

APPENDIX B:

Interagency Correspondence



COLORADO
HISTORICAL
SOCIETY



The Colorado History Museum 1300 Broadway Denver, Colorado 80203-2137

October 21, 2002

John Knowles
Project Manager
U.S. Department of Transportation
Federal Highway Administration
Central Federal Lands Highway Division
555 Zang Street
Mail Room 259
Lakewood, Colorado 80220

RE: Colorado Forest Highway 80, Guanella Pass Road, HFHD-16

Dear Mr. Knowles:

Thank you for the opportunity to comment on the Final Environmental Impact Statement (FEIS) for the proposed project on Colorado Forest Highway 80 (CO 80), also known as Guanella Pass Road.

Our observations on the six alternatives are as follows.

1. Alternative #1 will have no effect on historic resources because nothing will be done to the roadway.
2. Alternative #4 will have no effect on the mining resources between Georgetown and the pass. However, this alternative will cause an adverse impact on the Leavenworth Mountain switchbacks visible from the Georgetown Silver Plume National Historic Landmark District (GSPNHLD).
3. Alternative #6 will have some impact on the mining sites, but less impact on the Leavenworth Mountain switchbacks.
4. Alternatives #2, 3 and 5 are less acceptable from a historic preservation and archaeological perspective because they maximize disturbances in both the mining area and the GSPNHLD viewshed.

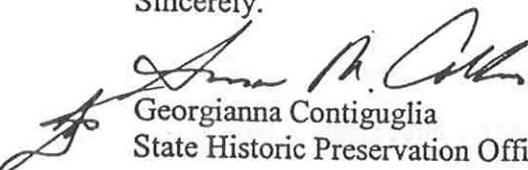
The above comments are based upon the effect not only on historic properties but also on properties not eligible for the National Register of Historic Places. The Preferred Alternative (Alternative #6) is acceptable because it protects the historic view from the GSPNHLD.

We have an additional concern regarding the proposed summit parking area that we understand is a tangential project. First, in our letter to you of June 11, 2002 we supported temporary fencing to block access to 5CC70 during construction. However, in addition we also feel that the parking lot farthest from the road would be constructed in an area that has not been adequately surveyed to determine whether archaeological resources will be uncovered or disturbed. Additional survey work will be necessary before construction commences.

Second, as mentioned in the June 11, 2002 letter, the Colorado Central Railroad Grade (5CC9) listed in the National Register of Historic Places and contributing to the GSPNHLD will be adversely affected by construction of an access bridge. Please refer to that letter regarding the required consultation process if such a bridge is constructed.

If you have any questions, please contact Dan Corson, our Intergovernmental Services Director, at 303/866-2673, [dan.corson@chs.state.co.us/](mailto:dan.corson@chs.state.co.us)

Sincerely,



Georgianna Contiguglia
State Historic Preservation Officer



COLORADO
HISTORICAL
SOCIETY

The Colorado History Museum 1300 Broadway Denver, Colorado 80203-2137

November 7, 2002

John Knowles
Project Manager
U.S. Department of Transportation
Federal Highway Administration
Central Federal Lands Highway Division
555 Zang Street
Mail Room 259
Lakewood, Colorado 80220



RE: Colorado Forest Highway 80, Guanella Pass, HFHD-16

Dear Mr. Knowles:

This letter is to acknowledge the telephone conversations of this week between Dan Corson, our Intergovernmental Services Director, and Stephen Hallisy, archeologist with your office. In our letter to you of October 21, 2002 we expressed concern that the area in which the new parking lot is to be located may not have been adequately surveyed. Mr. Hallisy explained the maps and described to our satisfaction that the area has been surveyed. Therefore, we withdraw that comment.

Please contact Mr. Corson with any questions at 303/866-2673 or dan.corson@chs.state.co.us

Sincerely,

Mark Wolfe

for
Georgianna Contiguglia
State Historic Preservation Officer



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
DENVER REGULATORY OFFICE, 9307 S. WADSWORTH BOULEVARD
LITTLETON, COLORADO 80123-6901

September 25, 2002



Mr. Richard Cushing
Environmental Planning Engineer
Federal Highway Administration
Central Federal Lands Highway Division (HFHD-165)
555 Zang Street, Suite 259
Lakewood, Colorado 80228

Dear Mr. Cushing:

Reference is made to your proposed improvements to Colorado Forest Highway 80, Guanella Pass Road (also know as Park County Road 62, Clear Creek County Road 381, Forest Development Road) that this office has assigned number 199580927. The work would start in Grant, Colorado and extend 23.6 miles north to Georgetown Colorado. The project area would include work in both Park and Clear Creek Counties.

Our office has reviewed the Final Environmental Impact Statement (FEIS) in two (2) volumes for the Guanella Pass Road and found the information to be clearly and concisely arranged despite a comprehensive review and analysis of alternatives explored by your office. It is, indeed, refreshing that such a complicated, intricate undertaking can be documented in a logical, easy-to-read document. The entire team is to be complimented.

Along these same lines, the latest field review was conducted in a similar fashion with competent, informative personnel who had already addressed those issues relevant to designing and documenting the least environmentally damaging, practicable alternative. Several mitigation sites were explored at that time with one or two potentially suitable sites. We noted your reference to exploring the possibility of utilizing mitigation banks. We would be reluctant to accept this form of mitigation unless it was clearly shown that on-site or near-site mitigation areas were not available.

The preferred alternative, identified in the FEIS as Alternative 6, is shown to be the least damaging to the aquatic ecosystem and fulfills all the elements of your project purpose. As such, it would be the only alternative that could be permitted.

If you have any further questions, please contact me or Ms. Margaret Langworthy at the Denver Regulatory Office. We can be reached through the use of the address above or by telephone at (303) 979-4120.

Sincerely,

Timothy T. Carey
Chief, Denver Regulatory Office



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
764 Horizon Drive, Building B
Grand Junction, Colorado 81506-3946

IN REPLY REFER TO:

ES/GJ-6-CO-02-F-024
MS 65412 GJ

November 26, 2002

Mr. Larry C. Smith, P.E.
Federal Highway Administration
Central Federal Lands Highway Division
555 Zang Street, Room 259
Lakewood, Colorado 80228

Dear Mr. Smith:

In accordance with section 7 of the Endangered Species Act (Act) as amended (16 U.S.C. 1531 et seq.) and the Interagency Cooperative Regulations (50 CFR 402), this is the U.S. Fish and Wildlife Service's (Service) final biological opinion on impacts to federally-listed endangered and threatened species associated with Federal Highway Administration (FHWA) funding of the reconstruction of Forest Highway 80 (Guanella Pass Road), in Clear Creek and Park Counties, Colorado. The project begins in Grant, Colorado (section 4, T. 7 S., R. 74 W.) and ends at Georgetown, Colorado (section 17, T. 74 S., R. 74 W.). The project will be constructed by the Federal Highway Administration, Central Federal Lands Highway Division. We received your biological assessment (BA) for this project on March 4, 2002. Delays in issuing this opinion were the result of our waiting for additional information related to lynx issues, from other biologists within the Service, working on similar issues.

This biological opinion is based on the project proposal as described in the February 25, 2002, report by Western Consulting Group/FHWA entitled "Biological Assessment, Guanella Pass Road (Colorado Forest Highway 80) as well as information contained in the Preliminary Final Environmental Impact Statement (EIS), subsequent conversations and e-mails.

The Service concurs with the FHWA's determination that the proposed project will have no effect on the endangered southwestern willow flycatcher, (*Empidonax trailii extimus*), threatened bald eagle (*Haliaeetus leucocephalus*), threatened greenback cutthroat trout (*Oncorhynchus clarki stomias*), or threatened *Eutrema penlandii* (Penland alpine fen mustard). In addition, the Service concurs with the FHWA's determination that the proposed project is likely to adversely affect the threatened Canada lynx (*Lynx canadensis*). Therefore, this document represents our biological opinion on the effects of reconstruction of Guanella Pass Road on the Canada lynx.

CONSULTATION HISTORY

In accordance with regulations at 50 CFR 402, the FHWA initiated informal consultation with the Service on November 9, 1993. On November 22, 1993, the Service provided a list of candidate and listed threatened or endangered species which could occur in the project area or be affected by the project. On April 24, 1998, FHWA submitted a BA that addressed potential effects of the Guanella Pass Road Improvement Project on these species. The BA concluded that the project would have no effect on any listed species. In a letter dated June 19, 1998, the Service concurred with this determination.

On July 8, 1998, the population of Canada lynx within the contiguous United States was proposed for listing as a threatened species under the ESA (FR 63; 130). In response to this listing, FHWA requested concurrence for a revised finding of "may affect, but not likely to adversely affect the lynx" for the On July 8, 1998, the population of Canada lynx within the contiguous United States was proposed for listing as a threatened species under the ESA (FR 63; 130). In response to this listing, FHWA requested concurrence for a revised finding of "may affect, but not likely to adversely affect the lynx" for the "build" alternatives on May 3, 1999. In response, the Service determined on August 10, 1999, that the build alternatives may adversely affect the lynx, based on information available at the time, and recommended that FHWA initiate formal Section 7 consultation if the lynx was listed as threatened or endangered.

Subsequently, FHWA identified a need for a new alternative (Alternative 6) for the project as a result of public input through the National Environmental Policy Act (NEPA) process. This alternative provides for repair of the road and addresses safety and road maintenance concerns with minimal road improvements that would occur primarily on the existing road platform. Design standards for rural local roads would be utilized under Alternative 6 which reduce the design speed and provide for sharper roadway curves and a narrower roadway width than any of the build alternatives previously analyzed in the 1998 BA.

On March 24, 2000, the Service published the final rule listing the contiguous United States distinct population segment of the Canada lynx as threatened. On April 5, 2001, representatives from the FHWA and the Service met in Glenwood Springs to discuss the Guanella Pass Road improvement project and potential effects of the project on the lynx. On November 27, 2001, representatives of the FHWA and the U.S. Forest Service (USFS) met with the Service to inspect the project site and review activities proposed under Alternative 6. At that time, the Service also provided guidance concerning the content of this BA.

During the consultation process, it was recognized that FHWA lacks the authority to address indirect adverse effects related to management of parking areas after completion of the project. Although all impacts to the Canada lynx have been appropriately addressed within FHWA's BA for this project, specific reasonable and prudent measures, to minimize take, cannot be appropriately administered through this biological opinion. Management of parking areas falls under the jurisdiction of the USFS, and specifically the Arapaho/Roosevelt, and the Pike and San

Isabel National Forests. Therefore, adverse effects related to continued management of the new parking area at the summit of Guanella Pass will be addressed by the Arapaho/Roosevelt National Forest, and shall be addressed by a separate action under USFS letterhead (Dennis Lowry, USFS, pers. comm.).

BIOLOGICAL OPINION

Background

Guanella Pass Road traverses 38 km (23.6 mi) of forest, shrubland, and alpine tundra habitat in the Front Range of the Rocky Mountains in north-central Colorado. Elevations along the road rise from approximately 2,615 m (8,600 feet) at Grant, Colorado, to 3,547 m (11,669 feet) at Guanella Pass, and then descend to 2,588 m (8,512 feet) at Georgetown, Colorado, which is at the northern terminus of the road.

The proposed project lies within the physiographic zone known as the Central Rocky Mountains and the biological zone known as the Ponderosa Pine-Douglas-fir Section of the Rocky Mountain Forest Province of the Dry Domain according to the USFS Ecoregions classification (USFS 1978). Life zones (Marr 1961) traversed by Guanella Pass Road include the following:

The Upper Montane Zone characterized by upland dominance of ponderosa pine (*Pinus ponderosa*), Douglas-fir (*Pseudotsuga menziesii*), limber pine (*Pinus flexilis*), and (in the southern Colorado Front Range, including Guanella Pass) Rocky Mountain bristlecone pine (*Pinus aristata*).

The Subalpine Zone characterized by the dominance of Engelmann spruce (*Picea engelmannii*) and subalpine fir (*Abies lasiocarpa*).

The Alpine Zone characterized by the dominance of elk sedge (*Kobresia myosuroides*) in turf communities found on moderately wind exposed upland sites, cushion plant and rock dominated communities on the wind blasted sites, and low willow (*Sailx planifolia* and *S. brachycarpa*), hairgrass (*Deschampsia caespitosa*) meadow, and small fens and ponds in relatively wind protected sites.

Disturbance (principally fire) has left large areas of high Upper Montane and Subalpine Zone dominated by lodgepole pine (*Pinus contorta*). Aspen (*Populus tremuloides*) woodlands occur on mesic upland sites. Wetlands occur in valleys along South Clear Creek, Duck Creek and Geneva Creek and are dominated primarily by willows (*Sailx* spp.), alders (*Alnus tenuifolia*), and river birch (*Betula fontinalis*). Colorado blue spruce (*Picea pungens*) and narrowleaf cottonwood (*Populus angustifolia*) are dominant species in forested wetlands.

The first 8 km (5 miles) of the road north of Grant, Colorado follows Geneva Creek (a tributary of the North Fork of the South Platte River), which flows south through a canyon bordered by

steep east- and west-facing slopes. Lodgepole pine, Douglas-fir, ponderosa pine, and bristlecone pine form stands that are interspersed with rock outcrops and cliffs. Cottonwood, blue spruce, and willow-alder-birch stands occur along the valley bottom adjacent to Geneva Creek.

At kilometer 8 (mile 5), the road passes through the lower elevational limit of the subalpine forest at an elevation of approximately 2,918 m (9,600 feet) as it crosses the south end of Geneva Park, an extensive rich fen wetland. The road follows the eastern edge of Geneva Park for approximately 3.2 km (2 miles) before climbing into the subalpine forest which is dominated by Engelmann spruce and subalpine fir. Between kilometer 11 and kilometer 18 (mile 7 and mile 11) the road traverses subalpine forest and willow shrublands along the Duck Creek drainage while climbing 426 m (1,400 feet) in elevation. Wet meadows (wet sedge-grass meadow complex, Marr 1961) occur intermixed with extensive willow shrublands between 3,100 and 3,162 m (10,200 and 10,400 feet) elevation. At kilometer 18 (mile 11) the road enters an ecotone formed by the upper limits of the subalpine forest, which is represented by interspersed stands of Engelmann spruce, subalpine fir, bristlecone pine, limber pine, spruce-fir krummholz, and alpine tundra.

The road traverses alpine tundra between kilometer 20 and kilometer 21 (mile 12.5 and mile 13), and reaches an elevation of 3,547 m (11,669 feet) at Guanella Pass, the drainage divide between the Geneva Creek watershed, to the south, and the South Clear Creek watershed, to the north. East of the road the tundra vegetation consists of a mosaic of willow shrubland (*Sailx planifolia*), wet sedge meadows (*Carex scopulorum*), and alpine avens meadows (*Acomastylis rossii*). The more wind exposed areas are covered by elk sedge turf. The road continues through the alpine tundra and then descends into the subalpine forest at kilometer 23 (mile 14), at an elevation of 3,465 m (11,400 feet). The road continues its descent through the subalpine forest to an elevation of 3,283 m (10,800 feet) at kilometer 24 (mile 15), at which point it reaches the South Clear Creek valley floor. Beyond this point the existing route parallels the valley floor, which supports a mosaic of sedge meadow and willow wetlands interspersed with beaver ponds and stream habitat.

The road crosses South Clear Creek at kilometer 27 and again at kilometer 28 (mile 16.8 and mile 17.1). From this point, the road continues along the west edge of the South Clear Creek valley between kilometer 29 and kilometer 32 (mile 18 and mile 20) while passing through an area of development which includes the Public Service Company of Colorado's Cabin Creek Hydro Power Generating Station, reservoir, and associated power lines; Clear Lake; and Green Lake. The Cabin Creek generating station is fenced with 3 m (7 feet) high chain link, and the road parallels approximately 300 m (1,000 feet) of this fencing.

The road traverses rock and talus fields and mixed stands of subalpine forest while descending along the west edge of the valley from elevation 2,979 m (9,800 feet) at kilometer 32 (mile 20) to elevation 2,614 m (8,600 feet) at kilometer 38 (mile 23.6), the northern end of the route at Georgetown, Colorado.

road platform, as well as transportation of gravel and/or asphalt from two material source and staging areas to specific segments where light reconstruction would take place. Guardrail is constructed in selected areas. Ditches and drainage structures (culverts) are repaired or replaced. Retaining walls are constructed in areas where cut and fill slopes are unstable and the recontoured slopes are revegetated to control erosion.

Full reconstruction involves construction outside the limits of the existing cut and fill slopes, regrading of the existing road platform, and hauling of fill and roadbase materials to specific areas undergoing improvements along the route. Resurfacing likewise involves extraction, transportation, and placement of fill and roadbase, regrading and compaction of the road platform, as well as transportation of gravel and/or asphalt from locations (to be determined) outside the project area to specific locations undergoing improvement along the route. Minor realignments involve removal of vegetation along the existing road, construction of a modified road platform, and resurfacing. Ditches and drainage structures (culverts) are repaired or replaced. Retaining walls are constructed in areas where cut and fill slopes are unstable, and the recontoured slopes are revegetated to control erosion.

The average width of new disturbance for full reconstruction is about 21 meters. For the 18 percent of the road that will receive this level of construction, the total disturbance amounts to about 14 ha (35 acres). Most of this will be new cut and fill slopes that will revegetate.

New parking areas are planned at Grant Byway Entrance (4+100), Duck Creek Winter Closure (12+300), and Naylor Lake Winter Closure (24+600). Expansion of existing parking areas is planned at Abyss Trailhead (9+400) and Silverdale/Georgetown Byway Entrance (35+800). At Guanella Pass Summit (21+800), two new parking areas are planned to replace the existing parking area.

<u>Parking Area</u>	<u>Total # of Spaces</u>	<u>Area of New Disturbance</u>	
Grant Byway Entrance	15	0.11 ha	(0.26 acre)
Duck Creek Winter Closure	30	0.19 ha	(0.47 acre)
Naylor Lake Winter Closure	35	0.23 ha	(0.56 acre)
Abyss Trailhead	45	0.38 ha	(0.93 acre)
Silverdale/GT Entrance	20	0.12 ha	(0.29 acre)
Guanella Pass	110	0.95 ha	(2.35 acre)

While the existing road is 48 percent paved and 52 percent gravel, the reconstructed road will be 68 percent paved and 32 percent either gravel or Macadam (Macadam uses asphalt cement to bind very coarse aggregate, which gives the road a rough appearance and feel). The decision to use a combination of roadway surfaces responds to concerns regarding erosion and sedimentation control, minimizing maintenance efforts and costs, and maintaining a rustic and rural character to the road.

Index of Interagency Correspondence

Agency	Sender	Date	General Subject
Clear Creek County	Clear Creek Board of County Commissioners	11/27/02	Cover letter for Statement of Concurrence
Colorado Division of Wildlife	Scott Hoover, Northeast Regional Manager	10/3/02 (including 3/23/2002 letter)	Comments on the FEIS
Colorado Historical Society	(Unintelligible) for Georgianna Contiguglia, State Historic Preservation Officer	10/21/02	Comments on the FEIS
Colorado Historical Society	Mark Wolfe for Georgianna Contiguglia, State Historic Preservation Officer	11/7/02	Withdraw one of the comments on the FEIS
Department of the Army, Corps of Engineers	Timothy T. Carey, Chief, Denver Regulatory Office	9/25/02	Comments on the FEIS
US Department of the Interior, Fish and Wildlife Service	Allan R. Pfister, Assistant Colorado Field Supervisor	11/26/02	Biological Opinion
US Department of the Interior, National Park Service	Lysa Wegman-French, Historian	11/18/02	GSPNHLD consultation
US Department of the Interior, National Park Service	Cheryl Eckhardt, NEPA/106 Specialist	Undated (received 11/26/02)	Comments on the FEIS
US Environmental Protection Agency	(Unintelligible) for Cynthia Cody, Director, NEPA Program	11/27/02	Comments on the FEIS

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US Environmental Protection Agency	(Unintelligible) for Cynthia Cody, Director, NEPA Program	11/27/02	Comments on the FEIS



Clear Creek County

POST OFFICE BOX 2000
GEORGETOWN, COLORADO 80444

TELEPHONE: (303) 569-3251 • (303) 679-2300

November 27, 2002

John Knowles
FHWA
555 Zang Street, Room 259
Lakewood, CO 80228

Dear John:

Clear Creek County is pleased to submit our "Statement of Concurrence" for the Guanella Pass Road Improvement Project. After many long years of effort on behalf of this road, we believe this project is ready for a Record of Decision. Throughout the public process leading us to this point we have heard much debate regarding the level of work that will be performed and the effects that the work will have on the environment and on the character and use of the road. While we acknowledge these concerns, we believe that the road design reflected in the FEIS is appropriate for Guanella Pass and we truly appreciate the compromises that have been made by each of the partners and the accommodations that have been made by the FHWA's design team.

Clear Creek County remains sensitive to the issues raised in our public hearings. We desire to stay involved in the final design issues identified in the FEIS — particularly those related to parking lot design and location, and visual impacts of the road and its related structures. In addition, we desire to continue working with our partners to develop and implement policies that will support the appropriate management of the vehicles and visitors on this Scenic Byway and on the public lands served by the road.

Thank you and we look forward to working with you in the future.

Sincerely,

CLEAR CREEK BOARD OF COUNTY COMMISSIONERS

Fabyan Watrous, Chairman

Jo Ann Sorensen, Commissioner

Robert J. Poirot, Commissioner

cc: Park County Board of County Commissioners
Town of Georgetown Board of Selectmen
U.S. Forest Service, Donna Mickley and Dan Lovato

STATE OF COLORADO
Bill Owens, Governor
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WILDLIFE
AN EQUAL OPPORTUNITY EMPLOYER

Russell George, Director
6060 Broadway
Denver, Colorado 80216
Telephone: (303) 297-1192



*For Wildlife-
For People*



October 3, 2002

Mr. Richard Cushing
Environmental Planning Engineer
Federal Highways Administration
Central Federal Lands Highway Division
Attn: Environment (CO-80)
555 Zang Street – Room 259
Lakewood, CO 80228

RE: Guanella Pass FEIS

Dear Mr. Cushing:

Our staff has reviewed the document and we have the following comments.

The Colorado Division of Wildlife (CDOW) wrote a letter dated March 23, 2002 with our comments of the Preliminary FEIS. This letter was not included in the Appendix A of the FEIS (Interagency Correspondence), and we want to be certain that this letter was received by your agency. A copy of the original letter is enclosed for your review.

Comments expressed in the 3/23/02 letter and previous letters still apply and are not restated here unless they specifically apply to the current document.

We feel that the preferred alternative is the least damaging to wildlife habitat and populations of wildlife in the immediate area. While some areas will be extensively reconstructed there remain areas that will not be significantly altered. We understand and appreciate the efforts to reduce encroachment of the road into the stream. Additionally, we appreciate the efforts to avoid impacts to the greatest extent possible.

While the preferred alternative will serve to minimize habitat impacts, it is likely that there will still be some impacts to the surrounding landscape. As the project proceeds, we ask that you consult with our staff, particularly concerning boreal toad issues. We would like to work closely with you to be sure that the construction minimizes impacts to these important habitats.

The Guanella Pass area is very important wintering habitat for white-tailed ptarmigan, especially areas of willow carrs. It is important that both the willow stands be protected from disturbance as much as possible and that human use of the area be controlled from mid-November to mid-April. The EIS

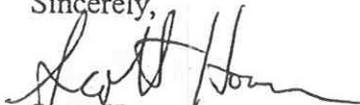
DEPARTMENT OF NATURAL RESOURCES, Greg E. Walcher, Executive Director
WILDLIFE COMMISSION, Rick Enstrom, Chair • Robert Shoemaker, Vice-Chair • Marianna Raftopoulos, Secretary
Members, Bernard Black • Tom Burke • Jeffrey Crawford • Philip James • Brad Phelps • Olive Valdez
Ex-Officio Members, Greg E. Walcher and Don Ament

commits to a biological survey of the entrance roads to the parking lots but not to the lots themselves. We suggest that planning for this vicinity be coordinated with our staff to assure that the future of ptarmigan in the area is reasonable considered.

One of our major points in a letter that was dated 12/22/2000 was the identification of five specific areas of concern regarding retaining walls serving as barriers to wildlife movement. While the FEIS does not address these specific locations you do commit to coordinating with both US Fish and Wildlife service and CDOW throughout this process. We would be glad to assist with this aspect. Creating a retaining wall that serves the desired engineering purpose while at the same time allowing for free movement of wildlife is of high priority to the CDOW. Please also refer to that letter for specific design and timing recommendations.

We hope that these comments are helpful. If you have questions, please contact Habitat Biologist Eric Odell at 303-659-7004, ext 116.

Sincerely,



Scott Hoover

Northeast Regional Manager
Colorado Division of Wildlife

cc: Eric Odell, Habitat Biologist
Mindy Clark, Aquatic Biologist
Ron Oehlkers, DWM
Anne Mangusso, DWM
Karen Hardesty, Watchable Wildlife

STATE OF COLORADO
Bill Owens, Governor
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WILDLIFE

AN EQUAL OPPORTUNITY EMPLOYER

Russell George, Director
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Telephone: (303) 297-1192



*For Wildlife-
For People*

March 23, 2002

Jennifer Corwin
Federal Highway Administration
555 Zang Street Mail Room 259
Lakewood, CO 80228

RE: Guanella Pass Preliminary Final Environmental Impact Statement

Dear Ms Corwin:

Our staff has reviewed this document and we have the following comments:

General Comments

One of the concerns we expressed in earlier comment letters was that aggressive improvement of the Guanella Pass road might encourage very high levels of human use and encroachment into this relatively undisturbed zone, resulting in negative impacts to wildlife populations and "fragmentation" of the area. The preferred alternative as described in this document seems to fairly successfully meet this concern in that it both calls for significant portions of the road to remain unpaved and minimizes widening and other "improvements" which would make the road more inviting to large numbers of people.

Another major concern was the impact of road widening on nearby streams, wetlands, riparian areas, and boreal toad habitat. The preferred alternative serves to minimize these impacts although it doesn't totally eliminate them. As the project proceeds we ask that you consult with our staff on these issues, especially regarding boreal toad impacts. We would like to work closely with you to assure that construction work does as little damage as possible to these important habitats.

We accept the statement that winter closure of the road is not a decision for the Federal Highway Administration, but wish to again point out that several species of wildlife would benefit from a lack of disturbance in this area during the winter. Additionally, the salt and sand used to keep roads passable during the winter would clearly have some negative effect on stream environments.

The measures proposed to avoid introduction of noxious weeds due to project activity appear to be excellent and are very important.

Specific Comments

Page II-21 – Guanella Pass Parking Lots – The Guanella Pass area is very important wintering habitat for white-tailed ptarmigan, especially areas of willow. It is important both that willow stands be protected from disturbance as much as possible and that human use of the area be controlled during the period from mid-November to mid-April. The EIS commits to a biological survey of the entrance roads to the parking lot, but not the parking lots themselves. We suggest that planning for this vicinity be coordinated with our staff to assure that the future of ptarmigan in the area is reasonably considered.

Page II-45 – Realignment of the Road – From the standpoint of not disturbing currently undisturbed habitats, the proposal to avoid any re-alignment of the road seems positive.

Page II-51 – Major Stream Crossings - The measures proposed here to maintain the integrity of the streams are excellent.

Page II-52 – Guardrail Design – From a wildlife passage standpoint, guardrails which allow small wildlife to pass under them would be preferable to those which form a complete barrier. This would be more of an issue if the guardrail were lengthy.

Page III-53 – Wetlands – A question: recent changes in interpretation of the Clean Water Act (Section 404) have removed protection from some wetlands which formerly were covered under the Act. Do Federal Highway Administration policies require reasonable mitigation for all wetlands to be impacted, or only for those currently protected by the Corps of Engineers?

Page III-93 – Last Paragraph – We are pleased to see that the preferred alternative serves to minimize direct impacts to wildlife habitats adjacent to the roadway.

Page III-103 – Guanella Pass Parking Lot – As mentioned above, potential impacts to wintering ptarmigan from impacts to willow habitat are an important issue.

Page IV-2 – Wetland Mitigation – The DEIS does not deal with the specifics of wetland impacts and mitigation, leaving that for the 404 Permit process. That is reasonable to us and we will evaluate the mitigation proposals at that time.

Page IV – 4 – Flora/Fauna Mitigation – In general, these proposed mitigation measures seem appropriate and valuable.

Page IV – 4 – Flora/Fauna Mitigation – The measure to encourage reduced vehicle speeds is important from the standpoint of reducing animal/vehicle collisions.

Page IV – 4 – Flora/Fauna Mitigation – The emphasis on avoiding impacts to white-tailed ptarmigan is important and appreciated!

Page IV – 4 – Flora/Fauna Mitigation – Only a brief mention (next to last bullet statement) is made of the issue of retaining walls serving as barriers to movement by wildlife. This was one of the major points in our letter of December 22, 2000, in which we identified 5 specific areas of concern. We would have expected that these specific areas would have been addressed in considerable detail in this document, but they are not. Did the changes in the preferred alternative (less widening, etc.) reduce the need for extensive lengths of vertical retaining walls? Allow for more or larger gaps in them? We request a complete analysis of this subject in the final version of the EIS.

We hope these comments are helpful – if you have any questions please contact Habitat Biologist Dave Weber at (303)291-7231.

Sincerely,



Scott Hoover
Regional Manager

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After construction, traffic at Guanella Pass is projected in the BA to increase 88 percent above the 1995 traffic volumes by the year 2025. This can be compared to the no-action EIS alternative, for which the traffic is projected to increase by 56 percent over the same period. Traffic volume (weekend summer seasonal average daily traffic) under the build alternative in 2025 is projected to be 640 vehicles per day near Duck Lake and 1,295 vehicles per day just north of the Pass.

The existing road is not fenced, and the reconstructed road will not be fenced. Standard "W"-beam guardrail will be used as warranted for safety (approximately 5 percent of the route plus on top of retaining walls). Retaining walls will be installed along approximately 14 percent of the route. Solid guardwall, a visually preferable alternative to w-beam either made of stone or faced with stone, will be used in some locations within the Georgetown town limits.

For purposes of this analysis it has been assumed that a construction crew of ten to thirty workers would be engaged in on-site construction during the construction season. The workers would arrive at the site in private vehicles. A centralized base of operations would be established. Standard earth moving and resurfacing equipment would be used by the construction crew. This equipment would include: Track mounted dozers, loaders, compactors, dump trucks, pickup trucks, hot asphalt resurfacing equipment, field laboratories and field offices. Construction equipment would be equipped with standard noise abatement devices in compliance with applicable county or local codes.

Due to the length of the project corridor and limited available funding, construction would require four construction seasons, which could take place over four calendar years (2004-2007). The high altitude of the corridor limits the length of the construction season. The maximum construction season would be mid-May through October. The altitude of the construction area would be an influential variable, with higher altitude areas having shorter construction seasons. The majority of construction activities would take place during daylight hours and would necessitate some road closures.

A more complete discussion of the scope of the improvements proposed under Alternative 6 is presented in the Preliminary EIS, Guanella Pass Road (FHWA 2002). Copies of this document have been provided to the Grand Junction and Lakewood offices of the Service.

Status of the Species

Species/ Habitat Description

The Canada lynx is a "medium-sized" felid that occupies mesic coniferous and mixed deciduous/coniferous forests of North America. It is a highly specialized carnivore adapted to life in forested habitats where persistent snowy conditions occur.

Lynx habitat in the Western U.S. consists primarily of two forest types which support foraging and denning. Foraging and denning habitats must be linked by "travel cover" that allows movement of lynx within their home ranges (Koehler and Aubry 1994). Studies of lynx movement patterns indicate that lynx tend to avoid large areas of open terrain where forest and shrub cover are absent. Lynx move freely through forested terrain and utilize ridges, saddles, and riparian areas as movement corridors (Koehler 1990, Staples 1995).

Home range size varies depending on season, gender, prey abundance, and density of lynx population (Squires and Laurion 2000; Apps 2000; Aubry et al. 2000; Mowat et al. 2000). Lynx maintain mostly exclusive intrasexual territories based on social intolerance and mutual avoidance (Mowat et al. 2000). In a Montana study, annual home ranges averaged 220 km² for males and 90 km² for females (Squires 2000). Seasonal home ranges for males were 127 km² in winter and 125 km² in summer. For females, seasonal home ranges were 51 km² in winter and 42 km² in summer. The average mean home range size for 23 studies in southern boreal forests was 151 km² for males and 72 km² for females (Aubry et al. 2000).

Early successional forests are preferred foraging habitat for lynx where they hunt snowshoe hares (*Lepus americanus*), their principal prey. Fire, insect infestations, wind, forest disease, and timber harvest create successional stages in subalpine forests, which provide optimal habitat for snowshoe hares.

Lynx have been shown to hunt along the edges of mature forested stands and within dense riparian willow stands (Kesterson 1998, Staples 1995, Major 1989). Willow/alder carrs, riparian shrubland - beaver pond mosaics, and associated ecotones provide habitats where lynx prey may be relatively concentrated and abundant (Ruediger et al. 2000).

In Colorado, subalpine fir, Engelmann spruce, and Douglas-fir are most frequently used by snowshoe hares (Dolbeer and Clark 1975, Wolfe et al. 1982) and are most likely to support lynx. Pine squirrels (*Tamiasciurus hudsonicus*), grouse (*Denragapus* spp.), ptarmigan (*Lagopus* spp.), and ground squirrels (*Spermophilus* spp.) have also been identified as alternative prey for lynx in the Rocky Mountain region (Ruediger et al. 2000).

Benches, plateaus, valleys and gently rolling ridgetops appear to be preferred by lynx (Apps 2000, McKelvey et al. 2000p, Kohler and Aubry 1994.) Late successional forest stands containing abundant coarse woody debris (deadfalls and root wads) are preferred for denning (Koehler and Aubry 1994). Late successional spruce-fir forests may also provide important habitat for stable, low density populations of prey (Ruediger et al. 2000). Denning habitat must occur in close proximity to foraging habitat to be functional. Denning habitat must also be present in sufficient quantity throughout the home range of a female lynx during the period when kittens are being reared to provide protection from predators (Ruediger et al. 2000).

Lynx are generally considered to be nocturnal-crepuscular, however recent evidence from radio telemetry studies suggests that lynx are also active during daylight hours (Roe et al. 1999).

Home ranges of lynx are highly variable in size and are generally significantly larger (more than twice the area) in the Southern Rocky Mountains than in the northern portions of lynx habitat (Ruediger et al. 2000).

On April 23, 1994, the Service was petitioned to list the conterminous U.S. population of the Canada lynx under the ESA. On December 27, 1994, the Service published notice of 12-month petition finding which concluded that listing the Canada lynx was not warranted (FR 59:247,66507-66509). Subsequently, the Service determined that the Canada lynx in the contiguous U.S. constitutes a distinct population segment under the ESA and found that listing this population segment is warranted but precluded by work on other species having higher priority for listing (FR 62:101, 28654-28657). This decision was remanded as a result of legal action, and on July 8, 1998, the population of Canada lynx within the contiguous United States was proposed for listing as a threatened species under the ESA (FR 63; 130). On March 24, 2000, the Service published the final rule listing the contiguous U.S. Distinct Population Segment of the Canada lynx as threatened.

No critical habitat has been designated for the threatened population of Canada lynx in the contiguous U.S. As explained in the Final Rule, designation of critical habitat is prudent, but has been deferred until other higher priority work can be completed within the current budget.

The Colorado Wildlife Commission has designated the Canada lynx as a state endangered species (CDOW Regulations Chapter 10, Article II, Endangered Wildlife).

Environmental Baseline

Status of Lynx Within the Action Area

Lynx were historically found in the subalpine spruce-fir forest in Colorado (Cary 1911) and may have been relatively common until the early 1900s (Ruediger et al. 2000). The Colorado Division of Wildlife (CDOW) released 96 lynx during 1999-2000 in an attempt to reestablish a viable lynx population in the state. As of August 24, 2002, 53 of 96 lynx released by the Colorado Division of Wildlife are thought to be alive (CDOW website, August 24, 2002).

There is some evidence that lynx habitat in the Guanella Pass area was occupied prior to the reintroduction of lynx to Colorado. During the 1960's, snowshoe hares were relatively abundant in the Guanella Pass area. During this period CDOW received reports of "large cats" scavenging in trash dumpsters at the Geneva Basin Ski Area (Halfpenny, 1995). In 1972, one lynx was trapped in Clear Creek County near the mouth of Daisy Gulch, east of Bakerville and South of I-70. Lynx detection efforts conducted during 1978-1980 (CDOW 1980) indicated that lynx were present in the Fryingpan River drainage (Eagle and Pitkin Counties), the Vail area (Eagle County), southeast of Leadville (Lake County), and the Guanella Pass area (Park and Clear Creek Counties). A total of eight sets of lynx tracks and 28 sets of snowshoe hare tracks were found in the West Chicago Creek drainage (immediately east of the Guanella Pass Road) during the

CDOW state-wide lynx detection effort (CDOW 1980). This record is listed as a "B" (probable) sighting in the CDOW database. In the mid to late 1980's, snowshoe hares were still commonly encountered along Guanella Pass Road between Guanella Pass Campground and Duck Lake, where as many as 30 could be seen during a single winter morning traverse of this area (Cannady, 1996).

The Colorado Division of Wildlife's lynx reintroduction program was responsible for releasing 19 males and 22 females in 1999 in southern Colorado. In 2000, an additional 20 males and 35 females were released. All were tracked using radio collars. Currently, 43 of the reintroduced lynx are known to be dead, 34 are still being tracked, and the remainder are missing (CDOW website, August 24, 2002). There has been no evidence of reproduction within the Colorado lynx population.

Two of the introduced lynx traveled to sites in Clear Creek County where they were killed. One lynx occupied the Guanella Pass area and apparently was killed by a bobcat during the Winter of 1999-2000 (Shenk, pers. comm. 2000). A second animal was killed on I-70 near the Bakerville Exit (Broderdorp, pers. comm. 2001), approximately 15 km (9 miles) from Guanella Pass. During the summer of 2001, a third lynx traveled to the Guanella Pass area via an unknown route from the south. This animal moved through the Guanella Pass area from north of the pass, south, en route to the Collegiate Peaks (Wait, pers. comm. 2001). Based on this information it is apparent that habitat for lynx is present in the project area and is, at least periodically, occupied.

Factors Affecting Species within the Action Area

Snowshoe hares persist at low density in the Guanella Pass area as evidenced by signs encountered during limited field surveys conducted in support of the biological assessment. Habitat suitability for lynx and their principal prey, the snowshoe hare, in the project area has been negatively affected by fire suppression and the absence of logging during the recent past. Creation of early successional stands of coniferous forest has been suppressed as a result of these forest management practices and the capacity of the area to support snowshoe hares and lynx has consequently been limited. Windthrow (trees uprooted by wind) and forest disease are natural forces that result in early successional forest stands (and higher habitat suitability for lynx) in at least some locations of the project area.

Potentially suitable lynx foraging and denning habitat in the Guanella Pass Road corridor has been mapped by the USFS. In the area north of Guanella Pass, the USFS has identified essentially all forested areas within the South Fork of Clear Creek valley as potentially suitable lynx foraging habitat. The majority of subalpine forest stands in this valley were mapped as potentially suitable denning habitat. Hence, virtually all forested areas of the road corridor north of Guanella Pass have been identified by the USFS as potentially suitable denning or foraging habitat. Lynx habitat mapped by the USFS south of Guanella Pass includes potential foraging and denning habitats in subalpine and upper montane forest stands. The pattern of lynx habitat mapped south of Guanella Pass suggests a patchy distribution of suitable habitat. The suitability

of upper montane forest stands along Geneva Creek that are mapped as suitable habitat is questionable considering patterns of snow accumulation, limited prey availability possibly due to the presence of bobcats (*Felis rufus*), coyotes (*Canis latrans*), and mountain lions (*Felis concolor*).

Lynx habitat in the Southern Rocky Mountains is generally believed to be composed of fragmented patches of subalpine coniferous and mixed aspen-conifer forest which typically occur as elevational bands on the flanks of mountain ranges and are connected to varying degrees by lower elevation forest and shrub habitats (Ruediger et al. 2000). It is likely that lynx habitat within the project area occurs in a similar pattern and consists of islands of habitat potentially capable of supporting foraging and denning. Areas of potentially suitable habitat are connected to varying degrees by stands of forest and shrublands which are not currently capable of supporting lynx. Stands of subalpine forest, riparian shrublands and wetland mosaics in the upper reaches of the Duck Creek and South Clear Creek drainages provide the best habitat quality for lynx in the project area. This conclusion is based upon the topography and the continuity of older growth subalpine forest and extensive riparian shrubland cover that exists in this area. The presence of coarse woody material on the forest floor and a habitat mosaic of forest, riparian shrublands, and abundant ecotonal habitats provides potential denning habitat in close proximity to foraging habitats where lynx prey are relatively abundant.

Factors Affecting Baseline Condition

The Guanella Pass area, including the project area, has been identified as an essential movement corridor for lynx. Movement of lynx through the pass is essential for the long-term viability of the Colorado lynx population, due to the low lynx population density and that lynx may be required to make extensive movements in order to find mates for breeding. Movement of lynx across the landscape must be maintained in order for there to be genetic exchange between animals that have dispersed across the Colorado landscape.

Highways can alter landscapes by fragmenting large tracts of land, some of which were previously homogenous habitats. Highways typically follow natural features such as lakes, rivers, and valleys that may have high habitat value for lynx. As the standard of road increases from gravel to two-lane highways, traffic volumes increase (Ruediger et al. 2000).

Interspecific competition with bobcats, coyotes, and mountain lions is a significant risk factor for lynx throughout the project area. Competition for prey and predation on lynx by bobcat or mountain lion are undoubtedly significant factors for lynx in the project area. As previously mentioned, one of the lynx translocated to Colorado apparently was killed by a bobcat in the Guanella Pass area during the winter of 1999-2000 (Shenk, pers. comm. 2000).

Information currently available suggests that lynx do not avoid forest roads and backcountry roads (Ruggiero et al. 2000). A recent study of radio collared lynx in British Columbia, Canada indicated that lynx cross major highways more frequently than previous investigations had

indicated; however, high traffic volumes on interstate highways and paved 2-lane roads impeded lynx movements (Apps 2000). However, (Ruediger et al. 2000) has identified highways as a contributing factor affecting movement of lynx through and across landscapes. Highway mortality was identified as the principal limiting factor for lynx translocated to New York (Brocke et al. 1990, Brocke et al. 1992). Factors including the patchiness of suitable habitat and limited prey availability may result in larger home range size, necessitating more frequent movements across roads in southern Rocky Mountain habitats. Translocated lynx in search of suitable habitat, prey, and mates may be more susceptible to mortality on highways than resident animals.

Highway mortality is a significant risk factor for lynx throughout the State of Colorado. As of August, 2002, the CDOW reported that six of the lynx reintroduced into Colorado have been killed on highways (CDOW website). Two of these mortalities occurred on I-70; one near the Bakerville Exit in Clear Creek County and another in the Vail Pass area. One lynx was killed on Wolf Creek Pass (U.S. Highway 160), and a fourth lynx was killed on Red Mountain Pass (U.S. Highway 550), the two remaining road kills occurred near Durango Mountain Resort on Highway 550, and one in New Mexico. Site characteristics (road geometry, posted speed limits, surrounding topography and vegetation cover) at locations where these mortalities occurred are highly variable (Wait, pers. comm. 2001). However, each of these roads are paved and maximum vehicle speeds range between 72-112 km/hr (45-70 miles/hour).

The geometry of the existing road, and road surface conditions in areas identified as potential lynx habitat, are factors which, based on observations noted in the field, encourage most drivers to limit vehicle speeds to 16-56 km/hr (10-35 miles/hour). The probability of a collision between a vehicle moving at these speeds with a lynx crossing Guanella Pass Road is expected to be much lower than the probability of lynx mortality on a high-speed road. Traffic volume research suggests that 2,000 to 3,000 vehicles per day may be a threshold above which adverse effects may be anticipated (Rudiger, 2001). The existing traffic volume is 340 vehicles per day at Duck Lake and 690 vehicles just north of the pass (weekend seasonal average daily traffic). These low traffic volumes, combined with relatively low vehicle speeds, suggest that effects of current traffic levels on the lynx are minimal.

The existing road has only one short section of guardrail and no retaining wall that would impede lynx movement. The Cabin Creek generating station is fenced with 3m (7 foot) high chain link, and the road parallels approximately 300 m (1,000 feet) of this fencing. The fencing is adjacent to mapped foraging habitat at approximately station 31+000; however, the steep slopes on the west side of the road and the lake itself may act as barriers, potentially inhibiting movement in this area. There is no other fencing along the road; the road itself is not fenced.

Reservoirs adjacent to the existing road may create barriers to movement in some areas. The north end of the Georgetown Reservoir is at a potential lynx crossing area. Green Lake, Clear Lake, and Lower Cabin Creek Reservoir are close enough together to theoretically be a continuous barrier to lynx movement. There is mapped foraging habitat on both sides of all three

of these lakes, and denning habitat to the east of Green Lake and Clear Lake. This barrier effect is responsible for the mapped lynx conceptual movement pattern (assumed by FHWA) along the east side of the existing road and the lack of mapped potential lynx crossing areas in this vicinity.

The effects of year around recreation are a significant risk factor for lynx in higher elevations of the project area. Snow shoeing and nordic skiing are popular activities throughout the subalpine forest and willow shrublands in the Guanella Pass area. A network of trails is created by backcountry recreationists resulting in compaction of snow which provides coyotes, bobcats, and mountain lions access to prey in potential lynx habitat. Concentrated winter recreational activities in the subalpine meadows and forest in the Guanella Pass area also alter habitat suitability for white-tailed ptarmigan (*Lagopus leucurus*), which may be an important alternative prey for lynx. The potential for interspecific competition and lynx mortality as a result of competition for prey or as a result of bobcat or mountain lion predation is increased during winter as a result of these recreational activities.

Dispersed summer recreation may also be a risk factor for lynx in the project area during the denning season (May-July). Backcountry hiking has been identified as a disturbance that may cause lynx to relocate during the denning season (Ruggiero et al. 2000b). Suitable denning habitat for lynx is patchy and limited in the Guanella Pass area; therefore, recreational disturbance during the denning season may be a potentially important factor affecting lynx habitat suitability.

At Guanella Pass summit, existing parking areas on the east side of the road, covering 1.04 acre, accommodate 200 to 250 vehicles on peak weekends. This is a popular parking area for hikers and others dispersing into the backcountry for recreation. This activity could be disturbing to lynx because the willow shrublands and surrounding edge habitats in the vicinity of the parking area may provide travel cover and foraging habitat for lynx.

Movements of translocated lynx in Colorado as determined by radio telemetry indicate that lynx are successfully crossing interstate highways and other roads as they disperse from release sites (Ruediger et al. 2000, Wait, pers. comm. 2001). Lynx have been found to travel along roadways within 15 m (50 feet) of roads where adequate "travel cover" is present on both sides of the road (Koehler and Brittell 1990). Coniferous or deciduous vegetation greater than 2 m (6.5 feet) in height with a closed canopy, adjacent to foraging habitats, is considered suitable as travel cover for lynx (Brittell et al. 1989, Koehler and Aubry 1994). Closed canopy forest and shrub cover exists adjacent to Guanella Pass Road in many areas of the subalpine zone and may facilitate passage of lynx across the road.

Although most of the property along the Guanella Pass Road is owned by the Federal Government and managed by the USFS, there are some tracts of private property along the route, including the Gordon Ranch near Grant, private property at Duck Lake (Alpendorf on the Lake), and the private property at Green Lake. The only likely development, however, is on the southwest corner of Duck Lake, where a forty acre tract has been subdivided and three

one-acre lots have been sold. There is also an area just north of Georgetown Reservoir where the road goes through land owned by several entities. This area is mapped as a potential lynx movement corridor. Many small private parcels are interspersed with land owned by Clear Creek County, the Colorado State Historic Society, Georgetown, and Historic Georgetown. There are no known plans to develop in this area.

Recreational use of lands accessed from the road may adversely affect habitat suitability for lynx in the Guanella Pass vicinity. Along the entire route, there are five campgrounds, three picnic areas, and four trailheads, with a combined total of 179 parking spaces. Unregulated and poorly defined parking along the road extends the area of potential disturbance from recreational activities. The largest parking facility along the route is located at Guanella Pass, where trails lead to Mt. Bierstadt and Mt. Evans. There is parking for about 75 vehicles at Guanella Pass; however, 200 or more vehicles park in and around this area on peak summer weekends. The mapped lynx movement pattern is west of this parking area, and dispersion of recreation activity is toward the east. The Abyss Trailhead parking area, just south of Burning Bear Campground (approximately station 9+500), has about 20 parked vehicles on a typical summer Saturday. Hikers follow the trail westerly along Scott Gomer Creek, which is mapped as being a potential lynx movement corridor. This could potentially be used for access to denning and summer foraging habitat, but is not part of the major north-south potential movement corridor. Other parking areas are not within mapped habitat; however, Geneva Creek Picnic Area (5 parking spaces) is adjacent to habitat mapped as denning and summer and winter foraging.

Factors Limiting Risk in Baseline Conditions

A factor that may limit the potential for lynx mortality on Guanella Pass road is the diurnal traffic pattern. While lynx are generally considered to be most active during the dusk-dawn period, monitoring of lynx in British Columbia, Canada indicated that lynx movements were not restricted to the dusk-dawn period (Apps 2000). However, the potential for collisions between lynx and vehicles on Guanella Pass Road is limited during darkness, due to the low number of vehicles that travel through lynx habitat. Traffic studies conducted on Guanella Pass Road during 1995 indicated that the number of vehicles traveling the road during darkness could vary from approximately 3 percent of the total trips recorded south of Georgetown to less than 1 percent of the total trips recorded at Guanella Pass, based on the month to month, 1995 period when traffic was monitored (M K Centennial 1995a).

Winter conditions on Guanella Pass Road also limit traffic and vehicle speeds and may limit the potential for lynx vehicle collisions. At the present time, Park County plows the road from U.S. Highway 285 to a point approximately 11.5 km (7.1 miles) north of Grant. Clear Creek County conducts winter maintenance on the road from Georgetown to the county line after all other county maintained roads are cleared. An avalanche area exists in the subalpine forest north of Guanella Pass and it is periodically cleared of deep snow using explosives. Wind frequently re-deposits drifted snow on the road in open areas following winter maintenance activities. Consequently, the road is effectively closed to traffic following heavy snows.

Effects of the Proposed Action

Beneficial Effects

The proposed project will limit parking to specified areas along the route. This will reduce impacts to vegetation along the road and discourage recreational use in sensitive areas.

Parking at the summit on the east side of the road would be limited to 50 vehicles. The number of people using the east side trail system would be reduced from 170 people to 75-100 people. Total parking at the summit is proposed to accommodate 110 vehicles, a reduction from the approximately 200 to 250 vehicles that park at one time during peak weekends or aspen viewing periods. This is dependent on the successful implementation of the permit system proposed by the USFS for the east side parking lot (Lowry, USFS, pers. comm.).

Direct Effects

As noted under the project description, three different levels of construction are proposed; rehabilitation (within the limits of the existing surface and ditch, 64 percent), light reconstruction (within the existing roadway's cut and fill slopes, 18 percent), and full reconstruction (outside of the existing roadway's cut and fill slopes, 18 percent). Only 18 percent of the route will have work done outside of the existing disturbed roadway prism. The areas where full reconstruction is proposed total 6.9 km (4.3 miles) in length, and the resulting areas of disturbance, based on an average 21 m (69 feet) full reconstruction clearing width, are listed below.

<u>Stations</u>	<u>Length in Mapped Habitat</u>	<u>Area of Disturbance</u>
8+100-9+140	Not in mapped habitat	
16+140-19+140	0.25 km (.16 miles) in foraging/denning	0.53 ha (1.3 acres)
19+440-19+530	Not in mapped habitat	
24+480-25+360	0.88 km (.55 miles) (all) within foraging/denning	1.85 ha (4.6 acres)
25+700-27+560	1.9 km (1.18 miles) (all) within foraging	4.00 ha (9.9 acres)
"	0.7 km (.44 miles) within denning	1.47 ha (3.6 acres)

Although these areas make up a very small amount of available habitat in the immediate vicinity of the road, removal of cover adjacent to the highway may discourage lynx from approaching the road. Direct effects to habitat are not likely to impede lynx movement or otherwise adversely affect the lynx.

Borrow extraction and hauling operations during construction of the road will generate noise and will result in increased traffic on segments of the road throughout the construction period. The Geneva Basin borrow site is not within mapped lynx habitat. The borrow site near Duck Lake is at the east boundary of mapped denning and foraging habitat. It is also in the vicinity of the potential lynx crossing area just south of Duck Lake. Approximately 75,000 cubic meters (100,000 cubic yards) of material would be excavated and crushed at the site during April

through mid-November. Some blasting may be necessary. FHWA estimates that 7,000-9,000 dump truck round trips would be necessary to haul materials from this site to road reconstruction work areas. It is anticipated that these activities will occur for approximately four years. Lynx would likely avoid this area during periods of heavy equipment operation; however, since work at the borrow site will be restricted to daylight hours, it is not likely to result in lynx mortality or exclusion of lynx from the area.

New or expanded parking areas are proposed at Grant Byway Entrance (4+100), Abyss Trailhead (9+400), Duck Creek Winter Closure (12+300), Guanella Pass Summit (21+800), Naylor Lake Winter Closure (24+600), and Silverdale/Georgetown Byway Entrance (35+800). Of these, only the Naylor Lake Winter Closure is within mapped lynx habitat. This proposed parking area would remove 0.23 ha (0.56 acre) of spruce-fir forest in an area mapped as foraging and denning habitat. This loss, although small constitutes an incremental permanent loss of this habitat type.

Direct effects from loss of habitat at proposed parking areas are expected to be insignificant at Guanella Pass summit. The proposed summit parking areas and associated facilities would remove approximately 2.35 acres of alpine turf with scattered willows. The parking facilities would not affect habitat that is most likely used by lynx. The tall, contiguous willow fields are avoided and, therefore, cover for travel and potential foraging habitat by lynx would not be directly impacted by construction or presence of the parking lots. Accordingly, the probable routes of lynx movement and habitat for potential prey species would remain intact (Lowry and Bohon 2002).

Retaining walls will be installed along approximately 14 percent of the route (not including walls within the Georgetown town limits). Field inspection of areas where retaining walls would be constructed suggests that the potential for lynx movement across the road may be affected at three locations: the Green Lake area between stations 33+500 and 34+500, the area south of Naylor Creek and north of Guanella Pass between stations 22+000 and 25+000, and the area south of Duck Lake, between stations 16+500 and 18+500. However, at various locations within these areas, there are gaps in the walls which would allow lynx passage. A 3-foot high wall is probably easily scalable under normal circumstances and is considered passable. Retaining walls locations and gaps in these areas are shown in Table 1 of the BA.

The worst case situation is where the wall just south of Duck Lake has only a short gap between two relatively long segments, 370 m (1,210 feet) and 550 m (1,800 feet) in length. The significance of impairment to lynx movement caused by retaining walls in this area is difficult to predict, however, some limitation of movement should be expected.

Including retaining wall areas, guardrail will be used on approximately 19 percent of the route (14 percent on top of retaining walls). Except within the town limits of Georgetown, the railing will be "W"-beam on posts, which is about 1 m (3 feet) high and has about a 0.5 m (1.5 feet) gap between the rail and the ground. During snow free periods, this type of guardrail should allow animals to easily see traffic on the roadway through the guardrail. Snow piled up over the guard

rails from accumulation of snow removal and natural snowfall will overtop the guardrails. Horizontal distance between the back of the railing and the top of the wall is approximately 5 feet. During snow free periods, this should provide an area where lynx could pause, before proceeding over or under the railing. During winter periods, snow buildup between the guard rail and retaining walls may produce barriers to movement. For the 5 percent of the route that will have guardrail positioned at the top of construction fill slopes, the slopes are not steep enough to present difficulty or hazard to lynx movement. Within the town limits of Georgetown, guardwalls may be used for aesthetic purposes. Since these are solid walls, they would prevent views of the road from behind them. However, they would be used only on the switchbacks above Georgetown, ending well below the potential lynx crossing area, and well north of mapped habitat.

Interrelated and Interdependent Actions

The proposed 60-site parking area on the west side of the pass would be about 700 feet from a willow field that most likely provides for lynx movement over the pass. An existing trail crosses this willow field and a non-system trail parallels it and enters forested habitat north of the pass. On an average summer weekend day, it is estimated that the number of people using the west-side trail system would increase from 15 people to 60-90 people. This level of use is likely to increase over time. Some nighttime human activity (e.g., camping, overnight recreational vehicle use) may be expected. In these uncommon instances, the increased human activity associated with the proposed project may alter the behavior of lynx attempting to cross the pass, and result in the reduction in the quality of foraging habitat.

The Abyss Trailhead parking area (9+500) will be increased in size, and it is estimated that about 34 vehicles will use it on a typical summer Saturday in 2025, compared to the 20 vehicles that are currently found on a typical summer Saturday. Hikers will follow the trail westerly along Scott Gomer Creek, which is mapped as being a potential lynx movement corridor. This could potentially be used for access to denning and summer foraging habitat, but is not part of the major north-south potential movement corridor. The effects of this trailhead reconstruction will likely be minor.

A new parking area, the Naylor Lake Winter Closure, is proposed at station 24+500. This area would be used by recreationists if the road is closed in winter. The parking area would accommodate 35 vehicles, and would include a kiosk and restrooms. This parking area is within mapped denning and foraging habitat, and within a mapped potential lynx crossing area. This crossing area is about 3 km (1.8 miles) long, and another crossing area about 0.8 km (0.5 miles) to the north is about 2.2 km (1.4 miles) long. Since there are adequate alternative crossing locations in the immediate vicinity, and the number of parking spaces is small, it is unlikely that use of this new parking area would adversely affect the ability of the lynx to travel through the area.

It should be recognized that FHWA has no authority over management of parking areas, campgrounds, picnic areas and other recreation based infrastructure. Indirect effects discussed in this biological opinion will occur as a result of the proposed action, however, the Service recognizes the inability of FHWA to implement measure to minimize take as a result of those indirect effects. Ultimate authority for management of recreation and associated infrastructure falls to the USFS. The USFS has agreed to submit a proposed action for management of infrastructure to minimize the indirect effects of the Guanella Pass Project (Lowry, pers. comm.)

Indirect Effects

The design speed for Alternative 6 would be between 30-50 km/hr (20-30 miles per hour). Although the design speed for the reconstructed roadway is the same as the current posted speed, planned road improvements including widening of the road surface, improvements to the vertical profile, grade, and road surface will likely result in increased vehicle speeds through potentially suitable lynx habitat, at least at some points within the corridor.

The projected increase in traffic volume at Guanella Pass in 2025 is 88 percent above 1995 traffic volumes. Traffic volume (weekend summer seasonal average daily traffic) under the build alternative in 2025 is projected to be 640 vehicles per day near Duck Lake and 1,295 vehicles per day just north of Guanella Pass (existing volumes are 340 and 690, respectively, and the no-build alternative 2025 traffic would be 530 and 1080). Increased human activity in and near the road corridor can be expected to result in avoidance of some areas by lynx. As a result of the magnitude of increased traffic and potentially increased vehicle speeds, the probability of lynx-vehicle encounters will increase, as will the potential for lynx mortality.

A Draft Programmatic Consultation Agreement between the Service, Colorado Department of Transportation (CDOT), and FHWA recognizes the potential for adverse effects on lynx as a result of highway projects that cause increased traffic volumes and vehicle speeds (CDOT n.d. [not referenced]). On April 5, 2001, the Service provided guidance to FHWA concerning the effects of projects causing increased traffic volumes or speeds. Specific guidance concerning thresholds of traffic volume or vehicle speed above which the potential for lynx-vehicle collisions is considered to reach a level that would result in an "adverse effect" is not available. The Service believes that any project which results in increased traffic volume or speed, will result in an increased likelihood of take.

Ruediger et al. (2000) reports that definitive information concerning levels of vehicle traffic above which lynx dispersal and mortality are affected is not available. Research in Canada suggests that highway traffic volumes of 2,000-3,000 vehicles per day may be a threshold above which adverse effects may be anticipated. Paved highways and nighttime traffic are factors that may create impediments to lynx movements (Ruediger et al. 2000). Clearly, many factors contribute to potential adverse effects of highways on lynx including vehicle speed, topography, and vegetative cover characteristics adjacent to roads.

The wider footprint of the road could promote higher traffic speeds and higher traffic volumes, increasing the existing barrier effect of the highway and thereby further fragmenting habitat. It is known that some highways are not barriers or significant mortality factors for carnivores. These highways generally have low traffic volume and long pauses between traffic pulses. They are also two-lane roads, often with minimal clearing distances (Ruediger 2001). Some researchers suspect that fragmentation due to traffic volume increases at approximately 2,000 to 3,000 vehicles per day and becomes a serious problem at 4,000 vehicles per day (Ruediger 2001). Since traffic volume (weekend summer seasonal average daily traffic) under the build alternative in 2025 is projected to be about 640 vehicles per day near Duck Lake and 1,295 vehicles per day just north of the Pass, traffic volume may not cause serious adverse effects. However, at present the Service does not consider the population of lynx in the action area to be self-sustaining. The Lynx Conservation Assessment and Strategy (LCAS) (Ruediger, et al. 2000) states that direct mortality from vehicular collisions may be detrimental to small lynx population in the lower 48 states. Brocke et al. 1993 suggests that, in the White Mountain National Forest in New Hampshire, extirpation of lynx resulted from three primary factors; trapping, loss of habitat, and losses from highway mortality. The model used suggested that trapping alone would not have accounted for the loss of lynx in New Hampshire. Since trapping is not authorized, and habitat loss does not appear to have affected reintroduced lynx in the Guanella Pass area, increased mortality resulting from collisions between lynx and vehicles on Guanella Pass Road due to increased traffic volume or speeds, above no-action levels, are likely to result in adverse effects to lynx within the action area.

Indirect effects are also likely to result from increased use of the area by recreationists. If recreation were to increase in proportion to traffic, there would be an 88 percent increase over 1995 levels by 2025 (a 20 percent increase over the no-action alternative). This may be somewhat offset by the roadway design, which would discourage parking except in designated areas. The use of guardrail, pullouts, and formalized parking areas help to control the amount of recreational use in undefined or undesirable areas. Effects are also limited because recreational activity normally takes place during daylight hours.

Human use associated with parking at Guanella Pass summit during the winter, assuming the road and both parking lots are kept open, is expected to impact lynx habitat in the vicinity. Human use is expected to remain about the same during winter on the east side of the road due to limited parking; however, use will increase on the west side due to establishment of the 60-site parking lot. The new lot on the west side, located over 300 yards to the west of the existing parking area, will encourage more over-the-snow recreation to the west, north, and south of the parking lot, resulting in increased snow compaction throughout west-side willow fields. The significance to lynx is that other carnivore predators would be allowed access over compacted snow and would compete with lynx for prey species (e.g., coyotes) and possibly prey on lynx (e.g., mountain lions). Similarly, increases of other predators throughout the alpine willow fields would reduce the potential for lynx foraging, and increase the vulnerability of lynx to becoming prey to larger predators. Wintering ptarmigan may abandon approximately seven acres of habitat adjacent to the proposed parking lot and trail corridors, reducing foraging opportunities for lynx. These effects are estimated to decrease the ability for lynx to survive in the area.

Similar to the function of the Naylor Lake Winter Closure parking area on the north side of Guanella Pass, the proposed new Duck Creek Winter Closure parking area at station 12+300 would be used by recreationists on the south side of the Pass if the road is closed in winter. The parking area will accommodate 30 vehicles. It is located at the edge of potential denning habitat and about 1 km (0.6 miles) south of a mapped potential lynx crossing area. As with the other winter closure parking area, it is unlikely that use of this parking area would adversely affect the ability of lynx to travel through the area. Other parking areas are not within mapped habitat.

Winter closure has been discussed by representatives from local governments and land management agencies. It has not been determined whether the road will be closed by administrative action during the winter. Clear Creek and Park Counties and the USFS all have management responsibilities. The counties cannot commit in a meaningful way to closing the road to general public use during the winter because the next board of commissioners could rescind the decision. If the road were not closed, the two winter closure parking areas would probably receive little use. If the road is closed, there would likely be a net benefit to lynx through less overall disturbance over a substantial portion of the road.

Very little is known about how lynx move through the Guanella Pass area. Increased human activity may fragment a home range or reduce the incidence and success of lynx dispersal. Until more information is available, it is clear that the proposed project does not benefit the movement of lynx, and that it makes an incremental contribution toward the degradation of this essential movement corridor.

Cumulative Effects

Cumulative effects include the effects of future State, tribal, local, or private actions that are reasonably certain to occur within the action area. Generally, road improvements can contribute to the cumulative effects of human population growth on wildlife and wildlife habitats due to upgrading of roads and highways. These impacts include direct habitat loss, direct mortality, displacement and avoidance of areas affected by increased traffic and human presence, and habitat fragmentation. For species that occupy large home ranges and occur at low density (e.g., lynx) these impacts are likely to be relatively more severe since maintenance of populations of these species necessitates that individuals must cross highways (Ruediger 1996). In addition to direct impacts within the road corridor, displacement, avoidance, and habitat fragmentation may occur as an indirect result of increased human access to backcountry areas which are reached from the Guanella Pass Road.

Forty acres of the private property at Duck Lake (Alpendorf on the Lake) has been subdivided into one-acre parcels, and three of these have been sold. Sale of additional parcels, as well as development on parcels that have been sold, could occur without the project; however, the area would likely be more attractive to many buyers if the road was improved. This property is located just north of a potential lynx crossing area and adjacent to an area mapped as potential denning habitat and potential winter and summer foraging habitat.

The potential lynx crossing location just North of Georgetown Reservoir goes through land owned by several entities. Several small private parcels are interspersed with land owned by Clear Creek County, the Colorado State Historic Society, Georgetown, and Historic Georgetown. There are no known plans to develop the properties in this area, and the project will not increase the desirability of development in this area since it is already accessed by the paved portion of the road.

No other improvements to private property are anticipated as a result of roadway improvement. No additional development at either the Tumbling River Ranch or the private property at Green Lake is reasonably certain to occur; on the contrary, it seems reasonably likely not to occur. Access to Green Lake is already provided by a paved portion of the road, and the Tumbling River Ranch owners are opposed to development.

No additional cumulative effects are identifiable at this time. Long range planning to address anticipated increased traffic volumes on I- 70, immediately north of the project area is underway. The outcomes of this planning effort can not be predicted at this time. Effects of upgrades to I- 70 on lynx would be a separate Federal action, and not cumulative considering the effects of the proposed action.

Conclusion

This biological opinion is based on information regarding direct, indirect, and cumulative effects, conditions forming the environmental baseline, the status of the lynx, and the importance of the project area to the survival and recovery of the species. The data used in this biological opinion constitute the best scientific and commercial information currently available.

After reviewing the current status of the Canada lynx, the environmental baseline for the action area, the effects of the proposed action and the cumulative effects, it is the Service's biological opinion that the proposed action is not likely to jeopardize the continued existence of the Canada lynx. No Critical habitat has been designated for this species, therefore, none will be affected.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act and Federal regulations pursuant to 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or attempt to engage in any such conduct. Harm is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering. Harass is defined by the Service as intentional or negligent actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of otherwise lawful activity. Under

the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with the terms and conditions of this Incidental Take Statement.

The measures described below are non-discretionary, and must be undertaken by the FHWA so that they become binding conditions of any project approval issued to CDOT for the exemption in section 7(o)(2) to apply. The FHWA has the continuing duty to regulate the activity covered by this incidental take statement. If the FHWA fails to assume and implement the terms and conditions of the incidental take statement through enforceable terms that are added to the project approval, the protective coverage of section 7(o)(2) may lapse. In order to monitor the impact of incidental take, FHWA must report the progress of the action or its impact on the species to the Service as specified in the incidental take statement.

Amount or Extent of Take anticipated

The Service anticipates that the take (non-lethal) of Canada lynx could result from permanent loss or modification of essential habitat features and function, or by highway modifications that significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, and sheltering. The Service does not anticipate that the proposed action will result in the mortality of an individual lynx.

Habitat loss and modification will result from permanent timber removal for the new footprint of the highway and its clear zone. Such habitat modification could alter or remove habitat essential to the denning or security of lynx using the area, or remove or reduce essential food resources, thereby constituting a potential take. Highway improvements associated with the proposed project are likely to restrict lynx movement by increasing the barrier effect of the highway through increased width, increased speed, use of retaining walls, and an increase in habitat fragmentation. Habitat modifications of this type may adversely affect individuals in the project area by restricting movement within a home range and may adversely affect individuals in the action area by hindering or preventing dispersal through the Guanella Pass area, thus affecting movement across the landscape for dispersal of young and for breeding.

The Service anticipates that one Canada lynx may be taken as a result of the loss or deterioration of essential habitat elements through modification of habitat or by human use of the area (non-lethal), as analyzed in this opinion. We recognize that both resident and dispersing lynx could use the area and that we may not be able to distinguish between them; therefore, non-lethal take of only one individual is authorized, regardless of whether that individual is a resident of the Lynx Analysis Unit (LAU) or just passing through.

Effect of the Take

In the accompanying biological opinion, the Service has determined that this level of anticipated take is not likely to result in jeopardy to the species. Take of Canada lynx resulting in death or injury is not authorized to this project.

Reasonable and Prudent Measures

The Service believes that the following reasonable and prudent measures are necessary and appropriate to minimize impacts of incidental take of the lynx:

1. The FHWA shall maximize vegetation adjacent to the road in potential lynx crossing areas.
2. The FHWA shall minimize construction activities that create barriers for lynx movement.
3. The FHWA shall design the road to minimize barriers for lynx movement.
4. The FHWA shall coordinate with the USFS in implementing measures to minimize adverse effects resulting from indirect effects of the proposed action.

Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the Act, the FHWA must comply with the following terms and conditions, which implement the reasonable and prudent measures described above and outline required reporting/ monitoring. These terms and conditions are non-discretionary.

- 1a. Maintain the existing forest cover along the road between Guanella Pass Campground and Geneva Park to the maximum extent possible. This segment of the road corridor is where lynx were historically known to occur and transects the area where the probability of lynx crossing the road between the Mount Evans Wilderness Area and National Forest lands to the west of the road is highest.
- 1b. In coordination with the USFS, develop slope stabilization and revegetation specifications to reestablish tree and shrub cover as close to the reconstructed road as is consistent with site characteristics and safety.
- 2a. Prohibit parking lot construction activity at Guanella Pass during dawn, dusk, and nighttime hours.
- 2b. Limit borrow site activity to daylight hours.
- 3a. Design the road to prevent parking in undesignated locations.

- 3b. Use guardrail type and materials that do not impede sight of the road from the shoulder for animals. This may be excepted within the limits of the Town of Georgetown, where solid walls (guardwalls) are proposed for aesthetic reasons.
- 3c. Design retaining wall sections with a bench between the guardrail and the edge of the wall so that an animal can pause before proceeding.
- 3d. Evaluate proposed retaining walls during final design to minimize the length of continuous walls higher than 1 m (3 feet) in potential lynx crossing areas. In coordination with the Service, CDOW, and the USFS, hold field inspections of locations at which retaining walls are planned near potential lynx crossing areas, and use this data to develop site specific input to the final design. Emphasis should be placed on locations such as 17+870 and 23+560, where only short gaps are currently planned between relatively long sections of retaining wall (BA Table 1).
- 3e. Contour and revegetate borrow sites.
- 3f. If a lynx is killed in the project area, the FHWA shall, within 24 hours, notify the appropriate State Service law enforcement office (303) 274-3560, and assist in making arrangements to transport the carcass to the appropriate State, Federal, or Tribal Wildlife agency so that biological information can be collected. The CDOW should also be contacted at (970) 472-4310.
4. Adverse effects will result from secondary effects of the new parking area on the west side of Guanella Pass Summit. FHWA shall work with USFS in identifying and implementing measures to minimize the likelihood of secondary adverse effects. These measures may take the form of gates, signage, or what ever practicable measures are necessary to preclude use of the new parking area during winter months

The reasonable and prudent measures, with their implementing terms and conditions, are designed to minimize the impact of incidental take that might otherwise result from the proposed action. If, this level of incidental take is exceeded, or if an injury or mortality occurs as a result of a collision with a vehicle, such incidental take represents new information that may require reinitiation of consultation and review of the reasonable and prudent measures provided. The Federal agency must immediately provide an explanation of the causes of the taking and review with the Service the need for possible modification of the reasonable and prudent measures.

Conservation Recommendations

Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

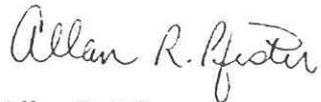
Little is known about lynx movements in relation to human activities and structures, including highways. FHWA should work with the CDOW, the Service and other agencies in attempting to learn more about lynx behavior within the Southern Rockies. On-going studies are being conducted to learn more about lynx movements, however those studies are hampered by minimal funding. FHWA should also contribute resources, where appropriate, to facilitate a better understanding about lynx movements in Colorado, especially in relation to the Federal highway systems.

Reinitiation Notice

This concludes formal consultation on proposed Federal actions related to the proposed highway improvements. As required by 50 CFR 402.16, reinitiation of formal consultation is required if (1) the amount or extent of incidental take is exceeded, (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion, (3) the agency action is subsequently modified in a manner that causes an adverse effect to the listed species or critical habitat that was not considered in this opinion, (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where incidental take exceeds the authorized, any operations causing such take must cease pending reinitiation.

If the Service can be of further assistance, please contact Kurt Broderdorp of my staff at (970) 245-3920, extension 24.

Sincerely,



Allan R. Pfister
Assistant Colorado Field Supervisor

cc: FWS/ES, Lakewood
FS/RO, Denver (Attn: Nancy Warren)
FS/Arapaho & Roosevelt NF, Fort Collins (Attn: Dennis Lowry)
FS/Pike & San Isabel NF, Pueblo (Attn: Nancy Ryke)
CDOW, Durango (Attn: Scott Wait)

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United States Department of the Interior

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INTERMOUNTAIN REGION

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Denver, Colorado 80225-0287

IN REPLY REFER TO:

H3417 (IMDE-CNR) NHL

John Knowles
Project Manager
Federal Highway Administration
Central Federal Lands Highway Division
555 Zang Street, Mail Room 259
Lakewood, Colorado 80220

NOV 18 2002



Re: Adverse Effect on Georgetown-Silver Plume National Historic Landmark District, Colorado
Forest Highway 80, Guanella Pass Road

Dear Mr. Knowles:

Thank you for your letter advising us of an adverse finding for the Georgetown-Silver Plume National Historic Landmark District, per 36 CFR Part 800.10 (c). Upon review of your material we have decided that our participation in the consultation regarding this adverse effect is not needed. We encourage you to continue negotiations with the Colorado State Historic Preservation Office.

We do, however, have some observations. At the time of the Final Environmental Impact Statement, your agency indicated that it was pursuing the implementation of a haul route that would require the construction of a permanent bridge over Clear Creek on Seventh Street. We note that the letter regarding adverse effect does not address the construction of that bridge, and instead discusses only the construction of an alternate temporary bypass bridge near the second switchback. If you are still pursuing the permanent bridge, we recommend including it in your compliance negotiations.

Per your proposal in item 5 (Applicability of Criteria of Adverse Effect) your agency plans to mitigate visual impacts via a treatment plan. In the future, you may find it helpful to refer to the enclosed *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*.

We appreciate your commitment to the preservation of our Nation's historic resources. If you have any questions, please feel free to contact me at Lysa_wegman-french@nps.gov or at 303-969-2842.

Sincerely,

Lysa Wegman-French, Historian
Heritage Partnerships

enclosure

cc:

Dan Corson, Colorado SHPO



United States Department of the Interior

NATIONAL PARK SERVICE
INTERMOUNTAIN REGION

12795 West Alameda Parkway
PO Box 25287
Denver, Colorado 80225-0287



IN REPLY REFER TO:
H3417 (IMDE-CNR) NHL

John Knowles
Project Manager
Federal Highway Administration
Central Federal Lands Highway Division
555 Zang Street, Mail Room 259
Lakewood, Colorado 80220

Re: Colorado Forest Highway 80, Guanella Pass Road, FHWA-FPCO-EIS-99-01-F

Dear Mr. Knowles:

Thank you for providing the opportunity to comment on the Final Environmental Impact Statement (FEIS) for the proposed project on Guanella Pass Road. Overall, we appreciate the research and coordination that you have conducted with other agencies and the public, particularly concerning historic, ethnographic, recreation, and Section 4(f) resources. These resources, in addition to the natural setting and social environment, make the project area unique, and the National Park Service supports preservation of such areas.

Following our review of the FEIS, Alternative 6 appears to reduce the extent and intensity of impacts to cultural and recreation resources. Compared to Alternatives 2 through 5, the Alternative 6 switchbacks consist of a narrower roadway width, smaller curve radii, shorter retaining walls, and minimized reconstruction. Because these roadway features will minimize impacts to cultural and recreation resources, we support Alternative 6 in comparison to the other alternatives presented in the FEIS.

Our understanding is that the project will have an adverse effect to the Georgetown-Silver Plume National Historic Landmark district (GSPNHL) primarily because of visual impacts to the historic setting. In addition, the Colorado State Historic Preservation Office (SHPO) has determined that construction of the Georgetown temporary bypass bridge would result in adverse effects to both the GSPNHL and the Colorado Central Railroad. However, the FEIS indicates that FHWA is pursuing the implementation of the alternate haul route suggested by the town of Georgetown, which would prevent the adverse effect on the Colorado Central Railroad Grade. The proposed haul route would instead include the construction of a permanent bridge across Clear Creek at Seventh Street. We did not see a discussion of effects that the proposed permanent bridge construction would have on the GSPNHL. We appreciate that you have contacted the Advisory Council on Historic Preservation (ACHP) regarding the adverse effects

to the GSPNHL, and assume that you will continue coordination with SHPO and ACHP to prepare a Memorandum of Agreement that defines a treatment plan for any historic properties that are adversely affected by this project.

We appreciate that you have conducted an ethnographic survey and coordinated with affiliated Native American groups. As stated in the FEIS, the project will not impact any resources of Native American interest; however, some Native American groups have expressed concern regarding potential disturbance of cultural sites resulting from improved access. To help alleviate these concerns, we encourage continued coordination with any interested parties, including Native American groups, through final design and construction.

The FEIS contains a thorough inventory of recreation resources and Section 4(f) properties. Although improvements to some of the recreation resources will diminish, in part, the rustic character of these areas, we support improvements that will enhance the usability, safety, and continuance of recreation opportunities. We also encourage appropriate signage of the corridor, not to exceed what is needed for safety and interpretation of the area.

We appreciate your commitment to the preservation of our Nation's cultural and recreation resources. If you have any questions, please feel free to contact me at 303.969.2851 or Lysa Wegman-French at 303.969.2842.

Sincerely,

A handwritten signature in black ink, appearing to read 'Cheryl Eckhardt', written over a horizontal line.

Cheryl Eckhardt
NEPA/106 Specialist

cc: Lysa Wegman-French, NPS
Dan Corson, Colorado SHPO
Files



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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November 27, 2002

Ref: 8EPR-N

Mr. Richard Cushing
Central Federal Lands
Highway Division (HFHD-16)
Federal Highway Administration
555 Zang Street, Suite 259
Lakewood, CO 80228



Re: Guanella Pass Road, Colorado Forest Hwy. 80
FEIS Review - 20435

Dear Mr. Cushing:

In accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, the Region 8 Office of the Environmental Protection Agency (EPA) has reviewed the *Final Supplemental Environmental Impact Statement (FEIS) for the Colorado Forest Highway 80, Guanella Pass Road*, dated September 2002.

The EPA is pleased that the Central Federal Lands Highway Division (CFLHD) has selected Alternative 6 (analyzed in the DSEIS) as the preferred alternative in the FEIS. Alternative 6 has fewer environmental impacts than the other action alternatives because of a reduction in the proposed pavement and a reduction in sections of roads that will be fully reconstructed.

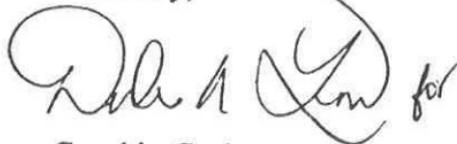
We also want to thank the Central Lands for the additional information provided in the FEIS in response to EPA's DEIS and DSEIS comments (e.g., additional information provided on the new 303(d) listed stream segments and erosion control).

Although the preferred alternative is an improvement over the other action alternatives, EPA remains concerned about wetlands protection, soil erosion and habitat for wildlife species such as the boreal toads. In particular, the mitigation plans described in Chapter IV of the FEIS are written to allow substantial latitude in the level of mitigation that will be implemented. For example on the bottom of page IV-6, drift fences will be evaluated to determine if they could be used to encourage toads to cross the road through culverts or tunnels. We recommend that the Record of Decision more fully specify mitigation measures and the process by which mitigation will be monitored and modified as necessary. Also as discussed previously during site visits, the potential use of the wetlands mitigation bank should not be considered due to the availability of on-site mitigation opportunities.

The EPA appreciated the opportunity to participate in the NEPA review process for this project, and we thank you for providing opportunity to our staff to look at various wetland impacts and potential mitigation sites during a field trip in June 2002.

If you have any questions or want to discuss these comments, please contact Dana Allen at (303) 312-6870 or Sarah Fowler with wetland questions at (303) 312-6192.

Sincerely,

A handwritten signature in black ink, appearing to read "Cynthia Cody" with a stylized flourish at the end.

Cynthia Cody
Director, NEPA Program
Office of Ecosystems Protection
and Remediation