildlife movement, and by extension, biological diversity. Conservationists continue their fight to prevent these projects from devastating significant biological resources, but success can be elusive.\textsuperscript{47} Below is a discussion of the biological resources at risk and the challenges facing conservationists in the area.

In 1992, Edward O. Wilson identified the California Floristic Province, which extends from southern Oregon to Baja California and includes the Whittier-Puente-Chino Hills, as one of eighteen "hot spots" of biodiversity worldwide.\textsuperscript{48} To be deemed a "hot spot," a region must meet two conditions: first, many species found nowhere else must exist there; second, those species must face the greatest danger of extinction from human activity.\textsuperscript{49} One-fourth of all plant species found in the United States and Canada combined reside in the California Floristic Province, and over two thousand of those species cannot be found anywhere else in the world.\textsuperscript{50} Professor Wilson noted what any Southern California conservationist knows: "their [the species'] environment is being rapidly constricted by urban and agricultural development . . . ."\textsuperscript{51}
A. Location of the Corridor in the Southern California Landscape

The Whittier-Puente-Chino Hills are located in the heart of this biodiversity hot spot, spanning over thirty miles and forty thousand acres, almost half of which is protected open space. The land is located within the boundaries of several Southern California cities and counties, and

52. HILLS FOR EVERYONE, GLOBAL HOTSPOTS OF BIODIVERSITY, at http://www.hillsforeveryone.org/maps.htm#global (last visited Nov. 6, 2003) (modeled after similar figure in GARY K. MEFFE & C. RONALD CARROLL, THE PRINCIPLES OF CONSERVATION BIOLOGY 140 (2d ed. 1997)).

53. HILLS FOR EVERYONE, ABOUT THE CORRIDOR: STATE INVESTMENT TABLE, at http://www.hillsforeveryone.org/state_investment_table.htm (last visited Nov. 6, 2003). Combined with the Santa Ana Mountains, to which the hills are tenuously connected at Coal Canyon, the acreage tops 512,000. Geary W. Hund, California Department of Parks and Recreation, Issue Paper: Preserving the Coal Canyon Biological Corridor: A Linkage of Critical Importance to the Preservation of California’s Biodiversity (not dated) (on file with author). Some biologists consider the Whittier Hills simply an extension of the “Puente-Chino Hills,” so references that exclude the Whittier Hills in the title are nonetheless intended to include that area, unless otherwise specified.

54. Id. Those cities include Anaheim, Brea, Chino Hills, Diamond Bar, La Habra Heights, Whittier, and Yorba Linda; those counties include Orange, Los Angeles, Riverside, and San Bernardino.
the area suffers from intense development pressure due primarily to population growth. According to the U.S. Census Bureau, between 1990 and 1999, Orange, Los Angeles, Riverside, and San Bernardino Counties experienced population increases of 14.5%, 5.3%, 30.8%, and 17.7%, respectively.\textsuperscript{55}

Figure 2: Parklands and Wildlife Corridors in the Whittier/Puente/Chino Hills\textsuperscript{56}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure2.png}
\caption{Open Space in the Puente-Chino Hills Wildlife Corridor}
\end{figure}


\textsuperscript{56} Hills For Everyone, \textit{Overview of the Puente-Chino Hills Wildlife Corridor}, at http://www.hillsforeveryone.org/maps.htm\#Overview (last visited Nov. 6, 2003); all shaded regions represent open spaces.
B. The Abundance of Biological Resources within the Corridor

Despite rampant residential development, the hills nonetheless contain “biological resources of statewide and worldwide significance,”\(^{57}\) including coastal sage scrub, alluvial sage scrub, grasslands, vernal pools, Southern California walnut woodland, Big-cone Douglas fir forest, Engelmann oak woodlands, and the Santa Margarita River and San Mateo Creek.\(^{58}\) In addition, the hills are home to several species listed under the federal Endangered Species Act (ESA), including the California gnatcatcher, the Santa Ana River woollystar, the Southern willow flycatcher, the Least Bell’s vireo, the Peregrine falcon, and the Brauton’s milk-vetch.\(^{59}\)

In 2000, the U.S. Fish and Wildlife Service (“Service”) designated over 513,000 acres of coastal sage scrub as "critical habitat" under the ESA, several thousand acres of which are located in the corridor.\(^{60}\) Coastal sage scrub is home not only to the California gnatcatcher, but to nearly one hundred other species as well,\(^{61}\) including over fifty species that are federally listed, proposed for listing, or are candidates for listing under the ESA.\(^{62}\) Not surprisingly, residential and commercial

\(^{57}\) Noss et al., supra note 27, at 2.

\(^{58}\) Id.

\(^{59}\) Geary Hund, Coal Canyon Biological Corridor: Sensitive Plant and Animal Species, and Plant Communities (1997) (on file with author); Wild Oak Ranch, Notice of Preparation: Focused List of Species of Special Interest (undated; not submitted to the State Clearinghouse); Deborah Schoch, Plants Gain Protected Status, L.A. TIMES, Jan. 3, 1997, at A3. The world’s largest remaining population of the Brauton’s milk-vetch is believed to exist in the Coal and Gypsum Canyons (within the Puente-Chino Hills). Id.

\(^{60}\) Endangered and Threatened Wildlife and Plants; Final Determination of Critical Habitat for the Coastal California Gnatcatcher, 65 Fed. Reg. 63680 (Oct. 24, 2000); Pat Brennan, Songbird Gets Safe Haven, ORANGE COUNTY REG., Oct. 18, 2000 (environmentalists contended that the Service’s exclusion of nearly 300,000 acres of habitat from the designation was likely illegal; developers argued that the designation was overbroad). The Endangered Species Act defines “critical habitat” as,

the specific areas within the geographical area occupied by the species, at the time it is listed . . . on which are found those physical or biological features . . . essential to the conservation of the species and . . . which may require special management considerations or protection; and . . . specific areas outside the geographical area occupied by the species at the time it is listed . . . upon a determination . . . that such areas are essential for the conservation of the species.


\(^{61}\) Noss & Peters, supra note 4, at 29 (citing Reed Noss, Edward T. LaRoe III, & J. Michael Scott, Endangered Ecosystems of the United States: A Preliminary Assessment of Loss and Degradation, BIOLOGICAL REPORT 28, NATIONAL BIOLOGICAL SERVICE 54-5 (1995)).

\(^{62}\) Noss et al., supra note 27, at 2 (as of 1993). The Secretary of Commerce or Interior, or a private party, can propose a species for listing under the Endangered Species Act. 16 U.S.C. § 1533(a). (b)(3)(A). Candidate species are

plants and animals for which the Fish and Wildlife Service (Service) has sufficient information on their biological status and threats to propose them as endangered or
development has severely reduced the once-vast areas of coastal sage scrub.\textsuperscript{63}

The construction of roadways, in particular, has lead to severe habitat fragmentation.\textsuperscript{64} Roads sever connected areas of habitat, creating a "barrier effect" that prevents species from moving between patches of open space, thus isolating and fragmenting open space areas as described \textit{supra}, Part I.\textsuperscript{65} According to researchers, over time this effect can lead to "a reduction in genetic diversity due to increased inbreeding, increased risk of local extinction due to population dynamics and catastrophic events, . . . decreased ability to recolonize, . . . and increase[ed] highway mortality."\textsuperscript{66} The species that are especially vulnerable to fragmentation are those that are "wide-ranging, exhibit low population densities, or are large patch or interior dwelling species."\textsuperscript{67} Studies in the Whittier-Puente-Chino Hills of the avifauna (birds),\textsuperscript{68} herpetofauna (reptiles and amphibians),\textsuperscript{69} and carnivores/large mammals\textsuperscript{70} have revealed that the loss of natural areas and the impediment to movement caused by residential development and roadways has caused species decline, and, in some instances, near extirpation in the corridor.

\section*{C. The Key Players}

Recognizing the critical importance of habitat connectivity to long-term species protection, several organizations, including non-profit groups and government agencies, have been purchasing land to augment existing open space and to buffer wildlife crossings. In fact, conservationists have been buying land in the corridor and dedicating it threatened under the Endangered Species Act (ESA), but for which development of a proposed listing regulation is precluded by other higher priority listing activities.


\textsuperscript{63} Noss \& Peters, \textit{supra} note 4, at x-xi.

\textsuperscript{64} Chris Haas \& Kevin Crooks, \textit{Carnivore Abundance and Distribution Throughout the Puente/Chino Hills} (1999) (prepared for the Mountains Recreation and Conservation Authority and the State of California Department of Transportation).

\textsuperscript{65} \textit{Id.; see also}, Noss et al., \textit{supra} note 22 at 4, which describes the "absolute barrier" to the movement of small animals created by the desert in the southwest. Small animals are cut off from the forest remnants on mountain tops ("sky islands") by the desert between the mountaintops, resulting in the support of fewer species on the smaller fragments.

\textsuperscript{66} \textit{Id.}

\textsuperscript{67} \textit{Id.}

\textsuperscript{68} Daniel Cooper, \textit{Breeding Landbirds of a Highly Threatened Open Space: The Puente-Chino Hills, California}, 31 W. BIRDS 213 (2000).

\textsuperscript{69} Chris Haas et al., \textit{Monitoring Reptiles and Amphibians at Long-Term Biodiversity Monitoring Stations: The Puente-Chino Hills} (2002) (prepared for the California Department of Parks and Recreation and the Puente Hills Landfill Native Habitat Preservation Authority).

as open space for more than twenty years.\textsuperscript{71} Ownership, whether in fee simple or through conservation easements, has enabled conservationists to preclude development, thereby preventing further impediments to wildlife movement. A brief description of the primary actors in this effort follows.

The California Department of Parks and Recreation ("State Parks") owns and operates nearly 12,000 acres of open space in the corridor.\textsuperscript{72} Expenditures of public funds on acquisitions of open space have topped $205 million.\textsuperscript{73} Together with Hills For Everyone, discussed \textit{infra}, State Parks successfully pieced together the funding sources necessary to buy the critical link between Chino Hills State Park, the Santa Ana Mountains, and Cleveland National Forest in November of 2000.\textsuperscript{74}

Hills For Everyone (HFE) is a non-profit organization founded over twenty years ago.\textsuperscript{75} HFE successfully lobbied the state to acquire land in the Chino Hills in the early 1980s, and today Chino Hills State Park encompasses more than 12,000 acres.\textsuperscript{76} HFE has expanded its efforts to include educating local government officials about the value of open space, and working towards conservation of critical linkages within the corridor.\textsuperscript{77}

In 1994, the Los Angeles County Sanitation District and the City of Whittier joined forces under a joint-powers agreement to form the Puente Hills Landfill Native Habitat Preservation Authority (Habitat Authority).\textsuperscript{78} The Habitat Authority works to mitigate the environmental impacts of the Puente Hills Landfill, which has been operating since

\begin{itemize}
\item \textsuperscript{71} See \textsc{Hills For Everyone, About the Corridor: State Investment Table}, at http://www.hillsforeveryone.org/state_investment_table.htm (last visited Nov. 6, 2003).
\item \textsuperscript{72} \textit{Id.}
\item \textsuperscript{73} \textit{Id.}
\item \textsuperscript{74} Rod Leveque, \textit{Deal Creates Wildlife Corridor: Purchase of Land Links Chino Hills to Cleveland National Forest}, \textsc{Daily Bull.}, Oct. 24, 2000, at A1 (indicating that funding came from "Caltrans, Orange County, and developer fees, among other sources... [t]here was even an anonymous donation that was in the millions." (quoting Ron Krueper, superintendent of Chino Hills State Park)).
\item \textsuperscript{75} For information on the history of the organization, see \textsc{Hills For Everyone}, at http://www.hillsforeveryone.org/history_of_hfe.htm (last visited Nov. 18, 2003).
\item \textsuperscript{76} \textsc{Chino Hills State Park Property Acquisition Summary From 1981-2001}, at http://www.hillsforeveryone.org/PDF_Files/acquisition_order_chsp.pdf (last visited Nov. 18, 2003).
\item \textsuperscript{77} \textsc{Hills For Everyone: Material Available on the Hills For Everyone Website}, at http://www.hillsforeveryone.org/history_of_hfe.htm (last visited Nov. 18, 2003).
\item \textsuperscript{78} The Joint Powers Agreement is available at http://bos.co.la.ca.us/Rosters/FactSheets/chii-175.htm. Joint Powers Agencies are formed pursuant to Government Code §§ 6500-25. When one or more public entities come together to form a new entity, they may do so as a "joint powers agency" (JPA) whereby the new entity may exercise any power held by the members of the JPA. For instance, while a state agency may be able to acquire land anywhere in the state, a redevelopment agency may not possess that power. Were those two agencies to join forces as a JPA, the new entity would be able to exercise the power of the state agency to acquire land outside the jurisdiction of the redevelopment agency. Cal. Gov't Code § 6508 (1995).
\end{itemize}
To fund its mitigation efforts, the Habitat Authority receives a one-dollar "tipping fee" for every ton of waste deposited in the landfill. By the time the landfill closes in 2014, an estimated $34 million will have been set aside (and eventually spent) for acquisition of open space in the Whittier Hills. To date, the Habitat Authority has purchased over 1,800 acres in the corridor.

Created in 1995 by several local government agencies, the Wildlife Corridor Conservation Authority (WCCA) is a joint-powers agency. It is comprised of the Santa Monica Mountains Conservancy and the cities of Whittier, Brea, La Habra Heights, and Diamond Bar. WCCA was created by its members to "provide for the proper planning, conservation, environmental protection and maintenance of the habitat and wildlife corridor." Though the agency does not own land within the corridor, WCCA staff review all CEQA documents relating to proposed development projects within the corridor. If the documents reveal a potential impact on wildlife movement within the corridor, staff will recommend ways to avoid or mitigate such impacts. Staff, with the approval of the governing board, forwards those comments to the agency.

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79. For more information on the Habitat Authority and the Landfill, see the Puente Hills Landfill Final Environmental Impact Report. *Infra* note 81.


81. SANITATION DISTRICTS OF LOS ANGELES COUNTY, FINAL ENVIRONMENTAL IMPACT REPORT (EIR) FOR THE CONTINUED OPERATION OF THE PUENTE HILLS LANDFILL, at http://www.lacsd.org/puentehillseir/Final_EIR.htm (last visited Nov. 6, 2003) [hereinafter Puente Hills EIR].


83. The Joint Powers Agreement is available at http://www.ceres.ca.gov/smmc/wccajpa.html. In addition to the Santa Monica Mountains Conservancy, and the four cities, the California Department of Parks and Recreation holds a position on the governing board, and there are two ex-officio members. Those ex-officio members represent the California Department of Fish and Game and the Los Angeles County Board of Supervisors. Ex-officio members take part in discussions of the governing board, but the members do not vote. See also, Linda Stark, *Fighting an Uphill Battle Together: 4 Cities Team Up to Save Open Space*, WHITTIER DAILY NEWS, at A1.

84. CALIFORNIA ENVIRONMENTAL RESOURCES EVALUATION SYSTEM, WCCA JOINT POWERS AGREEMENT, at http://www.ceres.ca.gov/smmc/wccajpa (last visited Nov. 6, 2003).


86. See, e.g., Letter from Bev Perry, Chair, Wildlife Corridor Conservation Authority, to Mr. Kerwin Chih, Department of Regional Planning (Oct. 26, 2001) (on file with author) (commenting on the DEIR for the Rowland Heights- Tentative Tract 49411 and suggesting that the FEIR must justify the requested zoning change from open space to residential in the community plan); Letter from Bev Perry, Chair, Wildlife Corridor Conservation Authority, to Mr. Kerwin Chih, Department of Regional Planning (Nov. 7, 2001) (on file with author) (providing additional comments on the DEIR for the Rowland Heights- Tentative Tract 49411 project and suggesting that the development is "unconscionable" proposed in an area designated by the County as open space).
in charge of the particular development project. Those agencies are required under the Act to respond to the comments.\textsuperscript{87}

In addition to the agencies named above, the cities of Whittier and Yorba Linda each own and maintain open space in the hills.\textsuperscript{88} Other agencies that own dedicated open space within the corridor include the County Sanitation Districts of Los Angeles County, the Los Angeles County Department of Public Works, the Los Angeles County Department of Parks and Recreation, the Orange County Department of Harbors, Beaches, and Parks, and the Mountains Recreation and Conservation Authority.\textsuperscript{89}

The organizations and governmental agencies referred to above have resorted to nearly every litigation and transactional tool available to preserve the corridor. Below is a discussion of their various forays into the legal arena.

\textbf{D. The Legal Landscape and Conservationists' Resort to the Laws}

Conservationists have not had an easy time saving open space and species in the Whittier-Puente-Chino Hills. Obstacles have included funding shortages for acquisitions and operations,\textsuperscript{90} illegal bulldozing\textsuperscript{91} within a Significant Ecological Area,\textsuperscript{92} raging wildfires,\textsuperscript{93} proposals to

\begin{itemize}
\item \textsuperscript{87} See infra Part III B.
\item \textsuperscript{88} HILLS FOR EVERYONE, ABOUT THE CORRIDOR: STATE INVESTMENT TABLE HILLS, at http://www.hillsforeveryone.org/state_investment_table.htm (last visited Nov. 6, 2003).
\item \textsuperscript{89} Id.
\item \textsuperscript{90} For example, after purchasing the first several thousand acres of what would eventually become the 12,000-acre Chino Hills State Park, the state had no money to open the park to the public. So something unprecedented in California history took place—volunteers opened and operated the park until the Department of Parks and Recreation could take over. Karl Wray, Volunteers Soon to Open Scenic Chino Hills State Park to All, ANAHEIM BULL., Sept. 4, 1982, at A3; David Witty, Volunteers Prepared to Run New State Park, REG., May 10, 1982, at Metro B1.
\item \textsuperscript{91} Leslie Berestein, Bulldozer School Under Fire, ORANGE COUNTY REG., Jan. 28, 1997, at Metro 1. Local 12 of the International Union of Operating Engineers operated a bulldozing school on property owned by the Boy Scouts of America, allegedly without permits required by the California Department of Fish and Game.
\item \textsuperscript{92} Significant ecological areas are defined in the Los Angeles County General Plan as, "ecologically important or fragile land and water areas valuable as plant and animal communities." COUNTY OF LOS ANGELES, Special Management Areas, GENERAL PLAN 213 (1993), available at http://elib.cs.berkeley.edu/cgi-bin/doc_home?elib_id=791&search= (last visited Dec. 2, 2003). The plan also specifies that it is "the intent of the General Plan policy to preserve the County's significant ecological resources and habitat areas in viable and natural conditions." Id. Moreover, the general plan "seeks to provide a process for reconciling specific conflicts between proposed land use and the preservation of identified Significant Ecological Areas." Id. at 57.
\item \textsuperscript{93} Ted Johnson & Marla Cone, Fire Races Over Chino Hills Park, ORANGE COUNTY REG., July 13, 1990, at B1. Over half of the then 10,000-acre park was burned in the fire, started accidentally by a teen-ager playing with a model rocket.
\end{itemize}
dissect one of the major parks with toll roads, and the building of the nation's second largest landfill in the middle of the corridor. While it has not been necessary or appropriate to resort to legal recourse in every instance, conservationists in the Whittier-Puente-Chino Hills have found various laws, applicable statewide, useful to aid in preserving existing open space and biological diversity. Where development is proposed, various organizations, as well as concerned individuals, have commented extensively on environmental documents prepared under CEQA. When necessary, the conservationists have filed lawsuits under the ESA, when the federal government has been slow to respond to listing petitions or critical habitat designations, and under CEQA when environmental


95. Puente Hills EIR, supra note 81.

96. See, e.g., Letter from the Wildlife Corridor Conservation Authority to Ms. Karen Haluza, City of Brea Development Services Department (July 11, 2001) (on file with author) (regarding Brea Cañon Estates Specific Plan Draft Environmental Impact Report Notice of Preparation Comments); Letter from the Wildlife Corridor Conservation Authority to Mr. Kerwin Chih, Los Angeles Department of Regional Planning (Oct. 26, 2001) (on file with author) (regarding Draft Environmental Impact Report Rowland Heights- Tentative Tract 49411); Letter from the Wildlife Corridor Conservation Authority to Mr. David Brantley, Senior Planner, City of Yorba Linda Planning Department (Nov. 7, 2001) (on file with author) (regarding North Yorba Linda Estates Project Notice of Preparation Comments); Letter from Claire Schlotterbeck, President, Hills For Everyone, to Mr. Bryan Speegle, PDSD/Environmental Planning Services, County of Orange (June 24, 2002) (on file with author) (regarding Draft Environmental Impact Report No. 581- Tonner Hills Planned Community); Letter from the Department of Parks and Recreation to Chuck Shoemaker, Planning and Development Services Department, County of Orange (June 24, 2002) (on file with author) (regarding Tonner Hills Planned Community Draft Environmental Impact Report. EIR No. 581, SCH. No. 2001031137).

97. For example, environmental groups filed suit when the U.S. Fish and Wildlife Service failed to designate critical habitat for the California gnatcatcher. Natural Res. Def. Council v. United States, 113 F.3d 1121 (9th Cir. 1997).

98. Sierra Club v. City of Industry, No. BS066897; see also, Rodney Tanaka, Lawsuit Filed to Nullify Sale of Boy Scout Land: Environmentalists Claim Industry Broke Laws, SAN GABRIEL VALLEY TRIB., Dec. 14, 2000, at A1. The City of Industry Redevelopment Agency acquired approximately 2,500 acres of land from the Boy Scouts of America and had filed a notice of exemption and negative declaration under CEQA, despite their publicly expressed intention to build a reservoir and dam on the property. The suit, filed by the Wildlife Corridor Conservation Authority, the Sierra Club, the Center for Biological Diversity, the Tonner Canyon Wilderness Conservancy, and fourteen individuals alleged that the City of Industry violated CEQA by filing inadequate and misleading environmental review documents. The suit additionally alleged a violation of California Urban Redevelopment Law because redevelopment funds cannot be used
review documents are alleged to be inadequate. In addition to filing lawsuits, conservationists have used other methods to preserve open space, including supporting and lobbying for park bond acts that provide much needed funding for acquisitions,\(^9\) and supporting and lobbying for local hillside protections in the corridor.\(^10\)

While conservationists have won some battles and lost others, adding one more tool to their legal tool box will generate not only an acknowledgement of the wildlife corridors’ value, but will also require developers to account more fully for corridor impacts in the environmental review process. This additional tool, in the form of an amendment to the CEQA Guidelines requiring assessment of impacts to wildlife corridors, will help ensure that proper weight is given to wildlife corridors as protectors of biological diversity. Below is an analysis of the legal authority to create such an amendment.

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100. Save Brea’s Hills, a non-profit organization, worked with the San Francisco law firm of Shute, Mihaly, and Weinberger to draft a “Hillside Heritage Initiative.” The purpose of the Initiative, which appeared as Measure N on the November 2000 Ballot in the City of Brea, was to “ensure that land use development in an area currently located within the City of Brea’s sphere of influence and within the Carbon Canyon Specific Plan area proceeds in a sustainable, environmentally sound manner.” The initiative provided that if development in the hillsides would have “unavoidable significant adverse impacts on the environment” and was approved at the City level, final approval would rest with the people of Brea. (On file with author). Supporters of the initiative even took the opponents to court over misleading language in the publication pamphlet to be distributed to voters. The judge agreed that the opponents’ language did not accurately reflect the impacts of the initiative. David Ryan, *Judge Orders Changes In Voters’ Pamphlet*, L.A. TIMES, Sept. 6, 2000, at B4. The measure was defeated by just over 300 votes. LaDonna Nicholson, *‘N’ Means ‘No’: Voters Rebuff Hotly Debated Hillside Proposal*, 6,576-6,227, BREA PROGRESS, Nov. 9, 2000.
III. ANALYSIS: CONSIDERING WILDLIFE CORRIDORS UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

"Corridors hold more promise for the conservation of the diversity of life than any one management factor except for human population stabilization."101

A. Background on CEQA

The state legislature enacted the California Environmental Quality Act in 1970. In enacting the statute, the legislature found, among other things, that "[t]he maintenance of a quality environment for the people of this state now and in the future is a matter of statewide concern" and that "there is a need to understand the relationship between the maintenance of high-quality ecological systems and the general welfare of the people of the state."102 The Legislature also specified that, "the capacity of the environment is limited" and that "major consideration is [to be] given to preventing environmental damage."103

CEQA's aim is to ensure that public agencies investigate, and when appropriate, mitigate the negative impacts a project will have on the environment.104 While CEQA does not require that mitigation measures be employed whenever there will be negative impacts on the environment, it does specify that, "agencies should not approve projects as proposed if there are feasible alternatives or mitigation measures available that would substantially lessen the significant environmental effects of such projects." In line with the "informational" aspect of the Act, CEQA requires that public agencies give notice and an opportunity for public comment on certain environmental documents prepared pursuant to the Act.105 In fact, in certain circumstances, CEQA requires that the public agency not only consider comments on a proposed project, the agency must respond in writing to those comments.106

102. CAL. PUB. RES. CODE § 21000(a), (c) (1996).
103. Id. § 21000(d), (g).
104. See generally, id. §§ 21000-02. Notably, "in the event specific economic, social, or other conditions make infeasible such project alternatives or such mitigation measures, individual projects may be approved in spite of one or more significant effects thereof." § 21002.
105. "Any lead agency which is preparing an environmental impact report or a negative declaration or making a determination pursuant to Section 21157 shall provide public notice of that fact within a reasonable period of time prior to certification of the environmental impact report or adoption of the negative declaration." CAL. PUB. RES. CODE § 21092(a) (West 1996). The public agency is instructed to consider any comments on a draft EIR or negative declaration that are "received within the public review period." Id. § 21091(d)(1).
106. Id. § 21091(d)(2)(A).
B. The Application of CEQA

CEQA requires that discretionary projects\textsuperscript{107} that will be carried out or approved by a public agency\textsuperscript{108} undergo an environmental impact review prior to project approval. The enactment of zoning ordinances, the issuance of conditional use permits, and the approval of tentative subdivision maps are all activities subject to the Act.\textsuperscript{109} CEQA does not apply to, among other things, ministerial projects,\textsuperscript{110} such as grading or demolition permits (where no discretion is allowed), emergency repairs, specific actions to mitigate or prevent an emergency, and a host of projects outlined in the CEQA Guidelines that have been determined to have no significant effect on the environment.\textsuperscript{111}

When a public agency prepares to carry out or approve a project, it must determine whether CEQA requires the preparation of one or more environmental review documents—an initial study, a negative declaration, a mitigated negative declaration, and/or an environmental impact report (EIR).\textsuperscript{112} The documents are further described in the chart below.

<table>
<thead>
<tr>
<th>DOCUMENT TYPE</th>
<th>DESCRIPTION OF DOCUMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Study</td>
<td>An initial study is a document prepared during the agency's preliminary review of a project to determine if the project may have a significant effect on the environment.</td>
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<tr>
<td></td>
<td>&quot;An Initial Study shall contain in brief form:</td>
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<td></td>
<td>(1) A description of the project including the location of the</td>
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\textsuperscript{107} RONALD E. BASS ET AL., CEQA DESKBOOK: A STEP-BY-STEP GUIDE ON HOW TO COMPLY WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT 21 (2d ed. 1999). A "project" is defined as "an activity which may cause either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment." CAL. PUB. RES. CODE § 21065 (West 1996).

\textsuperscript{108} Id. § 21080(a). For example, development of single-family residential homes on privately owned land is a "project" under CEQA since it requires approval from various public agencies.

\textsuperscript{109} Id.

\textsuperscript{110} § 21080(b)(1). "Ministerial" describes the application of "fixed, objective standards with little or no judgment required as to the wisdom or manner of carrying out the project." BASS ET AL., supra note 107, at 24.

\textsuperscript{111} CAL. PUB. RES. CODE §§ 21080(b), 21084 (West 1996). Projects that have been determined to have no significant effect on the environment are considered categorically exempt under § 21084 and include such projects as minor alterations to land (gardening, landscaping, etc.), actions by regulatory agencies for the protection of natural resources or the environment, information gathering, government sales of surplus property, loans, acquisition of land for wildlife conservation purposes, open space contracts or easements, designation of wilderness areas, etc. CAL. CODE REGS. tit. 14, § 15300-32 (2001).

\textsuperscript{112} See chart, infra, describing the various environmental documents and when they ought to be prepared.
<table>
<thead>
<tr>
<th>DOCUMENT TYPE</th>
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</thead>
<tbody>
<tr>
<td>Negative Declaration</td>
<td>&quot;[A] written statement briefly describing the reasons that a proposed project will not have a significant effect on the environment and does not require the preparation of an environmental impact report.&quot; Cal. Pub. Res. Code § 21064.</td>
</tr>
<tr>
<td>Mitigated Negative Declaration</td>
<td>&quot;[A] negative declaration prepared for a project when the initial study has identified potentially significant effects on the environment, but (1) revisions in the project plans or proposals made by, or agreed to by, the applicant before the proposed negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effect on the environment would occur, and (2) there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment.” Cal. Pub. Res. Code § 21065.</td>
</tr>
<tr>
<td>Environmental Impact Report</td>
<td>&quot;[A] detailed statement setting forth the matters specified in Sections 21100 and 21100.1; provided that information or data which is relevant to such a statement and is a matter of public record or is generally available to the public need not be repeated in its entirety in such statement, but may be specifically cited as the source for conclusions stated therein;&quot;</td>
</tr>
</tbody>
</table>
It is the responsibility of the "lead agency" under CEQA to determine whether the preparation of an EIR is required. The lead agency is the public agency that "has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment." In determining whether an EIR is required, the lead agency should consult with other public agencies that have jurisdiction over the natural resources that will be affected by the project. Once the lead agency determines that an EIR is necessary, it must give notice to those agencies and to the California Office of Planning and Research. Each agency is then required to specify "the scope and content of the environmental information that is germane to the statutory responsibilities" of that agency, and which therefore should be included in the EIR. The lead agency must also hold at least one "scoping" meeting for projects of statewide, area-wide, or regional significance.

113. Section 21100 specifies that lead agencies are required to prepare EIR's, and outlines the contents of such a report. Section 21100.1 specifies that certain information is required in EIR's prepared in connection with certain kinds of projects. Section 21104 specifies the requirements for consultation when there is a state lead agency. That agency must consult with each responsible agency, any public agency that has jurisdiction by law, and the State Air Resources Board. Section 21153 specifies the requirements for consultation when there is a local lead agency. That agency must consult with each responsible agency, any public agency that has jurisdiction by law, and any city or county bordering the project.

115. Id. § 21067.
116. Id. § 21080.3(a).
117. Id. § 21080.4. The Governor's Office of Planning and Research and the Resources Agency are together responsible for administration and oversight of CEQA. BASS ET AL., supra note 107, at 8.
118. Id. § 21080.4(a).
119. Id. § 21083.9(a)(2). The purpose of scoping is to determine the scope, focus, and content of an EIR. The process helps to "identify the range of actions, alternatives, environmental effects, methods of assessment, and mitigation measures to be analyzed in depth, and eliminates from detailed study those issues that are not important to the decision at hand." BASS ET AL., supra note 107, at 70.
The existence of a public controversy about a project, by itself, does not necessitate preparation of an EIR. Rather, an EIR should be prepared if there is "substantial evidence, in light of the whole record," that a project will have a "significant impact" on the environment. A project will have a significant impact on the environment if the "project has the potential to degrade the quality of the environment, curtail the range of the environment, or to achieve short-term, to the disadvantage of long-term, environmental goals;" if "the possible effects of a project are individually limited but cumulatively considerable;" or if "the environmental effects of a project will cause substantial adverse effects on human beings, either directly or indirectly."

C. The Authority to Amend the Guidelines

The California Supreme Court has emphasized that public agencies are to interpret CEQA "so as to afford the fullest protection of the environment within the reasonable scope of the statutory language." Although a 1993 legislative amendment to the CEQA statute admonished the courts for adding requirements beyond the statute and its guidelines, in 1995 the legislature reiterated the importance of periodically reviewing and updating the CEQA Guidelines to keep pace with legislation, amendments to the statute, court decisions, and changes in agency practice. The legislature amended CEQA to require the Office of Planning and Research to review and recommend changes to the Guidelines every two years. That same statutory amendment mandated that the Secretary for Resources adopt guideline amendments every two years.

Pursuant to Section 21087 of the Public Resources Code, this Comment proposes an amendment to the Guidelines that would mandate consideration of wildlife corridors in CEQA documents, and delineate

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120. CAL. PUB. RES. CODE § 21082.2(b) (West 1996).
121. Id. § 21082.2(d).
122. Id. § 21083(b)(1).
123. Id. § 21083(b)(2).
124. Id. § 21083(b)(3).
125. Friends of Mammoth v. Board of Supervisors, 8 Cal.3d 247, 259 (1972).
126. CAL. PUB. RES. CODE § 21083.1 (West 1996).
127. Id. § 21087.
128. Id. Section (a) reads:

[t]he Office of Planning and Research shall, at least once every two years, review the guidelines adopted pursuant to Section 21083 and shall recommend proposed changes or amendments to the Secretary of the Resources Agency. The Secretary of the Resources Agency shall certify and adopt guidelines, and any amendments thereto, at least once every two years, pursuant to Chapter 3.5 . . . .

129. Id. The Secretary for Resources is the head of the Resources Agency in California.
mitigation measures for negative impacts of development. But is mandatory consideration warranted and supported by law and policy?

D. Current Practice: Discretionary Consideration of Impacts to Wildlife Corridors Using the Environmental Checklist

The "Environmental Checklist Form" is a document used by agencies in the preparation of EIRs. The checklist includes seventeen different "issues" (main topics) with a series of questions following each issue. For each question, an EIR should indicate the degree of impact: no impact, less than significant impact, less than significant impact with mitigation incorporated, or potentially significant impact. Under the issue "biological resources," one question is whether the project would "interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites." Lead agencies are already, therefore, expected to review impacts to wildlife corridors. However, there is no further explanation of what a wildlife corridor is or how one mitigates adverse impacts to a wildlife corridor.

While EIRs for development projects in the Whittier-Puente-Chino Hills corridor as of late have been utilized to assess impacts to wildlife corridors, a project may still be approved even if those impacts to the corridor would be devastating to biological diversity. The lead agency has the discretion to approve a project that would have a significant effect on the environment (even after the imposition of feasible mitigation or alternatives) if the lead agency adopts a statement of overriding consideration. However, an agency is required to make specific findings when it approves a project despite significant adverse effects on the environment. The fact that non-environmental considerations may

131. Id.
132. Id.
133. Id. at 952.
136. CAL. PUB. RES. CODE § 21081 (West 1996). Those findings include:
(1) changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment. (2) Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency. (3) Specific economic, legal, social, technological, or other considerations ... make infeasible the mitigation measures or alternatives identified in the environmental impact report.
"override" adverse effects on the environment is a clear indication that CEQA is a statute intended to balance harm to the environment with economic, social, and other factors. This balancing of factors is not necessarily inconsistent with efforts to conserve biodiversity.

The mandatory language proposed in infra Part IV (E) reads the goal of conserving biodiversity into an Act whose language makes no mention of "biodiversity." However, the language broadly describing the policy, coupled with judicial interpretations of the Act, supports an argument that biodiversity is, or at least has become, a goal of the Act. Furthermore, biological diversity is a legitimate goal of any environmental quality statute and a goal that logically calls for consideration of impacts on biological diversity in environmental analyses.

1. Is Biodiversity an Appropriate Goal in Conservation Efforts Generally?

While early conservation efforts focused primarily on individual species, conservationists began championing biological diversity as a conservation goal almost twenty years ago. Among other things, scientists and land managers learned that nature reserves are not enough, that entire landscapes and ecosystems must be maintained, and that there is perhaps an unwarranted focus on charismatic megafauna. Thus, federal and state agencies developed ecosystem management programs aimed at addressing conservation goals more comprehensively.

Donald Waller, a University of Wisconsin-Madison botanist, argues that there are a number of potential pitfalls in attempting to apply biological diversity goals in conservation efforts. Among them are the definition of "wildlife" (is it more than just large bird and mammal species?); the vagueness of the term "diversity" (is it too vague to be used in regulations and laws?); and the management of habitat (is it better to save threatened habitat or restore degraded habitat?). In his research,

_id. If the lead agency makes this last finding, it must also find that "specific overriding economic, legal, social, technological, or other benefits of the project outweigh the significant effects on the environment." Id. See also, BASS ET AL., supra note 107, at 85.
138. Id. at 20.
140. Waller, supra note 137, at 19-21. "Charismatic megafauna" is a term used to describe the animals that garner most of the attention in the world biodiversity and species conservation, such as mountain lions, wolves, grizzly bears, etc.
141. Id.
142. Id. at 21-28.
143. Id.
Waller has addressed each drawback in turn and ultimately concludes that biodiversity is an appropriate goal in conservation efforts. He suggests that biodiversity "holds promise for bringing environmentalists and conservation agencies closer together by serving as a common goal for conservation activities," and that "by emphasizing habitats and processes, concerns for overall diversity automatically protect far more of nature than the handful of flagship species... protected under the ESA." While in some respects there is still much to be learned about the functioning of ecosystems, we do understand the effects of isolation; we do know which species are sensitive to fragmentation; and we can make concrete and quantitative predictions about what affects biodiversity rates. Moreover, focusing on biodiversity enables land managers to address multiple concerns at once rather than favoring one species or habitat over another, and such a focus ensures that the appropriate attention is paid to species that play larger roles in sustaining ecosystem functions even though they may not be "flagship" species.

Biologist Reed Noss suggests that the philosophy underlying conservation biology is one of prudence: "in the face of uncertainty, [we]... have an ethical obligation to risk erring on the side of preservation." He further argues that, "human actions that are not compatible with the integrity of the ecosystem should not be permitted." Since habitat linkages are essential to maintaining biodiversity, we should err on the side of protecting those linkages under CEQA.

144. Id. at 20-30. For example, Waller points out the problem with the "question of definitions," noting that equating "wildlife" diversity with the number of large bird and mammal species present in a given area avoids the wider context. He notes that, "[m]ost elements of diversity are rare and the 'lower forms' of life... play critical roles in providing ecosystem 'services.'" He warns that attempting to manage lands for one or a few favored species is not only inappropiate, it can also produce "pernicious effects." Waller also discusses the "question of implementation," noting that there are various levels of "scientific confidence" in the effects of agency management activities. He notes that some argue that diversity is too variable a concept to be used in laws and regulations. In the end, Waller concludes that we should "acknowledge our ignorance about ecological systems," but we should "lay the burden of proof on those who claim, often without evidence, that extensive and intensive forms of habitat manipulation will not adversely affect biotic systems."

145. Id. at 20.

146. Id. at 29.

147. Id. at 20.

148. Noss, supra note 139, at 897.

149. Id. at 899.
2. The NEPA Analogy

Congress enacted the National Environmental Policy Act (NEPA) in 1969. It has been said that NEPA’s “broad and prescient policies” represent “this country’s charter for environmental policy.” NEPA declares it “the continuing policy of the Federal Government... to use all practicable means and measures... to create and maintain conditions under which man and nature can exist in productive harmony.” To a significant extent, the California legislature modeled the California Environmental Quality Act after NEPA. For this reason, reference to NEPA’s biological diversity goals may shed light on the extent to which those goals exist under the California statute.

Many of NEPA’s policy goals are directly analogous to CEQA’s policy goals. The two environmental quality statutes are similar in several respects, including their reference to the people’s responsibilities to the environment, their recognition of the necessity to create “pleasing” surroundings for man, and their acknowledgement of the importance of preserving the environment for future generations.

Dinah Bear, general counsel for the Council for Environmental Quality (CEQ) during the Clinton Administration, argues that NEPA should be used as a “process with a purpose” - specifically, the “protection...

150. National Environmental Policy Act of 1969, 42 U.S.C. § 4321, 4331-4335, 4341-4347 (2003). Congress stated that the purpose of the Act was to declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation; and to establish a Council on Environmental Quality. Id. at § 4321 (2003).


152. Id.; 42 U.S.C. § 4331(a).

153. See discussion of analogous policy goals, infra, Section IV(D)(2).

154. NEPA states that “each person should enjoy a healthful environment and that each person has a responsibility to contribute to the preservation and enhancement of the environment.” 42 U.S.C. § 4331(c) (2003). CEQA states that “[e]very citizen has a responsibility to contribute to the preservation and enhancement of the environment.” CAL. PUB. RES. CODE § 21000(e) (West 1996).

155. NEPA declares it the responsibility of the Federal Government to use all practicable means to “assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings. 42 U.S.C. § 4331(b)(2) (2003). CEQA indicates that “[i]t is necessary to provide a high-quality environment that at all times is healthful and pleasing to the senses and intellect of man.” CAL. PUB. RES. CODE § 21000(b) (West 1996).

156. NEPA declares it the responsibility of the Federal Government to use all practicable means to “fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.” 42 U.S.C. § 4331(b)(1) (2003). CEQA declares that “[t]he maintenance of a quality environment for the people of this state now and in the future is a matter of statewide concern.” CAL. PUB. RES. CODE § 21000(a) (West 1996).
of life, that is, biodiversity.\textsuperscript{157} In a chapter of \textit{Biodiversity and the Law} she sets out several ways in which this might be accomplished under NEPA.\textsuperscript{158} She may have found support for her argument in the CEQ's publication, several years prior, of a report entitled "Incorporating Biodiversity Considerations into the Environmental Impact Analysis Under the National Environmental Policy Act."\textsuperscript{159} This report suggests that the CEQ recognizes that biodiversity—even if it was not originally considered a "policy goal" under NEPA—is one today. Given the similarities between NEPA and CEQA, the California Secretary for Resources, who is responsible for enacting amendments to the Guidelines, should also justly decide that biodiversity considerations can and should be required under CEQA.

3. Authority for Mandatory Consideration: Is Biodiversity a CEQA Policy Goal?

In addition to the NEPA analogy and the broader policy goals discussed at the beginning of this Part, more explicit language in CEQA Section 21001 indicates an express policy goal of biodiversity protection. In Section 21001, the legislature declares it to be the policy of the state, among other things, to: "[p]revent the elimination of fish and wildlife species due to man's activities, insure [sic] that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities."\textsuperscript{160} Such language mirrors at least one goal of conservation biology: maintaining viable populations of (native) species in a region, with special attention paid to species especially sensitive to human activities.\textsuperscript{161} As the cases below demonstrate, California courts have interpreted CEQA as in fact functioning to that end.

The California Supreme Court has declared that CEQA is "directed primarily to ecological concerns and preservation of the environment"\textsuperscript{162}

\textsuperscript{157} Bear, \textit{supra} note 151, at 180.
\textsuperscript{158} \textit{See generally}, \textit{id.} at 178-87. For example, Bear suggests that each governmental agency do a better job of meeting the policy goals of Title 1 of NEPA by identifying the "environmentally preferable alternative" for a project in the record of decision. She points out that few agencies are aware of the requirement in NEPA regulations that each agency, in an environmental impact statement (EIS), explain how each alternative meets or does not meet the policy goals of Title 1. Further, Bear suggests the review of EISs by the Environmental Protection Agency is underused. She notes that the EPA, under the Clean Air Act, was directed to review EISs and to refer unsatisfactory proposals to the Council on Environmental Quality. The first part of EPA's guidance document for reviewers of EISs addresses habitat evaluation and includes a discussion on biological diversity.
\textsuperscript{159} \textit{Id.} at 183.
\textsuperscript{160} \textbf{CAL. PUB. RES. CODE} § 21001(c) (West 1996). (Emphasis added.)
\textsuperscript{161} Noss, \textit{supra} note 139, at 895.
\textsuperscript{162} Friends of Sierra Madre v. City of Sierra Madre, 25 Cal. 4th 165, 183 (2001).
and it has relied on CEQA to ensure adequate protection of species. In *Mountain Lion Foundation v. Fish and Game Commission*, the court found the California Fish and Game Commission ("Fish and Game") violated CEQA when it attempted to de-list the Mojave Ground Squirrel under the California ESA without preparing an EIR. Ordinarily, a state agency with environmental protection responsibilities that carries out discretionary activities pursuant to a regulatory program need not prepare an environmental impact report since such activities are "categorically exempt" under CEQA. However, the court found that the removal of a species from the endangered or threatened species list "withdraws existing levels of protection," creating the potential for "population reduction or habitat restriction." Because of these potential impacts, Fish and Game was obligated to find that the de-listing may have had a significant environmental effect, and therefore, it could not claim a categorical exemption under CEQA. Thus, the court upheld the writ of mandate ordering Fish and Game to set aside the de-listing.

In *Sierra Club v. State Board of Forestry*, the California Supreme Court found that the Board of Forestry ("Board") violated CEQA when it approved Pacific Lumber Company's ("PLC") proposed timber harvesting plan without considering the plan's impact on species that rely upon old-growth forests. The Department of Fish and Game ("Department") had asked PLC for information concerning "old-
growth-dependent wildlife species within the plan areas," but PLC refused, claiming it was not required to provide such information under the rules promulgated by the Board. After the Department denied the plans on the ground that they were incomplete, PLC appealed to the Board. The Board found that “there will not be any significant adverse effect on old-growth-dependent wildlife species or habitat from the harvesting that will occur under these two plans.” The court found that the Board had abused its discretion when it approved the plans “on the basis of a record which lacked information regarding the presence in the subject areas of some old-growth-dependent species.” The court further found that requiring the Board to consider impacts on old-growth-dependent species was consistent with the “express goals” of CEQA outlined in Section 21001. The absence of information on the presence of old-growth-dependent species “made any meaningful assessment of the potentially significant environment impacts of timber harvesting and the development of site-specific mitigation measures impossible.” The court affirmed the peremptory writ of mandate compelling the board to rescind its approval of timber harvesting plans.

The California Supreme Court’s recognition that a decision-making body must have adequate information concerning impacts to biological resources in order to comply with CEQA supports the argument that potential impacts to wildlife corridors must be considered in EIRs in order to comply with the explicit policy goals outlined in Section 21001. Connectivity, according to Reed Noss, “has become one of the best accepted principles of conservation planning.” It follows that the California Supreme Court would be inclined to find it necessary to study impacts to biological resources and diversity under CEQA.

170. Id. at 1219.
171. Id.
172. Id.
173. Id. at 1220.
174. Id. at 1234

is also responsible for the diversified use of fish and wildlife including recreational, commercial, scientific and educational uses.

175. Id. at 1237.
176. Id.
177. Noss also argues that “few conservation biologists would disagree that habitats functionally connected by natural movements of organisms are less subject to extinction than habitats artificially isolated by human activity.” Noss, supra note 139, at 902.
Thus, to summarize, the judiciary has relied on CEQA to protect species, the express language of the Act evidences an intent to conserve a diversity of species, and lead agencies have been, at least to some extent, considering impacts to wildlife corridors pursuant to the Environmental Checklist. Moreover, the conservation of biodiversity is today a policy goal under the National Environmental Policy Act and by analogy, might be said to be a policy goal under CEQA. These facts lead to the conclusion that a guideline amendment defining wildlife corridors, mandating consideration of impacts to wildlife corridors, and proposing mitigation measures, is fully within the scope of the Secretary for Resources' authority to enact.

E. The Proposed Amendment

Below is a proposed amendment to the CEQA Guidelines that would accomplish three things: (1) define significant impacts to wildlife corridors and threats to habitat connectivity; (2) mandate that the scoping process be used to identify whether wildlife corridors will be an important consideration in the environmental analysis and then require such analysis; (3) and define mitigation measures for impacts to the wildlife corridor(s).

Determining the Significance of Impacts on Wildlife Corridors

For purposes of this section, significant impacts on wildlife corridors include projects that:

(1) Interfere substantially or potentially substantially with the movement of any native species of resident or migratory fish or wildlife, or with the suitability of existing habitat corridors for fish or wildlife movement,

Result in habitat destruction, simplification, and/or fragmentation.

(b) Threats to habitat connectivity include:

Roads and highways,

178. The language in the proposed amendment is based substantially on language proposed by the Planning and Conservation League (PCL) in the spring of 2002, as amended by biologists Paul Beier and Geary Hund. The PCL proposal was never presented to the Secretary for Resources and no further efforts have been made to amend the Guidelines. See Draft Letter from Maura Deering, Planning and Conservation League, to the California Resources Agency (Mar. 7, 2002) (on file with author) (regarding Proposal to Amend CEQA Guidelines—wildlife corridors.) The draft letter indicates that the goal of the PCL proposal is to “explain[] which kinds of projects interfere with migration [and] suggest[] mitigation measures.” In addition to this purpose, the language I propose would attempt two additional feats: first, it mandates consideration of impacts on wildlife corridors and second, it forces recognition of biodiversity - in and of itself- as a legitimate goal under environmental quality statutes. Finally, Part IV of this Comment attempts to offer the appropriate support and justification for amending the CEQA Guidelines in the proposed manner.
Development and urbanization,
Agriculture,
Water diversions, canals, and aqueducts,
Mining,
Border fencing,
Wind turbines,
Railroads,
Harbor development,
Logging,
Military activities,
Grazing,
Recreation,
Off-road vehicles,
Vineyards, and
Power lines.

(c) The scoping process shall be used to identify whether wildlife corridors will be an important consideration in the environmental analysis and to allocate assignments for any special studies and analyses.

(d) In determining whether wildlife corridors will be an important consideration, the lead agency should focus on the following:

1) Ecosystems on a regional rather than site scale,
2) Individual species, and
3) Immediate and long-term impacts on biodiversity if movement is impeded.

(e) The lead agency shall also consider impacts on:

1) Non-listed species,
2) Non-protected areas, and
3) Non-economically significant species.

(f) If the lead agency determines that approval of the project will cause significant adverse impacts on the regional ecosystem, individual species, or biodiversity, the lead agency shall attempt to avoid such impacts by utilizing feasible alternatives. If there are no feasible alternatives, the agency shall attempt to minimize impacts on the wildlife corridor(s) by mitigating those impacts. Mitigation measures may include:

1) Protecting or restoring corridors and migration routes,
2) Redesigning the project’s footprint to avoid or minimize disturbance of resident or migratory corridors,
(3) Promoting the natural pattern and connectivity of habitats,
(4) Preserving larger areas of natural habitat linked to smaller habitat areas,
(5) Avoiding artificial barriers,
(6) Enhancing the ability of the landscape to accommodate natural disturbance regimes and ecological processes, as well as flows of organisms, energy, water, and nutrients,
(7) Utilizing existing developed area when building roads, power lines, and other linear features rather than crossing undisturbed areas, and
(8) Avoiding the removal of vegetation and natural landforms.

I. Down the Road: Mandatory Mitigation?

CEQA gives lead agencies much discretion in balancing the environmental harms of a project with the social, economic, and other factors under CEQA. While they are counseled to give "major consideration" to preventing environmental harms, the agencies may nonetheless decide that other factors tip the scales in favor of approving a development project. However, the import CEQA has carried in the judiciary with respect to species protection suggests that the Act provides even greater protection to species diversity than the federal ESA. While CEQA covers all species that might be adversely affected, the ESA covers only those that are listed as threatened or endangered.

The next logical step would be to require mandatory mitigation of impacts to wildlife corridors, rather than the discretionary mitigation proposed under the amendment described above. Importantly, this would require an amendment to the CEQA statute, as opposed to the CEQA Guidelines. The amendment would have to create an exception to the statement of overriding consideration, discussed in Section IV(D), supra. While an amendment to the statute is theoretically possible, there is no indication today that the legislature is leaning towards making mitigation for any facet of a development (air pollution, traffic impacts, biology, etc.) mandatory. Thus, with respect to CEQA, conservationists' best hope at this stage may be the amendment proposed here, which defines wildlife corridors, mandates consideration of potentially harmful impacts to them, and suggests on-site mitigation measures.

179. CAL. PUB. RES. CODE § 21000(g) (West 1996).
2. Why the Proposed Amendment Would Help the Whittier-Puente-Chino Hills

Several development projects are currently proposed, approved, or already under construction in the Whittier-Puente-Chino Hills. For those projects located within or directly adjacent to the corridor, mandated consideration of potential adverse impacts would help ensure that no project would be undertaken without considering those impacts.

For example, the Aera Energy project proposes the development of 3,600 homes in the very heart of the corridor in the Puente Hills. If this project were approved as proposed, the corridor would be severed, separating the Whittier and Puente Hills from the Chino Hills. The Brea Canon Oil project, proposing the development of four hundred homes, is located directly adjacent to the Aera Energy project to the southeast. The Brea Canon Oil development also threatens the viability of the corridor, as it would cut off a significant swath of the Puente Hills from the hills to the east. If the County of Los Angeles approves both the Aera Energy and the Brea Canon Oil projects as proposed, the effects on the corridor could be disastrous.

The proposed amendment to CEQA would require that the developers of the Aera Energy and Brea Canon Oil projects adequately consider the impacts to the corridor. The amendment also offers measures, endorsed by the biologists cited above, for on-site mitigation. While the conservationists in Southern California would obviously prefer that the developers sell the land to a land trust or conservation agency, the proposed CEQA amendment by no means requires such an action. Development in this area of the corridor is not precluded; rather, the proposed amendment simply ensures that adequate consideration is given to the corridor.

180. See Hills For Everyone, Figure 3: Units Proposed, Approved, or Under Construction in the Wildlife Corridor, at http://www.hillsforeveryone.org/maps.htm#Development (last visited Nov. 18, 2003).
181. See id. and Lands at Risk Map: Aera Energy, at http://www.hillsforeveryone.org/maps.htm#Development (last visited Nov. 18, 2003), showing that the project would dissect the Puente Hills Open Space from Chino Hills State Park.
182. Lands at Risk Map: Brea Canon Oil http://www.hillsforeveryone.org/maps.htm#Development (last visited Nov. 18, 2003),
Figure 3: Units Proposed, Approved, or Under Construction in the Wildlife Corridor

Figure 4: Lands at Risk
CONCLUSION

The mandated consideration of adverse impacts to wildlife corridors under the California Environmental Quality Act would be an effective tool in the effort to conserve biological diversity by helping to ensure that proper attention is paid to the importance of wildlife corridors in California. The proposed amendment to the CEQA Guidelines is supported by the broad and express policy goals of the Act, judicial interpretations of the Act, and the recent practice of lead agencies to consider impacts to wildlife corridors. Reed Noss hit the nail on the head when he wrote that "[c]onservation is not as simple today as in the past." Such a vérité need not, however, translate into CEQA Guidelines that are behind the times.

* The author intends in no way to suggest that other tools aimed at protecting the environment are not equally deserving of attention under CEQA. Rather, this Comment simply focuses on one tool in the fight to save biological diversity. To the extent that other environmental policy goals have come to warrant mandatory consideration under CEQA, additional amendments to the Guidelines are encouraged. What the author proposes here is meant solely to reflect her view that, given the policy goals and judicial interpretations of CEQA, in addition to the move toward conservation efforts under NEPA, effects on biological diversity should be mandatory considerations under CEQA. Consideration of impacts on wildlife corridors is one way to accomplish this policy goal.

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183. Noss, supra note 139, at 893. Noss notes that, "[o]ne hundred years ago it seemed that if we could just stop the plume hunters from shooting egrets to decorate ladies' hats, and if we could only save a few areas of spectacular scenery in national parks, we were doing well. Somewhat later it became apparent that we had to protect many kinds of habitats—wetlands, grasslands, deserts, forests of all kinds—to save wildlife." Id.