

**Colorado Wildlife Federation**  
**4045 Wadsworth Boulevard, Suite 20**  
**Wheat Ridge, CO 80033**

May 23, 2005

Ms. Cecelia Joy, Project Manager  
Ms. Chris Paulsen, Deputy Project Manager  
Colorado Department of Transportation, Region 1  
18500 East Colfax Avenue  
Aurora, CO 80011

**Re: I-70 Mountain Corridor Draft Programmatic Environmental Impact Statement**

Dear Ms. Joy and Ms. Paulsen:

The Colorado Wildlife Federation (CWF) was founded in 1953, as an affiliate of National Wildlife Federation, and is dedicated to conserving Colorado's natural resources and wildlife heritage, including fishing, hunting and wildlife viewing. On behalf, of our thousands of members that are concerned about the future of fish and wildlife in the state of Colorado, please accept these formal comments on the Interstate Highway 70 Draft Programmatic Environmental Impact Statement (PEIS). We appreciate the opportunity to comment, and hope that the following comments will assist the Colorado Department of Transportation (CDOT) in incorporating the most effective fish and wildlife conservation measures into the decision about I-70 Mountain Corridor.

We are encouraged that CDOT has incorporated design elements that will begin to mitigate impacts to wildlife. We believe the I-70 corridor presents a major barrier to the movement of wildlife. Further we believe that the initial cost of these mitigation measures will not only protect wildlife, but also will improve safety and reduce property damage in the long term.

We appreciate the fact that the Draft PEIS recognizes that I-70 is barrier:

“Interference with wildlife movement due to the barrier effects created by I-70 and the influences of alternatives is considered to be one of the most serious issues affecting wildlife in the Corridor (p. 3.2-1).”

However, we believe that this statement could be further supported with additional scientific information on the fact that roads fragment wildlife habitat. Inclusion of this material would provide the CDOT additional data to aid in decision-making. Habitat fragmentation is now recognized as one of the greatest threats to biodiversity and the decline of species worldwide (Ehrlich 1986; Wilcove et al. 1998) – a trend expected only to increase across the Southern Rockies as the population of the region continues to grow. Transportation infrastructure, in particular, is a significant cause of habitat fragmentation, with negative impacts on wildlife (e.g., Harris and Gallagher 1989; Maehr 1984; Reed et al.1996).

In addition to fragmenting habitat, roads can be a major cause of wildlife mortality (Forman et al, 2003) or cause wildlife to avoid habitat near roads altogether (Gibeau and Heuer 1996; Jalkotzy et al. 1997),

limiting their habitat area and ability to fulfill certain needs. As noted by Forman (2000), public roadways directly influence 20 percent of the land in the United States; this impact to land is having significant impacts to our wildlife heritage. This project presents the opportunity to mitigate this impact.

The PEIS recognizes the effect that roads, increasing development, and human intrusion have on wildlife movement. However the statement on Page 3.2-5 “No quantitative data exist regarding how a road’s design regulates its barrier effect” is not accurate. Dodd, et al. (2003) presents data on this barrier effect and we suggest this work be incorporated into the PEIS. Furthermore, it is our understanding that Dodd has continued to work on this issue and will be publishing additional information on this topic. CDOT should consult with Dodd to incorporate the latest information available on this topic into the PEIS.

In addition to Dodd’s work, other research exists on the quantitative effects roads have on particular species. For example, Noss (2002) showed that as road density increases to six miles of road per square mile, mule deer habitat falls to zero. Deer will tend to avoid areas within  $\frac{1}{4}$  -  $\frac{1}{2}$  mile of roads, depending on traffic, road quality, and the density of cover.

We strongly urge to CDOT to review the scientific literature on the impacts to wildlife and include additional information from this body of work (which is extensive) to the Biological Resources section of the Draft PEIS. This information is critical for the decision-makers.

The PEIS does a good job of presenting how the animal-vehicle collision data was used and the importance of this information in the design of the alternatives. CWF is a strong advocate for the use of science in planning and analyzing projects, such as the I-70 Mountain Corridor, and is encouraged that CDOT has used this data. We strongly encourage that CDOT continue to collect this data through the NEPA planning process so that this information could continue to inform decision-makers. Furthermore we believe that this data should be continually collected on this corridor to be factored into planning for various phases of this project as CDOT moves forward with implementation.

The use of fencing is an important tool to reduce the impact of roads to wildlife, as several investigators have shown (Lyren and Crooks 2002, FHWA 2000). Fencing is used to prevent animals from crossing roads, directing animals to cross at grade in specific locations, or to direct wildlife to overpasses and underpasses. Fencing has been shown to reduce roadkill by 80 percent in Banff National Park (Guterman 2002). CWF believes that the PEIS should revisit the use of fencing to ensure that this tool is used to maximize wildlife protection and minimize animal-vehicle collisions. It is also critical that the PEIS include measures to ensure that all new and existing wildlife fencing is maintained. Fencing that is not maintained could result in wildlife being trapped within the travel corridor. CWF believes that the initial cost of this mitigation measure will protect lives, reduce property damage and protect wildlife.

CWF encourages CDOT to revisit the wildlife crossings being proposed in the PEIS. Science has shown that the “openness ratio” (openness = width x height/length) presented by Reed, et al. (1975) is critical in the design of wildlife crossings. Based on this factor there are two general principles that CDOT should consider in reviewing the wildlife crossings:

- “bigger is better” when designing underpasses (Clevenger 2002).
- overpasses are more accommodating to more species than underpasses (Jackson and Griffin 1998).

The PEIS should analyze the construction of wildlife crossings that maximize the openness ratio. It is CWF's opinion that the costs of these crossings will not significantly increase the overall budget of this large project and will make travel on the corridor safer by reducing animal-vehicle collisions.

Based on the research conducted on wildlife crossings CWF encourages CDOT to consider a full suite of wildlife crossings, including at-grade, above-grade, and below-grade crossings for large mammals. It is our understanding that the ALIVE committee recommended at-grade and above-grade crossing structures in addition to below-grade structures. Providing wildlife a diversity of crossings, including span bridges, underpasses and overpasses, will significantly reduce the impacts of the road corridor to wildlife.

The Threatened, Endangered, and Other Special Status Animal and Plant Species Section (3.3) understates the significant effects of the highway on the Canada lynx population. The surrounding habitat along the I-70 Corridor is documented to be good lynx habitat with lynx being identified in the White River National Forest and surrounding areas (CDOW 2005). Because the lynx is a federally threatened species and its population numbers are low, direct mortality is having a significant impact on the lynx population in Colorado. The PEIS should incorporate data collected by Colorado Division of Wildlife (CDOW). According to the CDOW (2001) progress report, "Human-caused mortality factors such as gunshot and vehicle collision are the highest cause of death for lynx > 8 months post-release." Furthermore, the 2005 CDOW progress report indicates that 7 out of the 61 lynx mortalities from 1999-2004 were due to roadkill, representing over 10% of lynx mortalities. CWF deems this to be a significant impact and the PEIS needs to address this impact and appropriate mitigation should be included in the alternatives.

CDOT should explore the option of "protective buying" of private lands adjacent to the I-70 corridor and near wildlife linkage zones. CWF is concerned that these private lands could be developed as this long-term project is being planned and waiting funding. Without these lands the opportunities of restoring wildlife linkages could be lost over time. CWF encourages CDOT to act on this matter now so that these lands are available for restoring critical linkages as the project is implemented.

The I-70 Corridor crosses several major rivers that are important fisheries. These rivers provide tremendous recreational opportunities for many anglers and these resources need to be protected. The PEIS analysis of impacts to these fisheries is very limited. The analysis does not address the cumulative impacts of the proposed actions. For example, will any of the alternatives result in the increased use of winter treatments (e.g. Magnesium-Chloride) that could impact water quality over time in these watersheds? The analysis of impacts to fisheries in the PEIS needs to be expanded to fully analyze the impacts to the fisheries in the numerous watersheds this project crosses.

In conclusion, CWF appreciates the opportunity to comment on the PEIS. We hope that you will carefully consider our comments as you move forward in the planning process. Furthermore, we believe the comments above are substantive comments as defined by NEPA and responses by CDOT should be presented in the Final PEIS.

We appreciate your efforts in reducing the road corridors impacts on our wildlife heritage and hope that as the process moves forward the fish and wildlife mitigation measures are not reduced or eliminated. In fact, we believe the mitigation measures will make travel in this corridor safer by reducing animal-vehicle collisions. CWF is committed to ensuring that all the recommended fish and wildlife mitigation measures along the I-70 Corridor are fully funded.

Thank you for the opportunity to comment on this project. Please feel free to contact Patrick Kenney, CWF Board Member, at 720/320-6257 or [pmkenney@aol.com](mailto:pmkenney@aol.com) if you have any comments or questions.

Sincerely,

Walt Graul  
Chairman  
Issues and Advocacy Committee

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