

To: Cathy Bechtel, Mid County Parkway Project Manager  
Riverside County Transportation Commission

Fr: Friends of Riverside's Hills

Re: DEIR for the Mid County Parkway

8 Jan 2009

We appreciate this opportunity to comment on the DEIR for the Mid County Parkway.

Friends of Riverside's Hills is an organization committed to helping to preserve and enhance the quality of life of the residents of Riverside by maintaining the natural beauty of the area, and by promoting the establishment and maintenance of a network of linked natural open space areas. I am submitting this letter on behalf of Friends of Riverside's Hills, and in preparing it I have relied on my expertise in the areas of conservation biology, ecology, and genetics. I am a Professor of Biology at the University of California Riverside (UCR), a member of the steering committee of UCR's Center for Conservation Biology, and I was a member of the MSHCP Scientific Advisory Committee established during the development of the MSHCP. Part of my research program is focused on conservation genetics and on the importance of effective wildlife linkages.

**Inadequately justified elimination of Alternatives 2 and 3 from DEIR consideration, despite being potentially superior alternatives.**

The design and approval of the Western Riverside County Multiple Species Conservation Plan (MSHCP) near to Lake Mathews included the likelihood of the "Hemet to Corona/Lake Elsinore CETAP Corridor" being built (MSHCP vol 1 sec. 7.2.2, available at [www.rctlma.org](http://www.rctlma.org)). It was assumed that the CETAP corridor would be built to the north of Lake Mathews. It was noted in the MSHCP that:

"If it is not feasible to build the CETAP Corridor in the alignment north of Lake Mathews, the proposed alternative involves the realignment and widening of Cajalco Road south of Lake Mathews to a four-lane arterial status, or other configuration that could be demonstrated to meet the criteria outlined in this section. The alternative would be proposed in place of the CETAP alternative between El Sobrante Road and the Temescal Wash. ....Should this option be selected, the CETAP Alternative north of Lake Mathews would not be constructed as a CETAP Corridor." (MSHCP vol 1 sec. 7.2.3)

However, we find from the Draft EIR (DEIR) of the Mid County Parkway (or MCP which corresponds to the CETAP Corridor) that the alternative included in the MSHCP approval was not even analyzed! Instead the "value analysis team" decided to exclude any alternative that ONLY traversed to the north of Lake Mathews (alternatives 6 and 7 directly violate the requirements of the MSHCP by having road development north AND south of Lake Mathews). As noted in the quote below, the parkway alternative to the north minimizes impacts to the Lake Mathews MSHCP area, but without adequate justification this low impact alternative was never

subject to appropriate analysis and compared to the other alternatives. This problem is apparent in the following quotation from the DEIR (Chap 2, 12-13):

Two of the initial alternatives (Alternatives 2 and 3) included a parkway north of Lake Mathews in close proximity to Lake Mathews and Cajalco Dams, and three of the initial alternatives (Alternatives 2, 4, and 6) included a parkway along the existing Ramona Expressway in close proximity to Perris Dam. Lake Mathews and Cajalco Dam are owned and operated by Metropolitan. Perris Dam is owned and operated by the State Department of Water Resources (DWR), and Metropolitan is the principal user of water from Lake Perris. DWR, Division of Safety and Dams, regulates the safety and integrity of dams in California.

The parkway alternative north of Lake Mathews was included in the initial set of MCP Alternatives, in part to ensure evaluation of an alternative that minimized impacts to the Lake Mathews MSHCP area compared with the alignment south of Lake Mathews. Given the engineering and safety constraints related to Lake Mathews and Cajalco Dams, the value analysis team determined that it was prudent to consider other alternatives that would both avoid close proximity to the dam and fully avoid the Metropolitan Habitat Conservation Plan Reserve. These efforts resulted in the proposed Far South Alternative, now known as Alternative 9.

The decision to consider other alternatives was reasonable, but the decision to exclude all alternatives that follows a route to the north of Lake Mathews (and not to the south), given its importance in the design of the MSHCP and the admission that it minimized impacts on the MSHCP, means that the conclusions of the DEIR are unsupportable. The decision to exclude these alternatives was apparently based upon a single letter from Metropolitan (May 13, 2005) regarding the proximity of the proposed northern route of alternatives 2 and 3 to the Cajalco Dam and Metropolitan facilities (see Table 2.9.A, DEIR). Their objections were apparently not subject to any further analysis or study. The Metropolitan document is included in the DEIR for reference, and it appears that they documented a reasonable set of concerns that needed to be taken into account as part of a further study. However, it is astonishing that a single agency objection of this sort trumps all other potentially beneficial considerations without being subject to rigorous review, especially when, by their own admission in the quote above, Alternatives 2 and 3 were included “to ensure an evaluation that minimized impacts to the Lake Mathews MSHCP area”. Thus, by their own admission, excluding alternatives 2 and 3 fails to ensure such an evaluation. This admission seriously undermines the value of the DEIR.

The “value analysis team” further supported their exclusion of the northern route alternatives by suggesting that amending the Lake Mathews MSHCP would be difficult. This appears to be the exact opposite of what is stated in the MSHCP: guidelines for the CETAP Corridor are clearly defined (see MSHCP vol 1 sec. 7.2.2 and 7.3.5), while it is stated that if an alternative to the northern route is to be constructed then if it is not biologically equivalent, “the project will be considered a Major Amendment, and required to follow the procedures described in *Section 6.10* of this document.” (MSHCP vol 1 sec. 7.2.3). The inclusion of the northern route as a “covered activity” under the MSHCP was even recognized in the DEIR (see 3.17.4), but the fact that this undermines the argument of the “value analysis team” was apparently not recognized.

It appears that the two alternatives 2 and 3 were eliminated by the “value analysis team” primarily to avoid any possible conflict Metropolitan. This logic is hardly an appropriate basis for such a major planning decision, especially when it so obviously reverses the assumptions of a previous major planning decision, the MSHCP.

As a result of this unjustified elimination of alternatives 2 and 3, the MSHCP equivalency analysis (DEIR 3.17.4) becomes very bizarre: the comparison is between Alternative 9 that is considered as part of the DEIR and Alternative 2 that is not! The use of Alternative 2 as the presumptive superior reference shows that the omission of Alternative 2 from the DEIR is fatal to the validity of the process, bearing in mind that the reasons for rejecting Alternative 2 were never subjected to rigorous scrutiny in the DEIR (or apparently anywhere else beyond Metropolitan).

### **The lack of MSHCP equivalency between Alternative 9 and Alternative 2.**

Here we will focus primarily on the equivalency analysis as it relates to the critical feature of MSHCP connectivity. Alternative 9 directly affects part of the complex pattern of critical linkages that were built into the MSHCP. Each time development encroaches into a linkage, the functioning of the linkage is reduced, and each time the functioning of a linkage is reduced, the functioning of the whole MSHCP is adversely affected. It is like removing rivets from a plane – perhaps no single rivet is essential, but the cumulative effects can be fatal to the project. Connectivity is critical for at least four reasons: (i) it reduces the likelihood of local extinctions; (ii) it facilitates recolonization when local populations go extinct; (iii) it prevents the pathological effects of local inbreeding; and (iv) it promotes local genetic diversity and this facilitates adaptation to changing environmental conditions (for a recent review see Chetkiewicz et al, 2006, *Ann Rev Ecol Evol Syst* 37:317-342).

The guiding principle of the MSHCP was to “provide for and maintain biological diversity by creating an **interconnected** MSHCP Conservation Area” (MSHCP vol 1 sec. 1.2.4, emphasis added). The original Alternative 2 and Alternative 9 affect proposed linkage 20, intended to link Core H (Lake Perris) with Habitat Block 5 (Lakeview Mountains), the proposed extension of existing core 4 (San Jacinto River), which provides a riparian link from the Lake Perris core to the south, and proposed constrained linkage 4 (Temescal Wash), which is another area of primarily riparian habitat joined to the Lake Mathews/Estelle Mountain core area C. These impacts are largely unavoidable if the project proceeds, but even so, mitigation is problematic especially for non-riparian species (see below). Unfortunately the DEIR fails to demonstrate how these impacts will be effectively mitigated. For example, Clavenger and Waltho (2005, *Biol Cons* 121:453-464) showed how attributes of both the design of the crossing and the habitat around it influenced use in large mammals in Banff National Park. This study shows that any evaluation of mitigation proposed to restore connectivity as a result of road building needs to be carefully documented with respect to the habitat conditions and how this might be expected to affect use

by covered species (or at the very least all species known to be rare by virtue of their listing as species of special concern, or endangered, etc, found locally). At a very inadequate minimum, there should be discussion of whether the crossing is dry or wet, and whether the vegetation at each end is riparian, sage scrub, or whatever. Failure to do this makes any meaningful analysis of the crossings impossible.

Even more problematic than these disturbances are the additional impacts of Alternative 9 to the connectivity of the MSHCP, since they restrict major north-south corridors. First, unlike Alternative 2, Alternative 9 cuts right across proposed linkage 3, which comprises of upland habitat and links south to proposed core 1 (Alberhill). The importance of this linkage is emphasized in the MSHCP: “the functional area of [the Alberhill] Core is much greater than 7,470 acres reported” because of its connection (via linkage 3) to the Lake Mathews/Estelle Mountain region (MSHCP vol 1 sec 3.2.3). Second, again unlike Alternative 2, Alternative 9 cuts right across the main Lake Mathews/Estelle Mountain Core (see DEIR Figure 3.17.1a). As noted, this core contains, in addition to good habitat for the federally endangered Stephens’ kangaroo rat, “habitat for other species with requirements for high quality habitat, such as Quino checkerspot butterfly and coastal California gnatcatcher.” (MSHCP vol 1 sec 3.2.3).

We must always bear in mind that the MSHCP covers some 146 species. There are few generalities for such a diverse group, but two are: the need for a variety of undisturbed natural habitats; and the need for effective connectivity so that the covered species can move among suitable areas. The impacts of Alternative 9 on proposed linkage 3 and the Lake Mathews/Estelle Mountain Core have a direct negative effect on both of these generalities. They have the effect of subdividing large tracts of habitat and cutting important linkage routes to the south. Such effects cannot easily be mitigated, since the loss of acreage, while important and needing to be replaced, is not the main concern. The loss of connectivity is the main concern. By contrast, Alternative 2 largely skirts the MSHP area, cutting off relatively small areas of habitat that could probably be mitigated by some appropriate additional contiguous acreage elsewhere in the vicinity.

It is true that Alternative 2 could affect the connection of proposed linkage 3 to the Lake Mathews core (see DEIR 3.17.4.7). However, this could be mitigated by appropriate land acquisition to the west (or shifting the road location slightly) – but since this alternative was not analyzed as part of the DEIR the issue was not considered. In contrast, Alternative 9 cuts right across the linkage, an effect that cannot be avoided, plus Cajalco Road would continue to be a secondary barrier at the point that proposed linkage 3 joins Core C.

The equivalency analysis focuses primarily on acreage lost and as such misses this “big picture” of the MSHCP and how its connections are integral to its long-term function. The loss of habitat resulting from any of the alternatives could be replaced by mitigation (e.g. see DEIR Table 3.17.0) with contiguous property that does not make the plan even more fragmented – in which case it would not matter what alternative was chosen. But in a large system such as the MSHCP it matters where the natural habitat is positioned – the loss of peripheral habitat (such

as that along the northern boundary of Core C), if mitigated by adding comparable contiguous habitat, is unlikely to have serious consequences, but the loss of habitat that cuts right across a linkage or a core will result in a decline in ecosystem function.

To mitigate the crossing of linkage 3, it is stated that there will be 4 bridges, 20 drainage culverts, 3 wildlife undercrossing/culverts, and 1 overland wildlife crossing. This seems like a lot of connectivity, but it is misleading. In reality, only the 4 bridges and the 1 overland wildlife crossing are likely to be effective over the 4 mile stretch involved. The 20 drainage culverts will not be used by many of the species covered by the MSHCP – drainage culverts are typically 6ft or less in diameter with a length, for this project, probably of the order of more than 200ft, many will be permanently wet, all will be devoid of vegetation, and many will be devoid of even a soil covering on the bottom. The three 20ftx25ft culverts are better but still likely to be relatively ineffective, bearing in mind the 200ft or more of alien environment that the animals must traverse under the road. We recommend soft-bottomed culverts approaching this size within residential developments where small 2-lane streets cross arroyos. Surely it is possible to do better in the environmentally sensitive MSHCP areas. In any event, there needs to be a crossing-by-crossing habitat analysis as outlined above plus some indication of expected species use – expectations that can be tested in the future.

No data are presented in the DEIR regarding the suitability of the architecture of the crossings relative to the 146 covered species (except for a reference about mountain lions using deer crossings). And yet in the DEIR it is argued that this arrangement of culverts and crossings is equivalent to an alternative where the linkage is not crossed by a road. This is absurd. The relevant data that exist for Southern Californian crossings (see below) suggest the proposed design would have a major impact on restricting movement along the linkage, with knock-on effects via the Alberhill core. At the very least, the 20 drainage culverts should be enlarged to the size of the wildlife undercrossing/culverts, and the wildlife undercrossing/culverts enlarged to be larger soft-bottomed arched culverts.

This same problem is similar along the 5 miles or so where alternative 9 cuts right across core area C and its Extension 2. Perhaps even more obviously than in the case of linkage 3, the DEIR fails to establish the equivalency of Alternative 9 to Alternative 2. While Alternative 9 has the potential of profoundly reduce the ability of species to move from north to south, Alternative 2 does not have this problem.

As noted above, the lack of relevant data is a serious concern. There are studies in moist temperate regions, such as Mata et al (2005 Biol Cons 124:397-405), who showed that NW Spain culverts are used by amphibians and small mammals such as voles, but their results tend to support the unsurprising observation that species found in riparian habitats tend to use dark and damp crossings fairly readily. We need equivalent data for dry land species, such as those found in sage scrub. A recent study by Ng et al (2004 Biol Cons 115:499-507) in the Santa Monica Mountains National Recreation Area investigated the use of culverts and tunnels under highways. The data showed that habitat generalists, especially those found in urban areas,

used these crossings (for example raccoons use culverts very readily). Of concern was that no dry-land habitat specialists were recorded, suggesting that they are less prone to using these types of crossing. The only covered species observed were coyote, bobcat, and one mountain lion, so we have no information regarding crossing use by the other non-flying animals covered under the MSHCP.

The Ng et al (2004) results supported the expectation (and common observation) that highly mobile predators such as coyotes will use crossings, but unfortunately, genetic and behavioral studies of movement of coyotes and bobcats in the same area across the Ventura freeway have shown that “roads present formidable barriers to dispersal” even for these species (Riley et al 2006 Mol. Ecol. 15:1733 -1741). They showed that, although these species cross back and forth under the freeway, successful establishment is inhibited with the result that the populations on either side of the freeway show significant genetic differences. The authors conclude that for animals of this type, to ensure mixing, “migration levels across anthropogenic barriers need to be an order of magnitude larger than commonly assumed”.

Combining the available information indicates that the Alternative 9 will seriously impact the connectivity of the MSHCP between the Lake Mathews area and the more southern parts of the plan. Thus we find that there is no justified basis for the conclusion of the equivalency of Alternative 2 and Alternative 9 with respect to what is arguably the most critical feature of the MSHCP, its connectivity. If Alternative 9 is to be considered further, then a Major Amendment of the MSHCP will be required.

In summary, the DEIR is fatally flawed by eliminating Alternative 2 from consideration by the DEIR. This alternative is recognized in the DEIR (and in the MSHCP) as the environmental reference point to which the other plans must be compared, and yet it was not subject to rigorous consideration as a possible plan. In addition the DEIR failed establish the equivalency of Alternative 9 (or any other alternative) to Alternative 2. Specifically, Alternative 9 undermines one of the most important design features of the MSHCP, the principle of connectivity. Alternative 2 has only minor effects on connectivity in the Lake Mathews area whereas Alternative 9 creates a major barrier to north/south movement. The proposed mitigation is woefully inadequate, both in the number of potential crossing sites and their dimensions. We therefore conclude that the proposed project will have a significant unmitigated environmental impact via its effect on the goals of the MSHCP.

Respectfully submitted,

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