APPENDIX B

AGENCY AND STAKEHOLDER COORDINATION

FOR THE

State Highway 9 Iron Springs Alignment Environmental Assessment

COLORADO DEPARTMENT OF TRANSPORTATION

FEDERAL HIGHWAY ADMINISTRATION

April 2014

INDEX OF CORRESPONDENCE/COORDINATION ACTIVITIES

STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION

Region 1 Mountain Residency
P.O. Box 399
Dumont, CO 80435
(303) 512-5600
Fax (303) 512-5675

Meeting: SH 9 Potential Iron Springs Alignment- Stakeholders

Date/Time: Friday, April 27, 2012/9:00 AM
Location: Buffalo Mountain Room, Summit County Commons

Invitees:

Peter Kozinski	Program Engineer (CDOT)
Grant Anderson	Resident Engineer (CDOT)
Marc Morton	Environmental (CDOT)
Tyler Weldon	Mountain Residency (CDOT)
Chuck Attardo	Environmental (CDOT)
James Eussen	Environmental (CDOT)
Woody Bates	Summit K-12
Tom Roode	Denver Water
Lesley McWhirter	US Army Corps of Engineers
Sarah Fowler	EPA
Tom Daugherty	Town of Breckenridge
Shannon Schwab	Colorado DOW
Sean Shephard	Colorado DOW
Bill Efting	Town of Frisco Manager
Paul Semmer	US Forest Service
Rick Oshloe	Summit Biking Board
John Bowyer	Summit Biking Board
Leigh Girvin	Director CDLT (Continental Divide Land Trust)
Thad Noll	Summit County Assistant Manager
MJ Griffin	Summit County
Robert Jacobs	Summit County Engineer
Brad Eckert	Summit County Trails
Brian Lorch	Summit County Open Space and Trails Director/CDLT Board Member
Jim Curnutte	Summit County Community Development

See attached Sign-In Sheet for Attendees

STATE OF COLORADO

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Sign In Sheet

	Name	Organization	Phone Number	Email
1	TERRY J. KRYSHAK	CDLT	970-409-0081	BIKE2SKI@GMAIL.COM
2	JOHN M. BOWYER	SUMMIT BIKING	970 513-0610	BIKEBRECK@YAHOO.COM
3	PETER KOZINSKI	CDOT	720-505-0245	
4	SEAN SHEPHERD	CPW	970-485-2922	SEAN.SHEPHERD@STATE.CO.US
5	Jim Cornotte	Summit County	970-668-4203	JimC@co.Summit.co.us
6	Leigh Girvin	Continental Divide Land Trust	453 3875	director@cdlt.org
7	Thad Noll	Summit City	453-3438	
8	TYLER WELDON	CDOT MTN RES	303 512 5682	tyler.weldon@dot.state.co.us

9	Tom Daugherty	Breckenridge.	970-453-3175	tomd@townofbreckenridge.com
10	Woody Bates	Summit Sch	970-368-1052	wbates@summit.K12.co.us
11	Chuck Attardo	CDOT	3-859-9535	chuck.Attardo@dotstate.co.us
12	Jim Eussen	CDOT	3-365-7041	james.eussen@dot.state
13	Marc Morton	CDOT	720.497.6972	marc.morton@dot.state.co.us
14	Tim Mack	Frisco	970,668.9150	timm@townoffrisco.com
15	Greg East	Denver Water	303-838-5921	greg.east@Denverwater.org
16	Lesley McWhirter	USACE	970-243-1199 x.17	lesley.a.mcwhirter@usace.army.mil
17	Shannon Schwab	CPW	970-485-3081	shannon.schwab@state.co.us
18	Sarah Fowler	EPA	303-312-6912	fowler.sarah@epa.gov
19	Paul Semmer	USFS	970-262-3448	psemmer@fs.fed.us
20	Brian Lorch	Summit County	970-668-4067	Brianl@co.summit.co.us
21				
22				

The meeting began with introductions. Most stakeholders are aware of the 2004 ROD that was completed for the corridor. The Leslie's curve area was planned to be widened in its existing location, and has many constraints in that area. Grant described the constraints: Dillon Reservoir, CDLT Conservation Easement, 4(f) areas, 6(f) areas, USFS access, FEN wetlands and adjacent accesses.

The group was provided several handouts (attached) which include Aerial views, photo simulations of the Iron Springs concept, plan view "sketch", and summary pages from the original EIS.

All of the EIS information is available on-line as well if stakeholders would like to review the existing documentation in the area.

The EPA (Sarah) asked, what is driving the project? Peter explained that we want to complete design (though not currently funded) of the 4 lane highway between Frisco and Breckenridge, and that the Iron Springs alignment had been proposed by Summit County (even though it didn't make it through original alignment screening) due to changing conditions and apparent opportunities.

There has not been a thorough analysis of the Iron Springs idea, and CDOT is trying to gain a better understanding of how the community views this concept before investing in additional NEPA work for the change in alignment from the EIS Preferred Alternative (existing alignment).

Grant described the idea in more detail. The concept will be to essentially "swap" the bikepath alignment through the Iron Springs area with the SH 9 roadway area adjacent to the reservoir. This would include two grade separated crossings for the path, that could also accommodate wildlife. The access to the Dickey Day use area would need to be determined later, if a decision is made to move forward with this idea. (see attached concept graphics).

This generated a lot of discussion of Pros and Cons of the idea with the group, summarized as follows:

Agency/Group	**Pros**	**Cons**
CDOT	• Build "off" line • Bikepath "easier" to build • Potential to avoid EIS impacts: 4(f), Wetlands, Dillon Placer Mine • Opportunity for Animal crossings • Stormwater "easier" to build into the project • Avoid long length of median Ty. 7 Barrier- safer • Ops and Maintenance of a shorter roadway • Construction cost savings? • Overall Safer	• Conservation Easement exists • ROD is complete, we could build what is approved without a lot more study =>Lose view of Reservoir
CDLT		• Conservation Easement exists

CDLT (continued)	Pros	Cons
	• Open Space opportunity?	• Open Space • Conflicts with Easement goals
Summit Biking	• Safer Path alignment at Dillon Placer Mine area • Recreation continuity around the Reservoir • Tourists may like this better	• Loss of "forest" type of path, locals like existing path
USFS/Dickey Day Use	• Could improve the area with the right treatments, plan	• May not be as good?
CDW (Colorado Division of Wildlife)	• Potential for animal crossing	• New alignment in elk winter range, reduces the winter range
"Environment" in general	• No impact to Dillon Placer mine- history • Wetlands less impacted ? • Restoration site/wetland mitigation site 1 potentially better	• Loss of habitat • Potential for wetlands on new alignment
School District	• Safer Alignment	• Can't address intersection at Swan Mtn. road that is already complete
Land Access (to Iron Springs Road- currently closed to motor vehicle-except for maintenance vehicles)	• Miner's Creek road could still provide access to Iron Springs Road	• Loss of access road near Antler House
Town of Frisco	• Less 4(f) take on peninsula side • Bike crossing at hospital signal could be eliminated	• Town put money into conservation easement • Cost Impact?

The general discussion regarding pros and cons was that for every pro, there could be a con or vice-versa so maybe a better way to look at this would be if there are new opportunities for enhancement of the areas in question, highlight those going forward.

The group was asked to summarize their thoughts in general, as this will help CDOT make a decision on whether to move forward with the NEPA work needed.

Specifically, the group would like to know if FEN impacts are at or better than what was shown in the EIS originally, sooner than later. Grant described how the idea would be to use cantilevered roadway

and retaining walls to keep the disturbance inside the existing disturbed area at the FEN. More design would need to be done to confirm these possibilities.

A temporary bike path during construction will be a key issue for the group.

Town of Breckenridge thinks this idea is safer, and that safety should bear a lot of weight in the process.

Denver Water could support this idea as it appears to protect the water supply better from highway spills.

Summit County supports the idea

CDLT could support this if there are environmental benefits realized and commitments are made.

The Forest Service could support the idea if it is based on a long term vision that improves the entire area.

CDOT is mainly concerned with Safety and Mobility as the goals of the four lane design.

Chuck Attardo described conversations with FHWA and that we would like to have support in trying to minimize the effort needed to revise the NEPA documentation (streamline) and avoid a more costly process if possible.

Next Steps:

The same type of information presented today will be presented at a Public Open House for the Silverthorne Interchange feasibility on June 13th from 5 to 7pm at the Silverthorne Pavilion.

We would like this group to meet again mid-summer of 2012. Grant to follow up. CDOT wants to make a decision on the direction of this process in the near future, with the hopes of beginning required evaluations (field work) this summer if possible.

- Approximately 610 meters (2,000 feet) north of Gateway drive to approximately 183 meters (600 feet) south of milepost 92—roadway alignment shifts east by approximately 15.3 meters (50 feet) to avoid the steep hillside and impacting the retaining wall along the base of the bikeway on the west side of SH 9.
- Dickey Drive—roadway alignment shifts east 15.3 meters (50 feet) to maintain the frontage road that ties into Swan Mountain Road and to tie into the geometrically constrained area around Swan Mountain Road, the fen areas, and Leslie's Curve.
- Theobold's—roadway alignment shifts west 15.3 meters (50 feet) to maintain the frontage road that ties into Swan Mountain Road and to tie into the geometrically constrained area around Swan Mountain Road, the fen areas, and Leslie's Curve.
- Along fen (north of milepost 93)—roadway alignment shifts east 23 meters (75 feet) to avoid impacting the larger fen (on the west side of SH 9) and to flatten out the curve.
- Leslie's Curve (milepost 94)—roadway alignment shifts west 6.1 to 21.2 meters (20 to 70 feet) to avoid impacting Dillon Reservoir and improve safe driving speed around the curve.

1.4.2 INTERSECTIONS

Intersection design and driveway access considerations will need to be further developed during the final design process. Intersection improvements may warrant additional signals. Installation of signalization is based upon traffic volume meeting *Manual on Uniform Traffic Control Devices* (MUTCD) warrants and will be determined by CDOT Region 1.

Most intersections along SH 9 will be reconfigured to add turn lanes and acceleration and deceleration lanes, and will be updated with signage, signals and lighting per CDOT design standards (see **Figure 1-6**). Turn lanes with acceleration/deceleration lanes are provided at intersections to allow traffic to enter and exit SH 9 more safely. **At full-movement intersections, seven lanes of pavement will be designed to accommodate acceleration and deceleration lanes on both sides and left-turn lanes in the center.** **Table 1-1** provides detail about turn-lane, acceleration/deceleration lanes and signal improvements planned at specific intersections from north to south. All required turn lanes at intersections will be improved to meet current roadway design standards per the CDOT *Standard Specifications for Road and Bridge Construction.*

Region 1. Exact location of additional signals will be determined during final design and based on traffic volume levels at that time.

In addition, ongoing development in the study area may result in requests for new access points or modifications of existing access points that are different than shown in this document. For example, a new hospital development is being considered that would access SH 9 near milepost 95 (Crown Point). This and all future access requests will be processed through CDOT Region 1 in the process outlined in the *State Highway Access Code*.

Simultaneous to the completion of the FEIS, CDOT will work with the local governmental agencies of Frisco, Breckenridge and Summit County, and with property owners to create an effective and safe Access Management Plan for the SH 9 corridor.

1.4.3.1 Access Points to be Closed

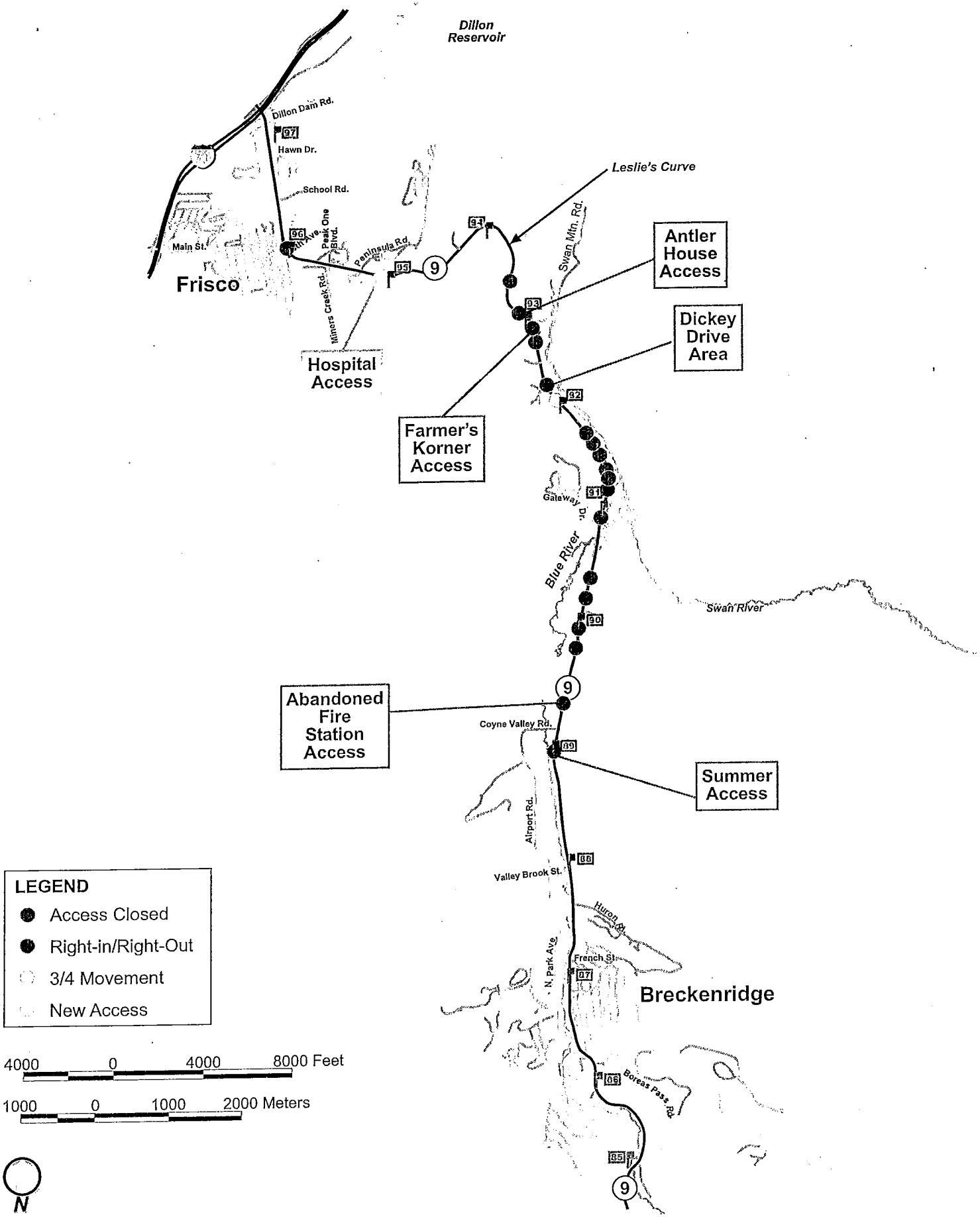
With the Preferred Alternative, the following access points have been identified to be closed at this preliminary stage of design (see **Figure 1-10**):

- Summer access south of Coyne Valley Road at approximately milepost 89 (east side of SH 9)
- Abandoned fire station access north of milepost 89 between Coyne Valley Road and Fairview Boulevard (west side of SH 9)
- East leg of Dickey Drive (east side of SH 9), the west side is proposed to be relocated
- One Farmer's Korner access at approximately milepost 93 (west side of SH 9)
- Antler House north of milepost 93 (east side of SH 9)

1.4.3.2 Right In/Right Out Access Points

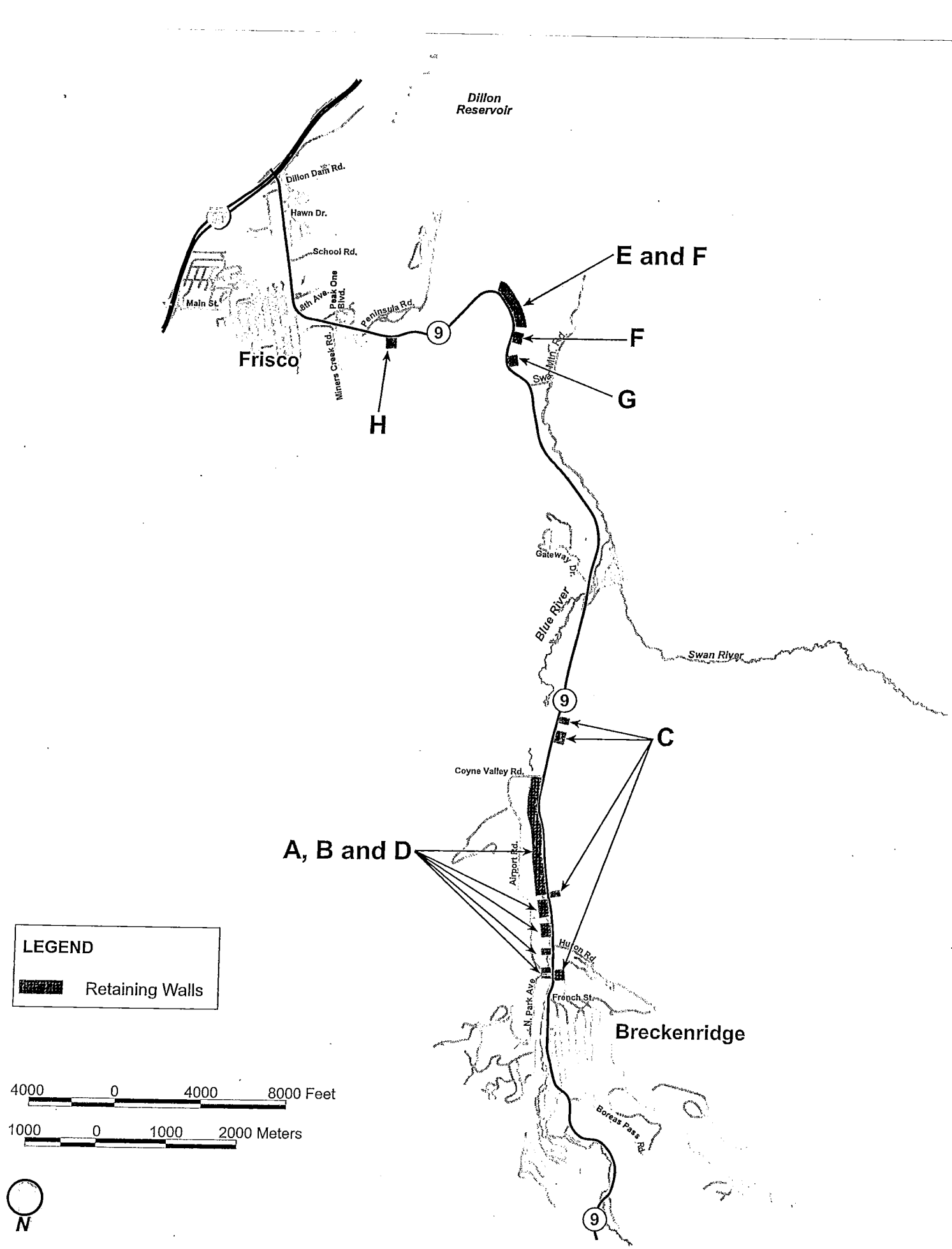
With the Preferred Alternative, the following access points have been identified to be modified to right in/right out (at this preliminary stage of design), thus restricting left turn-out movements onto SH 9 (see **Figure 1-10**). As described above, drivers will be able to make U-turns at periodic breaks in the median. This will enhance the safety and flow of traffic on the highway:

- Pit entrance access south of milepost 90 (west side of SH 9)—a frontage road between Tiger Road and Fairview Boulevard may be constructed in the future, thereby eliminating this access.



Access Changes Along SH 9

Figure 1-10



Retaining Wall Locations

Figure 1-11

1.4.8.1 DOWNSLOPE WALLS

Downslope walls are planned throughout the entrance to Breckenridge from the North Park Avenue/Main Street roundabout to Coyne Valley Road (A, B and D on the figures). The purpose for these retaining walls is to minimize impact to the existing bikeway and to minimize encroachment into the Blue River. These retaining walls have an average height of approximately 3 to 4.5 meters (10 to 15 feet), but short sections would be as high as 9 meters (30 feet).

In addition, downslope walls are required at Leslie's Curve (E, F and G on the figures) to minimize right-of-way impacts to Dillon Reservoir and to the fen south of the reservoir. They average 2.4 meters (8 feet) high and in a short segment are as high as 4.5 meters (15 feet).

The retaining walls will be aesthetically consistent, within the limits of cost-effectiveness, with the rural, mountainous character of the study area. Specifics related to aesthetic treatment of retaining walls will be determined during the final design process through guidelines established in the *Aesthetic Study and Design Guidelines* (see Appendix G on how to obtain a copy) and with involvement of the local community.

1.4.8.2 UPSLOPE WALLS

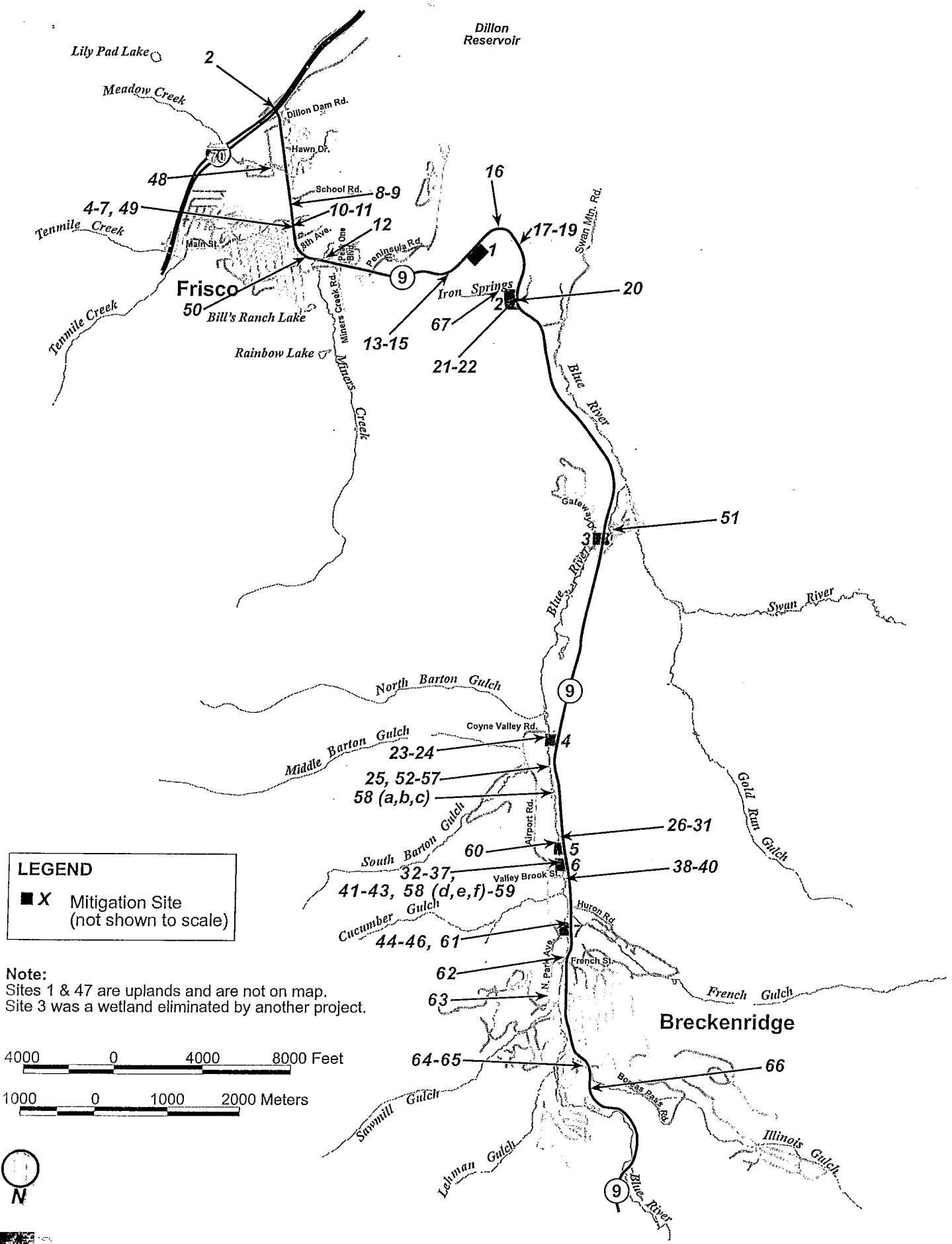
The first location for upslope walls is from Coyne Valley Road to Fairview Boulevard (C on the figures). A series of upslope walls is required to minimize impacts to the steep slope and to residential areas on top of the slope to the east. These retaining walls will average 1.5 meters (5 feet) in height. There also is an upslope wall at the roundabout (C on the figures). The Town of Breckenridge desires the use of Cañon City quarry rock for the fascia treatment and will pay for the additional cost for this treatment.

At Leslie's Curve, adjacent to the downslope wall, upslope walls will be required to stabilize the slope (E and H on the figures).

1.4.9 LIGHTING

Currently, SH 9 from Frisco to Breckenridge has no formal lighting, except as follows:

- Within the Town of Breckenridge
- In the vicinity of Valley Brook/Highlands Drive
- In the vicinity of Coyne Valley Road



LEGEND

■ X Mitigation Site (not shown to scale)

Note:
Sites 1 & 47 are uplands and are not on map.
Site 3 was a wetland eliminated by another project.

4000 0 4000 8000 Feet

1000 0 1000 2000 Meters

N

Frisco to Breckenridge

B-16 **Wetlands Located in Study Area**

Figure 2-2

Chap 3\Wetlands.fh9

Conservation measures will be incorporated, when applicable, to reduce impacts to wildlife, including Forest Service Management Indicator Species (MIS). Mitigation includes:

- Minimizing disturbance to native plant communities.
- Minimizing tree removal.
- Clearing and grubbing will be conducted in a manner to avoid impacts to migratory birds. Areas will be surveyed to protect bird nesting habitat.
- Stabilizing disturbed areas and re-establishing native vegetation communities following construction.
- Replacing disturbed or lost wetland habitats.
- Avoiding the use of palatable plants in the revegetation of highway medians and rights-of-way.
- Installing a bridge at the SH 9 crossing of the Blue River, just south of milepost 91, with an upland bench above the high-water line to allow movement under the highway by amphibians, reptiles, and small and medium sized mammals such as river otter, coyotes, fox, rabbits, voles, and other rodents. Planned replacement of culverts with a bridge at the Blue River SH 9 crossing will benefit movement of fish.
- Constructing a new bridge at the North Park Avenue roundabout to allow continued wildlife movement along the Blue River.
- Using signage to alert motorists to wildlife crossing areas.
- Coordinating final wildlife mitigation with resource agencies including the CDOW, USFS, USFWS, Towns of Frisco and Breckenridge, and Summit County Open Space Department.

3.12.3.1 Wildlife Crossing at Gold Hill

A 12- foot tall arched wildlife underpass has been investigated and endorsed by CDOT in the area of Gold Hill at SH 9 milepost 91.5 between Frisco and Breckenridge as a wildlife enhancement to the SH 9 corridor. The wildlife "crossing" is not a T&E or wildlife requirement of mitigation by any agency. The wildlife underpass "crossing" has been sited by USFWS, CDOW, USFS, Summit County, and CDOT at the Gold Hill area based upon high traffic-wildlife accident occurrences and regional wildlife game corridor migration patterns. Summit County has acquired a conservation easement that preserves the eastern approach to the proposed wildlife crossing from the Blue River. The western approach to the crossing lies on private property.

To ensure successful wildlife use of this underpass "crossing", an extensive fencing plan was designed to funnel large animals to the underpass approaches. Most of this fencing and associated landscaping lies off CDOT right-of-way, on private and county land. Appendix G of this study references the study, *Proposed Wildlife Crossing Technical Report,* detailing the wildlife analyses and design of the wildlife crossing structure. CDOT and Summit County have partnered to complete the following studies to establish commitments to ensure a successful wildlife crossing constructed by CDOT at this site.

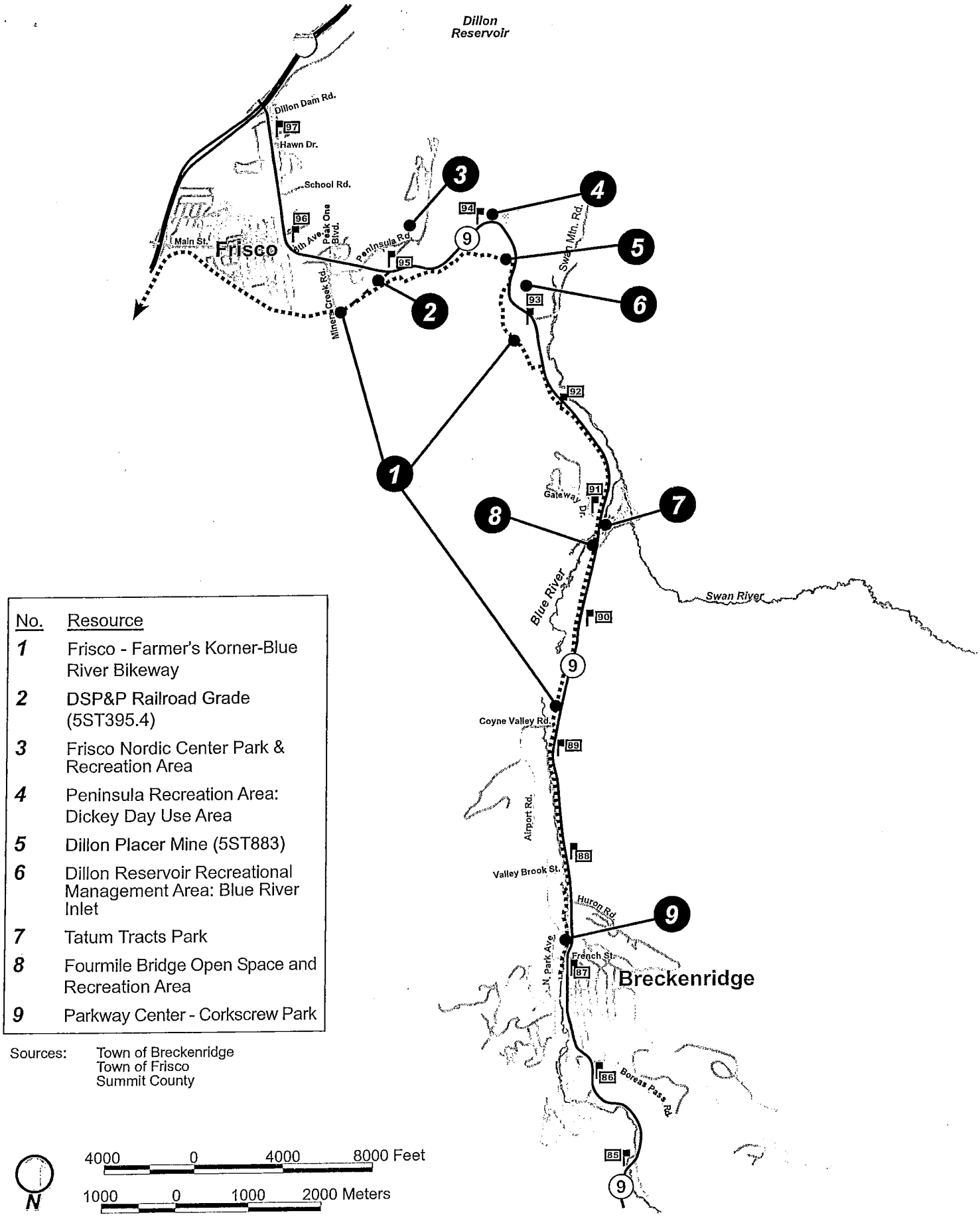
- Investigation of conservation easement opportunities to preserve a wildlife corridor on the western crossing approach properties.
- Investigation of alternate fencing and landscaping plans to ensure a successful wildlife crossing at the recommended Gold Hill site while maximizing the utilization of CDOT right-of-way and Summit County lands.
- Compilation of viable funding sources and available grants to provide the fencing and landscaping.

3.12.4 AQUATIC RESOURCES

The Preferred Alternative includes replacement of existing culverts with a bridge crossing over the Blue River near its confluence with the Swan River, and constructing a new North Park Avenue bridge. Bridge construction may result in unavoidable short-term increases in sediment levels. These will be minimized by the use of BMPs during construction.

No long-term adverse changes to sediment concentration or water quality parameters are expected to occur; therefore, no long-term impacts to aquatic resources should occur.

BMPs listed in Water Resources and Water Quality (see Section 3.10) are intended to minimize short-term impacts to state waters during construction. In addition, the timing of any work in or adjacent to streams will be coordinated with the CDOW to minimize impacts to spawning fish. The best time to avoid direct stream disturbances, such as the introduction of sediment or any activity that would impede fish travel, would be from mid-September to mid-November. This is also the low flow period, which is the best time to do work in streams.



No.	Resource
1	Frisco - Farmer's Korner-Blue River Bikeway
2	DSP&P Railroad Grade (5ST395.4)
3	Frisco Nordic Center Park & Recreation Area
4	Peninsula Recreation Area: Dickey Day Use Area
5	Dillon Placer Mine (5ST883)
6	Dillon Reservoir Recreational Management Area: Blue River Inlet
7	Tatum Tracts Park
8	Fourmile Bridge Open Space and Recreation Area
9	Parkway Center - Corkscrew Park

Sources: Town of Breckenridge
Town of Frisco
Summit County

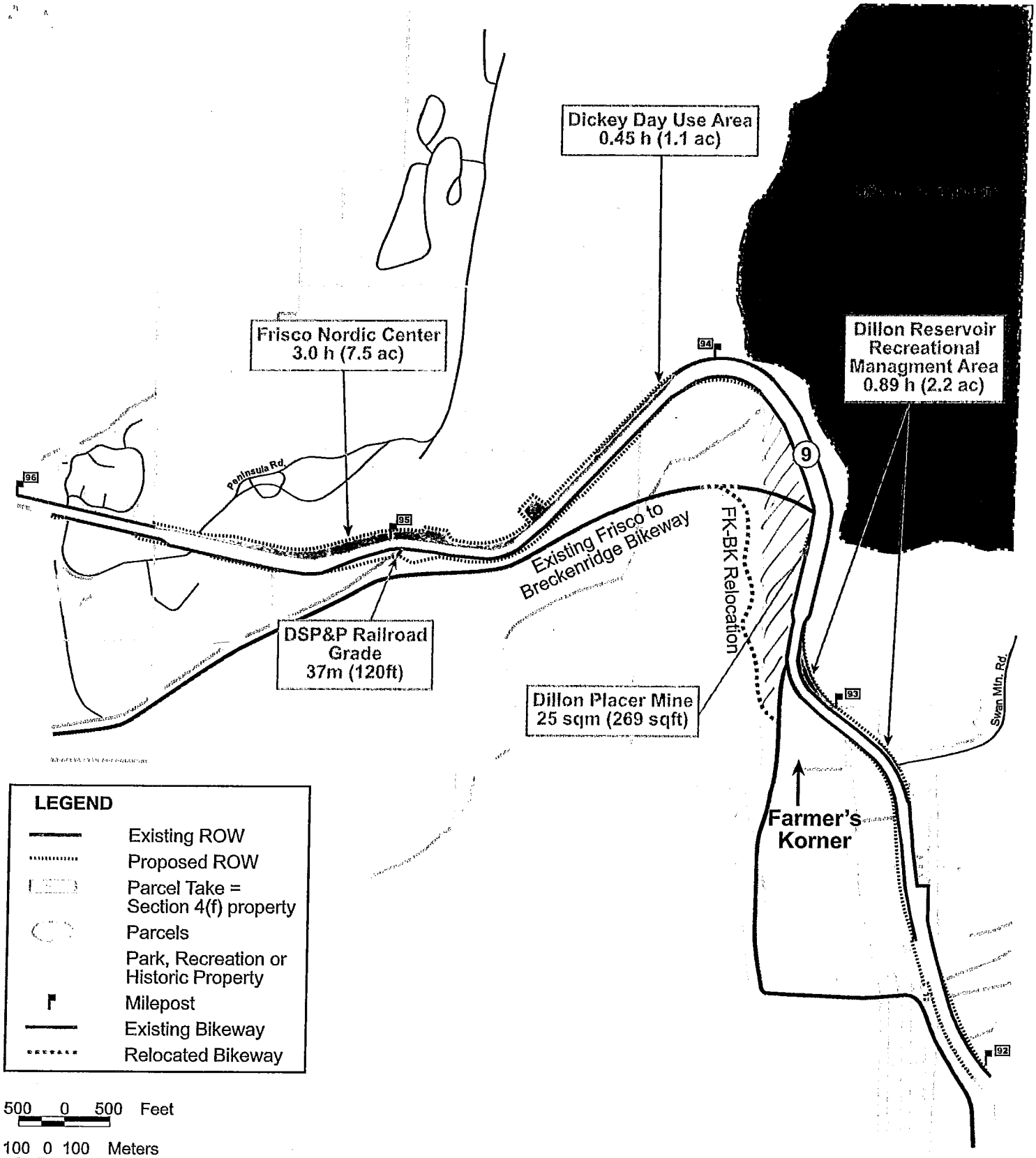
N

4000 0 4000 8000 Feet

1000 0 1000 2000 Meters

Section 4(f) Properties

Figure 4-1



Frisco to Breckenridge

Section 4 (f) Parcel Takes: MP 92 to MP 96

Figure 4-2

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Leslie's Curve

A 332-meter (1,090-foot) segment of the FK-BR Bikeway would be relocated away from the existing roadway to increase safety, remove the bikeway from active traffic lanes, and enhance the route mobility and aesthetic view shed. The relocated route on National Forest Service (NFS) land would replace the old bikeway at a greater than 1:1 ratio. The abandoned bikeway asphalt will be removed and restored with native seeding. The new route would run from the intact bikeway west of Iron Spring Hill uphill to the old church camp facility. The new route would utilize an undeveloped roadway south to where the route would bridge a small ravine. The route would continue southward along a descending grade to reconnect with the intact bikeway (see **Figure 4-2**). The USFS has concurred that a bikeway easement in this area is an appropriate use of NFS lands, and provides for the mutual determination of a site-specific alignment in the future. This mitigation plan was discussed and coordinated through the Dillon Ranger District of the Forest Service and White River National Forest, Frisco, Breckenridge, and Summit County Open Space & Trails Department. The USFS, the owner of the proposed land under easement, concurred with these mitigation recommendations in a letter dated May 1, 2001. Summit County Board of County Commissioners, the jurisdictional authority for this trail segment, was sent a letter dated July 1, 2002 and concurred with these mitigation recommendations on August 15, 2002 (see Appendix C).

Parkway Center-Corkscrew Park

The trail system in the vicinity of bridge construction at Parkway Center-Corkscrew Park consists of two parallel trail spurs: one trail runs at stream level under the existing bridge and the other connects at street level to a mid-street crossing. One trail spur would be retained to maintain route connectivity. A 107-meter (350-foot) segment would be relocated adjacent to the new bridge and North Park Avenue alignment to connect with the future signalized intersection at Airport Road. The replacement trail easement would be approximately 222 meters (728 feet) in length. This is a replacement ratio of 2:1. This mitigation plan was coordinated and has evolved through cooperation with the Town of Breckenridge Parks and Recreation and Open Space & Trails Departments. The Town of Breckenridge was sent a letter dated February 12, 2002 and concurred with these mitigation recommendations on March 15, 2002 (see Appendix C).

Preferred Alternative
Improvement of SH 9 would require modification of the existing access to the Frisco Nordic Center Park and Recreation Area. The Preferred Alternative would require acquisition of a narrow strip of land parallel to SH 9 consisting of 3.0 hectares (7.5 acres) to accommodate roadway safety realignments, shoulder, and toe slope construction with a maintenance buffer. The lands directly impacted by the Preferred Alternative are peripheral to most of the active facilities within the recreation area but would involve relocating approximately 496 meters (1,625 feet) of snowshoe trail and 122 meters (400 feet) of hiking trail. This take represents 3.4% of the entire recreation property.

4.2.3.3 AVOIDANCE

The roadway template requires safety-related widening and realignment. Altering the proposed alignment by moving the roadway west, away from the Nordic Center property, would create a safety design deficiency. This would put the new roadway out of compliance with current design standards and would not meet the stated Purpose and Need of this EIS. Moving the roadway to the west or north also would result in a greater taking of the historic DSP&P Railroad grade (5ST395.4).

4.2.3.4 MINIMIZATION OF HARM

Toe slopes and surface disturbances will be minimized while maintaining safety standards and erosion control. All remaining impacted terrain will be reseeded with native plants and restored to the original aesthetic character. Any disturbed trails would be replaced at a mutually agreeable site. This mitigation was planned and coordinated through the Town of Frisco Planning Department. The Town of Frisco concurred with these mitigation recommendations in a letter dated August 8, 2002 (see Appendix C).

4.2.4 PENINSULA RECREATION AREA: DICKEY DAY USE AREA

4.2.4.1 DESCRIPTION OF RESOURCE

The Dickey Day Use Area is under management of the White River National Forest and Peninsula Recreation Area. The Peninsula Recreation Area is 94 hectares (232 acres), with campgrounds, boating, and hiking facilities located between the Frisco Nordic Center Park and Recreation Area to the north (milepost 94.4) and Dillon Reservoir to the east and south (milepost 94.1) (see **Figure 4-1** and **Figure 4-3**). The Dickey Day Use Area consists primarily of public parking and non-motorized access for Dillon Reservoir. The

area is also utilized for fishing, bicycling, and hiking. The unpaved parking and trail access services an estimated 6,000 seasonal visitors per year. The road access is closed in winter season.

4.2.4.2 *Analysis of Project Impacts*

No-Action Alternative
With the No-Action Alternative there will be no taking or constructive use of the Dickey Day Use Area.

Preferred Alternative
The entrance to the Dickey Day Use Area would require modification of undeveloped portions of the Day Use Area where roadway toe slope construction and maintenance clear zone are needed. The Preferred Alternative would take a narrow strip of land parallel to SH 9 consisting of 0.45 hectare (1.1 acres). The lands directly impacted are peripheral to the active recreation area and would not represent impairment or a loss of function to the continued and future recreational use. This take represents 0.4% of the entire recreation property.

4.2.4.3 *Avoidance*

The roadway template requires some safety-related widening and realignment. Any westward shift in the alignment would result in safety standard deficiencies to SH 9. Shifting the proposed alignment to the east would impact more area within the Peninsula Recreation Area and Frisco Nordic Center Park and Recreation Area.

4.2.4.4 *Minimization of Harm*

A left-turn lane off of SH 9 and north and south bound acceleration lanes will be maintained to increase traffic safety and turning mobility of recreational vehicles and vehicles towing trailers for this area. The result provides a safety enhancement for the users.

All impacted terrain will be reseeded with native plants and restored to the original aesthetic character. This mitigation plan was coordinated through the White River National Forest. The Forest Service concurred with these mitigation recommendations in a letter dated May 1, 2001 (see Appendix C).

4.2.5 DILLON PLACER MINE (5ST883)

4.2.5.1 DESCRIPTION OF RESOURCE

The Dillon Placer Mine (5ST883) is eligible for inclusion on the NRHP under criterion *a* for its significance in the history of mining technology in Summit County . The site contains large, 4.6-meter (15-foot) tall gravel piles, ditches, and sluicing features; and remnants of turn-of-the-century placer mining. Hydraulic placer mines were relatively rare in North America, yet they played a crucial role in the settlement of the mountainous west and development of hydro-engineering. This site covers approximately 2.1 hectares (5.2 acres) of the northeast face of Iron Spring Hill (Leslie's Curve) at milepost 93.5 (see **Figure 4-1**).

4.2.5.2 ANALYSIS OF PROJECT IMPACTS

No-Action Alternative
With the No-Action Alternative there would be no taking or constructive use of the historic property.

Preferred Alternative
Cut slopes required to accommodate proposed highway alignment with the Preferred Alternative would impact a 25-square-meter (269-square-foot) portion of the northeast corner of the sluicing site. This new right-of-way area is within the sluicing site and has already been disturbed by past construction of the Frisco-Farmer's Korner-Blue River Bikeway. The impacted area constitutes less than 0.2% of the entire historic property. The Colorado SHPO has determined that this action will result in **no historic properties affected (see SHPO letter dated March 30, 2001 in Volume 2 of the DEIS, May 2002).**

4.2.5.3 AVOIDANCE

The roadway template for the Preferred Alternative requires roadway safety realignment. The roadway template has been reduced to the minimum width for safe roadway design to avoid as much impact to the historic property as possible. However, during final design, impacts may be further minimized. Local rugged topography and the presence of Dillon Reservoir physically prevent avoidance of the property. Moving the roadway to the west would directly impact more of the historic Dillon Placer Mine (5ST883), significantly expanding the hillside area under cut slope. Alternatively, moving the roadway to the east physically encroaches on the waters of Dillon Reservoir and creates larger direct impacts to the DRRec property (discussed below) and its locally sensitive environment.

4.2.5.4 *Minimization of Harm*

The area of the Dillon Placer Mine (5ST883) impact is 25 square meters (269 square feet), or less than 0.2% of the entire property, and is concentrated along the area of the abandoned bikeway. The abandoned bikeway asphalt will be removed and the resulting construction disturbances will be restored to the original terrain character and aesthetic appearance. Retaining walls and the bikeway relocation will minimize permanent impacts. A letter dated December 30, 2002 was sent to the Summit County Board of County Commissioners and they concurred with these mitigation recommendations on January 27, 2003 (see Appendix C).

4.2.6 DILLON RESERVOIR RECREATIONAL MANAGEMENT AREA: BLUE RIVER INLET AREA

4.2.6.1 *Description of Resource*

The Denver Municipal Water Board property is a part of the Blue River Inlet Area of the DRRec. The Blue River Inlet Area is composed of land adjacent to Dillon Reservoir, and is bounded by Swan Mountain Road to the south, Peninsula Park to the north, and SH 9 on the west (see **Figure 4-1** and **Figure 4-3**). The DRRec is under the jurisdiction of Summit County and the White River National Forest and has an active management plan to monitor and promote development of recreational facilities within the Dillon Reservoir area. Hiking, fishing, and boating activities on area-wide DRRec-associated property account for 140,000 visitors each year.

Ninety-four hectares (232 acres) of the publicly owned Denver Municipal Water Board property is located within the Blue River Inlet Area of DRRec and is protected under Section 4(f). The entirety of the Blue River Inlet Area property is located east of SH 9. There are no existing facilities on this land. Most of the property is submerged under Dillon Reservoir. Since this property is publicly available for recreation and is heavily used, it is a Section 4(f) property.

4.2.6.2 *Analysis of Project Impacts*

No-Action Alternative

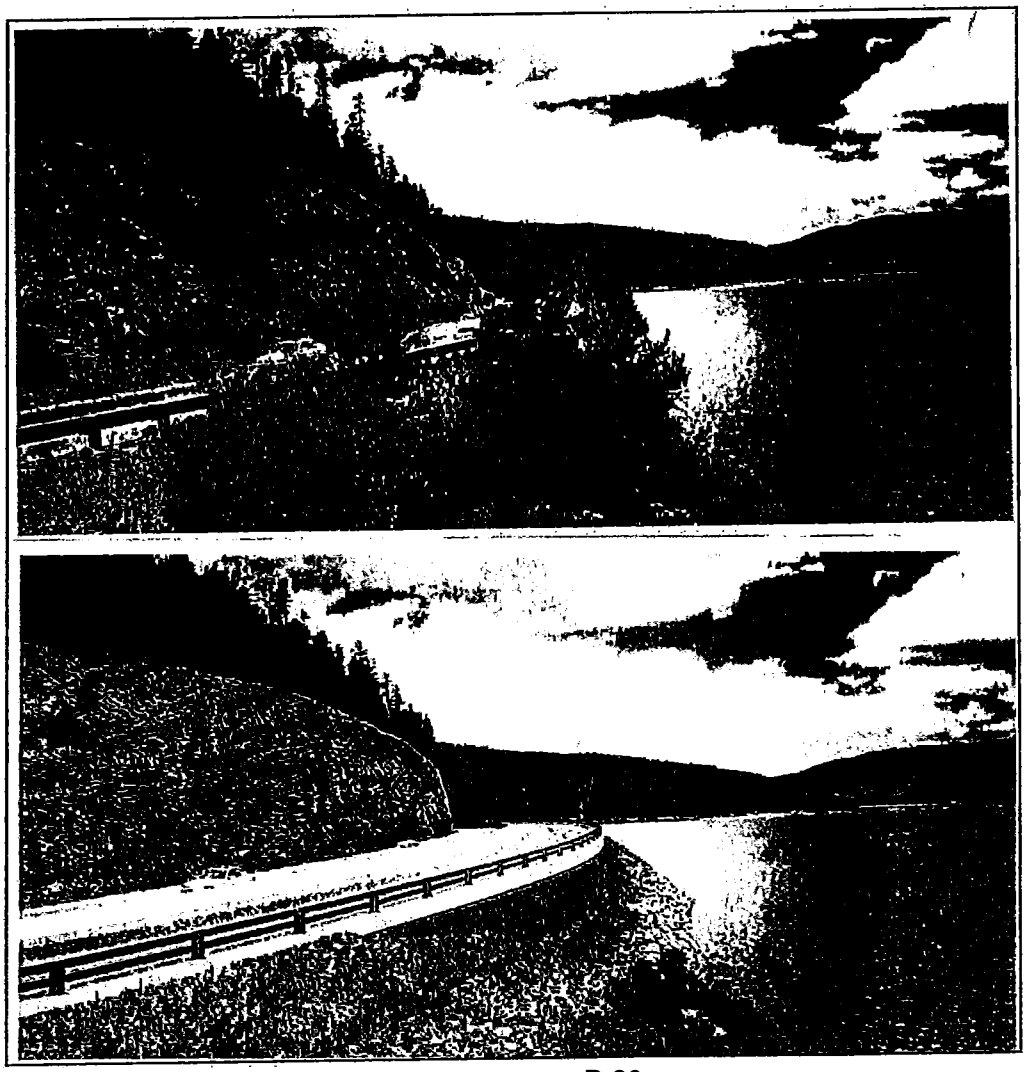
With the No-Action Alternative there would be no taking or constructive use of the Denver Municipal Water Board property.

Retaining walls located outside of the "gateway" or retaining walls located below highway surface level view shed shall be constructed with an ashlar random concrete block texture or formed concrete texture which simulate the surfaces illustrated to the right.

The structural requirements of the wall will ultimately determine the type of construction utilized for the retaining walls. Retaining shall be constructed of or shall be faced with cast-in-place concrete or precast concrete panels. Walls may be capped with a precast concrete cap to match preferred Federal Color palette to finish the wall appearance. If walls are located directly adjacent to the travel way, the base of the wall shall be protected with a Type 7 guardrail. This guardrail shall be cast-in-place or slip cast and *may not* have matching color applications due to cost and maintenance issues.

Simulations of Retaining Walls

The photographs below represent simulated appearances of 2 areas along the State Hwy 9 Corridor where retaining walls will become a major aesthetic feature of the landscape. Although the walls used in the illustrations do not conform to the selected surface pattern, texture or color recommended by this design guidance, the character and general architectural setting is well demonstrated.



The image below is taken from a vantage point just south of Leslie's Curve milepost 93.7 along the Blue River inlet area. The view is looking northward toward the edge of the roadway.

The view below

STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION

Region 1 Mountain Residency
P.O. Box 399
Dumont, CO 80435
(303) 512-5600
Fax (303) 512-5675

Meeting: USFS Coordination Meeting Agenda- Iron Springs Template EA

Date/Time: Tuesday, October 30, 2012/11am to 12:30pm
Location: Mountain Residency

Attendees:

Peter Kozinski	Program Engineer
Grant Anderson	Resident Engineer
Chuck Attardo	R1- Environmental
James Eussen	R1- Environmental
Gibson, Stephanie P;	FHWA (on phone)
Rick Simansons	FHWA
Paul Semmer	USFS, CDOT Liaison
Cary Pence	USFS, Engineer
Ken Waugh	USFS, Trails & Recreation
Jan Cutts	USFS, District Ranger
Corey Lewellen,	USFS, Fish Biologist
Donna Graham	USFS, Landscape Architect
Ashley Nettles	USFS, Wildlife Biologist

(*Meeting notes in italics)*

1. **Introductions (all)**
   - Goal of this project is a streamlined, efficient, in-house Template EA to set as a model for future projects around the state
   - Maintain USFS as Cooperating Agency-
     - *The Forest Service would like to remain as a Cooperating Agency and have the opportunity to review the document before it goes to the public*
     - *Stephanie asked if there were any "red flags" so far with this project, USFS indicated nothing so far*
     - *Paul asked about Cost Recovery ability with CDOT for review and coordination time, Peter indicated it was possible but hoped not to delay the process to get an agreement done. Paul would look at it more*
     - *Rick indicated there are federal funding sources for wildlife crossings, may be easier now to access those dollars*
   - Summit County R1 to R3?

2. **Overview of the SH 9 ROD (Chuck Attardo)**

   - Explain Project, public agency support exists
   - Why was this eliminated in EIS ROD 2004? Document says cost,
   - environment has changed since ROD with dead forest and new opportunities arising from that
   - Potential for LESS impacts than Preferred Alternative, more options, safer roadway
   - Alignment is roughly 1 mile (6500' existing, 4500' proposed on Iron Springs (2000' shorter)

<u>Original commitments/impacts:</u>

   - Minimize FEN impact (there would be some in the ROD)—cantilever walls due to new grade could further reduce FEN impact
   - Existing Bike Path would be relocated in Preferred Alternative (very difficult location, potentially within existing conservation easement and Dillon Placer Mine)
   - Antler House is shown as a take (may not be needed?)
   - Historic railroad grade exists (not impacted by ROD/preferred Alt)
   - ROD has impact to historic mine site (Dillon Placer Mine)

3. **Recent support and decision to proceed with an EA for the Iron Springs Alignment (Grant Anderson with graphic)**

   - Bike path would be "swapped" with existing roadway
     - *Connection would be maintained at existing gate to Iron Springs Road for mountain bikes/other users at south end of project*
   - Discuss April 2012 Scoping/Stakeholder meeting
   - Safer roadway if moved with better typical section
   - Conservation Easement folks have indicated support, difficulty in "moving" their easement? (expected more resistance)- easement on County property
   - Opportunities for wildlife crossing/less of a barrier effect than ROD/preferred Alt
     - *Potential to remove some portions of path that won't be used anymore, could be planted and restored*
     - *Lynx may need to be accommodated, need to meet with USFWS*
   - Wetland mitigation site could potentially be expanded
   - *Opportunities for enhance Water Quality features*

- Dickey Day Use Access- can we move this to Crown Point Rd.?
  - *6000 users per year as indicated in FEIS is probably too low, especially with newly developed peninsula recreation*
  - *Access is maintained in winter*
  - *The group decided to have a separate meeting in the near future to define the goals of the Day Use Area Access location. The USFS wants to keep the trailhead*
  - *Parking location for the trailhead needs to be discussed in a Context Sensitive way*
  - *Town of Frisco and Summit County will be invited*
  - *This area could become more heavily used? Beach area would change if swimming is allowed in reservoir*
  - *FHU will help facilitate a mini-design charrettes to get some options identified*

4. Decision to utilize the "Template EA" (Peter and Stephanie)

- Effort to streamline NEPA work; similar to a documented CATEX
- Public and Agency support exists
- Schedule- 6 month process is goal, need to get out to site before snow covers it
- Direct coordination between USFS and CDOT?
- Focus on linking to existing reports, not re-creating them
  - *CDOT asked for help in using any existing USFS info… an EA was done in the area in 2010 for Timber Management*
- Enhancement vs. Mitigation – many supporters may want more done on the project than just mitigation, need to be careful to separate these as "enhancements" and not mitigations
  - *Stephanie indicated that "Mitigation" should be directly tied to an Impact*

5. Context Sensitive Solutions and Public Involvement Plan (Peter and Grant)

- CSS Lite- Peter and Grant to continue process
  - *Dickey Day Use area*
  - *Biking community*
  - *Conservation Easement*

6. Data collection needs (all)

- Grant is available for individual site visits as needed. Alignment rough centerline is flagged.
- Use what has already been completed to highest extent possible
- Rare plant survey may not be needed, or done later- risk if avoidance is needed?
- Need input from USFS on easements "swap" and Summit County/Denver Water
- Will development occur in this area? No, only power line mtce- likely land use will not change, all county and USFS land
- USFS could have sensitive plant studies from recent logging in area?

7. Future meetings (Grant and Chuck)

- Monthly coordination meetings in Golden, CO 1pm to 3pm (11/7, 12/5, 1/9/13, 2/6/13)
- Public Meetings (2?)

Iron Springs EA Roles:

Peter Kozinski (R-3 Joe Elsen?)	Project Oversight, Schedule, and Budget

Grant Anderson	Project Manager, Local Agency and Regulatory Agency Coordination
Chuck Attardo	Assistant PM and NEPA Lead
Tyler Weldon	Engineering Concepts
Melinda Urban	FHWA Ops Eng and NEPA Assistance
Stephanie Gibson	FHWA NEPA Oversight
Jim Eussen	Natural Resource Lead
Yates Oppermann	EA Template, Document Prep, Section 4(f) Lead
Vanessa Henderson	NEPA Oversight
Belinda Arbogast	Tech Editing, Aesthetics, CSS, ISA
Janet Gerak	Section 4(f), CSS
Holly Huyck	Water Quality
Francesca Tordonato	Natural Resources
Jill Schlaefer	Noise and Air
Alison Michael	Section 7 Consultation
Steve Wallace	Paleontology
Greg Wolff	Archaeology
Lisa Schoch	History
Jeff Peterson	Section 7
Becky Pierce	Wetlands
Jay Kramer	Highway Easement Deeds and Right of Way Needs Lead
Terri Shendleman	Right of Way Needs
FHU(Kurt Kolleth, Thor Gjelsteen)	Design Concepts, Document Prep, Graphics, Public Involvement, Meeting Prep, Public Hearing, S106 Assistance

ACTION ITEMS:

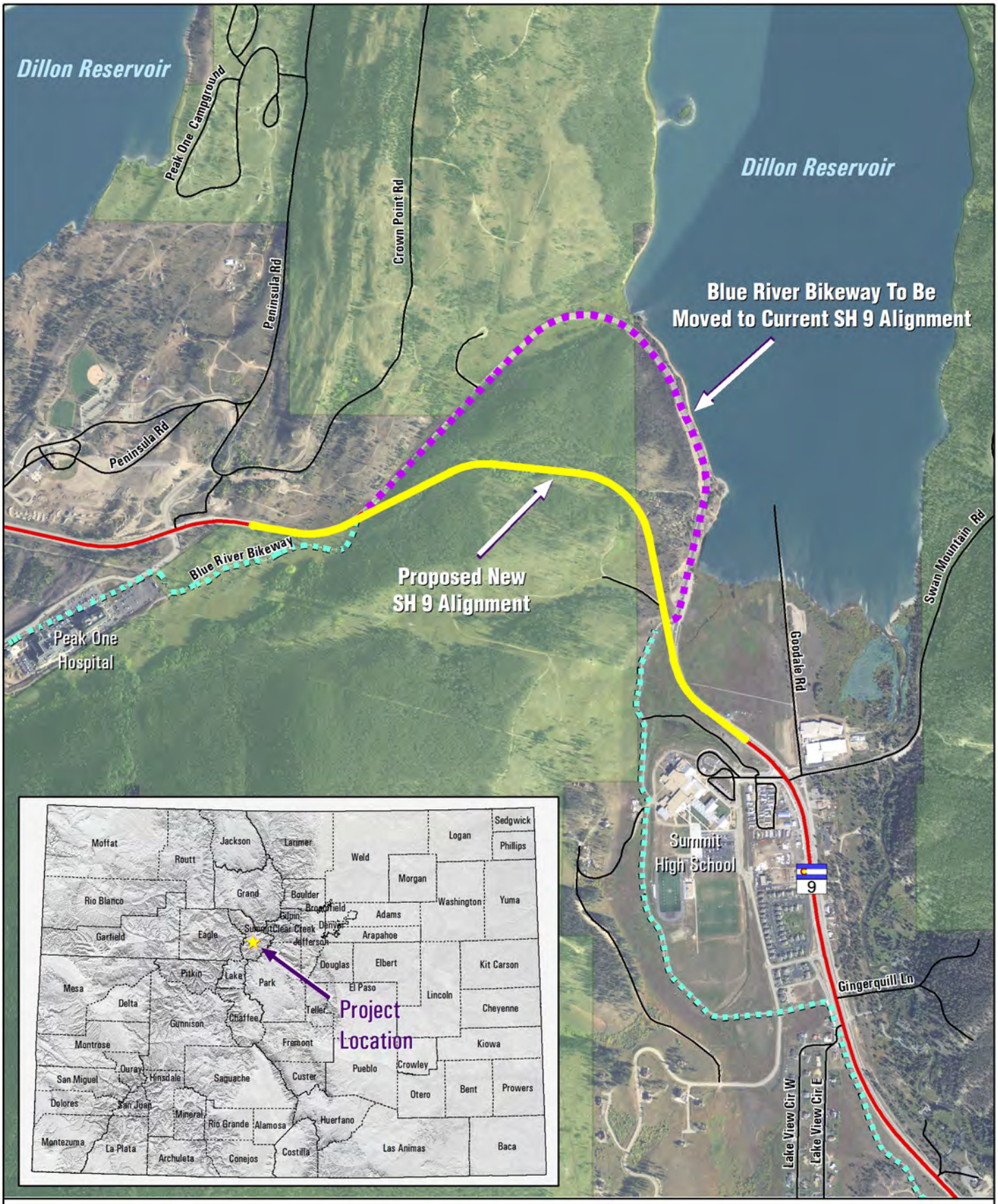
Person	Action Item	Due
Chuck	Send letter to USFS as invitation to act as Cooperating Agency	2 weeks
Grant and Chuck	Meet with CDLT on conservation easement possibilities	ASAP
Grant and FHU	Meet with USFS, Town of Frisco and Summit County on Dickey Day Use options	ASAP
Grant	Email Google Earth files to USFS group	ASAP
Grant	Send Agendas/future meeting dates to USFS (monthly meetings in Golden)- conference call number	ASAP
Jim	Set up meeting with USFWS regarding wildlife crossings	ASAP
Jim	FEN meeting- invite USFS	ASAP

SIGN-IN

USFS/CDOT COORDINATION MEETING
SH9 IRON SPRINGS, TEMPLATE EA

OCT. 30, 2012 11 AM

NAME	email	phone
CARY PENCE	cjpence@fs.fed.us	970 945-3235 / 970 471-5260
KEN WAUGH	kwaugh@fs.fed.us	970-262-3446
Jan Cutts	jcutts@fs.fed.us	970-262-3451
PAUL SEMMER	psemmer@fs.fed.us	970-262-3448
Corey Lewellen	clewellen@fs.fed.us	11-11-3497
Donna Graham	dlgraham@fs.fed.us	970-945-3263
Peter Kozinski	Peter.Kozinski@State.co.us	720 970-505-0245
Ashley Nettles	anettles@fs.fed.us	970-262-3457
JAMES EUSSEN	james.eussen estate.co.us	303-365-7041
Chuck Attardo	Chuck.Attardo@state.co.us	3·859·9535
Rick Simansons	rick.simansons@dot.gov	720·963·3015



Project Overview

U.S.Department of Transportation
Federal Highway Administration

Colorado Division

12300 W. Dakota Ave., Ste. 180
Lakewood, Colorado 80228
720-963-3000
720-963-3001

November 1, 2012

Ms. Jan Cutts
District Ranger
White River National Forest, Dillon Ranger District
680 Blue River Parkway
Silverthorne, CO 80498

RE: Iron Springs Environmental Assessment Cooperating Agency Letter

Dear Ms. Cutts:

The Federal Highway Administration (FHWA) and Colorado Department of Transportation (CDOT) have initiated an Environmental Assessment (EA) to analyze the "Iron Springs alignment" on SH 9. This new alignment removes approximately 2000 feet of the existing roadway around "Leslie's Curve" and moves the alignment to the west over Ophir Mountain on U.S. Forest Service (USFS) lands (see attached map). This alignment was evaluated in the SH 9 Breckenridge to Frisco Draft EIS, but it was dismissed due to high cost. In 2011 Summit County and other local governments requested that we analyze the costs and benefits of this alignment more closely. Based on that request, CDOT performed preliminary engineering and environmental "red flag" analysis to refine construction costs for this alignment. The analysis shows that construction costs are very similar between the alternative selected in FHWA's Record of Decision (ROD) and the proposed Iron Springs alignment. In addition, FHWA and CDOT believe that there are safety, maintenance, and mobility benefits to the Iron Springs alignment. The Iron Springs alignment also appears to have less environmental impacts and greater opportunities to improve recreational resources in the immediate area that are an important economic driver for the local governments.

FHWA and CDOT foresee three challenges as we work toward a decision document in the summer of 2013. First, the Iron Springs alignment crosses a known fen between the Summit County High School and the back end of Lake Dillon. FHWA and CDOT will need to demonstrate that the Iron Springs alignment has fewer impacts to the fen than the Preferred Alternative in the ROD. Second, there is an easement held by the Continental Land Divide Trust for the proposed realignment of the Breckenridge to Frisco Bike Path. The easement overlaps with the location of the proposed Iron Springs alignment. CDOT and FHWA will need to identify an acceptable land swap and develop alternatives to enhance the current bike path safety, alignment, and recreation experience. Third, the current access to the USFS Dickey Day use area around the corner of Leslie's Curve will be reevaluated. CDOT and FHWA would like to partner with you to collaborate other access points that meet USFS management goals of this recreational area and hopefully enhance the recreational user's experience of this beautiful lakeside area.

The USFS has jurisdiction over much of the land the project crosses and has special expertise related to all three challenges listed above. Therefore, per 40 CFR § 1501.6, we are requesting that your agency serve as a Cooperating Agency for this EA. This request remains consistent with your involvement on the SH 9 Breckenridge to Frisco EIS/ROD where you also served as a Cooperating Agency.

Your agency's involvement would entail review and comment for issues under your jurisdiction and expertise. No direct writing or analysis for the document preparation will be necessary. We plan to do the following to maximize interagency cooperation:

1. Invite you to participate on various committees and attend major milestone coordination meetings
2. Consult with you on any relevant technical studies that will be required for the project
3. Organize joint field reviews with you
4. Provide you with project information, including study results
5. Encourage your agency to express your views on subjects within your jurisdiction or expertise
6. Ensure that your agency is comfortable with the EA format proposed for this project
7. Include information in the EA that lead agencies need to fulfill their responsibilities under the National Environmental Policy Act (NEPA), as well as other requirements for jurisdictional approvals, permits, licenses, and/or clearances.

You have the right to expect that the study will enable you to fulfill your jurisdictional responsibilities. Likewise, you have the obligation to tell us if, at any point in the process, your needs are not being met. We expect that at the end of the process the study will satisfy your NEPA requirements including those related to project alternatives, environmental consequences, and mitigation.

If you concur with the proposed role for your agency on this project, please sign and return a copy of this letter for our files. If we don't hear from you within 30 days from the date of this letter, we will assume you have not accepted this role.

We thank you for the time and expertise you have provided the project team as we consider the Iron Springs alignment on SH 9. We look forward to your acceptance of our invitation to continue your involvement as a cooperating agency as we embark on a revised study to focus on cost savings and benefits for this new alternative. If you have any questions, or would like to discuss the project or our agencies' respective roles and responsibilities during the preparation of this study, please contact Ms. Stephanie Gibson at 720-963-3013 or at Stephanie.Gibson@dot.gov.

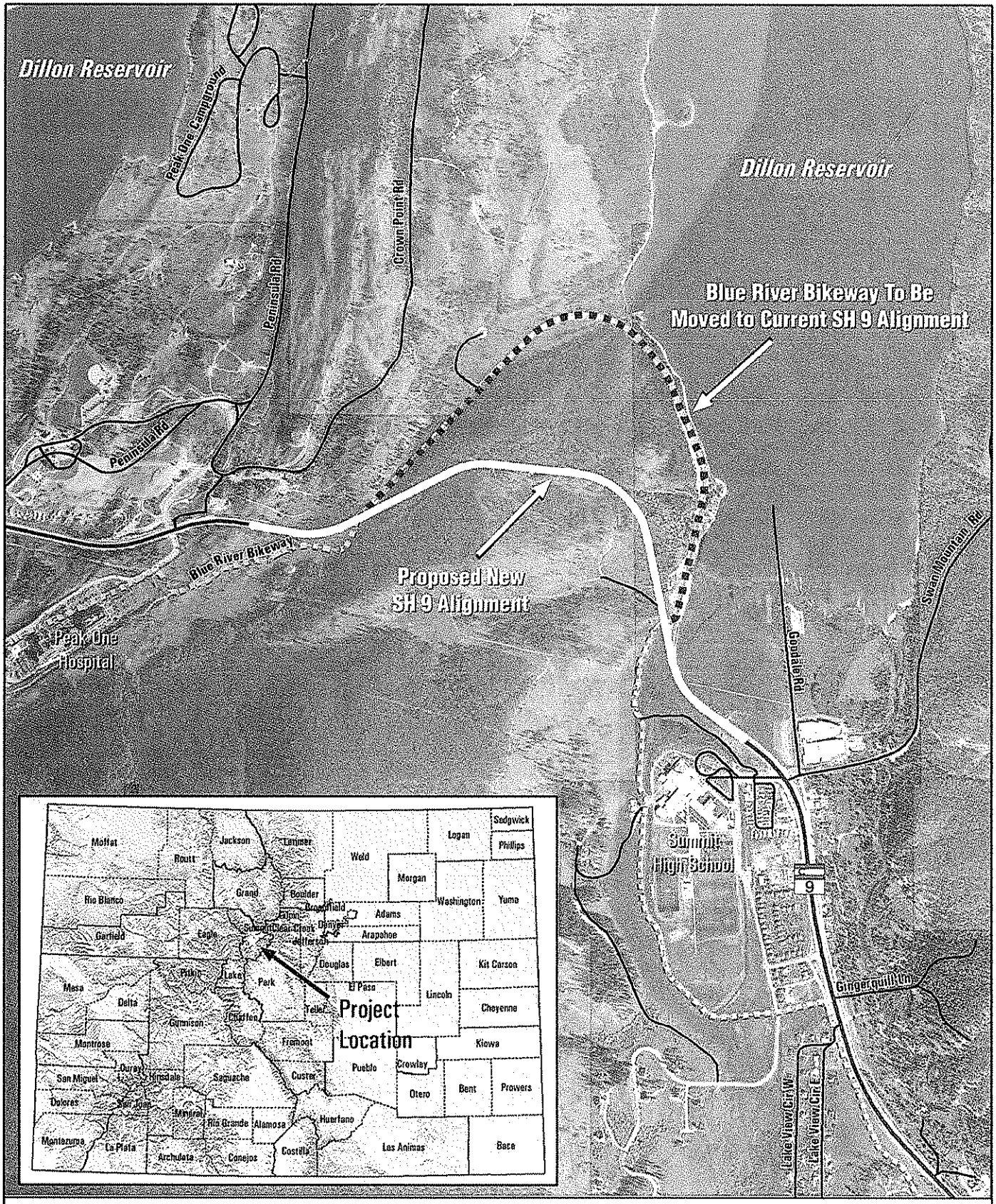
Sincerely,

For John M. Cater
Division Administrator

U.S. Forest Service
The USFS agrees to be a Cooperating Agency per 40 CFR § 1501.6 and as outlined above.

_____
Signed by

_____
Date



Legend

- New SH 9 Realignment
- Blue River Bikeway Realignment
- State Highways
- Other Roads
- White River National Forest
- Existing Blue River Bikeway

NORTH

0 1,000 Feet

DOT
DEPARTMENT OF TRANSPORTATION

Project Overview

STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION

Region 1 Mountain Residency
P.O. Box 399
Dumont, CO 80435
(303) 512-5600
Fax (303) 512-5675

Meeting: SH 9 Iron Springs Dickey Day Use Minutes

Date/Time: Tuesday, November 13, 2012/10:00am-11:45am
Location: Mountain Residency, Straight Creek Conf. Room

Attendees (see Sign In sheet attached)

Invitees:

Peter Kozinski	Program Engineer
Grant Anderson	Resident Engineer
Chuck Attardo	R1- Environmental
Gerak, Janet;	R1- Environmental
Belinda Arbogast	R1- Environmental
Kramer, M Jay;	R1- ROW
Shendleman, Terrene;	R1- ROW
Oppermann, Francis (Yates)	EPB
Rick Simansons	FHWA
Kurt Kolleth	FHU (Consultant)
Thor Gjelsteen	FHU
Paul Semmer	USFS
Ken Waugh	USFS
Donna Graham	USFS
Jan Cutts	USFS
Thad Noll	Summit County
Jim Curnutte	Summit County
Tim Mack	Town of Frisco

Meeting notes in italics

Existing parking lot is on USFS land, plowed in the winter by Summit County. If County stopped plowing, USFS would NOT pick up this responsibility due to resource limitations. County most likely will continue plowing trailhead parking areas in winter.

USFS history was to develop this into a true "Day Use" area. This is NOT that type of facility today, really only a trailhead, with no plans to ever improve/upgrade.

Maybe it should not be called "Day Use" because that creates a false expectation. Call it trailhead.

1. **SH 9 EIS- Alternative at existing highway alignment = (No Action for EA purpose)**
   4 lanes with full movement, no signal
   Summit County supports the new highway alignment. From their perspective, a path swap creates more access to Day Use Area. There is potential here to create the final link in the "Lake Loop" and not have to cross SH 9 to ride around Dillon Res.

2. **Iron Springs Alternatives**

   A. Driveway to Existing Parking Lot (Maintain Access)

   Mix with recreation path traffic
   Full movement, no signal
   6% driveway grade with fill required
   Town of Frisco's primary comment is that sometimes this is used to "poach" the paid Nordic trail system which is a big concern to the vendor

   B. Move Existing Parking Lot to Town of Frisco Peninsula

   Adventure Park draw
   Existing Crown Point Rd Access Location
   Town of Frisco has a master plan for more activities off of Recreation Way, this may interfere with those plans. May not have enough room for similar sized parking area. Also has "boneyard" for industrial storage that wouldn't mix well with a trailhead parking option.

   USFS echoed concerns about conflict with Nordic use in winter

   C. Move Existing Parking Lot to Crown Point Road

   Existing Trail ?

Existing Use? Nordic area?
New Trail (1000' to parking lot, elevation change)?

Town of Frisco would see this as not possible due to the existing use- groomed Nordic Trail in winter months

USFS echoed concern about impact to newly mapped "system trails" that are well established

D. Others (?)

Road cut to "C"
Not viable due to concerns with parking at "C"

Variations of options were drawn on the white board, see FHU's map (attached).

3. What is the BEST Solution

USFS- *FS is excited about being able to "set the stage" for long-term improvements in the area; day use/camping in the peninsula area; variations in the path grade to accommodate different levels of ability; providing different route options on the path.*

TOF- *Option C is one of the main trails to the Nordic system and relocating the Dickey Day lot at this location suggests a combination of use at the same location.. The Town is not in favor of adding a trail head access here as it is too difficult to separate the two independent uses.*

County *Summit County supports 2 goals: 1) eliminate at grade rec path crossing; 2) complete the trail around the lake. Engaged in the process and supports looking at all options.*

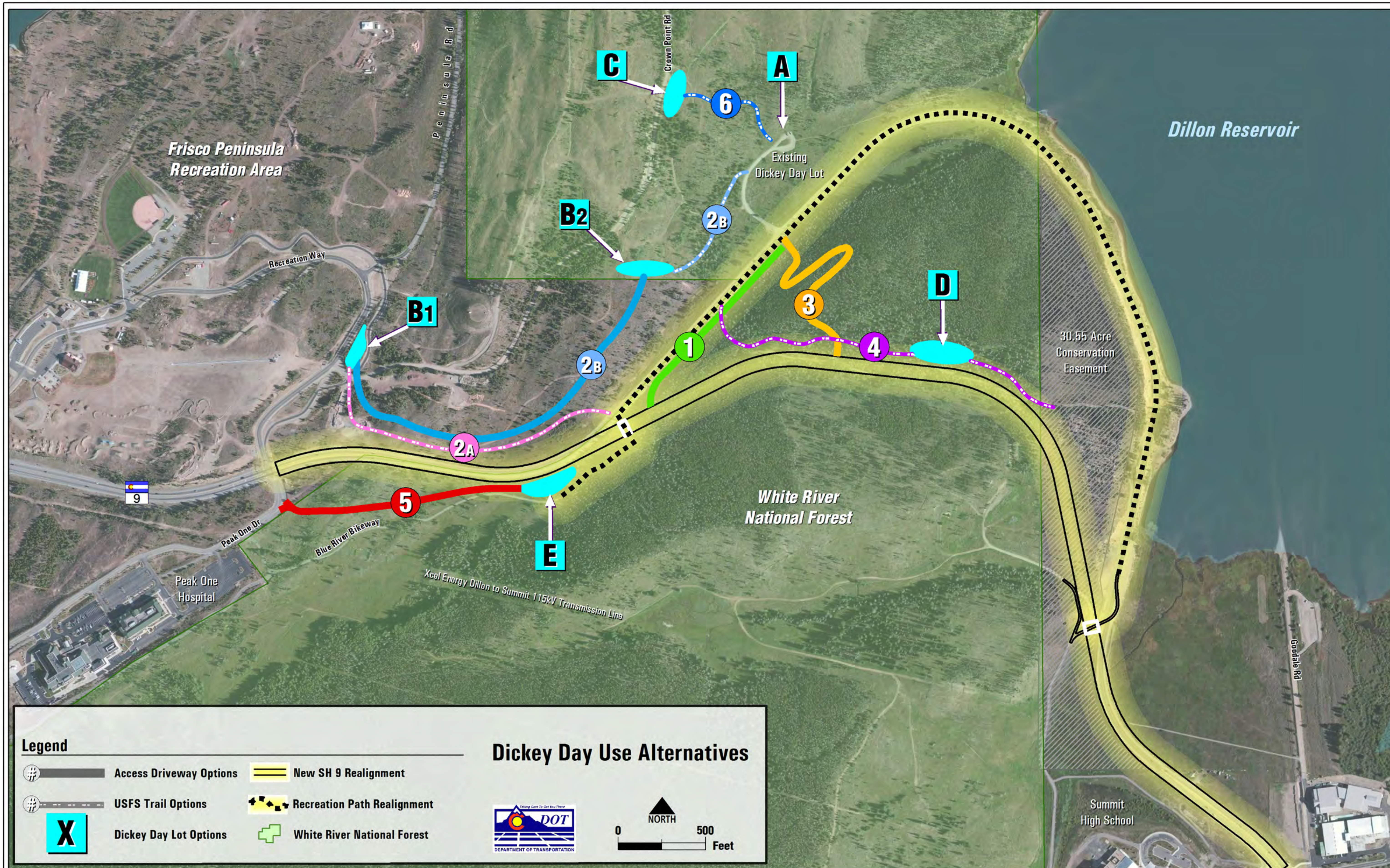
CDOT- *CDOT would prefer to eliminate an access point on the corridor, it would improve safety*

The group decided we need a selection matrix to evaluate all the options. FHU to produce and distribute for comment via email to the group. Goal is to establish a consensus and move an option forward to include in the EA.

SH 9 ~ DICKEY DAY USE ACCESS OPTIONS

SIGN-IN SHEET

NAME	EMAIL
Donna Graham - USFS	dlgraham@fs.fed.us
Janet Gerak - CDOT	janet.gerak@dot.state.co.us
Tim Mack - Town of Frisco	timm@townoffrisco.com
F. Yates Oppermann - CDOT EPB	francis.oppermann@state.co.us
Kurt Kolleth	Kurt.Kolleth@fhueng.com
Brian Lorch	BrianL@co.summit.co.us
Ken Waugh	kwaugh@fs.fed.us
Paul Semmer	psemmer@fs.fed.us


Dillon Reservoir
Frisco Peninsula Recreation Area
Peninsula Rd
Crown Point Rd
Recreation Way
Existing Dickey Day Lot
A
B1
B2
C
D
E
1
2A
2B
3
4
5
6
30.55 Acre Conservation Easement
White River National Forest
9
Peak One Dr
Blue River Bikeway
Peak One Hospital
Xcel Energy Dillon to Summit 115kV Transmission Line
Goodale Rd
Summit High School
Legend
Access Driveway Options
USFS Trail Options
Dickey Day Lot Options
New SH 9 Realignment
Recreation Path Realignment
White River National Forest
Dickey Day Use Alternatives
DOT
DEPARTMENT OF TRANSPORTATION
NORTH
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500
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U.S. Department of Transportation
Federal Highway Administration

Colorado Division

12300 W. Dakota Ave., Ste. 180
Lakewood, Colorado 80228
720-963-3000
Fax 720-963-3001

November 15, 2012

Mr. Leroy Spang, President
Northern Cheyenne Tribal Council
Northern Cheyenne Tribe
P.O. Box 128
Lame Deer, MT 59043

Subject: Request for Section 106 Consultation; State Highway 9 Iron Springs Environmental Assessment (EA), Summit County, Colorado

Dear Mr. Spang:

The Federal Highway Administration (FHWA) and Colorado Department of Transportation (CDOT) are preparing an Environmental Assessment that will address the effects of proposed realignment of a short segment of State Highway 9 between the communities of Frisco and Breckenridge in central Colorado. This corridor, which provides access to ski areas and other recreational opportunities, is periodically congested. As shown on the enclosed project area overview map, the realigned section of highway would eliminate a winding segment of road and thereby increase both mobility and safety in the corridor. Pursuant to the National Environmental Policy Act (NEPA) of 1969 and the Council on Environmental Quality (CEQ) implementing regulations (40 CFR 1500-1508), FHWA and CDOT are documenting the potential social, economic and environmental consequences of this action.

FHWA will serve as the lead agency for this undertaking, and CDOT staff will facilitate the tribal consultation process. As a consulting party under the Section 106 regulations, you are offered the opportunity to identify concerns about cultural resources and comment on how the project might affect them. Further, if it is found that the project will impact cultural resources that are eligible for inclusion on the National Register of Historic Places and are of religious or cultural significance to your tribe, your role in the consultation process would include participation in resolving how best to avoid, minimize, or mitigate those impacts. It is our hope that by describing the proposed undertaking we can be more effective in protecting areas important to American Indian people.

As reflected on the enclosed map showing the Area of Potential Effects (APE), the proposed new alignment is located in a forested area at the southern tip of Dillon Reservoir. The APE established for cultural resource studies encompasses the entire area subject to direct and indirect impacts from the project. The new alignment has been intensively surveyed for historic properties, resulting in the documentation of several historic mining sites and two Native American isolated finds (individual artifacts). We will provide the results of the historic properties investigations to all consulting tribes along with a request for comments on our eligibility and effects determinations. Any information you may have regarding places or sites important to your tribe that are located within or near the project area would assist us in our efforts to comprehensively identify and evaluate cultural resources.

We are committed to ensuring that tribal governments are informed of and involved in decisions that may impact places with cultural significance. If you have specific interest in the SH 9/Iron Springs EA, please complete and return the enclosed Consultation Interest Response Form to CDOT Native American consultation liaison Mr. Dan Jepson **within 60 days** via US mail, fax or email, as listed at the bottom of that sheet. The 60-day period has been established to encourage your participation at this early stage in project development. Failure to respond within this time frame will not prevent your tribe from entering consultation at a later date. However, studies and decision making will proceed and it may be difficult to reconsider previous determinations or findings, unless significant new information is introduced.

If you have questions or concerns about the project or the role of your tribe in the consultation process, please contact Mr. Dan Jepson at 303-757-9631 or daniel.jepson@state.co.us, or FHWA Colorado Division Environmental Program Manager Ms. Stephanie Gibson at 720- 963-3013 or stephanie.gibson@dot.gov.

Thank you for considering this request for consultation.

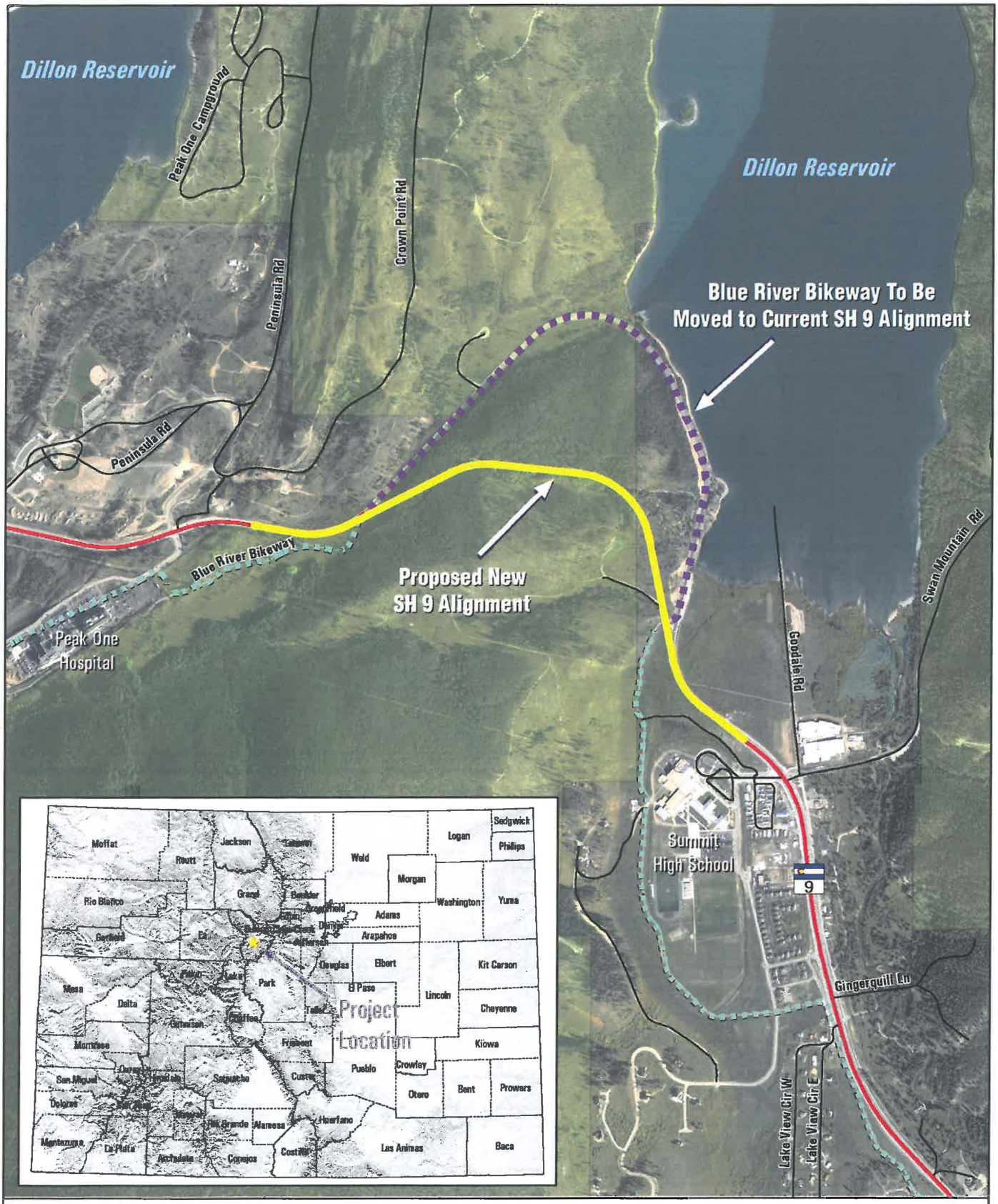
Sincerely yours,

for John M. Cater
Division Administrator

Enclosures: Project Overview and APE maps (2)
Consultation Interest Response Form

CC: M. Urban & S. Gibson, FHWA
C. Attardo, CDOT Region 1
D. Jepson, CDOT Env. Programs
C. Fisher, Northern Cheyenne Tribe


Silver Dollar Island
Blue River Arm
9
Peninsula Rd
Recreation Rd
Crown Point
Co Hwy 9
Blue River Bikeway
Iron Spring Rd
Co Rd 9-3
School Rd
Co Rd 1
Frontage Road
Area of Potential Effects
Iron Springs EA
© 2012 Google
Google earth
Imagery Date 9/23/2011
1999
39°34'24.76" N 106°03'37.61" W elev 9148 ft
Eye alt 7007 ft



Legend

- New SH 9 Realignment
- Blue River Bikeway Realignment
- State Highways
- Other Roads
- White River National Forest
- Existing Blue River Bikeway

NORTH

0 1,000 Feet

Project Overview

FEDERAL HIGHWAY ADMINISTRATION/COLORADO DEPARTMENT OF TRANSPORTATION
SECTION 106 TRIBAL CONSULTATION INTEREST RESPONSE FORM

PROJECT: State Highway 9/Iron Springs Environmental Assessment, Summit County, Colorado
The _____ Tribe [**is / is not**] (*circle one*) interested in becoming a consulting party for the Colorado Department of Transportation project referenced above, for the purpose of complying with Section 106 of the National Historic Preservation Act and its implementing regulations (36 CFR 800). If your tribe will be a consulting party, please answer the questions below.

Signed:_____
Name and Title

CONSULTING PARTY STATUS [36 CFR §800.2(c)(3)]
Do you know of any specific sites or places to which your tribe attaches religious and cultural significance that may be affected by this project?

Yes No If yes, please explain the general nature of these places and how or why they are significant (use additional pages if necessary). Locational information is not required.

SCOPE OF IDENTIFICATION EFFORTS [36 CFR §800.4(a)(4)]
Do you have information you can provide us that will assist us in identifying sites or places that may be of religious or cultural significance to your tribe?

Yes No If yes, please explain.

CONFIDENTIALITY OF INFORMATION [36 CFR §800.11(c)]
Is there any information you have provided here, or may provide in the future, that you wish to remain confidential?

Yes No If yes, please explain.

Please complete and return this form within 60 days via US Mail, fax or Email to:

Dan Jepson, Section 106 Native American Liaison
Colorado Department of Transportation
Environmental Programs Branch
4201 E. Arkansas Ave., Shumate Bldg.
Denver, CO 80222
FAX: (303) 757-9445
daniel.jepson@state.co.us

TRIBAL MAILING LIST
SH 9 Iron Springs EA

Tribal Chairs (Primary Contact):	Copy of Letter and Attachments Sent to:
Ms. Janice Prairie Chief-Boswell, Chairwoman Cheyenne and Arapaho Tribes of Oklahoma P.O. Box 38 Concho, OK 73022	Mr. Dale Hamilton, Arapaho Director Cultural Heritage Program Cheyenne and Arapaho Tribes of Oklahoma P.O. Box 145 Concho, OK 73022 Ms. Karen Little-Coyote, Cheyenne Director Cultural Heritage Program Cheyenne and Arapaho Tribes of Oklahoma P.O. Box 145 Concho, OK 73022
Mr. Jim Shakespeare, Chairman Northern Arapaho Business Council Northern Arapaho Tribe P.O. Box 396 Fort Washakie, WY 82514	Ms. Darlene Conrad NAGPRA Representative Northern Arapaho Tribe P.O. Box 396 Ft. Washakie, WY 82514
Mr. Leroy Spang, President Northern Cheyenne Tribal Council Northern Cheyenne Tribe P.O. Box 128 Lame Deer, MT 59043	Mr. Conrad Fisher Tribal Historic Preservation Officer Northern Cheyenne Tribe P.O. Box 128 Lame Deer, MT 59043
Mr. Jimmy Newton, Jr., Chairman Southern Ute Indian Tribe P.O. Box 737 Ignacio, CO 81137	Mr. Alden B. Naranjo NAGPRA Coordinator Southern Ute Indian Tribe P.O. Box 737 Ignacio, CO 81337
Ms. Irene Cuch, Chairwoman Uintah & Ouray Tribal Business Committee Ute Indian Tribe P.O. Box 190 Ft. Duchesne, UT 84026	Ms. Betsy Chapoose, Director Cultural Rights & Protection Office Ute Indian Tribe (Uintah & Ouray Reservation) P.O. Box 190 Ft. Duchesne, UT 84026
Mr. Gary Hayes, Chairman Ute Mountain Ute Tribe P.O. Box 248 Towaoc, CO 81334	Mr. Terry Knight, Sr. Tribal Historic Preservation Officer Ute Mountain Ute Tribe P.O. Box 468 Towaoc, CO 81334

STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION

Region 1 Mountain Residency
P.O. Box 399
Dumont, CO 80435
(303) 512-5600
Fax (303) 512-5675

Meeting: SH 9 Iron Springs CDLT Conservation Easement- Minutes

Date/Time: Thursday, November 15, 2012/10:30am
Location: Mountain Residency, Continental Divide Room

Attendees: See sign in sheet- attached
Invitees:

Peter Kozinski	Program Engineer
Grant Anderson	Resident Engineer
Chuck Attardo	R1- Environmental
Gerak, Janet;	R1- Environmental
Kramer, M Jay;	R1- ROW
Shendleman, Terrene;	R1- ROW
Oppermann, Francis (Yates)	EPB
Leigh Girvin	Director, CDLT
Brian Lorch	Summit County
Jim Curnutte	Summit County

Meeting notes in italics

1. **Qualities/Goals of the Conservation Easement**
   Iron Springs was old Denver Water property, but became surplus when SH 9 was built in the area.
   Summit County, Towns, used their own funds plus GOCO (Great Outdoor Colorado-Lottery) funds to purchase the property from Denver Water.

   <u>The Conservation Easement values/goals--7 Criteria to purchase properties:</u>
   -Community Separator (to keep Towns from merging together through development)
   -Undeveloped "buffer" to wilderness
   -Scenic Backdrop, undeveloped
   -Wetland area (FEN)
   -Critical Winter Elk Habitat:
   -Recreation Opportunities

2. **Can these still be met?**

Most likely, yes, as an Amendment to the existing easement

One of CDLT's concerns is process related, and how their time and expenses can be compensated for work to make the Amendment proceed. CDLT is not highly funded.

Jay stated that the issue of compensation will need to be addressed at the appropriate time in the process. As a clarification, the ROW process would ideally occur as a post NEPA activity and that process would entail modification of the existing easement (after NEPA approval) if that is the mutually preferred course of action

GOCO has review and approval authority of modifications to the easement to ensure the intent of the easement is maintained

The GOCO rep is aware of the current discussions
Jay offered to be available for GOCO discussion if needed

a. CDOT ROW

i. Color Map Review

CDOT owns a modified portion of the original mapped "red" area, about 15.5 acres. This could potentially be the amended area to compensate for a "take" at roughly a 1:1 ratio, or slightly more.

-Grant will send out an updated map with correct numbers with these minutes

b. Other?

Group concurred that there is no need to look at other areas for the land swap; this location works very well for all parties

3. What is the BEST Solution?

Amend existing easement to make it whole, with potential for more value added

4. Next Steps?

CDLT will be looking for "enhanced" look to the new recreation path that matches the easements goals and values. Vegetation, wetlands, natural feel

Summit County (as the land owner) would request the amendment
May need a cost estimate, involves work on Summit County side as well

CDLT prefers to do an amendment vs a condemnation process. They also see benefits to the project and are supportive of it moving forward.

Determine how to manage a "cost recovery" for CDLT staff time
Jay- suggested if we could keep a tally during EA process and be patient, it may be easier to deal with cost recovery during a ROW phase, especially if amounts are modest.

Yates- asked- Could funds go to CDLT to "upgrade" a CDOT baseline path, then they could possibly "leverage" those funds to accomplish desired enhancements to rec path base design.

Grant to produce graphic of a CDOT base design (with County) including Typical Section for group's review. CDLT will provide enhancements they would require.

Yates would like to see a proposal from CDLT, "here's what we'd like to do…", would prefer to give them the funds to do their enhancements.

The CDLT is going to develop a proposal;
Summit County will design the bike path
Define the amount of authority the Board, County, & Town have

Grant noted it may be cheaper if CDOT does it with a project

Some discussion about the Antler House access occurred. It is shown as a "take" in the original EIS, most likely a "take" with this project as well

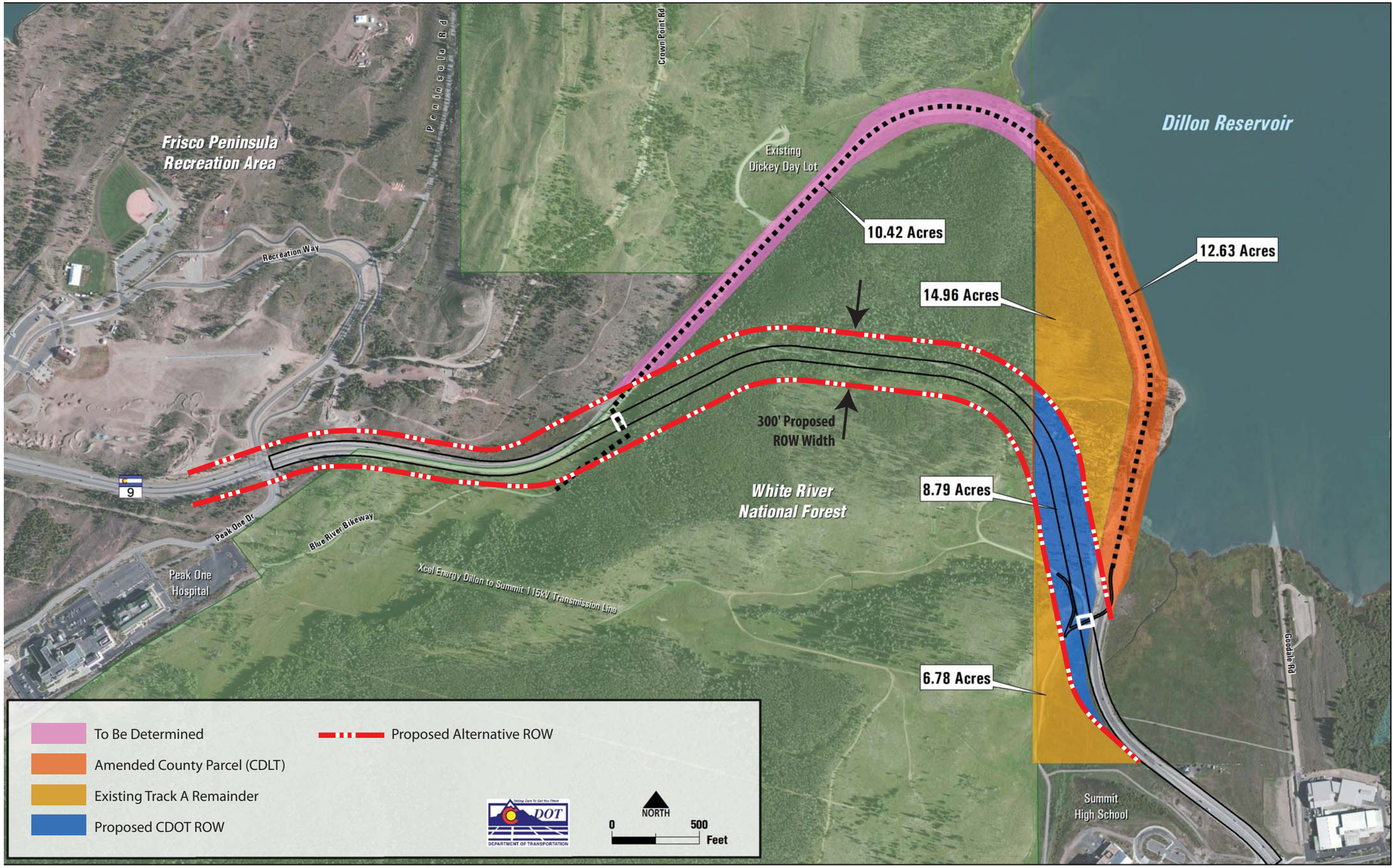
County task: Summit County is going to define roles and responsibilities

CDOT's goal is to get Letters of Support from all involved to include in the EA

CDLT CONSERVATION EASEMENT MTG.

11-15-12 10:30 AM

NAME	EMAIL
Leigh Girvin	director@cdlt.org
Mary Jane Webster	mj-webster@comcast.net
Jay Kramer - CDOT R1 ROW	jay.kramer@state.co.us
JANET GERAK	Janet.Gerak@state.co.us
Yates Oppermann	Francis.oppermann@state.co.us
Brian Lorch	Brianl@co.summit.co.us
David Bittner	dave@bittner.name



Proposed CDLT Easement Amendment Areas

NORTH

FELSBURG HOLT & ULLEVIG

USDA United States Department of Agriculture | Forest Service | White River National Forest

Supervisor's Office
900 Grand Avenue
Glenwood Spgs., CO 81601-3602
(970)945-2521
FAX (970)945-3266

File Code: 1950
Date: December 19, 2012

John M. Carter
Division Administrator
Federal Highway Administration
12300 W. Dakota Ave., Suite 180
Lakewood, CO 80228

Dear Mr. Carter:

Reference is being made to your November 1, 2012 letter to Jan Cutts, Dillon Ranger District, requesting the Forest Service participation as a Cooperating Agency in the Federal Highway Administration (FHWA) and Colorado Department of Transportation (CDOT) initiation of an Environmental Assessment (EA) to analyze the "Iron Springs alignment" of State Highway 9.

As you stated in your letter, the U.S. Forest Service - White River National Forest has jurisdiction over much of the land in the Highway 9 project and has special expertise related to the unique challenges in the area of the proposed highway realignment. Our participation in the Highway 9 Iron Springs Environmental Assessment is consistent with our involvement as a Cooperating Agency with CDOT and FHWA in the preparation of the State Highway 9 Breckenridge to Frisco EIS/ROD. The letter outlines the expectations and roles of the Forest Service toward completion of the EA.

I concur with the roles the Forest Service will undertake as a Cooperating Agency in the above mentioned project as outlined in your letter. As requested, I am returning a signed copy of your letter acknowledging my concurrence. I look forward to working with FHWA and CDOT on the "Iron Springs alignment" EA, and encourage you to work directly with the Dillon Ranger District as you embark on the additional studies leading toward completion of the Environmental Assessment. If you have any questions, please contact Paul Semmer on the Dillon Ranger District at (970) 262-3448.

Sincerely,

SCOTT G. FITZWILLIAMS
Forest Supervisor

Enclosure

cc: Peter Kozinski

U.S.Department of Transportation
Federal Highway Administration

Colorado Division

12300 W. Dakota Ave., Ste. 180
Lakewood, Colorado 80228
720-963-3000
720-963-3001

November 1, 2012

Ms. Jan Cutts
District Ranger
White River National Forest, Dillon Ranger District
680 Blue River Parkway
Silverthorne, CO 80498

RE: Iron Springs Environmental Assessment Cooperating Agency Letter

Dear Ms. Cutts:

The Federal Highway Administration (FHWA) and Colorado Department of Transportation (CDOT) have initiated an Environmental Assessment (EA) to analyze the "Iron Springs alignment" on SH 9. This new alignment removes approximately 2000 feet of the existing roadway around "Leslie's Curve" and moves the alignment to the west over Ophir Mountain on U.S. Forest Service (USFS) lands (see attached map). This alignment was evaluated in the SH 9 Breckenridge to Frisco Draft EIS, but it was dismissed due to high cost. In 2011 Summit County and other local governments requested that we analyze the costs and benefits of this alignment more closely. Based on that request, CDOT performed preliminary engineering and environmental "red flag" analysis to refine construction costs for this alignment. The analysis shows that construction costs are very similar between the alternative selected in FHWA's Record of Decision (ROD) and the proposed Iron Springs alignment. In addition, FHWA and CDOT believe that there are safety, maintenance, and mobility benefits to the Iron Springs alignment. The Iron Springs alignment also appears to have less environmental impacts and greater opportunities to improve recreational resources in the immediate area that are an important economic driver for the local governments.

FHWA and CDOT foresee three challenges as we work toward a decision document in the summer of 2013. First, the Iron Springs alignment crosses a known fen between the Summit County High School and the back end of Lake Dillon. FHWA and CDOT will need to demonstrate that the Iron Springs alignment has fewer impacts to the fen than the Preferred Alternative in the ROD. Second, there is an easement held by the Continental Land Divide Trust for the proposed realignment of the Breckenridge to Frisco Bike Path. The easement overlaps with the location of the proposed Iron Springs alignment. CDOT and FHWA will need to identify an acceptable land swap and develop alternatives to enhance the current bike path safety, alignment, and recreation experience. Third, the current access to the USFS Dickey Day use area around the corner of Leslie's Curve will be reevaluated. CDOT and FHWA would like to partner with you to collaborate other access points that meet USFS management goals of this recreational area and hopefully enhance the recreational user's experience of this beautiful lakeside area.

The USFS has jurisdiction over much of the land the project crosses and has special expertise related to all three challenges listed above. Therefore, per 40 CFR § 1501.6, we are requesting that your agency serve as a Cooperating Agency for this EA. This request remains consistent with your involvement on the SH 9 Breckenridge to Frisco EIS/ROD where you also served as a Cooperating Agency.

Your agency's involvement would entail review and comment for issues under your jurisdiction and expertise. No direct writing or analysis for the document preparation will be necessary. We plan to do the following to maximize interagency cooperation:

1. Invite you to participate on various committees and attend major milestone coordination meetings
2. Consult with you on any relevant technical studies that will be required for the project
3. Organize joint field reviews with you
4. Provide you with project information, including study results
5. Encourage your agency to express your views on subjects within your jurisdiction or expertise
6. Ensure that your agency is comfortable with the EA format proposed for this project
7. Include information in the EA that lead agencies need to fulfill their responsibilities under the National Environmental Policy Act (NEPA), as well as other requirements for jurisdictional approvals, permits, licenses, and/or clearances.

You have the right to expect that the study will enable you to fulfill your jurisdictional responsibilities. Likewise, you have the obligation to tell us if, at any point in the process, your needs are not being met. We expect that at the end of the process the study will satisfy your NEPA requirements including those related to project alternatives, environmental consequences, and mitigation.

If you concur with the proposed role for your agency on this project, please sign and return a copy of this letter for our files. If we don't hear from you within 30 days from the date of this letter, we will assume you have not accepted this role.

We thank you for the time and expertise you have provided the project team as we consider the Iron Springs alignment on SH 9. We look forward to your acceptance of our invitation to continue your involvement as a cooperating agency as we embark on a revised study to focus on cost savings and benefits for this new alternative. If you have any questions, or would like to discuss the project or our agencies' respective roles and responsibilities during the preparation of this study, please contact Ms. Stephanie Gibson at 720-963-3013 or at Stephanie.Gibson@dot.gov.

Sincerely,

For John M. Cater
Division Administrator

U.S. Forest Service
The USFS agrees to be a Cooperating Agency per 40 CFR § 1501.6 and as outlined above.

Signed by

12/17/12
Date

FEDERAL HIGHWAY ADMINISTRATION/COLORADO DEPARTMENT OF TRANSPORTATION
SECTION 106 TRIBAL CONSULTATION INTEREST RESPONSE FORM

PROJECT: State Highway 9/Iron Springs Environmental Assessment, Summit County, Colorado
The Northern Arapaho Tribe [**is**/ **is not**] (*circle one*) interested in becoming a consulting party for the Colorado Department of Transportation project referenced above, for the purpose of complying with Section 106 of the National Historic Preservation Act and its implementing regulations (36 CFR 800). If your tribe will be a consulting party, please answer the questions below.

Signed: Darlene Conrad D. Conrad THPO
Name and Title

CONSULTING PARTY STATUS [36 CFR §800.2(c)(3)]
Do you know of any specific sites or places to which your tribe attaches religious and cultural significance that may be affected by this project?

Yes No If yes, please explain the general nature of these places and how or why they are significant (use additional pages if necessary). Locational information is not required.

SCOPE OF IDENTIFICATION EFFORTS [36 CFR §800.4(a)(4)]
Do you have information you can provide us that will assist us in identifying sites or places that may be of religious or cultural significance to your tribe?

Yes No If yes, please explain.

CONFIDENTIALITY OF INFORMATION [36 CFR §800.11(c)]
Is there any information you have provided here, or may provide in the future, that you wish to remain confidential?

Yes No If yes, please explain.

Requesting Cultural Resource Inventory Class III for Review.

Please complete and return this form within 60 days via US Mail, fax or Email to:

Dan Jepson, Section 106 Native American Liaison
Colorado Department of Transportation
Environmental Programs Branch
4201 E. Arkansas Ave., Shumate Bldg.
Denver, CO 80222
FAX: (303) 757-9445
daniel.jepson@state.co.us

STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION

Region 1 Mountain Residency
P.O. Box 399
Dumont, CO 80435
(303) 512-5600
Fax (303) 512-5675

Meeting: SH 9 Iron Springs Terrestrial Wildlife

Date/Time: Monday, January 28, 2013, 10:30am
Location: Mountain Residency, Straight Creek Conf. Room

Attendees:

Peter Kozinski	Program Engineer
Grant Anderson	Resident Engineer
James Eussen	R1- Environmental
Francesca Tordonato	R1- Environmental
Jeff Peterson	CDOT EPB
Elissa Knox	Colorado Parks and Wildlife
Sean Shepherd	Colorado Parks and Wildlife
Michelle Cowardin	Colorado Parks and Wildlife
Kirk Oldham	Colorado Parks and Wildlife
Alison Michael	U.S. Fish and Wildlife Service
Melinda Urban	FHWA
Paul Semmer	USFS
Ashley Nettles	USFS
Thad Noll	Summit County
Brian Lorch	Summit County
Katie Kent	Summit County
Kurt Kolleth	FHU (Consultant)

SH 9 Irons Springs Wildlife Meeting Summary:

Grant Anderson and Peter Kozinski with CDOT provided an introduction to the Iron Springs project and discussed that an Environmental Assessment is currently being prepared that analyzes impacts associated with the proposed alignment. Construction of the proposed project (pending completion of the NEPA clearance) likely won't happen for 2 to 3 years.

Wildlife Overpass Discussion

Jim Eussen with CDOT provided a synopsis of the field review that was conducted with the natural resource agencies in November 2012. During the site visit, the preliminary location of a wildlife overpass was discussed in the field. Because of the amount of cut and fill associated with the proposed Iron Springs alignment, a wildlife overpass would be feasible to construct where the topography is suitable.

Colorado Parks and Wildlife provided verbal comments that an overpass is not recommended because the primary purpose of these structures is to connect large tracts of contiguous habitat associated with frequently used migration corridors. There was discussion that habitat within the study area is not particularly high in quality and the peninsula is managed primarily for recreation. CPW would rather see an overpass constructed in an area that has higher biological significance. In addition, they are concerned that if an overpass is placed in an area that is not biologically significant (and doesn't have a high occurrence of ungulate use) this particular structure type (overpass) could be perceived as ineffective and the functionality may be questioned.

Discussion on Multi-Use Underpasses

Currently, there are two multi-use underpasses that are proposed at each end of the project. The primary purpose of these underpasses is for recreational use but they could be oversized to provide a separate path (natural substrate) for wildlife usage. There was discussion about lighting and CDOT noted that it's possible to leave these underpasses unlighted (which would be more wildlife friendly). In general, having a multi-use underpass with a recreation path greatly diminishes the probability that larger mammals will use these structures. In addition, these underpasses aren't in the most desirable location in terms of landscape and habitat quality.

Wildlife Underpass Discussion

CPW would like to see a "wildlife only" underpass incorporated into the project (such as a steel arch). There is a small drainage near the middle portion of the alignment that is going to require a drainage structure that could possibly be oversized to provide a crossing for small/medium and maybe large mammals. CDOT expressed concern about the amount of earth work that would be required to construct an underpass at this location. In addition, because of the topography it may be more costly to try and construct an oversized underpass than the wildlife overpass.

CPW is going to provide specific height and width recommendations for an underpass.

Fencing

There was a general comment that without adequate fencing the majority of wildlife crossings won't work (fencing works to funnel animals to the crossing). If fencing were incorporated there would need to be an adequate number of jump outs to ensure animals don't get trapped. If fencing isn't placed correctly it can do more harm than good and it impacts the permeability of the road.

Elk Use in the Iron Springs Study Area
The majority of the study area is designated winter range for elk and there is a small resident or local herd that accesses suitable habitat in the winter. In addition, there are likely isolated winter range movements and several meeting attendees noted recently seeing elk cross SH 9 to access the peninsula. The amount of movement to winter habitat within and adjacent to the study area is dependent on the climate (and when winters are mild) elk generally tend to stay at higher elevations. In more severe winters, habitat within and adjacent to the study area could potentially see more use by elk. The herd here is isolated and there is pressure by recreation and development.

Discussion on Canada Lynx
A BA is currently being prepared in conjunction with the EA and CDOT is leaning towards a may affect but not likely to adversely affect (NLAA) determination for Canada lynx based on the following: lack of suitable habitat, recreational use on the peninsula, and lack of connectivity to suitable habitat (and no record of lynx on the peninsula). No mitigation would be required by the NLAA determination. There was a comment by the USFS that USFS projects within a Lynx Analysis Unit (LAU) that result in permanent habitat loss are generally an adverse effect and require mitigation.

Proposed Iron Springs Alignment vs. EIS Alignment
There was general comment that in terms of permanent habitat loss the Iron Springs alignment will have greater impacts on wildlife when compared to expanding SH 9 on the existing alignment. There will be more tree removal and the proposed Iron Springs alignment will be bisecting and fragmenting elk winter range and mule deer summer range.

After much discussion, the natural resource agencies (CPW and USFS) concluded with the following recommendations:

- The Iron Springs project is not the best location for a wildlife overpass.
- Fencing can have impacts on wildlife- they do not recommend incorporating wildlife fencing into this project.
- Make culverts wildlife friendly- culverts should be tall and wide with a natural bottom to encourage use by wildlife. CPW recommends providing an oversized “wildlife only” underpass in the small drainage).
- CPW recommends onsite habitat improvements- such as planting mature trees to provide thermal and protective cover.
- USFS and CPW recommend looking for offsite mitigation opportunities (CDOT could provide a financial contribution to the USFS to plant trees, etc.)

Peter indicated that the preference is to have a partnership between agencies, better to give USFS money to get the best mitigation done- MOU could start today

Michelle Cowardin indicated that this project definitely impacts wildlife and contributes to fragmented habitat. She indicated this was not easy for CPW to get to these decisions

Ashley also indicated that revegetation could be mitigation for Lynx

Paul indicated he wants another meeting to discuss the rehabilitation of the “old” roadway with the affected parties, CDOT, Summit County, USFS

COLORADO PARKS & WILDLIFE

Hot Sulphur Springs Service Center
346 Grand County Road 362 • Hot Sulphur Springs, Colorado 80451
Phone (970) 725-6200 • FAX (970) 725-6217
wildlife.state.co.us • parks.state.co.us

February 1st, 2013

Grant Anderson
CDOT Region 1- Mountain Residency
P.O. Box 399
Dumont, CO 80436

Dear Mr. Anderson,

Colorado Parks and Wildlife (CPW) has received a request for comments on the proposal for a wildlife over-pass in the Iron Springs realignment of Highway 9. Colorado Parks and Wildlife has reviewed the proposal and participated in a site visit for this project.

Roads can affect wildlife populations in a variety of ways. These include habitat loss and fragmentation, barriers to daily and seasonal animal movements, and wildlife mortality. The presence of wildlife on roadways increases the probability for accidents and can endanger motorists. CPW is encouraged that the Colorado Department of Transportation is considering the impacts that roads pose to wildlife and considering additional ways to improve motorist safety. Wildlife crossings allow for access and connectivity between habitats. They allow for movement and connections between animal populations. They also provide for the safety of motorists and diminish wildlife mortality on roadways.

CPW has reservations about a wildlife overpass in the Iron Springs area and has the following comments to offer. CPW believes that a wildlife overpass in this area would have limited benefits to wildlife. This proposed overpass would allow for connectivity to the Frisco Peninsula. The US Forest Service (USFS) classifies the area as managed for developed recreation complexes. As such, the Frisco Peninsula is extensively used for recreation. In winter it is home to several commercial operations, including: Tubing hill-complete with night lighting and snowmaking; a cross country ski lodge and trail system; and evening sleigh rides with a winter dining experience. In summer the activities on the Peninsula include a bike park, a Frisbee golf course, a USFS campground, lighted ball parks, and hay rides with chuck wagon dinners. In addition to the developed recreation, the area is a very popular dispersed recreation area with an extensive trail system.

The Frisco Peninsula has recently been nearly completely logged to remove dead lodge pole pine. The removal of the forest has reduced thermal and protective cover for small and large mammals. In the future, the forest will certainly regenerate. However, CPW does not foresee any decrease in the human use of the area.

A wildlife overpass can allow for seasonal migration. This proposed overpass has no benefit for seasonal migration. The Frisco Peninsula is isolated from surrounding habitat. It is bounded by the Dillon Reservoir and the Town of Frisco. The Frisco Peninsula is approximately 500 acres. Migrating

species that move into the Peninsula will be stopped by the presence of the reservoir and the Town of Frisco. They likely will quickly return to more suitable habitat on the south side of the project.

Human safety is CPW's first priority with the Iron Springs project. Wildlife overpasses are designed to reduce vehicle wildlife collisions and therefore improve human safety. CDOT has provided a summary of information on road kill in the Iron Springs area from 2006 to 2011. It shows that Colorado State Patrol and CDOT have responded to 21 deer collisions and 5 elk collisions in that five year period. The 2012 CDOT report indicates that there was one deer collision in the Iron Springs area of Highway 9. There are potentially other solutions to reducing wildlife collision. They could include fencing, signage, reduced speeds, and the clearing of trees to improve sight ability of wildlife. CPW is committed to working with CDOT on solutions that will improve the safety of motorists in the Iron Springs area.

CPW understands that one consideration in the concept of a wildlife overpass in the Iron Springs area is the presence of lynx. A lynx was killed by a vehicle within the last ten years on Highway 9 approximately two miles south of Iron Springs. A wildlife overpass in Iron Springs would not have prevented this mortality. The Frisco Peninsula is not appropriate lynx habitat, is heavily impacted by human activities, and allows for no migration path for lynx and connectivity of lynx habitat. CPW believes that a wildlife overpass in this area would not have any significant benefit to the population or movement of lynx in Summit County. CPW would encourage and support future efforts to improve wildlife crossing in higher priority areas along Highway 9 south of the Iron Springs project.

CPW recommends that the wildlife overpass concept in the Iron Springs area be replaced by adequate fencing and appropriately sized underpasses that allows large ungulates to move through. This will facilitate the movement of animals and connections among wildlife populations and increase motorist safety. Underpasses that are primarily designed and used as recreational pathways do not allow for adequate wildlife movement. These underpasses will allow for wildlife movement of species that are comfortable with human activities. This includes such species as coyote, fox, and raccoon. However, species that commonly avoid human activity will not utilize this type of underpass. CPW requests to participate with any discussions of correct design and placement of wildlife underpasses.

CPW would like to thank you for the opportunity to comment on this project. If you have any questions, please contact Sean Shepherd at 970-485-2922.

Sincerely,

Sean Shepherd
District Wildlife Manager-CPW

cc: Ron Velarde-Regional Manager-CPW
Lyle Sidener-Area Wildlife Manager-CPW
Michelle Cowardin-Biologist-CPW
Kirk Oldham-Biologist-CPW
Elissa Knox-District Wildlife Manager-CPW

STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION

Region 1 Mountain Residency
P.O. Box 399
Dumont, CO 80435
(303) 512-5600
Fax (303) 512-5675

Meeting Minutes: SH 9 Iron Springs Template EA
Visual Resources Coordination Meeting

Date/Time: Wednesday, March 13, 2013/3:15pm
Location: CDOT Mountain Residency – Straight Creek Conference Room

Attendees: See Attached Sign in Sheet

Meetings Notes in italics

1. Introductions/Update

This meeting is a follow-up to the visual resources field meeting held in February. After introductions, Belinda updated the group on the status of the visual resource analysis. The latest graphical simulations and analyses were presented, and a number of topics were discussed as highlighted below.

2. Viewshed Analysis/ Cut and Fill Graphics/ Visual Simulation

Draft viewshed analysis graphics were provided and discussed. It was noted that the relocated path in the no action alternative is not yet shown on these graphics. The relocated path will require a steep grade and large hillside cut that will be shown in the analysis and simulations, where applicable. The viewshed analysis indicates that the structures at either end of the project will be the most visible from multiple viewpoints, and therefore should receive the most attention with regard to aesthetics.

Cut and fill graphics for each alternative were provided and discussed. It was noted that the no action alternative, previously approved in the EIS/ROD, uses tall rock cuts and walls, while the proposed alternative uses 3:1 slopes primarily. Grant notes that the slopes represent the worst case for the EA analysis in terms of footprint, and that some additional walls may be included in final design.

The latest visual simulation, from near the high school looking west along the alignment, was reviewed in draft form. The group was pleased with the simulation in general, and noted that the corridor aesthetic guidelines should be applied when it is finalized.

The additional viewpoints previously identified were discussed using a map provided by Belinda. Belinda also provided an outline for the visual resources report. These were supported by the group.

3. Corridor Aesthetic Considerations

Grant noted that the corridor aesthetic guidelines developed through the EIS process were build on a multi-agency collaboration and have broad support. There should be used as the basis for this project, with additional detail added as needed for specific project activities.

It was noted that the corridor aesthetic guidelines specify black lightposts; no lightposts are planned for this project, but green should be used through USFS lands if needed.

There was discussion of retaining walls that could be used in some cases to minimize slopes. This will be decided in final design, when more detail is available. Grant noted that any walls would need to consider wildlife needs. Donna noted that minimizing slopes would reduce the area to be revegetated, particularly since revegetation is difficult in this climate. Donna suggested that short boulder walls may be appropriate in some cases. Glenwood Canyon was cited as a good example for walls. Donna suggested that the visual resources report show a conceptual example illustration of slopes versus walls for a generic location.

There was discussion about the visual effects of the planned forest cutting and regeneration. Donna noted that transplanting trees might be helpful in some areas; ponderosa, spruce and fir were noted as possibilities, with aspen noted as difficult to transplant. The USFS botanist has some planting information. Donna suggested that the short term and long term effects of cutting be kept in mind.

Grant highlighted that the visual report should provide a palette of tools for use in final design.

It was noted that there will likely be a site identified for a sign providing interpretive information for the Dillon Placer Mine historic site.

Donna suggested that rock staining might be considered for the existing rock cuts along the path relocation.

4. Next Steps

CDOT will prepare the visual resources technical report, and will follow-up with the other agencies as needed.

Sign In 3/13/13

SH 9 Meeting - Virual Kervices at CDOT Mt. Resdency 3:15 pm

Name	Org	E-mail
Thor Gjelsteen	FHU	thor.gjelsteen@fhueng.com
Brian Lorch	Summit County	brianL@Co.Summit.co.us
TIM Mack	TOWN of FRISCO	timm@townoffrisco.com
Jen Klaetsch	CPOT	jennifer.klaetsch@state.co.us
BELINDA ARBOGAST	CDOT	belinda.arbogast@state.co.us
GRANT ANDERSON	CDOT	grant.anderson@state...
Donna Graham	USFS	dlgraham@fed.us.fs

STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION

Region 1 Mountain Residency
P.O. Box 399
Dumont, CO 80435
(303) 512-5600
Fax (303) 512-5675

Meeting Minutes: SH 9 Iron Springs Template EA
Vegetation Wildlife Mitigation Coordination Meeting

Date/Time: Wednesday, March 13, 2013/1:00pm
Location: CDOT Mountain Residency – Straight Creek Conference Room

Attendees: See Attached Sign in Sheet

Discussion Topics:
Notes in italics

1. Introductions/Update

After introduction, Grant updated the group on the status of the project in general, and specifically on the combined drainage and wildlife underpass to be included in the project. The largest practical size will be used, which appears to be 10' high x 16' wide, to maximize wildlife benefits. Small and medium sized animals are being targeted to use the structure, and no fencing is proposed, per previous agency coordination discussions.

Grant noted that the two underpasses for the Frisco-Breckenridge multi-use path will also be relatively large, as large or larger than the combined drainage/wildlife underpass. There will not be any lighting in these underpasses.

With respect to other mitigation measures, Grant noted that the concept design is now finished and the who, what and where of any needed mitigation measures now needs to be decided for the EA. He noted that there will be 3-4 acres on-site available for revegetation, with the conversion of the highway segment to multi-use path.

2. USFS Mitigation Options

Ashley when through an option summary (attached) with impacts and mitigation options identified for discussion by USFS. She noted the following:

- *USFS has identified project impacts and offsetting mitigation that they would like to see implemented with the project.*
- *USFS sees habitat fragmentation and loss of connectively as an impact, but does not believe that that the immediate vicinity of the project is the best place for connectivity improvement measures.*
- *Ashley stated that elk winter range will be lost due to the area north of the new road alignment becoming inaccessible.*

- *USFS would like to take a broad-scale, landscape approach to mitigation.*

The USFS options summary highlights three proposed mitigation measures:

1. *A connectivity study to provide information to agencies for future plans and action*
2. *Road decommissioning – decommissioning of forest road to offset loss of permanent habitat and habitat effectiveness.*
3. *Tree felling and burning – implementation of fuels and forest health measures to offset winter range fragmentation*

Measures 2 and 3 would be conducted at other locations in Summit County, and Ashley stated that these have received NEPA approval. In addition, Ashley indicated that Denver Water matching funds may be available for these actions.

The timing of these potential mitigation measures was discussed. The USFS would take the actions, and they might come later than the project construction.

Leigh noted that the CDLT takes snowshoe hikes into Iron Springs and there are many elk tracks in that area. It was noted by the group that there are a number of roads in the Iron Springs vicinity that might be targeted for decommissioning.

Sean noted that habitat enhancement away from highways can pull the wildlife away from the roadway and increase safety by reducin animal-vehicle collisions.

3. Other Discussion - CDLT Input

Grant asked Leigh to share and CDLT view and concerns. Leigh indicated that the look of the property will be very important to the CDLT members and board. The CDLT charge is to protect the property forever. The conservation easement was acquired with GOCO funds. The rec path experience will be key, in that users should see the changes as an improvement

Leigh noted that the CDLT charter for the property lists several goals, including:

- *Buffer between communities*
- *Scenic qualities*
- *Recreation*

Grant noted that while major earthwork reshaping the topography to pre-highway condition is probably note possible, CDOT shares that goal of providing a positive experience for path users.

There was discussion among the group of landscape treatments, with native plants noted as preferable. More work will be done on this through final design. The commitment will be made in the EA, with final details to be included in final design.

Leigh noted that the Dickey Day lot users include fisherman and people walking dogs. She expressed concern regarding the compatibility of these users with bikes on the replacement path. She was, however, supportive of eliminating the access point off SH 9.

Leigh asked about the public process. Grant indicated that CDOT will be working on a fact sheet and other ways to communicate. The EA public meeting will likely be in the fall of 2013.

4. Next Steps

The next step is for Grant and the CDOT project team to discuss the mitigation options proposed by USFS within CDOT and with FHWA. Follow-up can then be scheduled, as needed, with regard to mitigation commitments.

Sign In

3/13/13

SHG Mtg - Mitigation
at Mt. Residence 1pm

Name	Org	Email
Thor Gjelsteen	FHU	thor.gjelsteen@fhuevy.com
Ashley Nettles	USFS	anettles@fs.fed.us
SEAN SHEPHERD	CPW	sean.shepherd@state.co.us
Brian Lorch	Summit County	brianl@co.summit.co.us
Leigh Girvin	Continental Divide Land Trust	director@cdlt.org
Jeff Peterson	CDOT	jeff.peterson@state.co.us
Jen Klaetsch	CDOT	jennifer.klaetsch@state.co.us
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Wendy Magwire	USFS	wmagwire@fs.fed.us
EVAN KIRBY	FHU	EVAN.KIRBY@FHU.COM

CDOT Highway 9 Realignment Project – Wildlife Mitigation Options

Last updated 3/13/2013

Prepared by:
Ashley Nettles
District Wildlife Biologist
Dillon Ranger District
White River National Forest

- **Connectivity**
  - A connectivity and highway crossings analysis/study for southern Summit County which includes I-70, Highways 9, 6, and 91.
    - Estimate from Bill Reudiger (Wildlife Consulting Resources) - $16,315
    - Estimate from Julia Kintsch (ECO-Resolutions) - $17,490
  - Target Species
    - Canada lynx
    - Black bear
    - Mountain lion
    - Bobcat
    - Elk
    - Deer

- **Permanent Loss of Habitat and Habitat Effectiveness**
  - Road decommissioning in key biological areas in southern Summit County
    - Estimate for contractor to complete - $20,000/mile
      - Includes full recontour, scattering trees, ripping and seeding with native seed
      - Includes culverts, stream crossings, rehab crew work, soil amendments if necessary, native grass seeds, Wildland Restorations Volunteers work, etc.
    - Roads are already identified and prioritized in Swan River Watershed and important lynx connectivity areas – 6 miles
    - NEPA has been completed for all identified roads and is tied to our Travel Management Plan
  - Road Decommissioning will help to mitigate effects of permanent habitat loss, habitat effectiveness, and habitat fragmentation for target species.
    - 1 mile of new road will impact 620 acres of elk winter range (includes footprint and disturbance near the new road; habitat effectiveness is reduced in 620 acres).

- 6 miles of road decommissioning in lynx movement corridor will help to offset connectivity impacts from proposed highway realignment.

- Target Species
  - Canada lynx
  - Elk

- **Winter Range Fragmentation**
  - Implement Breckenridge Fuels and Forest Health timber units that abut elk winter range around Muggins Gulch.
    - Implementation includes felling and burning of trees for which analysis has been completed.
    - Cost estimate to offset approximately 60 acres of elk winter range that would be fragmented and inaccessible:
      - $1500/acre for a handcrew to fell trees and burn piles on the ground- $90,000
      - Denver Water Board is interested in funding some of the removal as well, which is an opportunity for more matching funds.
  - Target Species
    - Elk
    - Deer

<u>Summary of costs for mitigation</u>
Connectivity analysis - $20,000
Road decommissioning - $120,000
Winter Range improvements - $90,000
Salary days for Ashley to implement (30 days) - $9000
Total cost - $239,000

Opportunities:
- All of the above are shelf-ready and can be implemented beginning this summer of 2013.
- These mitigation projects will benefit the Swan River Watershed which is a priority watershed for the White River National Forest and for Forest Service Region 2. This works will help to achieve landscape restoration in a priority watershed.
- Mitigation costs will go into the Dillon Ranger District Wildlife Foundation Fund which will continue to be added to by other proponents such as Vail Resorts. This fund will be used to continue restoring wildlife habitat in southern Summit County to offset some of the impacts to wildlife from developments, infrastructure, recreation, and population growth.
- Other partners such as Summit County, Climax Mine, Town of Frisco, Vail Ski Resorts, and Copper Mountain Ski Resort can facilitate mitigation in the future.

Nettles, Ashley -FS

From: Bill Ruediger <wildbill@montana.com>
Sent: Friday, February 15, 2013 5:34 PM
To: Nettles, Ashley -FS
Cc: wildbill@montana.com
Subject: Cost Estimate - Highway 9

Hi Ashley: Here is the cost estimate for the SH9 project we discussed yesterday.

The project would involve coordinating with the below partners, field review of the SH9 relocation project and alternative (off-site) mitigation sites, recommendations for wildlife crossings, fences, review of all existing highway crossing structures such as drainage and forest highway under crossings for potential use by wildlife, conducting the meeting with agencies to determine the most feasible and cost effective wildlife crossings and/or other mitigation, preparation of draft and final reports, travel and all other foreseeable expenses required.

1. **Preliminary contacts, map evaluations and project initiation.** Includes contacting Forest Service, Colorado Div of Parks and Wildlife, Colorado DOT, US Fish and Wildlife Service and other partners. Arrange transportation and logistics. 3 days @ $800/day ($100/hr) = $2,400.

2. **Field review** of primary project area and off site mitigation potential. This would include 1 day pre-meeting review, field and office overview with CDOT and partners, post project coordination and travel. 5 days @ $800/day = $4,000.

3. **Post review assessment** of input and preparation of draft report. Includes necessary contacts with partners, map prep and draft report. 5 days @ $800/day = $4,000.

4. Comment review and **preparation of final report**. 3 days @ $800/day = $2,400.

5. **Travel expenses;** Approximate – airfare $600. 5 days @ US Government per diem rate ($148/day) = $740. Rental car @$35/day = $175. Total = $1,515

6. **GIS support**, report and miscellaneous = $2,000.

Note: All support costs, travel and misc would be billed on actual cost.

Total estimated for the SH 9 project: $16,315.

Bill Ruediger, Wildlife Biologist
Wildlife Consulting Resources
1216 Creek Crossing
Missoula, MT 59802
406-721-4868

ECO-resolutions, LLC

PO Box 646, Golden, Colorado
Tel: 303-818-1460

March, 12, 2013

Ashley Nettles
USDA Forest Service, Dillon Ranger District

RE: Cost estimate for proposed lynx highway crossings analysis, southern Summit County

Dear Ashley,

Thank you for this opportunity to submit a preliminary cost estimate for a study of potential highway crossing areas for Canada lynx and other target species in the southern portion of Summit County. The purpose of this analysis is to proactively identify the best locations for lynx highway mitigation at a regional scale. The analysis will tie into existing habitat restoration efforts, as well as identified lynx crossing zones on Interstate 70 identified by the interagency ALIVE Committee and the I-70 EcoLogical project. The anticipated output of this study is a list of prioritized lynx mitigation measures for the southern portion of Summit County. Recommendations for minimizing and mitigating impacts to lynx and other wildlife will be based on the best-available data and information, and best practices research.

The proposed work activities are comprised of three primary steps, generally described below, and to be further defined in collaboration with USFS and other partners.

1. Data compilation and analysis to identify and prioritize roadway segments. The consultant will work with the Forest Service and other partners in the development of the prioritization process, which will be focused on the sections of Highway 9, Highway 6, and Highway 9 south of I-70 in Summit County. Data layers to be considered in the analysis include, but are not limited to: topography, land cover, land ownership, land management, lynx habitat, lynx movement, planned habitat restoration and road/trail decommissioning, and other species habitat or movement data.

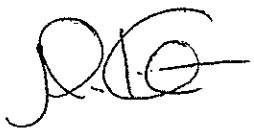
2. Structures and roadway assessment of prioritized roadway segments. The consultant will conduct a detailed assessment of each of the existing structures (culverts and bridges) located within the prioritized roadway segments for their ability to function as passageways for lynx and other wildlife using the Passage Assessment Tool (previously developed for the Washington Department of Transportation). The site assessment will also identify other

roadway and topographic features that may act as barriers to wildlife movement and suggest opportunities for constructing new crossing structures or other types of mitigation.

3. Recommendations development. For each prioritized roadway segment in the study area, the consultant will develop milepost-specific recommendations, including options for enhancing existing structures, constructing new crossing structures, and other mitigation strategies. These recommendations will provide USFS with a list of the most effective mitigation measures in the most important locations to compensate for impacts to lynx habitat and lynx movement in the study area. By taking into consideration other habitat restoration and mitigation efforts – such as planned road decommissioning and identified wildlife crossing zones on I-70 – these recommendations will be consistent with other conservation efforts for lynx and other wildlife within and adjacent to the study area. The recommendations will offer guidance for planning, budgeting and preliminary design purposes.

ECO-resolutions has extensive expertise in conducting wildlife crossing assessments, and I'm pleased to have the opportunity to submit an estimate for this study. I am available to begin the study this Spring, with a completion date of Fall/Winter 2013. Please don't hesitate to contact me should you have any further questions.

Kind Regards,



Julia Kintsch
Owner and Conservation Ecologist, ECO-resolutions, LLC

Encl.
Cost Estimate
Statement of Qualifications

PO Box 646, Golden, Colorado
Tel: 303-818-1460

Cost Estimate

The following cost estimate is based on the study methodology described herein and is subject to further refinement pending review and input from the study partners.

Task	Hours/Miles	Unit Cost	Total Cost
Task 1: Data compilation and road segment prioritization			
Labor	50 hours	$90/hr	$4,500
GIS Subcontractor	65 hours	$40/hr	$2,600
Travel – 2 coordination meetings	250 miles	$0.56/mile	$140
Task 1 Subtotal			**$7,240**
Task 2: Site Assessments			
Labor	60 hrs	$90/hr	$5,400
Travel – site assessments	500 miles	$0.56/mile	$280
Task 2 Subtotal			**$5,680**
Task 2: Recommendations Development			
Labor	50 hrs	$90/hr	$4,500
Travel – final meeting	125 miles	$0.56/mile	$70
Task 3 Subtotal			**$4,570**
Total			**$17,490**

PO Box 646, Golden, Colorado
Tel: 303-818-1460

Statement of Qualifications

ECO-resolutions LLC is dedicated to working closely with our clients to offer effective and practical conservation solutions based in sound science. We possess an exceptional comprehension of wildlife biology and assessing the impacts of human development and activities on wildlife, habitat and natural systems. Ms. Kintsch's research in wildlife ecology and behavior, in particular with regards to roads and infrastructure, leaves her with a solid understanding of the factors that influence wildlife activity and habitat use. She has conducted wildlife monitoring projects for over four years in two states, and has conducted habitat and site surveys at locations across Colorado. Ms. Kintsch collaborates regularly with state and federal transportation, land and wildlife agencies as well as with counties and municipalities on local, statewide and regional-scale projects. ECO-resolutions maintains an excellent track record in providing our clients with high quality products in a timely and cost-effective manner.

WORK CODES AND CERTIFICATIONS

541620 Environmental Consulting

ECO-resolutions LLC is a certified **Disadvantaged Business Enterprise (DBE)** and **Emerging Small Business (ESB)** with the Colorado Department of Transportation.

SELECT PROJECT EXPERIENCE

Highway 9 Wildlife Crossings Design (2012) – *Colorado Parks and Wildlife*
Supported the agencies in designing a 'shelf-ready' wildlife crossings project, including species-specific design recommendations for 2 wildlife overpasses, 5 underpasses, wildlife fencing and associated infrastructure.

Connectivity Assessment for the I-70 Mountain Corridor (2011) – *CDOT, FHWA*
Led team to analyze wildlife habitat, conduct wildlife monitoring, identify connectivity zones, and developed specific recommendations for restoring and mitigating transportation impacts on habitat connectivity for wildlife and to reduce collisions with wildlife along 126 miles of the I-70 Mountain Corridor in Colorado.

Permeability of Existing Structures for Wildlife (2011) - *WSDOT*
Developed a tool for evaluating existing culverts and bridges for their ability to pass terrestrial wildlife species, allowing DOTs to identify structures that may be enhanced to become more functional for wildlife passage.

Highway 550 Wildlife Fencing and Escape Ramps (2009) – *CDOT, with funding from the American Recovery and Reinvestment Act of 2009.*
Convened a multi-stakeholder effort and informed designs to reduce animal-vehicle collisions along eight miles of Highway 550 in western Colorado.

STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION
Region 1 Mountain Residency
P.O. Box 399
Dumont, CO 80435
(303) 512-5600
Fax (303) 512-5675

Meeting: **SH 9 Iron Springs EA Agency Wetland Discussion**
Date/Time: Thursday, March 14, 2013 / 1:00-3:00
Location: Fossil Trace Conference Room, 425 Corporate Circle, Golden
Conference line: 1-877-820-7831, participant code - 508439

Attendees: See attached sign in sheet

Discussion Topics:
Notes in italics

1) Project overview/description (FHU/Grant)

After introductions, Grant provided an overview of the project. It was clarified that since the EIS/ROD was completed, each section of the corridor has gone through permitting in support of final design and construction. The section being discussed here has previously gone through permitting.

2) Project schedule (FHU/Grant)

Grant and Thor highlighted that the EA for the project is currently anticipated to be completed and released for public review in the fall of 2013. The EA will consider two alternatives: the no action alternative is the widening of SH 9 along the current alignment, and the proposed action is the realignment of SH 9 to approximately the current multi-use path alignment. Technical reports are currently being prepared analyzing the two alternatives, and the EA will be prepared based on the technical reports using a template EA format developed by CDOT.

3) Waters of the U.S./wetland impacts - Proposed and No Action

Becky provided figures and tables highlighting the waters of the US/wetlands and impacts of the two alternatives. It was noted that the impact of the proposed action is substantially less than the no action alternative.

Sarah asked if wetlands 20 and 22 (the fen complex) are hydraulically connected. Grant noted the cross culvert beneath the road, indicating that they are.

It was also noted that wetlands 15 and 16 are connected by a cross culvert.

Becky noted unverified wetland locations 72 (Iron Springs) and 73 (north of the high school), to be added to the mapping. Dependent on mapping, these may not be impacted.

4) Avoidance and minimization measures

Through conceptual design, efforts have been made to avoid and minimize wetland impacts. These efforts will continue through final design. This will be incorporated into the permitting documentation, along with full wetland delineations.

There was discussion of the structure construction and culvert replacement in the vicinity of wetland 20 and 22. Lesley and Sarah indicated that the fen areas and adjacent non-fen wetlands should be regarded as fen complex and considered together. Lesley indicated that they should be delineated separately, but considered as a complex. Grant clarified the foundation that would be used for the structure. There was discussion of the cross culvert connecting 20 and 22, with the sense of the group being that a replacement culvert in this location should be the same as the existing to avoid changing the hydrology.

Sarah noted that she can provide historic infrared aerial photography of Summit County. It was noted that the high school may have been built on fen.

5) Permitting requirements - type of permit, fen impacts verses wetland impacts adjacent to fens

Permitting requirements were discussed. Lesley indicated that an individual permit will be required if impacts are greater than 0.5 acre or if there are any impacts to fen complex.

Lesley indicated that for permitting, both fen and the adjacent non-fen wetlands should be considered fen complex, and mitigated for in kind.

The schedule for permitting was discussed, with the question of whether the permitting could come after the EA. Lesley confirmed that the permit could come after the EA, with coordination along the way to get to the LEDPA. The permit application could also be concurrent with the EA, if the information and time allow.

Grant asked about the time needed for an individual permit, Lesley indicated 120 days minimum.

6) Potential compensatory mitigation – USFS potential fen sites

Becky presented some options for compensatory mitigation. There is a mitigation bank proposed to be located near Kremmling, but this wouldn't provide fen mitigation. Becky noted that the EIS identified a mitigation area at wetland 15, but most of this areas is currently already wetland.

Becky discussed some potential fen mitigation sites on USFS lands within Summit County, and provided some detailed of several potential sites. Many of these have been previously impacted by human activities, and the USFS would like to do restoration. There are access challenges to some of these sites. Becky will check with USFS to find out whether NEPA analysis has been done or would be required for restoration of these sites.

Grant indicated that CDOT is coordinating with USFS on other mitigation actions for this project. Becky noted that wetland mitigation was done in coordination with USFS on Berthoud Pass. Lesley noted that compensatory mitigation done on public lands must be over and above what is "planned and in place". It was noted that any restoration would need to be compatible with USFS management plans.

Sarah described some fen restoration that was done at high elevation at some sites near Durango, and shared some photos.

Grant asked about other options for fen mitigation, including 20/22, Iron Springs, and other fen areas in the vicinity. These were discussed as options. Becky and Sarah noted that mitigation at the other USFS sites in Summit County, as previously highlighted by Becky, should be considered if it can be better and cheaper. Becky will inquire with the USFS concerning restoration options in the Iron Springs area.

7) Other items

Lesley asked if we can do more design in areas of concern for wetland, as needed. Chuck and Grant confirmed that this can be done along the process, as appropriate. Sarah indicated that the footer for the structure adjacent to the fen complex might be an area for more detailed design consideration.

At this stage, it appears that in individual permit will be needed. FHU will work with Grant to confirm whether any additional wetland avoidance or minimization is possible at this time.

Wetland avoidance, minimization, and mitigation will receive consideration in the current EA process, and then continuing through final design and permitting.

STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION
Region 1 Mountain Residency
P.O. Box 399
Dumont, CO 80435
(303) 512-5600
Fax (303) 512-5675

Meeting: **SH 9 Iron Springs EA Agency Wetland Discussion**
Date/Time: Thursday, March 14, 2013 / 1:00-3:00
Location: Fossil Trace Conference Room, 425 Corporate Circle, Golden
Conference line: 1-877-820-7831, participant code - 508439

SIGN IN SHEET

Name	Organization	E-mail
Becky Pierce	CDOT	Rebecca.pierce@state.co.us
Chuck Attardo	CDOT	Chuck.attardo@state.co.us
Billy Bunch	EPA	Bunch.william@epa.gov
Sarah Fowler	EPA	Fowler.sarah@epa.gov
Grant Anderson	CDOT	Grant.anderson@state.co.us
Lesley McWhirter – by phone	USACE	lesley.a.mcwhirter@usace.army.mil
Paula Durkin – by phone	CDOT	paula.durkin@state.co.us
Thor Gjelsteen	FHU	Thor.gjelsteen@fhueng.com

STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION
Region 1 Mountain Residency
P.O. Box 399
Dumont, CO 80435
(303) 512-5600
Fax (303) 512-5675

Meeting: **SH 9 Iron Springs EA Water Quality Coordination**
Date/Time: Tuesday, March 26, 2013 / 1-3 pm
Location: Ten Mile Room, 2nd Floor MOB, Frisco

Attendees: See attached sign in sheet
PowerPoint Presentation: See attached

Discussion Topics:
Notes in italics

1) Introduction/meeting purpose (Holly/Grant)

The purpose of this meeting was to provide a project overview and discuss specific water quality information with Summit County, Denver Water and USFS staff. Holly and Grant provide an introduction to the project, noting the following:

- *The Iron Springs alignment is currently being evaluated as an alternative to the alignment previously approved in the SH 9 Environmental Impact Statement/Record of Decision, which was completed in 2004. The previously approved alternative ("no action" for the current environmental assessment [EA]) would involve widening to 4 lanes along the existing alignment, which is located very close to Dillon Reservoir. The Iron Springs alternative would move the highway away from Dillon Reservoir, providing water quality benefits, as well as safety benefits.*
- *The current schedule projects EA completion and public meeting in Fall 2013, decision document in early 2014, final design and ROW process in 2014, with construction beginning in 2015.*

2) PowerPoint Presentation (Holly)

Holly presented the attached PowerPoint to the group, providing a detailed project summary as it relates to water quality.

3) General Discussion (all)

Both Summit County and Denver Water agreed that the Iron Springs Alternative offers water quality benefits over the previously approved (no-action) alternative. The greater separation of the roadway from the fen wetland was also noted as a benefit.

There was discussion regarding maintenance of water quality ponds for each alternative. It was noted that the no action alternative would be more difficult to maintain in this regard, with longer pipe runs and tighter pond locations.

Denver Water staff noted that getting traffic farther away from Dillon Reservoir is beneficial as it reduces the risk of an accident leading to discharge of hazardous liquids/contaminants to the reservoir.

Holly noted that CDOT's goal is 80% capture of sediment in non-MS 4 areas such as this. This will provide an overall benefit for water quality.

Grant noted that there have been on-going discussions with other agency stakeholders. CDOT is continuing to the USFS, including changes in drainage. Grant noted that the Iron Springs alternative will require a new highway easement from USFS, and this may require mitigation or stipulations. USFS has suggested some forest health actions in the Swan River drainage, and further discussions between CDOT and USFS on this topic are anticipated.

4) Next Steps/Action Items

The information provided in the presentation will be refined and incorporated into the water quality technical report and the EA. Refinement will include adding details of the existing Dickey Day Use Lot and replacement lot.

Summit County and Denver Water will continue to support the project, and may provide letters of support as appropriate.

The aquatic biologist from USFS appreciated the presentation and planned to take the materials provided to other USFS staff who are involved in the highway easement discussions.

Iron Springs EA - Water Quality Discussion 3/26/13

Attendance

Name	Affiliation	Email
Holly Huyck	CDOT - R1 ENV.	holly.huyck@state.co.us
ED CHRISTENSEN	DENVER WATER	EDWARD.CHRISTENSEN@DENVERWATER.ORG
Kevin Keefe	Denver Water	Kevin.Keefe@DenverWater.org
Robert Jacobs	Summit County Eng	robertj@co.summit.co.us
Grant Anderson	CDOT Mountain Res.	grant.anderson@state.co.us
Thor Gjelsteen	FHU	thor.gjelsteen@fhueng.com
Kurt Kolleth	FHU	Kurt.Kolleth@FHUENG.com
Lane Wyatt	NWCCOG	QQlane@nwccog.org
Corey Lewellen	USFS	clewellen@fs.fed.us

Iron Springs EA and Water Quality

Holly Huyck, Ph.D.
CDOT Region 1
March 26, 2013

Existing Conditions - Bird's Eye Perspective From the South

Overview-Alternative Alignments

Iron Springs EA: **Proposed Action**

- Same widening: 2 to 4 lanes
- Comparison to SH9-Frisco to Breckenridge EIS alignment as "**No Action**"
- EIS was approved; ROD was published; and construction ongoing in phases.
- This EA affects only this section of SH9.

General Differences

"No Action"- SH9 EIS

- Length: 1.71 miles
- Widen existing alignment
- Use Jersey Barrier and steep cuts near Dillon Reservoir
- More impact to wetland/fen complex
- Safety concerns

Proposed Action-Iron Springs EA

- Length: 1.26 miles
- New alignment through beetle-kill area
- Mostly a 10-foot median; less Jersey Barrier
- Less impact to wetland/fen complex

Receiving Water Bodies

WQ Regulations

Dillon Reservoir Control Regulation 71:

Minimize phosphorous loading from point and nonpoint sources

Summit County: Keep cut slopes to 3.33:1

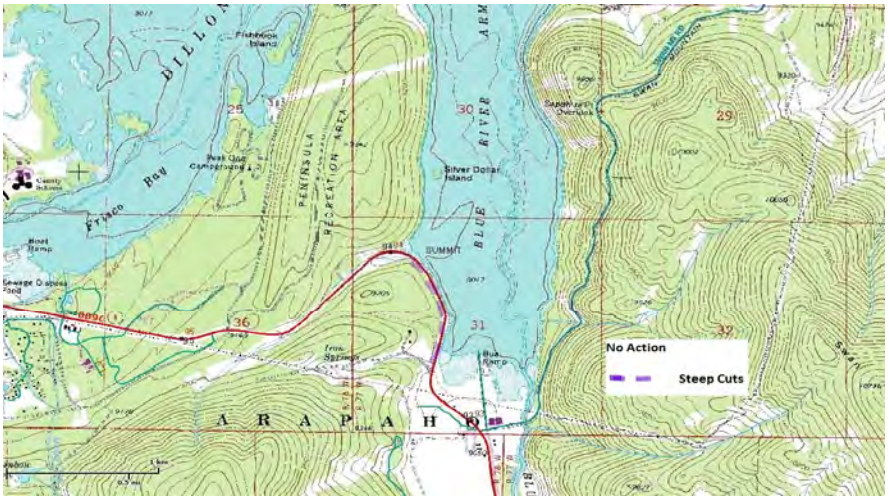
Highway Impacts to WQ

- Proximity to receiving water bodies
- Erosion and sedimentation related to cut and fill slopes
- Increased concentrated flows related to increased impervious surfaces
- Increased highway-related pollutants
- Winter maintenance

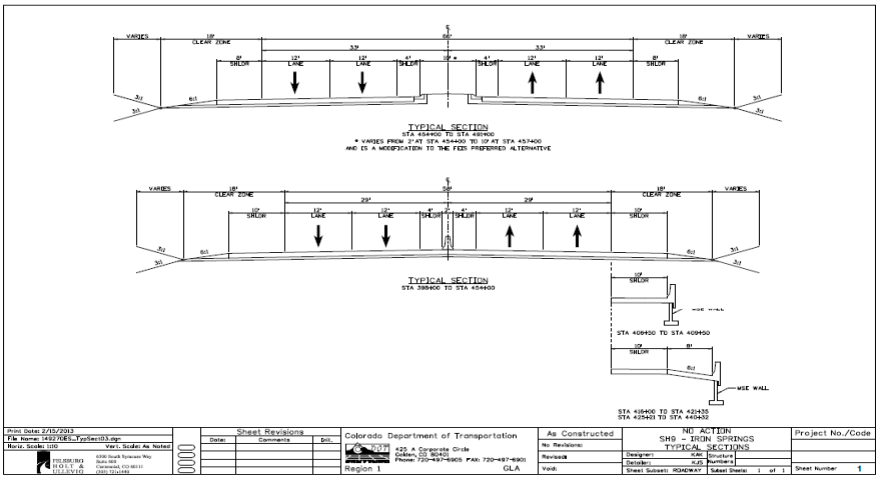
Cut Slopes, Fill Slopes and Walls

Item	No Action (EIS)	Proposed Action (EA)
Roadway Walls	2,200 ft. Max. 11 ft. high	1,500 ft. Max. 25 ft. high
	Total Area 10,000 Sq. Ft.	Total Area **21,725** Sq. Ft.
Steep Cuts for Roadway	2,800 ft. Max. 49 ft. high	0
	Total Area **117,175** Sq. Ft.	0
Trail Walls	1,700 ft. Max. 8 ft.	300 ft. Max. 8 ft.
	Total Area **5,425** Sq. Ft.	Total Area 1,700 Sq.Ft.

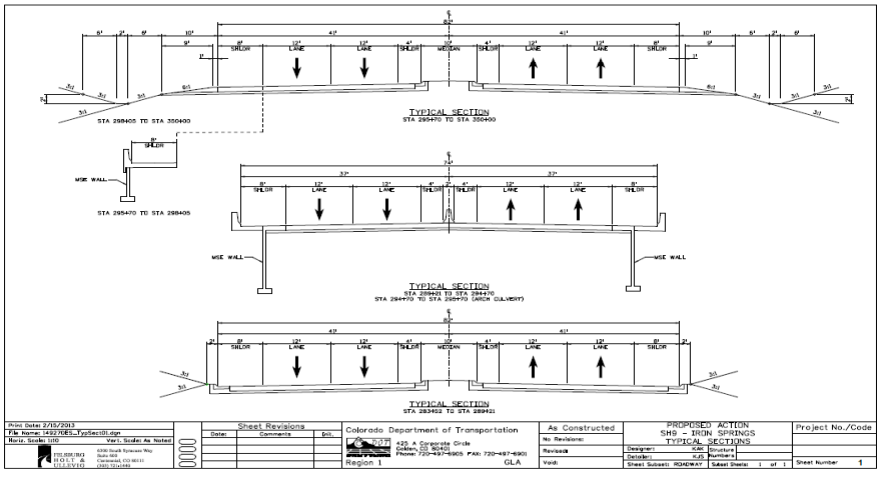
"No Action" Cut Locations



“No Action” Cross Sections



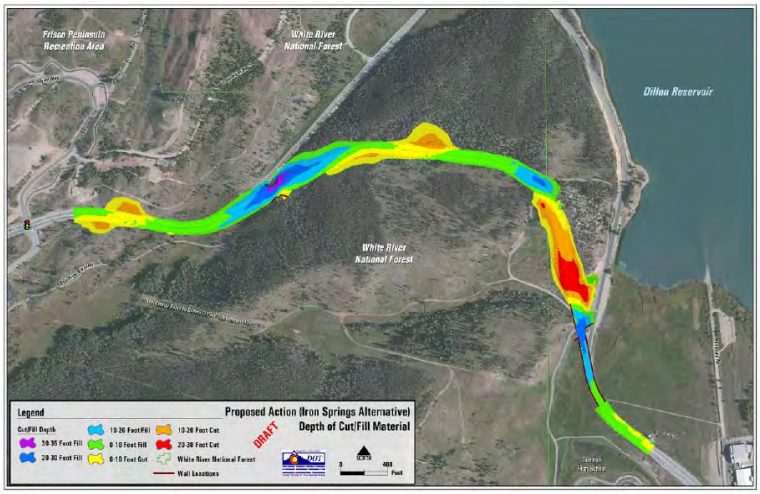
Proposed Action Cross Sections



Existing Conditions - Looking South Toward Breckenridge

Proposed SH 9 Re-Alignment

Proposed Action Cut/Fill (3:1)



Changes in Impervious Surface

Type of Impervious Area (all in Sq. Ft.)	"No Action" Area	Proposed Action Area	Difference
Road Area	667,848	497,336	-180,512
Trail Area	49,536	110,340	+50,400
Dickey Day Use Lot	0	26,000	+26,000
Total Impervious Area	727,384	663,676	-93,708
New Impervious Area	341,716	248,008	-93,708
New Traffic Area	**292,180**	**137,668**	**-154,512**

CDOT Highway Runoff Pollutants

- Sediment
- Chloride
- Oil & Grease
- Phosphorous
- Nitrogen
- Suspended Solids (TSS)
- Copper
- Manganese
- Zinc

Winter Maintenance

	"No Action"	Proposed Action	Difference
Lane Miles	6.84	5.04	**-1.52**
Avg. Sand/Salt Use per Lane Mile (tons)	6.5	6.5	0
Avg. Sand/Salt Use per year (tons)	44.46	32.76	**-11.70**

WQ Impact Mitigation

"No Action"

- Estimated 5 permanent WQ basins—slow runoff and capture sediment
- One pond (near reservoir) requires ~3,300-foot pipe to carry runoff under Jersey Barrier—concern about plugging

Proposed Action

- Estimated 4 permanent WQ basins—slow runoff and capture sediment
- Room along shoulders for local check dams to slow runoff in drainage ditches
- Less contiguous impervious surface

WQ Basins for Alternatives

WQ Impacts: The Bottom Line

"No Action"

- Closer to reservoir
- More impervious surface
- More sand/salt
- Large, steep cuts near edge of reservoir
- Less room to slow runoff
- Possibly more wetlands impacts

Proposed Action

- Farther from reservoir
- Less impervious surface
- Less sand/salt
- Large but moderately sloped cut and fill (3:1 slope or gentler)
- More room to slow runoff
- Possibly less wetlands impacts

Any Questions?

STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION
Region 1 Mountain Residency
P.O. Box 399
Dumont, CO 80435
(303) 512-5600
Fax (303) 512-5675

Meeting: **SH 9 Iron Springs EA Path Aesthetics Coordination**
Date/Time: Thursday, March 28, 2013 / 2:30-4 pm
Location: Summit County Open Space and Trails Department, Frisco

Attendees: See attached sign in sheet

Discussion Topics:
Notes in italics

1) Introduction/meeting purpose (Belinda/Grant)

This meeting was scheduled as a follow up to a previous larger visual resources/aesthetics coordination meeting held on 3/13/13. The purpose of this meeting was to discuss elements of the relocation of a portion of the Frisco-Breckenridge shared use path, as it relates specifically to the Continental Divide Land Trust (CDLT) and Summit County.

2) General Discussion Summary (all)

The conversion of a portion of existing SH 9 to the relocated Frisco-Breckenridge shared use path was discussed. Grant cited the Vail Pass path near Black Lakes as an example of such a conversion, in that case a portion of former US 6 to path.

Leigh indicated that CDLT is working on a white paper describing the benefits of the path relocation. It is important that CDLT values be protected, including scenic protection and recreation.

There was discussion of the agreements that will be needed, including right-of-way (ROW). Grant indicated that he can provide ROW information to CDLT.

There was discussion of the cross sections and renderings of the relocated path. Grant would like the county and CDLT to develop typical sections that would meet their needs and objectives, without requiring major changes in grade and major earthwork or alignment shifts. The meeting participants agreed that a desirable result could likely be achieved without major grade changes. Brian will have one or more cross sections prepared showing this. Desirable features could include pull outs, benches, and viewpoints. A slightly serpentine alignment of the path within the current roadway footprint may be possible if desired.

Leigh suggested that existing vegetation be preserves as much as possible and that additional planting should be investigated. The canopy of aspen trees along the Frisco to Copper Mountain path was noted, and it was suggested that something like this should be looked at. Grant indicated that additional detail would be established in final design, and that CDOT would likely prefer that the county or other agencies implement plantings rather than CDOT.

Leigh suggested it might be possible to restore some of the grade to match the natural surface on the US Forest Service (USFS) property where the roadway is built up. Grant noted that there are utilities along the current roadway alignment that would remain. This will limit the opportunities for reshaping the grade, but some minor reshaping may be possible and can be considered in final design. There was discussion of the "church camp road" and whether access is needed there for logging. Grant is continuing coordination with the USFS regarding the USFS easement and other issues.

Leigh indicated that CDLT would like to engage youth from the area, and that collection of wildflower seeds and help with revegetation would be possible youth activities. Grant suggested that CDLT and/or the county may be best to organize such an effort, CDOT would be supportive.

There was discussion of a possible spur trail to provide an overlook of the Dillon Placer Mine site, if such a spur is needed or desired as part of mitigation for impacts to the historic mine site. The group was supportive of this, and recommended that it not be paved so that there would not be confusion among bicyclists using the main path. In addition, Grant noted and the group agreed with the need to end the spur short of the drainage/wildlife culvert to be installed under the new highway.

There was discussion of RAMP funding applications, with the possibility that county land contribution might be part of the local funding.

It was noted that Denver Water is supportive of the project, and CDOT is expecting a letter of support from them.

3) Next Steps/Action Items

Summit County to prepare revised cross section(s) showing path concept to be implemented without major earthwork and major grade changes.

CDOT to provide ROW information to CDLT.

Coordination to continue among participants.

MARCH 28, 2013 AESTHETICS MEETING
SH9 IRON SPRINGS

Belinda Arbogast — CDOT

[illegible] — CDOT

Brian Lorch — Summit County

Thor Gjelsteen — FHU

Leigh Girvin — CDOT

Iron Springs Open Space
Proposed Amendment and Restatement of the
Deed of Conservation Easement
Continental Divide Land Trust
White Paper
March 29, 2013

Colorado Department of Transportation (CDOT) has approval to widen Highway 9 between Frisco and Breckenridge to four lanes in the current alignment. Many sections have been completed. The section from Agape Outpost to Tiger Run is anticipated to be widened to four lanes in the summer of 2013.

The final remaining segment, from St. Anthony's Summit Medical Center Hospital just south of Frisco to Summit High School at Farmers Korner, is the subject of the current proposal. Though CDOT has permission to four-lane the highway in its current location, re-routing Highway 9 over the hill between the Hospital and the High School could result in significant community benefit.

The proposed re-route would go through Iron Springs Open Space which is owned by Summit County Open Space & Trails, was funded in part by Great Outdoors Colorado, and is further protected by a Deed of Conservation Easement held by Continental Divide Land Trust (CDLT). Iron Springs is a 30 acre parcel that was purchased by Summit County Open Space in 2003 to protect the scenic views, open space qualities, and recreation experiences that the property offered. It is located north of Summit High School along Highway 9, overlooking Dillon Reservoir.

CDLT has been working with Summit County, CDOT, and other stakeholders, to amend the Deed of Conservation Easement on the Iron Springs Open Space property to allow the re-route of Highway 9.

Four-Laning Highway 9 in its current alignment would require:

- Extensive and expensive retaining walls along the shores of Dillon Reservoir.
- Sediment capture ponds between the retaining walls and Dillon Reservoir to collect polluted run-off from the highway (for which there is no room).
- Major impacts to the fen wetland that currently exists on the Iron Springs property and adjacent Denver Water Board property (which the current highway, built in the 1960's, bisects).
- Major impacts to wildlife movement.

New Proposal to re-route Highway 9 over the hill and through the Iron Springs Open Space property has significant community benefits:

- Safety – "Leslie's Curve" along Dillon Reservoir near Dickey Day Use Area is a high accident area for both vehicle-to-vehicle and vehicle-to-wildlife collisions.
- Highway 9 between Frisco and Breckenridge would be one half mile shorter, eliminating highway maintenance on a half-mile of road, and thereby saving long-term maintenance costs.
- No need for retaining walls along the reservoir.
- No need for sediment capture ponds along the reservoir.
- Significant taxpayer savings.
- No additional impacts to the fen wetland.
- Rec path would switch locations with the current highway alignment and rec path would follow the shores of Dillon Reservoir.
- Underpasses for rec path.
- Underpasses for wildlife movement .

- Resurrection of the former rec path between Swan Mountain Road and the new rec path along the shores of Dillon Reservoir, eliminating the need to cross Highway 9.
- New rec path along the shores of Dillon Reservoir would allow users to make a complete circle of the reservoir without ever having to cross a major highway.
- Dickey Day Use area and fisherman parking to be moved closer to Frisco Recreation Area to eliminate impacts to highway movement. Access to Dillon Reservoir via Dickey Day use area would add one half mile of trail to the recreation experience.
- CDOT will abandon approximately 12 acres of current ROW and deed those acres to Summit County to be included in the amended Deed of Conservation Easement. The re-routed Highway will take approximately 9 acres, resulting in a net increase of conserved acreage.
- Rec path does not take up as much room as a highway, so there are significant opportunities for revegetation and restoration of the flora along the reservoir and rec path.
- The existing highway will be narrowed to an approximately 12 foot wide paved rec path, with the remaining highway surface recontoured and revegetated with native plants.
- Unused portions of the existing rec path will be recontoured and revegetated.

What about CDLT's promise of Perpetuity?

When CDLT accepts a conservation easement, we accept the perpetual responsibility to defend the conservation values identified in that agreement. We also recognize that perpetuity is a long time and that conditions may change over time that warrant an amendment to the conservation easement agreement. Furthermore, change to a conservation easement agreement can be forced by government condemnation, a tool that CDOT uses. Negotiating a mutually beneficial solution can allow for an amended conservation easement agreement with net improvements. Each Deed of Conservation Easement contemplates the potential for amendment, as do the laws and practices governing conservation easements. The standard is that an amendment must be at least neutral to or enhance the conservation values on the property. An amendment cannot diminish the conservation values.

Iron Springs Conservation Values and the potential impacts:

- Buffer between communities to keep Frisco and Breckenridge as separate and distinct communities. The property will continue to serve as a buffer. Neutral impact to the conservation values.
- Scenic views. The view of the hillside that serves as a scenic backdrop to the current highway will be impacted by the re-routed highway. Scenic views along the shores of Dillon Reservoir will be enhanced by elimination of the highway, removal of guardrail, much smaller asphalt trail, and revegetation along the restored sections of former highway. This is a subjective value, but we believe that there will be an enhanced or at least neutral impact to conservation values.
- Recreation Experience. The rec path and the Highway will essentially switch locations. The rec path experience along the shores of Dillon Reservoir will allow scenic views and eliminate a steep hill with a curve on it, which is the site of many accidents by rec path users. This is also a subjective value, but we believe that there will be an enhanced or at least neutral impact to conservation values.
- Fen Wetland: The proposed re-route of Highway 9 will not further impact the fen wetland on the property. This is an enhancement to the conservation values compared to the impacts by four-laning the highway in the current location.
- Acreage. Approximately twelve acres will be gained and 9 acres will be lost, resulting in an over-all increase in conserved land.

Values and Impacts not addressed in the Conservation Easement:

- Wildlife: Wildlife habitat is not identified as a conservation value in the Deed of Conservation Easement. Wildlife habitat will be impacted. The proposed re-route offers wildlife underpasses, which four-laning of Highway 9 in its current location does not. CDOT is also willing to fund wildlife mitigation projects in other areas of Southern Summit County where the need is greater.
- Historical: There is an historic site on the property, the Dillon Placer, which is one of the earliest placer mining sites in Summit County. CDOT is working with the Colorado Historical Society to preserve the Dillon Placer site. An interpretive trail to the site is planned.

In Summary:
Based on current discussions with CDOT, assuming a continued public process associated with NEPA requirements, and assuming mitigation is completed as currently envisioned, Continental Divide Land Trust believes that an amendment and restatement of the Deed of Conservation Easement for the Iron Springs Open Space will result in an enhancement to the conservation values and a significant community benefit.

Continental Divide Land Trust
PO Box 4488, Frisco, CO 80443
970-453-3875
info@cdlt.org
www.CDLT.org

DENVER WATER
1600 West 12th Avenue • Denver, Colorado 80204-3412
Phone 303-628-6000 • Fax No. 303-628-6199 · denverwater.org

April 4, 2013

Grant Anderson, P.E.
Colorado Department of Transportation
Region 1, Mountain Residency
P.O. Box 399
Dumont, Co 80436

Dear Mr. Anderson,

Thank you very much for your and Holly Huyck's presentation on the Iron Springs road alternative for State Highway 9 widening project. This road alternative eliminates a difficult stretch of Highway 9 perched on a rock face next to a major drinking supply reservoir for the citizens of Denver. The benefits of the alternative road alignment are easily discernible, water reservoir protection, improved traffic flow and ease of construction. One of Denver Waters biggest concerns is source water contamination. This proposal offers an alternative alignment to an area that has always had the potential for a hazardous spill that would likely enter the reservoir rather quickly. Any effort to delay the travel of spilled material to the reservoir is a benefit. This proposed road alignment gives us the option of time to mitigate a spill. Denver Water supports the Iron Springs EA and alternative road alignment.

Sincerely,

Kevin Keefe
Superintendent of Source of Supply
Denver Water

BIOLOGICAL ASSESSMENT

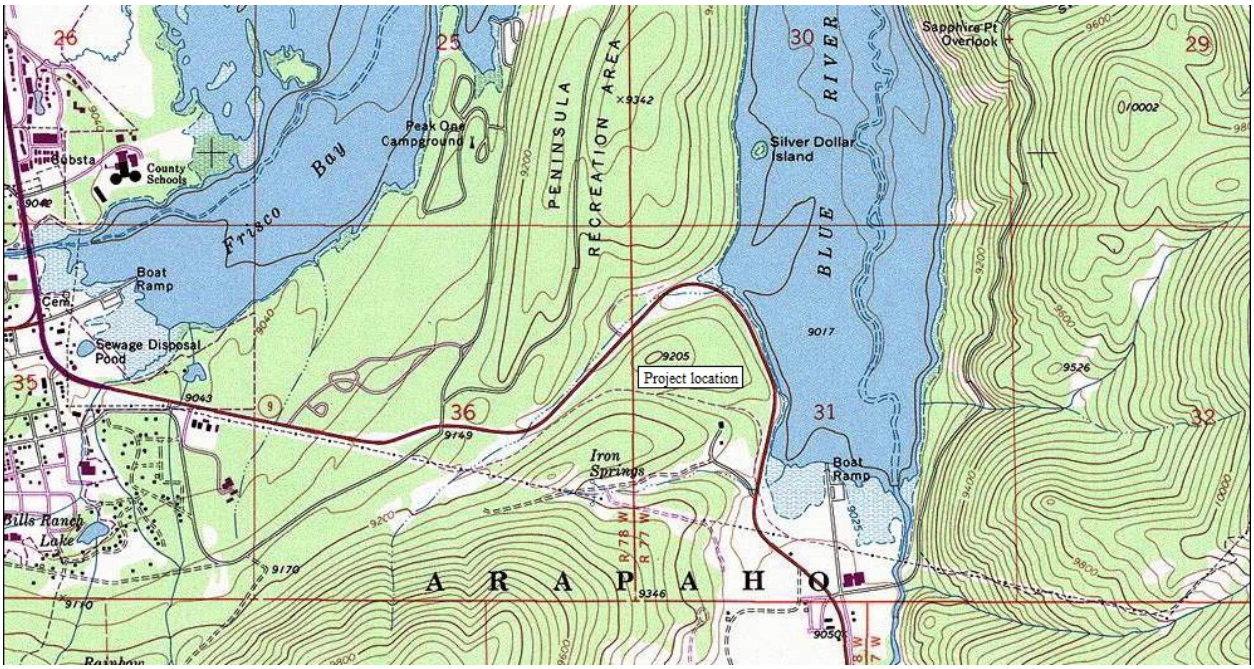
FOR THE

State Highway 9 Realignment at Iron Springs

C 0091-041, PCN 19298

SUMMIT COUNTY, COLORADO

April 28, 2013



Lead Federal Agency: FHWA

Prepared by
Jeff Peterson
Colorado Department of Transportation Biologist
4201 East Arkansas Avenue, Shumate Building
Denver, Colorado 80222

1. Table of Contents

2. Introduction

In 2004, CDOT and FHWA completed a Final Environmental Impact Statement (EIS) and Record of Decision (ROD) for improving a 14.5 mile stretch of SH 9 from Frisco to Breckenridge. The Selected Alternative, as described in the ROD, is a reduced four-lane section roadway including necessary turn lanes, acceleration/deceleration lanes, curb and gutter, medians, and shoulders between Frisco (milepost 97) and Breckenridge (milepost 85).

The purpose of the Selected Alternative is to improve transportation mobility along SH 9 by decreasing travel time, improving safety, and supporting the transportation needs of local and regional travelers while minimizing impacts to the surrounding environment and communities. Since completion of the Final EIS and ROD, CDOT has implemented the Selected Alternative along portions of SH 9, with the intention to continue working to complete improvements to the entire corridor as funding becomes available. The improvements identified in the Final EIS and ROD were all planned to be constructed by widening of the highway along the existing SH 9 alignment. As part of that consultation with the US Fish and Wildlife Service (USFWS), it was determined that that project was not likely to have an adverse effect on the Canada lynx (*Lynx canadensis)* [lynx].

Due to changed conditions since the ROD was completed, CDOT and FHWA are now proposing that an existing 1.3 mile stretch of SH 9, which falls between mileposts 95 and 93 just south of Frisco, be realigned rather than widened on the existing alignment. CDOT and FHWA are currently preparing an Environmental Assessment (EA) for this Proposed Action. The changed conditions which caused CDOT and FHWA (working with other agencies) to develop the Proposed Action include the effects of the extensive mountain pine beetle (MPB) epidemic, which has affected pine forests in the area and led to US Forest Service (USFS) plans to remove the majority of the trees along the proposed realignment. In addition, the Proposed Action offers several benefits with respect to water quality protection, recreation path experience, safety, reduced maintenance, wildlife crossings, and reduction in the need for extensive retaining walls.

The purpose of the Proposed Action remains the same as was identified for the SH 9 corridor as a whole in the previous Final EIS and ROD - to improve transportation along SH 9 by decreasing travel time, improving safety, and supporting the transportation needs of local and regional travelers while minimizing impacts to the surrounding environment and communities.
The Proposed Action for realignment of this stretch of SH9, is described below

This Biological Assessment (BA) was prepared to assess the impacts the Proposed Action may have on endangered, threatened, candidate and proposed species under the Endangered Species Act (ESA) of 1973 (as amended). This project is located in Summit County, Colorado. Identification of species evaluated in this BA comes from the US Fish and Wildlife Service's (USFWS) on-line evaluation tool, the Information, Planning and Conservation System, or IPaC. The site was accessed on January 23, 2013.

3. Description of the Action

As part of implementation of the SH 9 improvements between Frisco and Breckenridge, CDOT and FHWA are proposing to realign approximately 1.3 miles of existing SH 9 just south of

Frisco. This existing 1.3 mile stretch of SH 9, which falls between mileposts 95 and 93, would be realigned to provide a four-lane reduced section with an improved alignment while moving the highway further away from Dillon Reservoir. This Proposed Action, also referred to as the Iron Springs Alignment, would shorten SH 9 by approximately 0.4 mile. The Proposed Action would provide roadway safety benefits, as well as water quality and drinking water protection benefits, as a result of straightening the highway to remove the tight, compound curve known, as Leslie's curve, which is in close proximity to Dillon Reservoir.

The Proposed Action would also include realignment of a portion of the existing Frisco to Breckenridge Shared Use Path. This portion of the path would be moved to the alignment currently occupied by SH 9. The realigned path would be approximately 0.4 miles longer than the existing path, but would be at a much gentler grade than the current path alignment in this stretch.
Construction could start as soon as 2015, depending on the availability of funding, and would likely take approximately 2 years to complete.

4. Consultation History

This project has been significantly altered from its original design. The original design, now considered the 'no action' alternative for NEPA purposes was previously consulted on in February, 2002. A subsequent concurrence letter was received from the USFWS on April 5, 2002. As part of that consultation, it was determined that that project was not likely to have an adverse effect on the lynx.

In the fall of 2012, the residents of Frisco approached CDOT and asked that an alternative that was previously disregarded be reviewed again. Changed conditions, including an infestation of mountain pine beetle which killed a large number of lodgepole pine in the area, it became feasible to build SH9 on the alignment described above. The proposed project elements are significantly different from the original project, making this BA necessary.

5. Management Action

Most of this area is on USFS land which is being managed for multiple purposes. Currently, the focus is on timber harvesting and recreation. As of this writing, the eastern portion of the project is currently owned by Summit County and is under a conservation Easement. CDOT/FHWA is attempting to obtain this parcel of land in exchange for a separate easement further north on the peninsula. This is advantageous to wildlife because the easement CDOT is offering contains higher quality habitat, wouldn't be as impacted by the highway or be under such intense use by recreationalists because of its distance from the highway.

6. Species Considered and Evaluated

The following table lists threatened, endangered, proposed, and candidate species for Summit County that must be considered in the BA as indicated on the IPaC system.

Table 1.

Species	Status	Habitat Requirements	Potential for Occurrence
Fish			
Bonytail chub (*Gila elegans*)	FE SE	The bonytail prefers eddies and pools, not swift currents within the Colorado River system.	Does not occur in the project area. Project will not deplete water sources that are part of the Colorado River system
Colorado pikeminnow (*Ptychocheilus lucius*)	FE ST	Medium to large rivers with small quiet backwaters within the Colorado Rover system	Does not occur in the project area. Project will not deplete water sources that are part of the Colorado River system
Greenback cutthroat trout (*Oncorhynchus clarki ssp. stomias*	FT ST	Cold, clear, oxygenated streams of moderate gradient. Overhanging branches, undercut banks and eddies behind rubble	Does not occur in project area This habitat does not occur in the project area, nor will it be affected by project activities
Humpback chub (*Gila cypha)*	FE ST	The fish are not found in areas of swift current, but prefer slower eddies and pools within the Colorado Rivers system	Does not occur in the project area. Project will not deplete water sources that are part of the Colorado River system
Razorback sucker (*Xyrauchen texanus*)	FE SE	Often associated with sand, mud, and rock substrate in areas with sparse aquatic vegetation, where temperatures are moderate to warm within the Colorado River system.	Does not occur in the project area. Project will not deplete water sources that are part of the Colorado River system
Birds			
Yellow-billed Cuckoo (*Coccyzus americanus*)	FC SC	Open woodland (especially where undergrowth is thick), parks, deciduous riparian woodland	Does not occur near the project area. Appropriate habitat will not be affected
Mexican Spotted Owl (*Strix occidentalis lucida*)	FT ST	Rocky canyons or forested mountain below 9,500 foot elevation. Nests in standing snags and hollow trees	Does not occur near the project area. Appropriate habitat will not be affected.
Greater Sage-grouse (*Centrocercus urophasianus*)	FC SC	Sagebrush shrublands. In summer, native or cultivated meadows, grasslands, aspen, and willow thickets	Does not occur near the project area. Appropriate habitat will not be affected.
Mammals			
Canada lynx (*Lynx canadensis*)	FT SE	Feeds primarily on snowshoe hare, which occur in coniferous forest above 8,000 feet in Colorado; requires dense cover for denning	Suitable habitat will not be affected. Travel corridors may be affected by the project.
North American wolverine (*Gulo gulo luscus)*	FP SE	Secluded spruce-fir/lodgepole pine, heavy timber areas, high elevation	Appropriate habitat will not be affected. Travel corridors may be affected by the project.

FE = Federally Endangered
FT = Federally Threatened
FC = Federal Candidate for listing
FP = Federally proposed for listing
SE = State Endangered
ST = State Threatened

Of the ten federally listed, candidate and proposed species considered, only the lynx and wolverine may be affected by this project. The impacts are not beneficial, insignificant or discountable, and therefore must be addressed.

6.1 Canada lynx (*Lynx canadensis*)

Description: The lynx is a medium-sized cat with long legs, large, well-furred paws, long tufts on the ears, and a short, black-tipped tail (McCord and Cardoza 1982). The winter pelage of the lynx is dense and has a grizzled appearance with grayish-brown mixed with buff or pale brown fur on the back, and grayish-white or buff-white fur on the belly, legs, and feet. Summer pelage of the lynx is more reddish to gray-brown (Koehler and Aubry 1994). Adult males average 10 kilograms (22 pounds) in weight and 85 centimeters (33.5 inches) in length (head to tail), and females average 8.5 kilograms (19 pounds) and 82 centimeters (32 inches) (Quinn and Parker 1987). The lynx's long legs and large feet make it highly adapted for hunting in deep snow.

Range: The lynx's present and historical distributions reflect a strong association with the boreal forest (McCord and Cardoza 1982; Nowak and Paradiso 1983; Quinn and Parker 1987; Koehler and Aubry 1994). Historically, lynx inhabited forested landscapes in Alaska, across Canada south to the Cascade Range of Washington and Oregon, the Rocky Mountains of Utah and Colorado, the Great Lakes states, the extreme northeastern United States, and east to insular Newfoundland (McCord and Cardoza 1982; Koehler and Aubry 1994). This historical distribution closely matches that of the lynx's primary prey, the snowshoe hare. Within the contiguous 48 states, viable populations of lynx may now exist only in Washington and Montana. Small populations of unknown size and viability are known to exist in Maine, Wyoming, and Idaho. Lynx may also continue to persist at very low numbers in the states of Minnesota, Michigan, Wisconsin, Oregon, Utah, and Colorado. The State of Colorado has initiated a program to re-establish lynx. The apparent widespread decline and possible regional extirpation of lynx populations in the contiguous United States has been linked to historical overtrapping, changes in forest structure as a result of past and current management practices, habitat fragmentation, and land use changes and has also lead to listing the species as threatened under the Endangered Species Act. In addition, the State of Colorado listed the lynx as a State endangered species in 1976 (CDOW et al. 1997).

Habitat: Lynx use large woody debris, such as downed logs, root wads, and windfalls, to provide denning sites with security and thermal cover for kittens (McCord and Cardoza 1982; Koehler 1990; Koehler and Brittell 1990; Mowat et al. 2000; Squires and Laurion 1999; J. Organ, in litt. 1999, Ruediger, et al. 2000). During the first few months of life, kittens are left alone at these sites when the female lynx hunts. Downed logs and overhead cover provide protection of kittens from predators, such as owls, hawks, and other carnivores during this period. This structure must be available throughout the home range providing multiple quality den sites, because it is likely that these structures are used when the kittens are old enough to

travel but not hunt (Bailey 1974). It is equally important that an abundance of high quality foraging habitat be available in close proximity to all den sites if they are to be functional.

The age of the forest stand does not seem as important as the amount of downed, woody debris available (Mowat et al. 2000). Den sites may be located within older regenerating stands (>20 years since disturbance) or in mature conifer or mixed conifer-deciduous (typically spruce/fir or spruce/birch) forests. In Washington, lynx used lodgepole pine, *Picea* spp. (spruce), and subalpine fir forests older than 200 years with an abundance of downed woody debris for denning (Koehler 1990). A den site in Wyoming was located in a mature subalpine fir/ lodgepole pine forest with abundant downed logs and a high amount of horizontal cover (Squires and Laurion 1999). A lynx den site found in Maine in 1999 was located in a forest stand in *Picea rubra* (red spruce) cover type that was logged in 1930 and again in the 1980s and is regenerating into hardwoods (J. Organ, in litt. 1999). The site has a dense understory and an abundance of dead and downed wood (J. Organ, in litt. 1999).

Data indicate that lynx generally prefer to travel in forested or densely wooded habitats and they typically do not forage far from cover. Suitable travel cover may be defined as woody vegetation greater than 6 feet in height that supports a closed canopy (Koehler and Aubry 1994), including wooded riparian or other woody habitat types (e.g., sagebrush or Gambel oak). Information from more southern environments does indicate that lynx in fragmented habitats may be more willing to cross large openings than commonly believed. Lynx have been found to cross large open expanses such as shrub steppe and mountain grassland (L. Lewis, pers. comm. 1998; G. Byrne, pers. comm. 1998; Thompson and Halfpenny 1989).

Riparian corridors are likely important travel routes (C. Apps, pers. comm. 1998), as are ridges and saddles (Koehler 1990). The subalpine environments on the flanks of major mountain ranges in the Southern Rockies are typically separated by large and frequently rugged alpine zones which may be a barrier or filter to lynx movements. Forested connections across mountain divides in low, narrow saddles are scarce in the Southern Rockies and may be especially important for landscape connectivity, dispersal, and population interchange across mountain ranges.

Travel cover, to be useful, must connect quality foraging, denning, and security habitats within close proximity (i.e, normal daily hunting ranges). If extended, travel routes themselves should probably contain reasonably spaced foraging and security habitats. Connective travel corridors among habitat blocks may constitute crucially important habitat features. These connective corridors bind the ecosystem together, and their loss or degradation may destroy the ability of the landscape to function for wide-ranging forest carnivores, such as the lynx. Furthermore, at lower prey densities, lynx may abandon home ranges and become nomadic (C. Apps, pers. comm. 1998). This only increases the importance of quality travel corridors and a well interconnected landscape. In a nomadic state, lynx will require large interconnected habitats to fulfill their life cycle needs.

6.2 North American wolverine (*Gulo gulo luscus)*

Description: The wolverine is the largest terrestrial member of the family Mustelidae. Adult males weigh 12 to 18 kilograms (26 to 40

pounds) and adult females weigh 8 to 12 kilograms (17 to 26 pounds). The wolverine resembles a small bear with a bushy tail. It has a broad, rounded head; short, rounded ears; and small eyes. Each foot has five toes with curved, semi-retractile claws used for digging and climbing.

Range: In North America, wolverines occur within a wide variety of habitats, primarily boreal forests, tundra, and western mountains throughout Alaska and Canada; however, the southern portion of the range extends into the contiguous United States.

Currently, wolverines are found in the North Cascades in Washington and the Northern Rocky Mountains in Idaho, Montana, Oregon (Wallowa Range), and Wyoming. Individual wolverines have also moved into historic range in the Sierra Nevada Mountains of California and the Southern Rocky Mountains of Colorado, but have not established breeding populations in these areas.

Research indicates that wolverines either did not exist as established populations or were extirpated prior to settlement and to the compilation of historical records in the Great Lakes region, possibly due to climate changes that occurred through the 1800s and 1900s. The widely scattered records from this region are consistent with dispersing individuals from a Canadian population that receded north early in the 1800s. The possibility that wolverines existed as established populations prior to the onset of trapping in this area cannot be ruled out, but we have no evidence that they did. No evidence in the historical records suggests that wolverines were ever present as established populations in the Great Plains, Midwest, or Northeast.

The delineation of wolverine historical and present distribution is inherently difficult for several reasons. Wolverines tend to live in remote and inhospitable places away from human populations. Wolverines naturally occur at low densities and are rarely and unpredictably encountered where they do occur. Wolverines often move long distances in short periods of time when dispersing from natal ranges, making it difficult or impossible to distinguish with confidence between occurrence records that represent established populations and those that represent short-term occupancy without the potential for establishment of home ranges and reproduction. These natural attributes of wolverines make it difficult to determine their present range, or trends in range expansion or contraction that may have occurred in the past.

Breeding generally occurs from late spring to early fall. Females undergo delayed implantation until the following winter to spring, when active gestation lasts from 30 to 40 days. Litters are born between February and April, containing one to five kits, with an average in North America of between 1 and 2 kits.

Female wolverines use natal (birthing) dens that are excavated in snow. Persistent, stable snow greater than 1.5 meters (5 feet) deep appears to be a requirement for natal denning, because it provides security for offspring and buffers cold winter temperatures.

Wolverines are opportunistic feeders and consume a variety of foods depending on availability. They primarily scavenge carrion, but also prey on small animals and birds, and eat fruits, berries, and insects. Wolverines have an excellent sense of smell that enables them to find food beneath deep snow.

Wolverines require a lot of space; the availability and distribution of food is likely the primary factor in determining wolverine movements and home range size. Wolverines travel long

distances over rough terrain and deep snow, and adult males generally cover greater distances than females. Home ranges of wolverines are very large, but vary greatly depending on availability of food, gender, age, and differences in habitat. These home range sizes are large for mammals of the size of wolverines and may indicate that wolverines occupy a relatively unproductive niche (USFWS, 2013).

7. Environmental Baseline

The environmental baseline identifies the current status of, and effects on, the species in the action area. This should be the current condition of the habitat, including all impacts that have occurred or are occurring to the species up to the time that the project will be implemented.

Lynx habitat in Colorado and southwestern Wyoming is separated from the Northern Rocky Mountains/Cascades Region and Canada, effectively isolating lynx in the southern Rocky Mountains (Findley and Anderson 1956). McKelvey et al. (1999) reported that most (84 percent) lynx records in Colorado at that time are associated with the Rocky Mountain Conifer Forest type at elevations above 2,750 meters (9,020 feet); they reported that 11 percent occurred between 2,250 and 2,750 meters (7,380 - 9,020 feet). The Colorado Natural Heritage Program determined that lynx habitat is in the 9,000 to 14,000-foot elevation range. CDOT generally considers lynx habitat to be located at 8,000 feet in elevation and higher.

Colorado represents the extreme southern edge of the range of the lynx. Fitzgerald et al. (1994) stated that potential distribution of lynx in Colorado is in mountainous areas above 9,000 feet in elevation. However, documented lynx occurrences in the Southern Rockies have generally been at "higher elevations" which were described as being 9,100 - 12,300 feet (Ruediger, et al. 2000, citing McKelvey et al. 1999). The montane and subalpine forest ecosystems in Colorado are naturally highly fragmented, which the FWS believes limits the size of lynx populations (Ruediger et al. 2000).

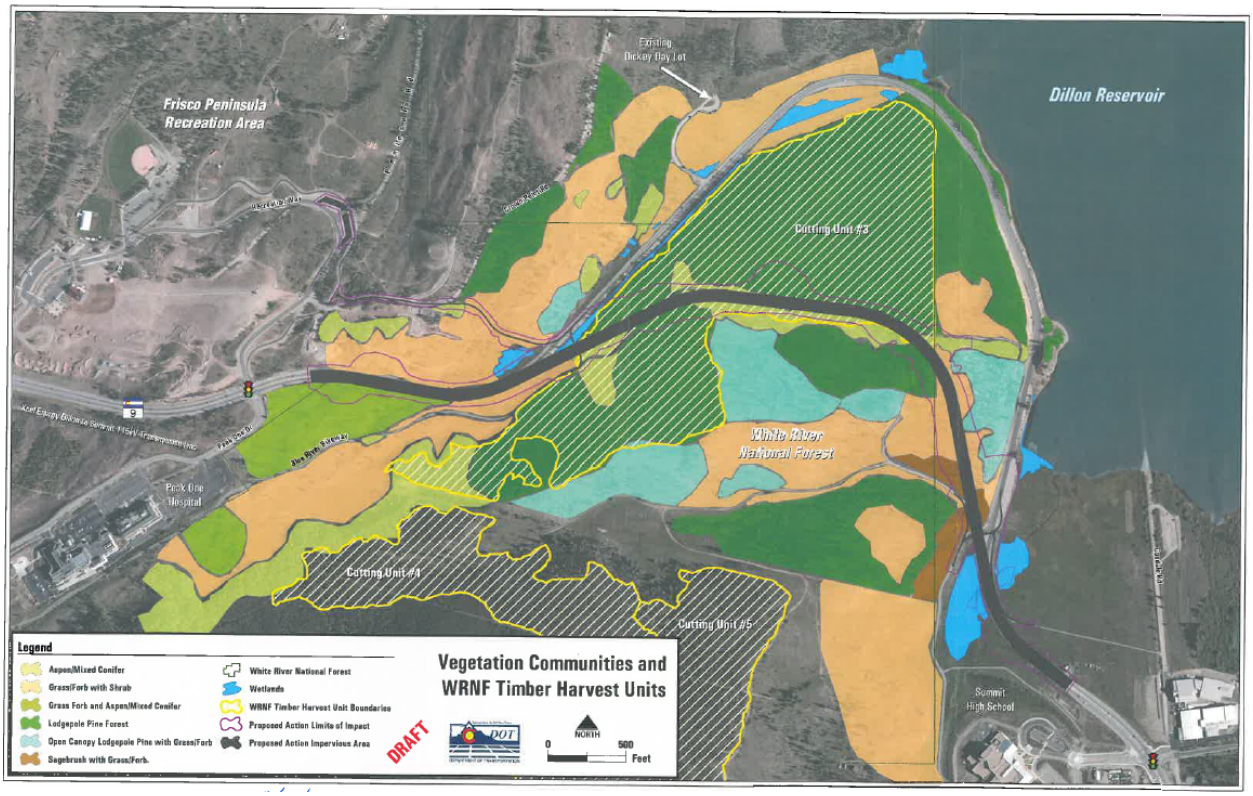
According to the USFS (2011), the project footprint lies within "other" lynx habitat and is included in the Snake River lynx analysis unit (LAU) (USFS 2011). However, because of its proximity to the Swan Mountain LAU, both LAUs are included in the action area.

In the impact area, 2.57 acres consists of aspen/mixed conifer, which can be considered lynx habitat. This habitat type is surrounded by pure lodgepole pine which has a high mortality rate due to a mountain pine beetle infestation. The aspen/mixed confer habitat is also bisected by a heavily used, paved, bike/pedestrian path. Both of these factors would serve to dissuade any lynx or wolverine in the area from denning or foraging here. The area is also situated between a hospital (~0.6 miles to the southwest) and a high school (~0.5 miles to the southeast) which provide a large human presence in the area, increasing the unattractiveness for a lynx or wolverine to utilize the areas except for a possible movement corridor. It should also be considered that the area of impact is located at the base of a peninsula which, by definition, is sounded on three sides by water and provides no opportunity for dispersal for either species making it even more unlikely that the proposed project footprint is utilized by lynx or wolverine on any sort of consistent basis.

1.5 acres of the total area of impact is pure lodgepole pine with no regeneration, most of which is slated to be clear-cut by the USFS. According the 2011 BA for the timber harvest, "these late-successional even-aged lodgepole pine stands have insufficient horizontal cover for snowshoe hare to achieve densities greater than 0.5 hares per hectare, which is the minimum density

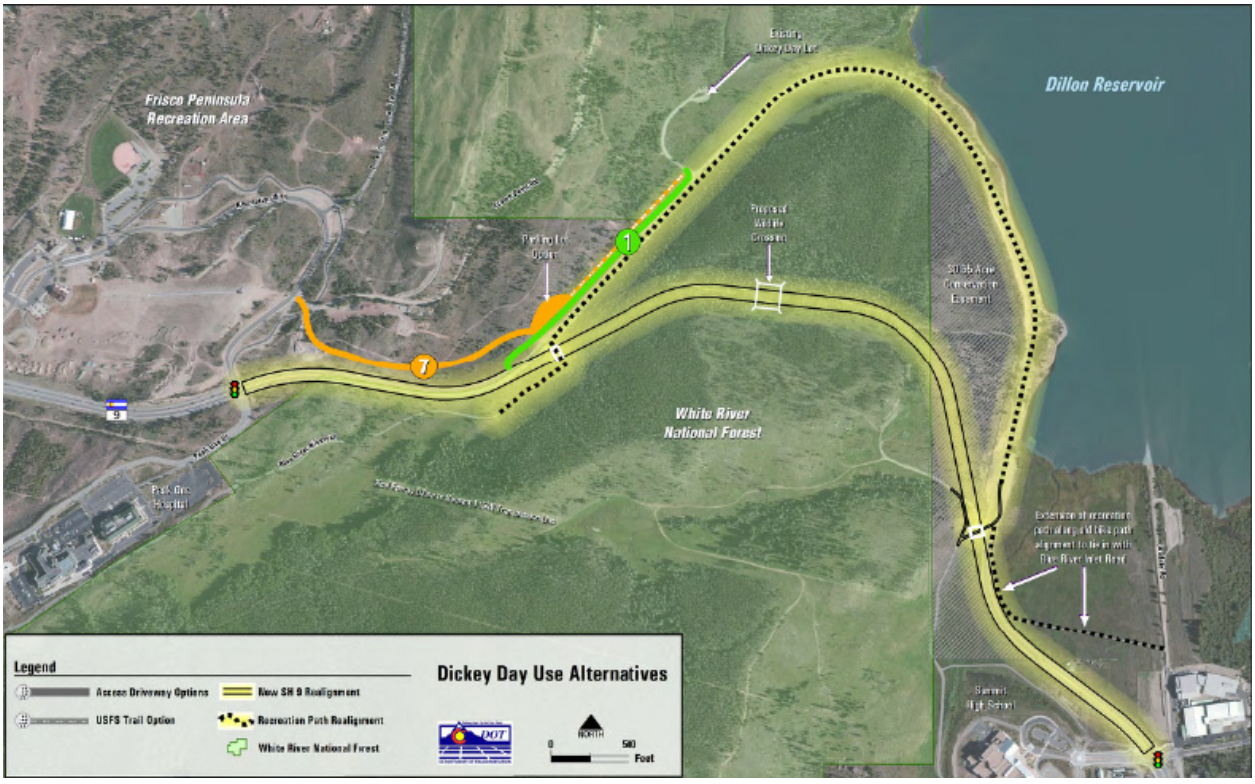
needed to support a resident lynx. These marginal habitats may be used by lynx for movement and dispersal purposes. However, with a dying forest canopy, they provide low quality foraging habitat for lynx and are considered to be currently unsuitable [for lynx]" (USFS 2011).

The remainder of the habitat is sagebrush with a grass/forb element or shrubs with a grass/forb element. Neither habitat type would be used by either species except as a possible corridor for movement.



On July 25, 2008 a female lynx was hit and killed by a vehicle travelling down SH 9 (the boundary between the Snake River and Swam Mountain LAUs). The event occurred at mile marker 91.4, approximately 1.5 miles from the southern end of the project. Since that time, the pine beetle has injured or killed most of the lodgepole pine in the area making it less attractive for lynx. However, based upon the 2008 accident, the use of the area by lynx cannot be ruled out.

The project footprint will take place mostly on an easement from the USFS with the northwest section of the project owned by the City of Frisco and the eastern segment currently owned by Summit County (as of this writing) See map 1.



Map 1. Land use around the project footprint. Please note that this picture was part of the early planning for this project. Alignment 7 was ultamitely chosen for the path between the parking area and Dickey Day.

Critical Habitat has been designated for the lynx, but none of it exists in Colorado and this project will not have an impact on any of it.

A stable population of wolverine is not known to exist in Colorado. The most recent known occurrence of a wolverine in Colorado was in 2009 when a GPS tracked wolverine was observed moving from the Grand Teton National Park in northwestern Wyoming to north-central Colorado (Colorado Parks and Wildlife, 2013). The most recent known occurrence in Colorado prior to that was in 1919. Because of their dependence on cooler climates wolverines tend to stay at the higher elevations when dispersing. Habitats at those elevations are similar to those used by lynx.

8. Effects of the Action

The main threat to lynx and wolverine as a result of this action is the loss of habitat due to the new alignment. Constructing the new highway will eliminate approximately 2.57 acres of aspen/mixed conifer, 0.09 acres of grass/forb and aspen/mixed conifer, 1.98 acres of grass/forb with shrub, 1.561 acres of lodgepole pine, 0.01 acres of open canopy lodgepole pine with grass/forb and 0.56 acres of sagebrush with grass/forb habitat types. A total impact of 6.72 acres of permanent impact to vegetation is expected as a result of this project.

The poor quality of habitat, the location and the land use in and around the project area, renders the affected area not suitable for denning, foraging or winter habitat for the lynx or wolverine. The area may be used occasionally to gain access to the reservoir, but because of the development in the area and the year-round presence of humans, lynx or wolverine would be expected to avoid the area. Lynx could be expected to move through the area south of the

project footprint, as evidenced by the lynx mortality in 2008. This can be assumed because of the more suitable habitat, lower human presence and a way to go around Dillon Reservoir rather that out onto the peninsula. The project itself is not designed to increase the numbers or speed of traffic, nor will it increase the barrier effect of the highway beyond that which currently exists. The effect may actually be reduced from the 'no action' alternative somewhat by removing 0.4 miles of highway from the alignment and by eliminating cement barriers on both shoulders and 600 yards of retaining walls which would be up 15' high.

The other aspects of the project, water quality BMPs, converting the current highway into a recreation trail, a 10'x16'wildlife crossing, and the relocation of the Dickey Day parking area will not increase the barrier effect, will not increase traffic speed or numbers, will not increase light, permanently increase noise, or increase snow compaction and will therefore have a minimal effect on the lynx or wolverine. The wildlife crossing may be used by the either species and would provide a safer way to cross the highway than at-grade which is the only current option.

Both species would be expected to avoid the area during construction due to the increased noise and human presence, but their "normal" behavior would be expected to return shortly after the completion of the project.

9. Conservation Measures Proposed

In order minimize impacts to the lynx and wolverine, during construction CDOT proposes the following conservation measures:

1) Two underpasses will be constructed on either end of the project which are designed for recreation, but would be available for use by wildlife to cross under SH 9.

2) The underpasses will not be lit at night.

3) A 10' x 16' arched wildlife crossing will be installed under the new alignment.

4) Native trees and shrubs will be planted at the portals of the crossings to provide cover for lynx and other wildlife when approaching the crossings.

5) If night work is needed, the schedule will allow for no more than four consecutive nights of work immediately followed by at least 3 consecutive nights of no work

10. Effects Determination

Based on the location of the project, the type of project and the conservation measures proposed, it has been determined that this project *may affect, but is not likely to adversely affect* the lynx and *will not jeopardize the continued existence* of the wolverine. The project is expected to have no effect on any other federally designated species

FHWA and CDOT would like to request a written concurrence from the USFWS on these findings.

11. Literature Cited

Bailey, T.N. 1974. Social organization in a bobcat population. Journal of Wildlife Management 38:435-446.

Colorado Division of Wildlife, U.S. Forest Service, National Park Service, U.S. Fish and Wildlife Service, New Mexico Game and Fish Department, Wyoming Game and Fish Department. 1997. Draft strategy for the conservation and reestablishment of lynx and wolverine in the southern Rocky Mountains. Unpublished report prepared for Colorado Division of Wildlife, Carbondale.

Colorado Parks and Wildlife. 2013. Http://wildlife.state.co.us/WildlifeSpecies/SpeciesOfConcern/Mammals/Pages/Wolverine.aspx). Accessed 3/9/2013.

Findley, J.S. and S. Anderson. 1956. Zoogeography of the montane mammals of Colorado. Journal of Mammalogy, 37:80-82.

Fitzgerald, J.P., C.A Meaney, and D.M. Armstrong. 1994. Mammals of Colorado. University Press of Colorado, Niwot, Colorado.

Koehler, G.M. 1990. Population and habitat characteristics of lynx and snowshoe hares in northcentral Washington. Canadian Journal of Zoology. 68:845-851.

Koehler, G.M. and J.D. Brittell. 1990. Managing spruce-fir habitat for lynx and snowshoe hares. Journal of Forestry. 88:10-14.

Koehler, G.M. and K.B. Aubry. 1994. Lynx. Pages 74-98 in Ruggiero, L.F., K.B. Aubry, S.W. Buskirk, L.J. Lyon, and W.J. Zielinski, tech. eds. The scientific basis for conserving forest carnivores: A merican marten, fisher, lynx, and wolverine in the western United States. General Technical Report RM-254. USDA Forest Service, Rocky Mountain Range and Experimental Station, Fort Collins, Colorado. 184 pp.

McCord, C.M. and J.E. Cardoza. 1982. Bobcat (Felis rufus) and lynx (F. lynx). Pp. 728-766 in J.A. Chapman and G.A. Feldhamer, eds. Wild mammals of North America. Johns Hopkins Univ. Press, Baltimore, MD.

McKelvey, Kevin S., K. B. Aubry, and Y. K. Ortega. 1999. History and Distribution of Lynx in the Contiguous United States. Pp. 207-264. In L.F. Ruggiero, K.B. Aubry, S.W. Buskirk, G.M. Koehler, C.J. Krebs, K.S. McKelvey, and J.R. Squires (eds.) Ecology and conservation of lynx in the United States. RMRS-GTR-30WWW. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.

Mowat, G., K.G. Poole, and M. O'Donoghue. 2000. Ecology of lynx in northern Canada and Alaska. Chapter 9 in L.F. Ruggiero, K.B. Aubrey, S.W. Buskirk, et al., tech. eds. Ecology and Conservation of lynx in the United States. University Press of Colorado, Boulder. 480 pp

Nowak, R.N. and J.L. Paradiso. 1983. Walker's mammals of the world. 4th ed. Vol. II.. Johns Hopkins Univ. Press. Baltimore, MD. 1362 pp.

Quinn, N.W.S. and G. Parker. 1987. Lynx. Pp. 683-694 in M. Novak, J. Baker, M. Obbard, eds. Wild furbearer management and conservation in North America. Ontario Ministry of Natural Resources, Toronto.

Ruediger, W., J. Claar, S. Gniadek, B. Holt, L. Lewis, S. Mighton, R. Naney, G. Patton, T. Rinaldi, J. Trick, A. Vandehey, F. Wahl, N. Warren, R. Wenger, and A. Williamson. 2000. Canada lynx conservation assessment and strategy. USDA Forest Service, U.S. Department of Interior, Bureau of Land Management, U.S. Fish and Wildlife Service, National Park Service.

Squires, J.R., and T. Laurion. 1999. Lynx Home Range and Movements in Montana and Wyoming: Preliminary Results in L.F. Ruggiero, K. B. Aubry, S. W. Buskirk, et al., tech. eds. The scientific basis for lynx conservation in the contiguous United States. General Technical Report. RMRS-GTR-30. Ogden, Utah. U.S. Forest Service, Rocky Mountain Research Station.

Thompson, R.W. and J.C. Halfpenny. 1989. Canada lynx presence on Vail Ski Area and proposed expansion areas. Western Ecosystems, Inc. Lafayette, Colorado. Unpubl. Rep. 29 pp.

USFS. 2011. Biological Assessment For Terrestrial Wildlife Species For the Proposed Ophir Mountain Forest Health and Fuels Project Dillon Ranger District, White River National Forest Summit County, Colorado

USFWS. 2013. http://www.fws.gov/mountain-prairie/endspp/mammals.html). Accessed 3/8/2013.

U.S. Department of Transportation
Federal Highway Administration

Colorado Division

12300 W. Dakota Ave., Ste. 180
Lakewood, Colorado 80228
720-963-3000

June 4, 2013

Susan Linner
U.S. Fish and Wildlife Service
Ecological Services
P.O. Box 25486, DFC, (MS 65412)
Denver, Colorado 80225-0486
Attn: Ms. Alison Michael

Subject: State Highway 9 Realignment at Iron Springs (C 0091-041, PCN 19298)

Dear Ms. Linner:

The Colorado Department of Transportation (CDOT), in cooperation with the Federal Highway Administration (FHWA), is requesting formal consultation on the potential effects that improvements on SH 9 may have on the federally threatened Canada lynx (*Lynx canadensis*) and federally proposed for listing North American wolverine (*Gulo gulo luscus*).

Section 7(a)(2) of the Endangered Species Act of 1973 (as amended) states that each Federal agency shall, in consultation with the U.S. Fish and Wildlife Service, ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of a listed species. The attached Biological Assessment requests a formal consultation with the U.S. Fish and Wildlife Service on the potential impacts to the lynx and wolverine.

These actions will ensure that FHWA and CDOT comply with Section 7(a)(2) of the ESA. If you have additional questions, please contact Joshua Kiel at 720-963-3018 or Jeff Peterson, CDOT Headquarters, at 303-512-4959.

Sincerely,

FOR John M. Cater
Division Administrator

Enclosure: Biological Assessment

Cc: Jeff Peterson, CDOT EPB
Chuck Attardo, CDOT Region 1
Michael Vanderhoof, CDOT Region 3

STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION
Environmental Programs Branch
4201 East Arkansas Avenue
Shumate Building
Denver, Colorado 80222
(303) 757-9281

DEPARTMENT OF TRANSPORTATION

June 13, 2013

Mr. Edward C. Nichols
State Historic Preservation Officer
History Colorado
1200 Broadway
Denver, CO 80203

SUBJECT: Eligibility and Effects Determinations (Historical and Archaeological Resources) and Notification of Section 4(f) Finding of *De Minimis*, CDOT Project C 0091-041, State Highway 9 Iron Springs Alignment, Summit County

Dear Mr. Nichols:

Attached for your review are the historic properties survey report, site forms and associated supporting materials for the Colorado Department of Transportation (CDOT) project referenced above. The undertaking proposes to realign a 1.3-mile segment of State Highway 9 east of the Town of Frisco (Figure 1). CDOT and the Federal Highway Administration (FHWA) are completing an Environmental Assessment to document the environmental and social impacts of the proposed project.

Background - State Highway 9 Corridor Improvements

In 2004, CDOT and FHWA completed a Final Environmental Impact Statement (EIS) and Record of Decision (ROD) for improvements to the 14.5-mile segment of SH 9 between Breckenridge and Frisco. The Selected Alternative as described in the ROD was a reduced section four-lane roadway including turn lanes, acceleration/deceleration lanes, curb and gutter, medians, and shoulders. Improvements would enhance transportation mobility by decreasing travel time, improving safety, and supporting the transportation needs of local and regional travelers while minimizing impacts to the surrounding environment and communities. Since completion of the Final EIS and ROD, CDOT has implemented the Selected Alternative along portions of SH 9 with the intention of continuing improvements as funding becomes available.

The improvements identified in the Final EIS and ROD were all planned to be constructed by widening the highway along its existing alignment. However, due to evolving conditions in the intervening years—including the effects of the mountain pine beetle epidemic, which the US Forest Service (USFS) proposes to mitigate by removing trees along the realignment corridor—CDOT and FHWA, in cooperation with Summit County, developed plans to realign instead of widen the highway bordering Dillon Reservoir east of Frisco.

Proposed Action Alternative

The Proposed Action would realign a curved 1.3-mile segment of SH 9 to provide a straighter four-lane road while moving the alignment further away from Dillon Reservoir (Figure 2). Also known as the Iron Springs Alignment, this would shorten SH 9 by approximately 0.4 miles while concomitantly providing safety benefits as well as water quality and drinking water protections for area residents.

The Proposed Action would also include realignment of a portion of the existing Frisco to Breckenridge Shared Use Path (Blue River Bikeway), which would move to the alignment currently occupied by SH 9.

The realigned path would be approximately 0.4 miles longer than the existing path but would provide a much gentler grade.

No Action Alternative

If the Proposed Action is not implemented, SH 9 would be widened to provide a four-lane roadway along the existing alignment as previously approved in the ROD (Figure 3). This is considered the "No Action Alternative" for the current EA. Widening along the existing alignment would require large rock cuts and retaining walls, and the highway would remain in close proximity to Dillon Reservoir. A tight curve known locally as Leslie's Curve would remain intact; however, safety features such as a barrier between opposing lanes would be installed to improve safety. Approximately 0.8 miles of the existing shared use path would be realigned to allow space for the highway widening. With this realignment the length of path would not change appreciably, and the current relatively steep grades would remain.

Area of Potential Effects

The Area of Potential Effects (APE) established for the undertaking encompasses approximately 237 acres (95.5 hectares), including lands administered by the USFS, the Town of Frisco, Summit County, and the Denver Water Board, in addition to privately-owned property and state highway right-of-way (Figure 4). The APE encompasses the footprint of the Proposed Action and No Action Alternatives and the boundaries of historic properties that may be directly or indirectly affected by the undertaking. Please refer to the survey report for additional information specific to the APE.

Inventory Results and Eligibility Determinations

As a result of previous inventories, eight historic-era resources were known to exist in the APE and had been documented (5ST215, 5ST217, 5ST395.4, 5ST717, 5ST724.2, 5ST758, 5ST883, and 5ST905). These include mineral prospecting pits, a large placer mining operation, water conveyance ditches, log cabin remnants, a residential property, and a segment of the Denver, South Park and Pacific (DSP&P) railroad grade. Due to a lack of historical significance and deteriorated condition, five of these resources (5ST215, 5ST217, 5ST717, 5ST724.2, and 5ST905) were determined not eligible for the National Register of Historic Places (NRHP) during Section 106 consultation for earlier undertakings. Consequently, those localities were not re-evaluated and are not discussed further herein.

Four historic isolated finds (5ST1440-5ST1443) and two prehistoric isolated finds (5ST1445 and 5ST1446) were newly documented, in addition to a historic-era archaeological site (5ST1444), a segment of the DSP&P railroad grade (5ST395.8), and the portion of State Highway 9 (5ST1461.1) proposed for abandonment and adaptive reuse as a recreational path. Previously recorded sites that were revisited and re-evaluated include a mid-20th century residence (5ST758), a placer mine (5ST883) and a segment of the DSP&P grade (5ST395.4). Determinations of eligibility for these twelve resources are reflected in the table on the following page.

Effects Determinations - Proposed Action

Denver South Park & Pacific Railroad Segments (5ST395.4 and 5ST395.8): Both segments 5ST395.4 and 5ST395.8 are located just east of the town of Frisco. Segment 5ST395.4 is approximately one mile in length; much of it has been transformed into an asphalt multi-use recreational trail which winds its way through a hospital complex and parking lots. The eastern terminus of 5ST395.4 will be directly impacted by the Proposed Action (less than 15 m in total length), where slopes adjacent to the existing highway ROW and immediately east of the segment will be cut back to accommodate widening the road from two to four lanes.

Segment 5ST395.8 is located about one-half mile east of 5ST395.4, roughly following the existing alignment of SH 9 toward Dillon Reservoir. The eastern terminus of 5ST395.8 will likely be impacted

NRHP Eligibility and Effects Determinations

Resource Number	Site Name/Type	NRHP Eligibility Determinations	Effects Determinations	
			No Action Alt.	Preferred Alt.
5ST395.4	DSP&P railroad segment	Does not support overall resource	No adverse effect	No adverse effect
5ST395.8	DSP&P railroad segment	Does not support overall resource	No adverse effect	No adverse effect
5ST758	Antler House	Not eligible	No historic properties affected	No historic properties affected
5ST883	Dillon placer mine	Eligible	No historic properties affected	Adverse effect
5ST1440	Historic prospect pit	Not eligible	No historic properties affected	No historic properties affected
5ST1441	Historic prospect pit	Not eligible	No historic properties affected	No historic properties affected
5ST1442	Historic prospect pits	Not eligible	No historic properties affected	No historic properties affected
5ST1443	Historic prospect pits	Not eligible	No historic properties affected	No historic properties affected
5ST1444	Historic cabin remnant	Not eligible	No historic properties affected	No historic properties affected
5ST1445	Prehistoric isolated find	Not eligible	No historic properties affected	No historic properties affected
5ST1446	Prehistoric isolated find	Not eligible	No historic properties affected	No historic properties affected
5ST1461.1	State Highway 9 segment	Does not support overall resource	No adverse effect	No adverse effect

by the Proposed Action (less than 15 m in length), where construction activity will occur in association with transforming this portion of the existing highway into a recreational trail. While the overall resource 5ST395 has been determined *officially eligible* for inclusion on the NRHP, segments 5ST395.4 and 5ST395.8 are considered non-supporting elements. Impacts to these segments will therefore result in *no adverse effect* to the larger resource.

Antler House (5ST758): Located along the north side of SH 9 opposite Summit High School, the Antler House is a small wood framed structure built in 1959. The Proposed Action will widen the existing alignment in this area from two to four lanes via construction of an elevated roadbed, in the process eliminating access to the Antler House and thus requiring a full property acquisition. The resource is determined *not eligible* and therefore results in *no historic properties affected.*

Dillon Placer Mine (5ST883): Under the Proposed Action, construction of the new highway alignment south of Leslie's Curve will result in the excavation of cut and fill slopes in the western portion of the mine. Construction activities would directly impact the remains of several flumes that channeled water to the mine workings when the mine was active ca. 1900-1905. The impacts of the Proposed Action would effectively remove the flumes while leaving the placer mine workings in the eastern portion of the site intact. As a result, the Proposed Action would result in an *adverse effect* to 5ST883. See the attached graphic for more information (Figure 5).

Because of the adverse effect to the mine site, if the Proposed Action is implemented CDOT proposes mitigation in the form of Level II Documentation as established by your office in Form 1595. Additional

mitigation may be identified as the Section 106 consultation process continues. If you have suggestions for other mitigation ideas, please include those recommendations in your response letter.

Cabin Ruins (5ST1444): Situated north of the Iron Springs Road just west of SH 9, this site contains remnants of cabin foundations and an associated artifact scatter located within the proposed highway alignment. Construction of cut slopes in this area will directly impact the resource. The site is evaluated as *not eligible* and therefore the Proposed Action will result in *no historic properties affected.*

State Highway 9 (5ST1461.1): The Proposed Action would shorten SH 9 by approximately 0.4 miles, removing Leslie's Curve and moving the highway further from Dillon Reservoir. The existing road alignment along Leslie's Curve will be converted to a paved recreational path with little to no disturbance to the original road cut. For the purposes of Section 106 consultation, the entire highway is treated as e*ligible* for the NRHP. However, this segment of SH 9 does not support the significance of the resource as a whole, which results in a finding of *no adverse effect.*

Historic Isolated Finds (Mining Prospect Pits 5ST1440, 5ST1441, 5ST1442 & 5ST1443): All four mining prospect pits, located south of Leslie's Curve, are evaluated as *not eligible* NRHP. Consequently the Proposed Action will result in *no historic properties affected.*

Prehistoric Isolated Finds (5ST1445 & 5ST1446): Both prehistoric isolates, located north of Iron Springs Road just west of SH 9 within the Proposed Action's new highway alignment, are *not eligible* for the NRHP. The Proposed Action will result in *no historic properties affected.*

Effects Determinations - No Action Alternative

Denver South Park & Pacific Railroad Segments (5ST395.4 and 5ST395.8): The eastern terminus of segment 5ST395.4 (less than 15 m in length) will be impacted by the No Action Alternative, where slopes adjacent to the existing highway ROW and immediately east of the grade will be cut back to accommodate lane widening. The eastern terminus of segment 5ST395.8 (less than 25 m in length) will be impacted where cuts and fills will be excavated up to 10 m beyond the existing highway ROW to accommodate widening. Because segments 5ST395.4 and 5ST395.8 are considered non-supporting elements of the overall resource, impacts will result in *no adverse effect.*

Antler House (5ST758): Widening the existing highway alignment from two lanes to four under the No Action Alternative would eliminate access to the home and require a full property acquisition. Determined *not eligible* for inclusion on the NRHP, the impacts to the Antler House will result in *no historic properties affected.*

Dillon Placer Mine (5ST883): The No Action Alternative would widen SH 9 along its existing alignment, requiring excavation of cuts and fills and associated rock cut slopes and construction of retaining walls. These actions would extend westward up to the existing bike path (approximately 75 feet from the edge of the existing highway pavement). All construction would occur east of the recreational path, outside the site boundary in an area that has been entirely disturbed by prior construction of both the highway and path. The placer workings and flumes to the west would not be impacted, resulting in *no historic properties affected.* Refer to the attached graphic for more detailed information (Figure 6).

Cabin Ruins (5ST1444): The site is located a terrace above the highway, more than 30 m beyond proposed ground-disturbing activities associated with widening the existing highway alignment. Because 5ST1444 is *not eligible* for inclusion on the NRHP and is located outside of the proposed impact zone, the No Action Alternative will result in *no historic properties affected.*

State Highway 9 (5ST1461.1): Areas exhibiting existing rock cuts along Leslie's Curve will be widened to accommodate the additional lanes and shoulders. This will require extensive excavation and tree removal in several areas along the inside curve of the highway. Since this segment of SH 9 does not support the significance of the resource as a whole, the No Action Alternative will result in *no adverse effect.*

Historic Isolated Finds (Mining Prospect Pits 5ST1440, 5ST1441, 5ST1442 & 5ST1443): All four mining prospect pits are evaluated as *not eligible*, and in addition all are situated at least 30 m beyond areas of proposed direct disturbance under the No Action Alternative. Therefore this alternative will result in *no historic properties affected.*

Prehistoric Isolated Finds (5ST1445 & 5ST1446): Both prehistoric isolates are located in an area topographically separated from the SH 9 and the realigned bike path and therefore will not be directly affected by the No Action Alternative. Coupled with their evaluation as *not eligible*, this alternative will result in *no historic properties affected.*

Notification of Section 4(f) *De Minimis* Determination

This project has been determined to result in no adverse effect to several historic properties. As a result, FHWA may make a *de minimis* finding for the Section 4(f) requirements for these properties.

In addition, it is FHWA and CDOT's determination that the archaeological remains of the Dillon Placer Mine (5ST883) fall under the provisions of the Section 4(f) exception for archaeological resources (23 CFR 774.13(b)) in that the remains are limited and as such have no value for preservation in place (e.g., the site is not NRHP eligible under Criterion D).

The enclosed documentation provides additional information about the proposed project and the resources listed above. We request your concurrence with the determinations of eligibility and effects as outlined herein, and acknowledgement of the potential Section 4(f) *de minimis* determinations and the archaeological exception for 5ST883. If you have questions or require additional information in order to complete your review, please contact CDOT Senior Staff Archaeologist Dan Jepson at (303) 757-9631, or via email at daniel.jepson@state.co.us, or Senior Staff Historian Lisa Schoch at (303) 512-4258 or lisa.schoch@state.co.us.

Very truly yours,

for Jane Hann, Manager
Environmental Programs Branch

Enclosures: Survey Report
Site Forms, including photos & maps
Figure 1 - Project Location Map
Figure 2 - Proposed Action Alternative Map
Figure 3 - No Action Alternative Map
Figure 4 - Land Ownership within APE
Figure 5 – Placer Mine Impacts, Proposed Action Alternative Map
Figure 6 – Placer Mine Impacts, No Action Alternative Map

cc: A. Brogan, White River National Forest

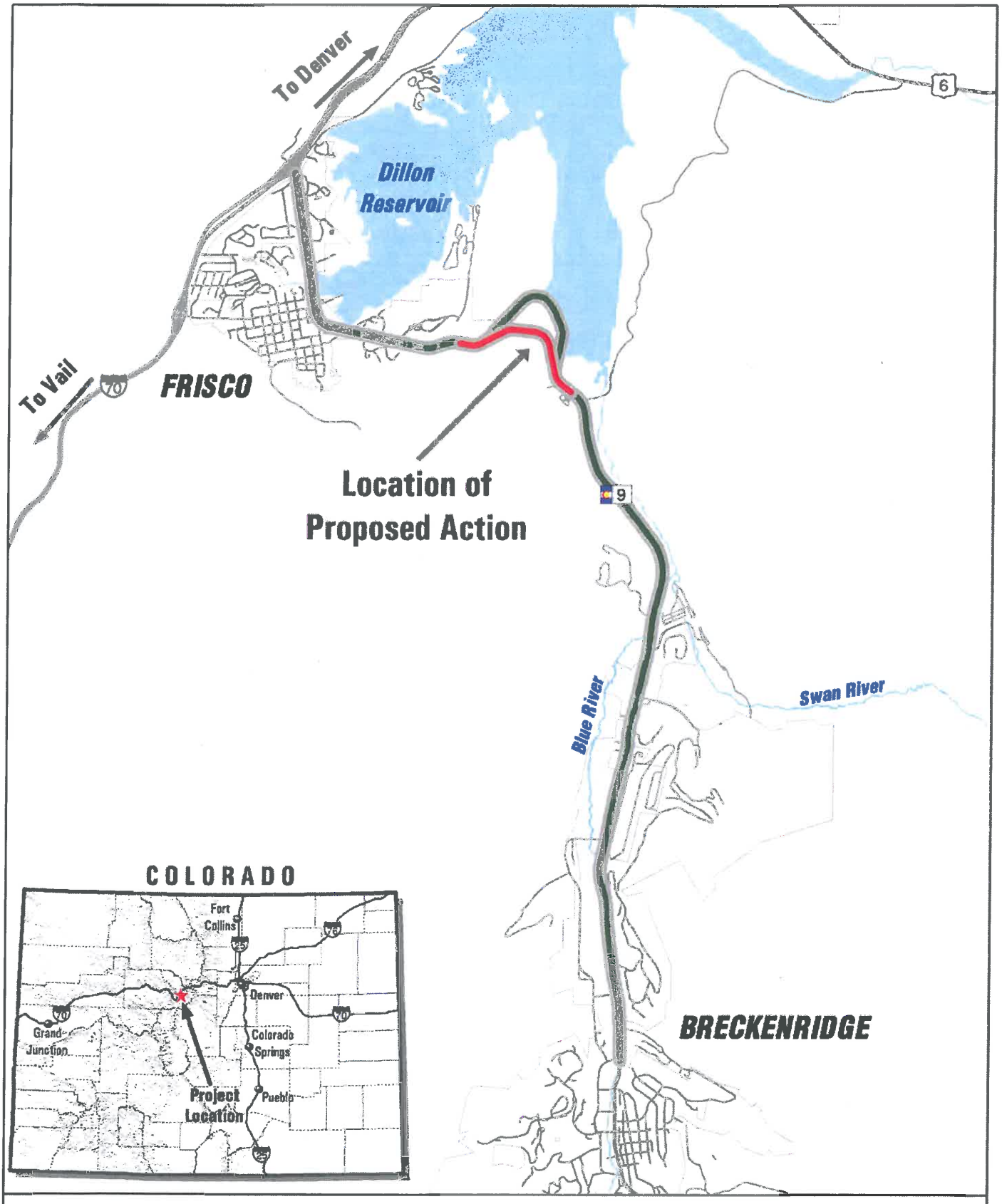

To Denver
Dillon Reservoir
6
To Vail
70
FRISCO
Location of Proposed Action
9
Blue River
Swan River
BRECKENRIDGE
COLORADO
Fort Collins
25
76
Denver
70
Grand Junction
Colorado Springs
Project Location
Pueblo
25
Legend
Proposed Action Location
Approved 4-Lane Section
Interstate Highway 70
Other Roads
Rivers
NORTH
0
1
Miles
DOT
DEPARTMENT OF TRANSPORTATION
SH 9 Corridor Context

Figure 1

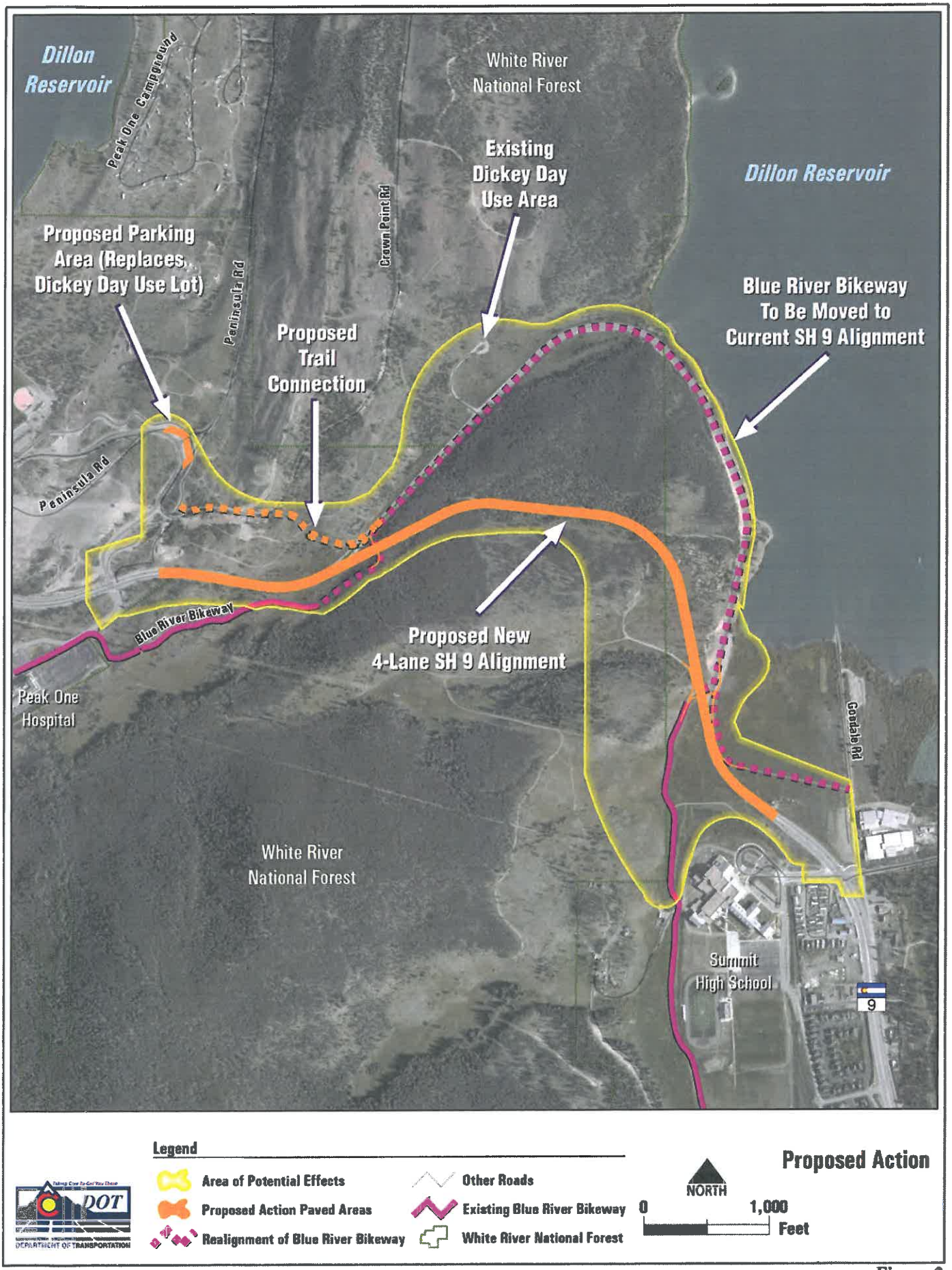

Dillon Reservoir
Peak One Campground
White River National Forest
Existing Dickey Day Use Area
Dillon Reservoir
Proposed Parking Area (Replaces Dickey Day Use Lot)
Peninsula Rd
Crown Point Rd
Proposed Trail Connection
Blue River Bikeway To Be Moved to Current SH 9 Alignment
Peninsula Rd
Blue River Bikeway
Proposed New 4-Lane SH 9 Alignment
Peak One Hospital
Goeble Rd
White River National Forest
Summit High School
9
Legend
Area of Potential Effects
Proposed Action Paved Areas
Realignment of Blue River Bikeway
Other Roads
Existing Blue River Bikeway
White River National Forest
NORTH
0
1,000
Feet
Proposed Action

Figure 2

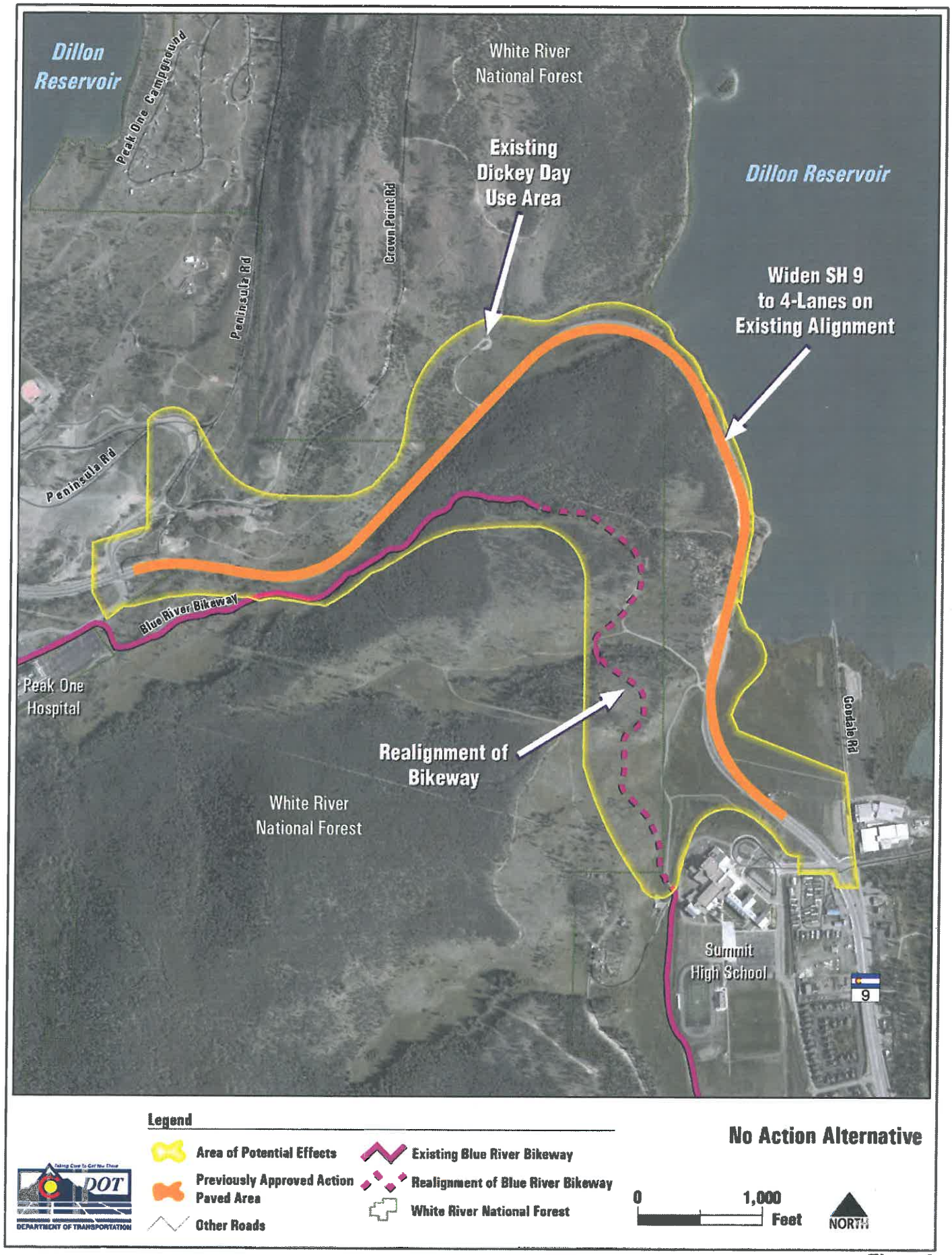

Dillon Reservoir
Peak One Campground
White River National Forest
Existing Dickey Day Use Area
Dillon Reservoir
Crown Point Rd
Peninsula Rd
Widen SH 9 to 4-Lanes on Existing Alignment
Peninsula Rd
Blue River Bikeway
Peak One Hospital
Realignment of Bikeway
Goodale Rd
White River National Forest
Summit High School
9
Legend
Area of Potential Effects
Previously Approved Action Paved Area
Other Roads
Existing Blue River Bikeway
Realignment of Blue River Bikeway
White River National Forest
No Action Alternative
0
1,000
Feet
NORTH
DOT
DEPARTMENT OF TRANSPORTATION

Figure 3

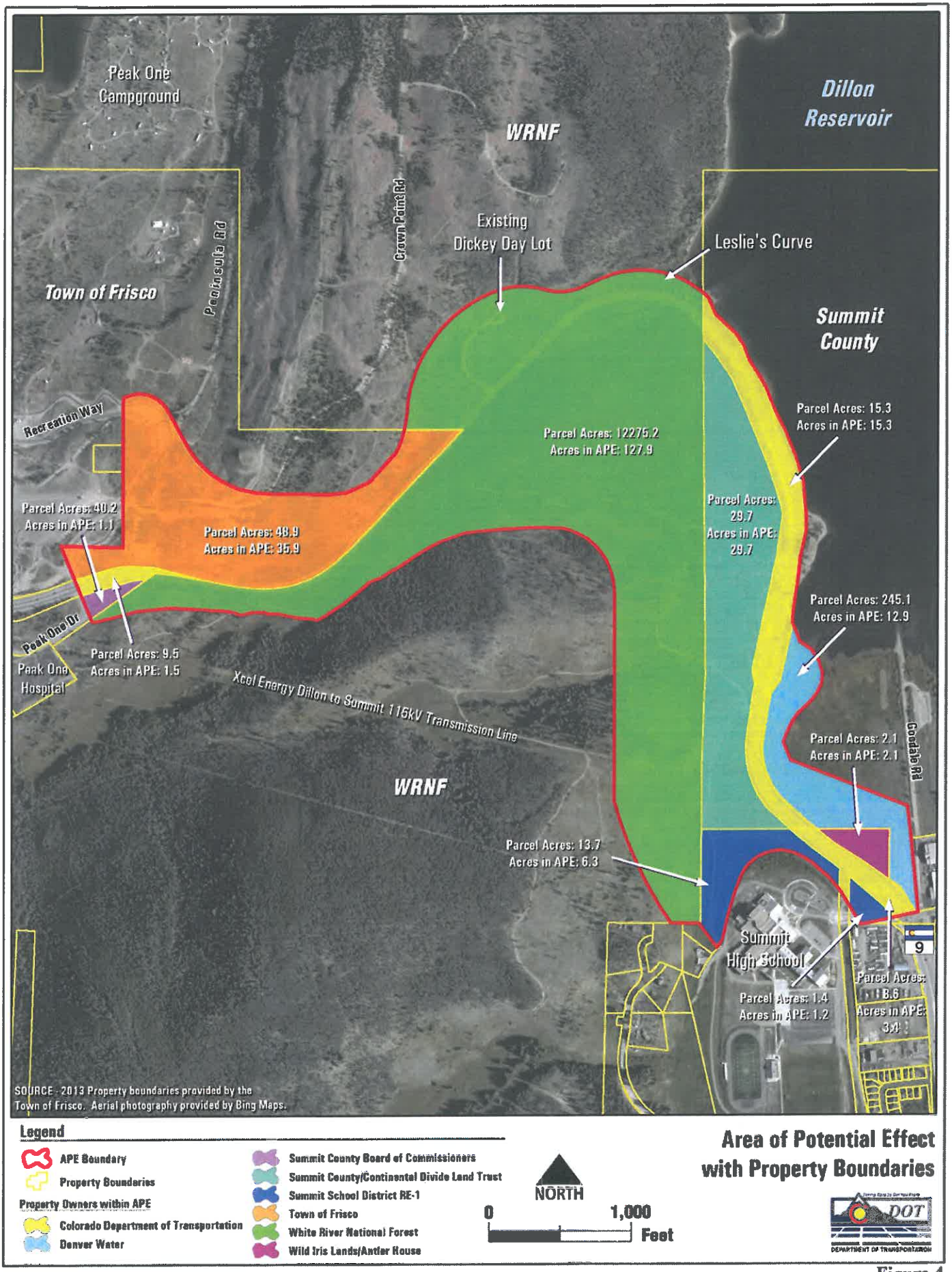

Peak One Campground
WRNF
Dillon Reservoir
Crown Point Rd
Existing Dickey Day Lot
Leslie's Curve
Peninsula Rd
Town of Frisco
Summit County
Recreation Way
Parcel Acres: 15.3
Acres in APE: 15.3
Parcel Acres: 12275.2
Acres in APE: 127.9
Parcel Acres: 40.2
Acres in APE: 1.1
Parcel Acres: 48.9
Acres in APE: 35.9
Parcel Acres: 29.7
Acres in APE: 29.7
Parcel Acres: 245.1
Acres in APE: 12.9
Peak One Dr
Parcel Acres: 9.5
Acres in APE: 1.5
Peak One Hospital
Xcel Energy Dillon to Summit 116kV Transmission Line
Corbable Rd
Parcel Acres: 2.1
Acres in APE: 2.1
WRNF
Parcel Acres: 13.7
Acres in APE: 6.3
Summit High School
9
Parcel Acres: 1.4
Acres in APE: 1.2
Parcel Acres: 8.6
Acres in APE: 3.1
SOURCE - 2013 Property boundaries provided by the Town of Frisco. Aerial photography provided by Bing Maps.
Legend
APE Boundary
Property Boundaries
Property Owners within APE
Colorado Department of Transportation
Denver Water
Summit County Board of Commissioners
Summit County/Continental Divide Land Trust
Summit School District RE-1
Town of Frisco
White River National Forest
Wild Iris Lands/Antler House
NORTH
0
1,000
Feet
Area of Potential Effect with Property Boundaries
DOT
DEPARTMENT OF TRANSPORTATION

Figure 4

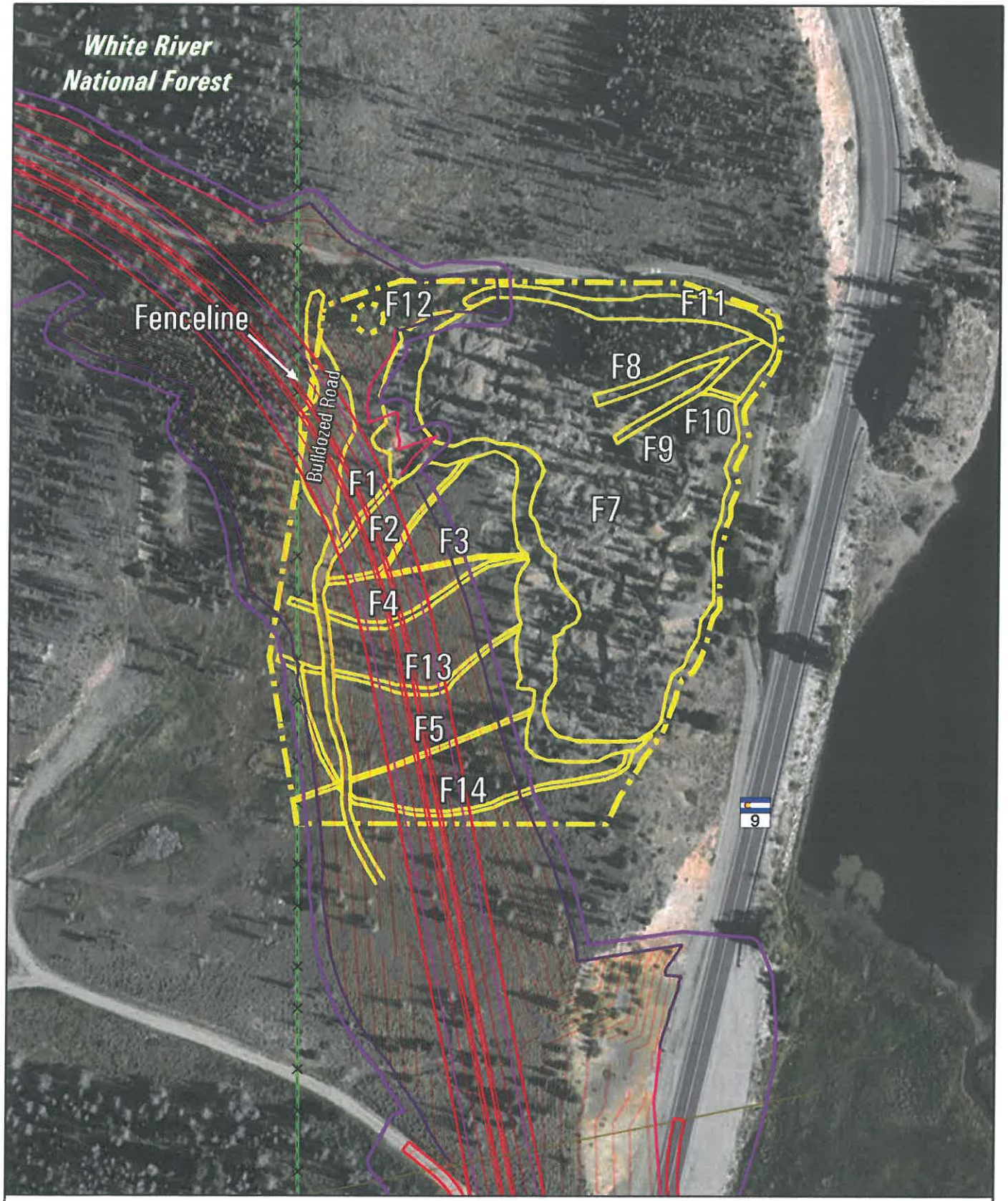

White River
National Forest
Fenceline
Bulldozed Road
F12
F11
F8
F10
F9
F1
F7
F2
F3
F4
F13
F5
F14
9
Legend
Dillon Placer Site Boundary
Dillon Placer Site Features
White River
National Forest Boundary
Impact Limit (15-Foot Buffer)
SH 9 at Iron Springs - Proposed Action
0
NORTH
150
Feet
Dillon Placer
Site 5ST883

Figure 5

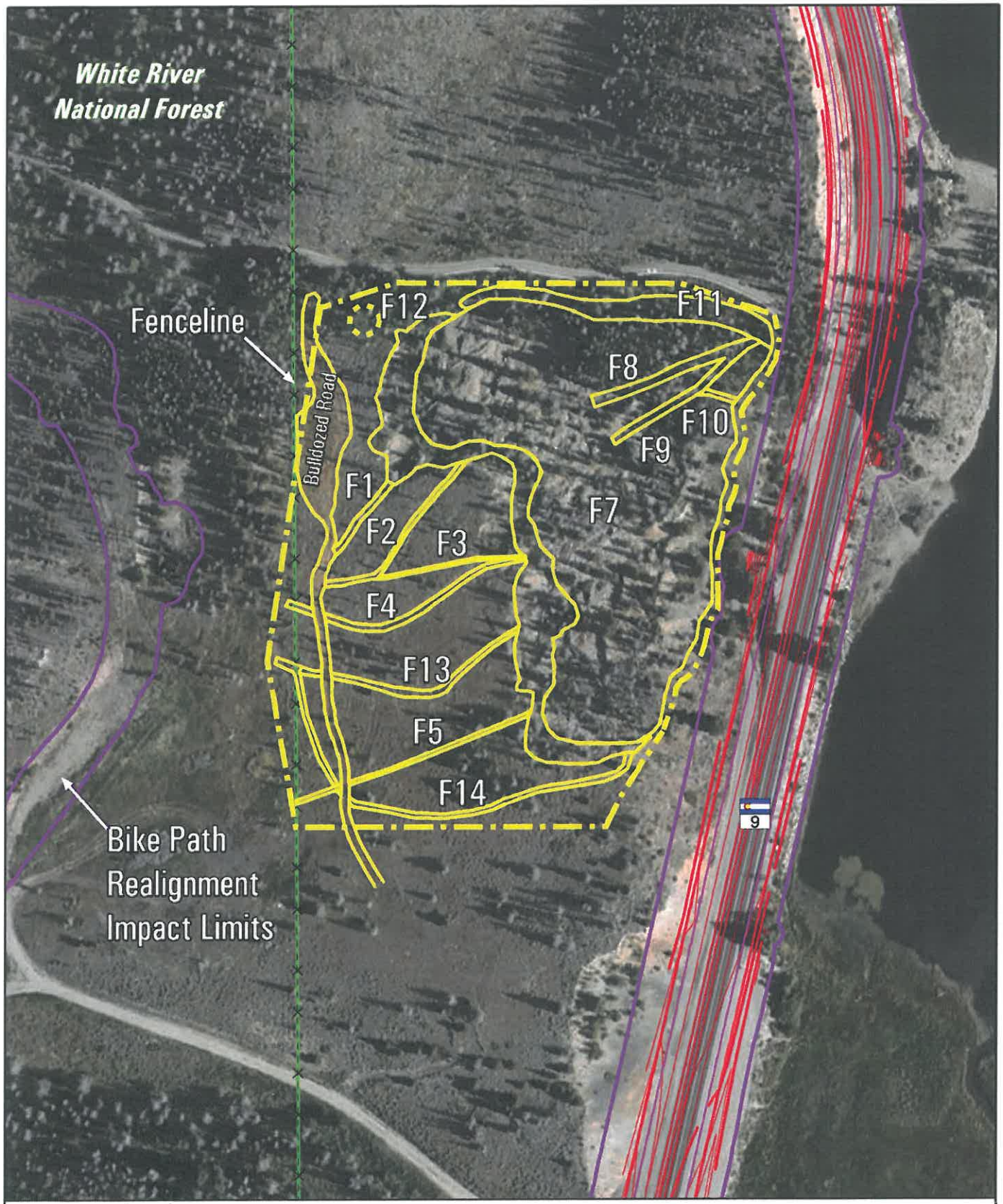

White River
National Forest
Fenceline
Bulldozed Road
F12
F11
F8
F10
F9
F1
F7
F2
F3
F4
F13
F5
F14
9
Bike Path
Realignment
Impact Limits
Legend
Dillon Placer Site Boundary
Dillon Placer Site Features
Impact Limit (15-Foot Buffer, 30-Foot for Rock Cut Areas)
White River National Forest Boundary
SH 9 at Iron Springs - No Action
0
NORTH
150
Feet
Dillon Placer Site 5ST883

Figure 6

STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION
Environmental Programs Branch
4201 East Arkansas Avenue
Shumate Building
Denver, Colorado 80222
(303) 757-9281

DEPARTMENT OF TRANSPORTATION

June 13, 2013

Ms. Jocelyn Mills
Historic Preservation Board
Town of Frisco
P.O. Box 4100
Frisco, CO 80443

SUBJECT: Eligibility and Effects Determinations (Historical and Archaeological Resources) and Notification of Section 4(f) Finding of *De Minimis*, CDOT Project C 0091-041, State Highway 9 Iron Springs Alignment, Summit County

Dear Ms: Mills:

Attached for your review are the historic properties survey report, site forms and associated supporting materials for the Colorado Department of Transportation (CDOT) project referenced above. The undertaking proposes to realign a 1.3-mile segment of State Highway 9 east of the Town of Frisco (Figure 1). CDOT and the Federal Highway Administration (FHWA) are completing an Environmental Assessment to document the environmental and social impacts of the proposed project.

CDOT is submitting this to you in compliance with Section 106 of the National Historic Preservation Act, which requires federal agencies to evaluate the effects of their undertakings on historic properties. The Frisco Historic Preservation Board has been identified as a potential consulting party for this project. For more information about Section 106 and how you can participate as a consulting party, please visit the Advisory Council on Historic Preservation's web site, which contains the Citizen's Guide to Section 106 Review at http://www.achp.gov/docs/CitizenGuide.pdf.

Background - State Highway 9 Corridor Improvements

In 2004, CDOT and FHWA completed a Final Environmental Impact Statement (EIS) and Record of Decision (ROD) for improvements to the 14.5-mile segment of SH 9 between Breckenridge and Frisco. The Selected Alternative as described in the ROD was a reduced section four-lane roadway including turn lanes, acceleration/deceleration lanes, curb and gutter, medians, and shoulders. Improvements would enhance transportation mobility by decreasing travel time, improving safety, and supporting the transportation needs of local and regional travelers while minimizing impacts to the surrounding environment and communities. Since completion of the Final EIS and ROD, CDOT has implemented the Selected Alternative along portions of SH 9 with the intention of continuing improvements as funding becomes available.

The improvements identified in the Final EIS and ROD were all planned to be constructed by widening the highway along its existing alignment. However, due to evolving conditions in the intervening years—including the effects of the mountain pine beetle epidemic, which the US Forest Service (USFS) proposes to mitigate by removing trees along the realignment corridor—CDOT and FHWA, in cooperation with Summit County, developed plans to realign instead of widen the highway bordering Dillon Reservoir east of Frisco.

Proposed Action Alternative
The Proposed Action would realign a curved 1.3-mile segment of SH 9 to provide a straighter four-lane road while moving the alignment further away from Dillon Reservoir (Figure 2). Also known as the Iron Springs Alignment, this would shorten SH 9 by approximately 0.4 miles while concomitantly providing safety benefits as well as water quality and drinking water protections for area residents.

The Proposed Action would also include realignment of a portion of the existing Frisco to Breckenridge Shared Use Path (Blue River Bikeway), which would move to the alignment currently occupied by SH 9. The realigned path would be approximately 0.4 miles longer than the existing path but would provide a much gentler grade.

No Action Alternative
If the Proposed Action is not implemented, SH 9 would be widened to provide a four-lane roadway along the existing alignment as previously approved in the ROD (Figure 3). This is considered the "No Action Alternative" for the current EA. Widening along the existing alignment would require large rock cuts and retaining walls, and the highway would remain in close proximity to Dillon Reservoir. A tight curve known locally as Leslie's Curve would remain intact; however, safety features such as a barrier between opposing lanes would be installed to improve safety. Approximately 0.8 miles of the existing shared use path would be realigned to allow space for the highway widening. With this realignment the length of path would not change appreciably, and the current relatively steep grades would remain.

Area of Potential Effects
The Area of Potential Effects (APE) established for the undertaking encompasses approximately 237 acres (95.5 hectares), including lands administered by the USFS, the Town of Frisco, Summit County, and the Denver Water Board, in addition to privately-owned property and state highway right-of-way (Figure 4). The APE encompasses the footprint of the Proposed Action and No Action Alternatives and the boundaries of historic properties that may be directly or indirectly affected by the undertaking. Please refer to the survey report for additional information specific to the APE.

Inventory Results and Eligibility Determinations
As a result of previous inventories, eight historic-era resources were known to exist in the APE and had been documented (5ST215, 5ST217, 5ST395.4, 5ST717, 5ST724.2, 5ST758, 5ST883, and 5ST905). These include mineral prospecting pits, a large placer mining operation, water conveyance ditches, log cabin remnants, a residential property, and a segment of the Denver, South Park and Pacific (DSP&P) railroad grade. Due to a lack of historical significance and deteriorated condition, five of these resources (5ST215, 5ST217, 5ST717, 5ST724.2, and 5ST905) were determined not eligible for the National Register of Historic Places (NRHP) during Section 106 consultation for earlier undertakings. Consequently, those localities were not re-evaluated and are not discussed further herein.

Four historic isolated finds (5ST1440-5ST1443) and two prehistoric isolated finds (5ST1445 and 5ST1446) were newly documented, in addition to a historic-era archaeological site (5ST1444), a segment of the DSP&P railroad grade (5ST395.8), and the portion of State Highway 9 (5ST1461.1) proposed for abandonment and adaptive reuse as a recreational path. Previously recorded sites that were revisited and re-evaluated include a mid-20th century residence (5ST758), a placer mine (5ST883) and a segment of the DSP&P grade (5ST395.4). Determinations of eligibility for these twelve resources are reflected in the table on the following page.

Effects Determinations - Proposed Action
Denver South Park & Pacific Railroad Segments (5ST395.4 and 5ST395.8): Both segments 5ST395.4 and 5ST395.8 are located just east of the town of Frisco. Segment 5ST395.4 is approximately one mile in length; much of it has been transformed into an asphalt multi-use recreational trail which winds its way through a hospital complex and parking lots. The eastern terminus of 5ST395.4 will be directly impacted by the Proposed Action (less than 15 m in total length), where slopes adjacent to the existing highway

ROW and immediately east of the segment will be cut back to accommodate widening the road from two to four lanes.

Segment 5ST395.8 is located about one-half mile east of 5ST395.4, roughly following the existing alignment of SH 9 toward Dillon Reservoir. The eastern terminus of 5ST395.8 will likely be impacted

NRHP Eligibility and Effects Determinations

Resource Number	Site Name/Type	NRHP Eligibility Determinations	Effects Determinations	
			No Action Alt.	Preferred Alt.
5ST395.4	DSP&P railroad segment	Does not support overall resource	No adverse effect	No adverse effect
5ST395.8	DSP&P railroad segment	Does not support overall resource	No adverse effect	No adverse effect
5ST758	Antler House	Not eligible	No historic properties affected	No historic properties affected
5ST883	Dillon placer mine	Eligible	No historic properties affected	Adverse effect
5ST1440	Historic prospect pit	Not eligible	No historic properties affected	No historic properties affected
5ST1441	Historic prospect pit	Not eligible	No historic properties affected	No historic properties affected
5ST1442	Historic prospect pits	Not eligible	No historic properties affected	No historic properties affected
5ST1443	Historic prospect pits	Not eligible	No historic properties affected	No historic properties affected
5ST1444	Historic cabin remnant	Not eligible	No historic properties affected	No historic properties affected
5ST1445	Prehistoric isolated find	Not eligible	No historic properties affected	No historic properties affected
5ST1446	Prehistoric isolated find	Not eligible	No historic properties affected	No historic properties affected
5ST1461.1	State Highway 9 segment	Does not support overall resource	No adverse effect	No adverse effect

by the Proposed Action (less than 15 m in length), where construction activity will occur in association with transforming this portion of the existing highway into a recreational trail. While the overall resource 5ST395 has been determined *officially eligible* for inclusion on the NRHP, segments 5ST395.4 and 5ST395.8 are considered non-supporting elements. Impacts to these segments will therefore result in *no adverse effect* to the larger resource.

Antler House (5ST758): Located along the north side of SH 9 opposite Summit High School, the Antler House is a small wood framed structure built in 1959. The Proposed Action will widen the existing alignment in this area from two to four lanes via construction of an elevated roadbed, in the process eliminating access to the Antler House and thus requiring a full property acquisition. The resource is determined *not eligible* and therefore results in *no historic properties affected.*

Dillon Placer Mine (5ST883): Under the Proposed Action, construction of the new highway alignment south of Leslie's Curve will result in the excavation of cut and fill slopes in the western portion of the mine. Construction activities would directly impact the remains of several flumes that channeled water to the mine workings when the mine was active ca. 1900-1905. The impacts of the Proposed Action would effectively remove the flumes while leaving the placer mine workings in the eastern portion of the site

intact. As a result, the Proposed Action would result in an *adverse effect* to 5ST883. See the attached graphic for more information (Figure 5).

Because of the adverse effect to the mine site, if the Proposed Action is implemented CDOT proposes mitigation in the form of Level II Documentation as established by your office in Form 1595. Additional mitigation may be identified as the Section 106 consultation process continues. If you have suggestions for other mitigation ideas, please include those recommendations in your response letter.

Cabin Ruins (5ST1444): Situated north of the Iron Springs Road just west of SH 9, this site contains remnants of cabin foundations and an associated artifact scatter located within the proposed highway alignment. Construction of cut slopes in this area will directly impact the resource. The site is evaluated as *not eligible* and therefore the Proposed Action will result in *no historic properties affected.*

State Highway 9 (5ST1461.1): The Proposed Action would shorten SH 9 by approximately 0.4 miles, removing Leslie's Curve and moving the highway further from Dillon Reservoir. The existing road alignment along Leslie's Curve will be converted to a paved recreational path with little to no disturbance to the original road cut. For the purposes of Section 106 consultation, the entire highway is treated as *eligible* for the NRHP. However, this segment of SH 9 does not support the significance of the resource as a whole, which results in a finding of *no adverse effect.*

Historic Isolated Finds (Mining Prospect Pits 5ST1440, 5ST1441, 5ST1442 & 5ST1443): All four mining prospect pits, located south of Leslie's Curve, are evaluated as *not eligible* NRHP. Consequently the Proposed Action will result in *no historic properties affected.*

Prehistoric Isolated Finds (5ST1445 & 5ST1446): Both prehistoric isolates, located north of Iron Springs Road just west of SH 9 within the Proposed Action's new highway alignment, are *not eligible* for the NRHP. The Proposed Action will result in *no historic properties affected.*

Effects Determinations - No Action Alternative

Denver South Park & Pacific Railroad Segments (5ST395.4 and 5ST395.8): The eastern terminus of segment 5ST395.4 (less than 15 m in length) will be impacted by the No Action Alternative, where slopes adjacent to the existing highway ROW and immediately east of the grade will be cut back to accommodate lane widening. The eastern terminus of segment 5ST395.8 (less than 25 m in length) will be impacted where cuts and fills will be excavated up to 10 m beyond the existing highway ROW to accommodate widening. Because segments 5ST395.4 and 5ST395.8 are considered non-supporting elements of the overall resource, impacts will result in *no adverse effect.*

Antler House (5ST758): Widening the existing highway alignment from two lanes to four under the No Action Alternative would eliminate access to the home and require a full property acquisition. Determined *not eligible* for inclusion on the NRHP, the impacts to the Antler House will result in *no historic properties affected.*

Dillon Placer Mine (5ST883): The No Action Alternative would widen SH 9 along its existing alignment, requiring excavation of cuts and fills and associated rock cut slopes and construction of retaining walls. These actions would extend westward up to the existing bike path (approximately 75 feet from the edge of the existing highway pavement). All construction would occur east of the recreational path, outside the site boundary in an area that has been entirely disturbed by prior construction of both the highway and path. The placer workings and flumes to the west would not be impacted, resulting in *no historic properties affected.* Refer to the attached graphic for more detailed information (Figure 6).

Cabin Ruins (5ST1444): The site is located a terrace above the highway, more than 30 m beyond proposed ground-disturbing activities associated with widening the existing highway alignment. Because

5ST1444 is *not eligible* for inclusion on the NRHP and is located outside of the proposed impact zone, the No Action Alternative will result in *no historic properties affected.*

State Highway 9 (5ST1461.1): Areas exhibiting existing rock cuts along Leslie's Curve will be widened to accommodate the additional lanes and shoulders. This will require extensive excavation and tree removal in several areas along the inside curve of the highway. Since this segment of SH 9 does not support the significance of the resource as a whole, the No Action Alternative will result in *no adverse effect.*

Historic Isolated Finds (Mining Prospect Pits 5ST1440, 5ST1441, 5ST1442 & 5ST1443): All four mining prospect pits are evaluated as *not eligible*, and in addition all are situated at least 30 m beyond areas of proposed direct disturbance under the No Action Alternative. Therefore this alternative will result in *no historic properties affected.*

Prehistoric Isolated Finds (5ST1445 & 5ST1446): Both prehistoric isolates are located in an area topographically separated from the SH 9 and the realigned bike path and therefore will not be directly affected by the No Action Alternative. Coupled with their evaluation as *not eligible*, this alternative will result in *no historic properties affected.*

SECTION 4(F) AND DE MINIMIS

Background

In addition to Section 106 of the NHPA, FHWA must comply with Section 4(f), which is codified at both 49 U.S.C § 303 and 23 U.S.C. § 138. Congress amended Section 4(f) when it enacted the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (Public Law 109-59, enacted August 10, 2005) ("SAFETEA-LU"). Section 6009 of SAFETEA-LU added a new subsection to Section 4(f), which authorizes FHWA to approve a project that uses Section 4(f) lands that are part of a historic property without preparation of an Avoidance Analysis, if it makes a finding that such uses would have "*de minimis*" impacts upon the Section 4(f) resource, with the concurrence of the SHPO.

On December 12, 2005, the Federal Highway Administration issued its "Guidance for Determining *De Minimis* Impacts to Section 4(f) Resources" which indicates that a finding of *de minimis* can be made when the Section 106 process results in a *no adverse effect* or *no historic properties affected* determination, when the SHPO is informed of the FHWA's intent to make a *de minimis* impact finding based on their written concurrence in the Section 106 determination, and when FHWA has considered the views of any Section 106 consulting parties participating in the Section 106 process. This new provision of Section 4(f) and the associated guidance are in part the basis of this letter, and of FHWA's determination and notification of *de minimis* impacts to the Frisco Historic Preservation Board with respect to the proposed project. At this time we are notifying the Section 106 consulting parties per section 6009(b)(2)(C). On March 12, 2008, FHWA issued a Final Rule on Section 4(f), which clarifies and implements the procedures for determining a *de minimis* impact. In addition the Final Rule moves the Section 4(f) regulation to 23 CFR 774.

Notification of Section 4(f) *De Minimis* Determination

This project has been determined to result in no adverse effect to several historic properties. As a result, FHWA may make a *de minimis* finding for the Section 4(f) requirements for these properties.

In addition, it is FHWA and CDOT's determination that the archaeological remains of the Dillon Placer Mine (5ST883) fall under the provisions of the Section 4(f) exception for archaeological resources (23 CFR 774.13(b)) in that the remains are limited and as such have no value for preservation in place (e.g., the site is not NRHP eligible under Criterion D).

The enclosed documentation provides additional information about the proposed project and the resources listed above. As a local historic preservation board, we welcome your comments on this project. Should you choose to respond, we request your comments within 30 days of receipt of these materials. If we do not hear from you in this time frame, we will assume you do not plan to comment. If you have questions or require additional information in order to complete your review, please contact CDOT Senior Staff Archaeologist Dan Jepson at (303) 757-9631, or via email at daniel.jepson@state.co.us, or Senior Staff Historian Lisa Schoch at (303) 512-4258 or lisa.schoch@state.co.us.

Very truly yours,

for Jane Hann, Manager
Environmental Programs Branch

Enclosures: Survey Report
Site Forms, including photos & maps
Figure 1 - Project Location Map
Figure 2 - Proposed Action Alternative Map
Figure 3 - No Action Alternative Map
Figure 4 - Land Ownership within APE
Figure 5 – Placer Mine Impacts, Proposed Action Alternative Map
Figure 6 – Placer Mine Impacts, No Action Alternative Map

cc: A. Brogan, White River National Forest

STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION
Environmental Programs Branch
4201 East Arkansas Avenue
Shumate Building
Denver, Colorado 80222
(303) 757-9281

DEPARTMENT OF TRANSPORTATION

June 13, 2013

Mr. Lindsay Hirsh
Historic Preservation Advisory Board
P.O Box 5660
Frisco, CO 80443

SUBJECT: Eligibility and Effects Determinations (Historical and Archaeological Resources) and Notification of Section 4(f) Finding of *De Minimis*, CDOT Project C 0091-041, State Highway 9 Iron Springs Alignment, Summit County

Dear Mr. Hirsh:

Attached for your review are the historic properties survey report, site forms and associated supporting materials for the Colorado Department of Transportation (CDOT) project referenced above. The undertaking proposes to realign a 1.3-mile segment of State Highway 9 east of the Town of Frisco (Figure 1). CDOT and the Federal Highway Administration (FHWA) are completing an Environmental Assessment to document the environmental and social impacts of the proposed project.

CDOT is submitting this to you in compliance with Section 106 of the National Historic Preservation Act, which requires federal agencies to evaluate the effects of their undertakings on historic properties. The Summit County Historic Preservation Advisory Board has been identified as a potential consulting party for this project. For more information about Section 106 and how you can participate as a consulting party, please visit the Advisory Council on Historic Preservation's web site, which contains the Citizen's Guide to Section 106 Review at http://www.achp.gov/docs/CitizenGuide.pdf.

Background - State Highway 9 Corridor Improvements

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The improvements identified in the Final EIS and ROD were all planned to be constructed by widening the highway along its existing alignment. However, due to evolving conditions in the intervening years—including the effects of the mountain pine beetle epidemic, which the US Forest Service (USFS) proposes to mitigate by removing trees along the realignment corridor—CDOT and FHWA, in cooperation with Summit County, developed plans to realign instead of widen the highway bordering Dillon Reservoir east of Frisco.

Proposed Action Alternative
The Proposed Action would realign a curved 1.3-mile segment of SH 9 to provide a straighter four-lane road while moving the alignment further away from Dillon Reservoir (Figure 2). Also known as the Iron Springs Alignment, this would shorten SH 9 by approximately 0.4 miles while concomitantly providing safety benefits as well as water quality and drinking water protections for area residents.

The Proposed Action would also include realignment of a portion of the existing Frisco to Breckenridge Shared Use Path (Blue River Bikeway), which would move to the alignment currently occupied by SH 9. The realigned path would be approximately 0.4 miles longer than the existing path but would provide a much gentler grade.

No Action Alternative
If the Proposed Action is not implemented, SH 9 would be widened to provide a four-lane roadway along the existing alignment as previously approved in the ROD (Figure 3). This is considered the "No Action Alternative" for the current EA. Widening along the existing alignment would require large rock cuts and retaining walls, and the highway would remain in close proximity to Dillon Reservoir. A tight curve known locally as Leslie's Curve would remain intact; however, safety features such as a barrier between opposing lanes would be installed to improve safety. Approximately 0.8 miles of the existing shared use path would be realigned to allow space for the highway widening. With this realignment the length of path would not change appreciably, and the current relatively steep grades would remain.

Area of Potential Effects
The Area of Potential Effects (APE) established for the undertaking encompasses approximately 237 acres (95.5 hectares), including lands administered by the USFS, the Town of Frisco, Summit County, and the Denver Water Board, in addition to privately-owned property and state highway right-of-way (Figure 4). The APE encompasses the footprint of the Proposed Action and No Action Alternatives and the boundaries of historic properties that may be directly or indirectly affected by the undertaking. Please refer to the survey report for additional information specific to the APE.

Inventory Results and Eligibility Determinations
As a result of previous inventories, eight historic-era resources were known to exist in the APE and had been documented (5ST215, 5ST217, 5ST395.4, 5ST717, 5ST724.2, 5ST758, 5ST883, and 5ST905). These include mineral prospecting pits, a large placer mining operation, water conveyance ditches, log cabin remnants, a residential property, and a segment of the Denver, South Park and Pacific (DSP&P) railroad grade. Due to a lack of historical significance and deteriorated condition, five of these resources (5ST215, 5ST217, 5ST717, 5ST724.2, and 5ST905) were determined not eligible for the National Register of Historic Places (NRHP) during Section 106 consultation for earlier undertakings. Consequently, those localities were not re-evaluated and are not discussed further herein.

Four historic isolated finds (5ST1440-5ST1443) and two prehistoric isolated finds (5ST1445 and 5ST1446) were newly documented, in addition to a historic-era archaeological site (5ST1444), a segment of the DSP&P railroad grade (5ST395.8), and the portion of State Highway 9 (5ST1461.1) proposed for abandonment and adaptive reuse as a recreational path. Previously recorded sites that were revisited and re-evaluated include a mid-20th century residence (5ST758), a placer mine (5ST883) and a segment of the DSP&P grade (5ST395.4). Determinations of eligibility for these twelve resources are reflected in the table on the following page.

Effects Determinations - Proposed Action
Denver South Park & Pacific Railroad Segments (5ST395.4 and 5ST395.8): Both segments 5ST395.4 and 5ST395.8 are located just east of the town of Frisco. Segment 5ST395.4 is approximately one mile in length; much of it has been transformed into an asphalt multi-use recreational trail which winds its way through a hospital complex and parking lots. The eastern terminus of 5ST395.4 will be directly impacted by the Proposed Action (less than 15 m in total length), where slopes adjacent to the existing highway

ROW and immediately east of the segment will be cut back to accommodate widening the road from two to four lanes.

Segment 5ST395.8 is located about one-half mile east of 5ST395.4, roughly following the existing alignment of SH 9 toward Dillon Reservoir. The eastern terminus of 5ST395.8 will likely be impacted

NRHP Eligibility and Effects Determinations

Resource Number	Site Name/Type	NRHP Eligibility Determinations	Effects Determinations	
			No Action Alt.	Preferred Alt.
5ST395.4	DSP&P railroad segment	Does not support overall resource	No adverse effect	No adverse effect
5ST395.8	DSP&P railroad segment	Does not support overall resource	No adverse effect	No adverse effect
5ST758	Antler House	Not eligible	No historic properties affected	No historic properties affected
5ST883	Dillon placer mine	Eligible	No historic properties affected	Adverse effect
5ST1440	Historic prospect pit	Not eligible	No historic properties affected	No historic properties affected
5ST1441	Historic prospect pit	Not eligible	No historic properties affected	No historic properties affected
5ST1442	Historic prospect pits	Not eligible	No historic properties affected	No historic properties affected
5ST1443	Historic prospect pits	Not eligible	No historic properties affected	No historic properties affected
5ST1444	Historic cabin remnant	Not eligible	No historic properties affected	No historic properties affected
5ST1445	Prehistoric isolated find	Not eligible	No historic properties affected	No historic properties affected
5ST1446	Prehistoric isolated find	Not eligible	No historic properties affected	No historic properties affected
5ST1461.1	State Highway 9 segment	Does not support overall resource	No adverse effect	No adverse effect

by the Proposed Action (less than 15 m in length), where construction activity will occur in association with transforming this portion of the existing highway into a recreational trail. While the overall resource 5ST395 has been determined *officially eligible* for inclusion on the NRHP, segments 5ST395.4 and 5ST395.8 are considered non-supporting elements. Impacts to these segments will therefore result in *no adverse effect* to the larger resource.

Antler House (5ST758): Located along the north side of SH 9 opposite Summit High School, the Antler House is a small wood framed structure built in 1959. The Proposed Action will widen the existing alignment in this area from two to four lanes via construction of an elevated roadbed, in the process eliminating access to the Antler House and thus requiring a full property acquisition. The resource is determined *not eligible* and therefore results in *no historic properties affected.*

Dillon Placer Mine (5ST883): Under the Proposed Action, construction of the new highway alignment south of Leslie's Curve will result in the excavation of cut and fill slopes in the western portion of the mine. Construction activities would directly impact the remains of several flumes that channeled water to the mine workings when the mine was active ca. 1900-1905. The impacts of the Proposed Action would effectively remove the flumes while leaving the placer mine workings in the eastern portion of the site

intact. As a result, the Proposed Action would result in an *adverse effect* to 5ST883. See the attached graphic for more information (Figure 5).

Because of the adverse effect to the mine site, if the Proposed Action is implemented CDOT proposes mitigation in the form of Level II Documentation as established by your office in Form 1595. Additional mitigation may be identified as the Section 106 consultation process continues. If you have suggestions for other mitigation ideas, please include those recommendations in your response letter.

Cabin Ruins (5ST1444): Situated north of the Iron Springs Road just west of SH 9, this site contains remnants of cabin foundations and an associated artifact scatter located within the proposed highway alignment. Construction of cut slopes in this area will directly impact the resource. The site is evaluated as *not eligible* and therefore the Proposed Action will result in *no historic properties affected.*

State Highway 9 (5ST1461.1): The Proposed Action would shorten SH 9 by approximately 0.4 miles, removing Leslie's Curve and moving the highway further from Dillon Reservoir. The existing road alignment along Leslie's Curve will be converted to a paved recreational path with little to no disturbance to the original road cut. For the purposes of Section 106 consultation, the entire highway is treated as *eligible* for the NRHP. However, this segment of SH 9 does not support the significance of the resource as a whole, which results in a finding of *no adverse effect.*

Historic Isolated Finds (Mining Prospect Pits 5ST1440, 5ST1441, 5ST1442 & 5ST1443): All four mining prospect pits, located south of Leslie's Curve, are evaluated as *not eligible* NRHP. Consequently the Proposed Action will result in *no historic properties affected.*

Prehistoric Isolated Finds (5ST1445 & 5ST1446): Both prehistoric isolates, located north of Iron Springs Road just west of SH 9 within the Proposed Action's new highway alignment, are *not eligible* for the NRHP. The Proposed Action will result in *no historic properties affected.*

Effects Determinations - No Action Alternative

Denver South Park & Pacific Railroad Segments (5ST395.4 and 5ST395.8): The eastern terminus of segment 5ST395.4 (less than 15 m in length) will be impacted by the No Action Alternative, where slopes adjacent to the existing highway ROW and immediately east of the grade will be cut back to accommodate lane widening. The eastern terminus of segment 5ST395.8 (less than 25 m in length) will be impacted where cuts and fills will be excavated up to 10 m beyond the existing highway ROW to accommodate widening. Because segments 5ST395.4 and 5ST395.8 are considered non-supporting elements of the overall resource, impacts will result in *no adverse effect.*

Antler House (5ST758): Widening the existing highway alignment from two lanes to four under the No Action Alternative would eliminate access to the home and require a full property acquisition. Determined *not eligible* for inclusion on the NRHP, the impacts to the Antler House will result in *no historic properties affected.*

Dillon Placer Mine (5ST883): The No Action Alternative would widen SH 9 along its existing alignment, requiring excavation of cuts and fills and associated rock cut slopes and construction of retaining walls. These actions would extend westward up to the existing bike path (approximately 75 feet from the edge of the existing highway pavement). All construction would occur east of the recreational path, outside the site boundary in an area that has been entirely disturbed by prior construction of both the highway and path. The placer workings and flumes to the west would not be impacted, resulting in *no historic properties affected.* Refer to the attached graphic for more detailed information (Figure 6).

Cabin Ruins (5ST1444): The site is located a terrace above the highway, more than 30 m beyond proposed ground-disturbing activities associated with widening the existing highway alignment. Because

5ST1444 is *not eligible* for inclusion on the NRHP and is located outside of the proposed impact zone, the No Action Alternative will result in *no historic properties affected.*

State Highway 9 (5ST1461.1): Areas exhibiting existing rock cuts along Leslie's Curve will be widened to accommodate the additional lanes and shoulders. This will require extensive excavation and tree removal in several areas along the inside curve of the highway. Since this segment of SH 9 does not support the significance of the resource as a whole, the No Action Alternative will result in *no adverse effect.*

Historic Isolated Finds (Mining Prospect Pits 5ST1440, 5ST1441, 5ST1442 & 5ST1443): All four mining prospect pits are evaluated as *not eligible*, and in addition all are situated at least 30 m beyond areas of proposed direct disturbance under the No Action Alternative. Therefore this alternative will result in *no historic properties affected.*

Prehistoric Isolated Finds (5ST1445 & 5ST1446): Both prehistoric isolates are located in an area topographically separated from the SH 9 and the realigned bike path and therefore will not be directly affected by the No Action Alternative. Coupled with their evaluation as *not eligible*, this alternative will result in *no historic properties affected.*

SECTION 4(F) AND DE MINIMIS

Background

In addition to Section 106 of the NHPA, FHWA must comply with Section 4(f), which is codified at both 49 U.S.C § 303 and 23 U.S.C. § 138. Congress amended Section 4(f) when it enacted the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (Public Law 109-59, enacted August 10, 2005) ("SAFETEA-LU"). Section 6009 of SAFETEA-LU added a new subsection to Section 4(f), which authorizes FHWA to approve a project that uses Section 4(f) lands that are part of a historic property without preparation of an Avoidance Analysis, if it makes a finding that such uses would have "*de minimis*" impacts upon the Section 4(f) resource, with the concurrence of the SHPO.

On December 12, 2005, the Federal Highway Administration issued its "Guidance for Determining *De Minimis* Impacts to Section 4(f) Resources" which indicates that a finding of *de minimis* can be made when the Section 106 process results in a *no adverse effect* or *no historic properties affected* determination, when the SHPO is informed of the FHWA's intent to make a *de minimis* impact finding based on their written concurrence in the Section 106 determination, and when FHWA has considered the views of any Section 106 consulting parties participating in the Section 106 process. This new provision of Section 4(f) and the associated guidance are in part the basis of this letter, and of FHWA's determination and notification of *de minimis* impacts to the Summit County Historic Preservation Advisory Board with respect to the proposed project. At this time we are notifying the Section 106 consulting parties per section 6009(b)(2)(C). On March 12, 2008, FHWA issued a Final Rule on Section 4(f), which clarifies and implements the procedures for determining a *de minimis* impact. In addition the Final Rule moves the Section 4(f) regulation to 23 CFR 774.

Notification of Section 4(f) *De Minimis* Determination

This project has been determined to result in no adverse effect to several historic properties. As a result, FHWA may make a *de minimis* finding for the Section 4(f) requirements for these properties.

In addition, it is FHWA and CDOT's determination that the archaeological remains of the Dillon Placer Mine (5ST883) fall under the provisions of the Section 4(f) exception for archaeological resources (23 CFR 774.13(b)) in that the remains are limited and as such have no value for preservation in place (e.g., the site is not NRHP eligible under Criterion D).

The enclosed documentation provides additional information about the proposed project and the resources listed above. As a county historic preservation board, we welcome your comments on this project. Should you choose to respond, we request your comments within 30 days of receipt of these materials. If we do not hear from you in this time frame, we will assume you do not plan to comment. If you have questions or require additional information in order to complete your review, please contact CDOT Senior Staff Archaeologist Dan Jepson at (303) 757-9631, or via email at daniel.jepson@state.co.us, or Senior Staff Historian Lisa Schoch at (303) 512-4258 or lisa.schoch@state.co.us.

Very truly yours,

Jane Hann, Manager
Environmental Programs Branch

Enclosures: Survey Report
Site Forms, including photos & maps
Figure 1 - Project Location Map
Figure 2 - Proposed Action Alternative Map
Figure 3 - No Action Alternative Map
Figure 4 - Land Ownership within APE
Figure 5 – Placer Mine Impacts, Proposed Action Alternative Map
Figure 6 – Placer Mine Impacts, No Action Alternative Map

cc: A. Brogan, White River National Forest

STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION
Environmental Programs Branch
4201 East Arkansas Avenue
Shumate Building
Denver, Colorado 80222
(303) 757-9281

DEPARTMENT OF TRANSPORTATION

June 13, 2013

Mr. Darryll O'Neal, Sr., Chairman
Northern Arapaho Business Council
Attn: Ms. Darlene Conrad, THPO
P.O. Box 396
Fort Washakie, WY 82514

SUBJECT: Eligibility and Effects Determinations (Historical and Archaeological Resources), CDOT Project C 0091-041, State Highway 9 Iron Springs Alignment, Summit County

Dear Mr. O'Neal:

Attached for your review are the historic properties survey report, site forms and associated supporting materials for the Colorado Department of Transportation (CDOT) project referenced above. The undertaking proposes to realign a 1.3-mile segment of State Highway 9 east of the Town of Frisco, Colorado (Figure 1). CDOT and the Federal Highway Administration (FHWA) are completing an Environmental Assessment to document the environmental and social impacts of the proposed project.

On behalf of FHWA, CDOT is submitting this information to you in compliance with Section 106 of the National Historic Preservation Act, which requires federal agencies to evaluate the effects of their undertakings on historic properties. In December 2012, the Northern Arapaho Tribe expressed the desire to be a consulting party for the project.

Background - State Highway 9 Corridor Improvements

In 2004, CDOT and FHWA completed a Final Environmental Impact Statement (EIS) and Record of Decision (ROD) for improvements to the 14.5-mile segment of SH 9 between Breckenridge and Frisco. The Selected Alternative as described in the ROD was a reduced section four-lane roadway including turn lanes, acceleration/deceleration lanes, curb and gutter, medians, and shoulders. Improvements would enhance transportation mobility by decreasing travel time, improving safety, and supporting the transportation needs of local and regional travelers while minimizing impacts to the surrounding environment and communities. Since completion of the Final EIS and ROD, CDOT has implemented the Selected Alternative along portions of SH 9 with the intention of continuing improvements as funding becomes available.

The improvements identified in the Final EIS and ROD were all planned to be constructed by widening the highway along its existing alignment. However, due to evolving conditions in the intervening years—including the effects of the mountain pine beetle epidemic, which the US Forest Service (USFS) proposes to mitigate by removing trees along the realignment corridor—CDOT and FHWA, in cooperation with Summit County, developed plans to realign instead of widen the highway bordering Dillon Reservoir east of Frisco.

Proposed Action Alternative

The Proposed Action would realign a curved 1.3-mile segment of SH 9 to provide a straighter four-lane road while moving the alignment further away from Dillon Reservoir (Figure 2). Also known as the Iron Springs Alignment, this would shorten SH 9 by approximately 0.4 miles while concomitantly providing safety benefits as well as water quality and drinking water protections for area residents.

The Proposed Action would also include realignment of a portion of the existing Frisco to Breckenridge Shared Use Path (Blue River Bikeway), which would move to the alignment currently occupied by SH 9. The realigned path would be approximately 0.4 miles longer than the existing path but would provide a much gentler grade.

No Action Alternative

If the Proposed Action is not implemented, SH 9 would be widened to provide a four-lane roadway along the existing alignment as previously approved in the ROD (Figure 3). This is considered the "No Action Alternative" for the current EA. Widening along the existing alignment would require large rock cuts and retaining walls, and the highway would remain in close proximity to Dillon Reservoir. A tight curve known locally as Leslie's Curve would remain intact; however, safety features such as a barrier between opposing lanes would be installed to improve safety. Approximately 0.8 miles of the existing shared use path would be realigned to allow space for the highway widening. With this realignment the length of path would not change appreciably, and the current relatively steep grades would remain.

Area of Potential Effects

The Area of Potential Effects (APE) established for the undertaking encompasses approximately 237 acres (95.5 hectares), including lands administered by the USFS, the Town of Frisco, Summit County, and the Denver Water Board, in addition to privately-owned property and state highway right-of-way (Figure 4). The APE encompasses the footprint of the Proposed Action and No Action Alternatives and the boundaries of historic properties that may be directly or indirectly affected by the undertaking. Please refer to the survey report for additional information specific to the APE.

Inventory Results and Eligibility Determinations

As a result of previous inventories, eight historic-era resources were known to exist in the APE and had been documented (5ST215, 5ST217, 5ST395.4, 5ST717, 5ST724.2, 5ST758, 5ST883, and 5ST905). These include mineral prospecting pits, a large placer mining operation, water conveyance ditches, log cabin remnants, a residential property, and a segment of the Denver, South Park and Pacific (DSP&P) railroad grade. Due to a lack of historical significance and deteriorated condition, five of these resources (5ST215, 5ST217, 5ST717, 5ST724.2, and 5ST905) were determined not eligible for the National Register of Historic Places (NRHP) during Section 106 consultation for earlier undertakings. Consequently, those localities were not re-evaluated and are not discussed further herein.

Four historic isolated finds (5ST1440-5ST1443) and two prehistoric isolated finds (5ST1445 and 5ST1446) were newly documented, in addition to a historic-era archaeological site (5ST1444), a segment of the DSP&P railroad grade (5ST395.8), and the portion of State Highway 9 (5ST1461.1) proposed for abandonment and adaptive reuse as a recreational path. Previously recorded sites that were revisited and re-evaluated include a mid-20th century residence (5ST758), a placer mine (5ST883) and a segment of the DSP&P grade (5ST395.4). Determinations of eligibility for these twelve resources are reflected in the table on the following page.

Effects Determinations - Proposed Action

Denver South Park & Pacific Railroad Segments (5ST395.4 and 5ST395.8): Both segments 5ST395.4 and 5ST395.8 are located just east of the town of Frisco. Segment 5ST395.4 is approximately one mile in length; much of it has been transformed into an asphalt multi-use recreational trail which winds its way through a hospital complex and parking lots. The eastern terminus of 5ST395.4 will be directly impacted by the Proposed Action (less than 15 m in total length), where slopes adjacent to the existing highway ROW and immediately east of the segment will be cut back to accommodate widening the road from two to four lanes.

Segment 5ST395.8 is located about one-half mile east of 5ST395.4, roughly following the existing alignment of SH 9 toward Dillon Reservoir. The eastern terminus of 5ST395.8 will likely be impacted

NRHP Eligibility and Effects Determinations

Resource Number	Site Name/Type	NRHP Eligibility Determinations	Effects Determinations	
			No Action Alt.	Preferred Alt.
5ST395.4	DSP&P railroad segment	Does not support overall resource	No adverse effect	No adverse effect
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5ST1461.1	State Highway 9 segment	Does not support overall resource	No adverse effect	No adverse effect

by the Proposed Action (less than 15 m in length), where construction activity will occur in association with transforming this portion of the existing highway into a recreational trail. While the overall resource 5ST395 has been determined *officially eligible* for inclusion on the NRHP, segments 5ST395.4 and 5ST395.8 are considered non-supporting elements. Impacts to these segments will therefore result in *no adverse effect* to the larger resource.

Antler House (5ST758): Located along the north side of SH 9 opposite Summit High School, the Antler House is a small wood framed structure built in 1959. The Proposed Action will widen the existing alignment in this area from two to four lanes via construction of an elevated roadbed, in the process eliminating access to the Antler House and thus requiring a full property acquisition. The resource is determined *not eligible* and therefore results in *no historic properties affected.*

Dillon Placer Mine (5ST883): Under the Proposed Action, construction of the new highway alignment south of Leslie's Curve will result in the excavation of cut and fill slopes in the western portion of the mine. Construction activities would directly impact the remains of several flumes that channeled water to the mine workings when the mine was active ca. 1900-1905. The impacts of the Proposed Action would effectively remove the flumes while leaving the placer mine workings in the eastern portion of the site intact. As a result, the Proposed Action would result in an *adverse effect* to 5ST883. See the attached graphic for more information (Figure 5).

Because of the adverse effect to the mine site, if the Proposed Action is implemented CDOT proposes mitigation in the form of Level II Documentation as established by your office in Form 1595. Additional mitigation may be identified as the Section 106 consultation process continues. If you have suggestions for other mitigation ideas, please include those recommendations in your response letter.

Cabin Ruins (5ST1444): Situated north of the Iron Springs Road just west of SH 9, this site contains remnants of cabin foundations and an associated artifact scatter located within the proposed highway alignment. Construction of cut slopes in this area will directly impact the resource. The site is evaluated as *not eligible* and therefore the Proposed Action will result in *no historic properties affected.*

State Highway 9 (5ST1461.1): The Proposed Action would shorten SH 9 by approximately 0.4 miles, removing Leslie's Curve and moving the highway further from Dillon Reservoir. The existing road alignment along Leslie's Curve will be converted to a paved recreational path with little to no disturbance to the original road cut. For the purposes of Section 106 consultation, the entire highway is treated as *eligible* for the NRHP. However, this segment of SH 9 does not support the significance of the resource as a whole, which results in a finding of *no adverse effect.*

Historic Isolated Finds (Mining Prospect Pits 5ST1440, 5ST1441, 5ST1442 & 5ST1443): All four mining prospect pits, located south of Leslie's Curve, are evaluated as *not eligible* NRHP. Consequently the Proposed Action will result in *no historic properties affected.*

Prehistoric Isolated Finds (5ST1445 & 5ST1446): Both prehistoric isolates, located north of Iron Springs Road just west of SH 9 within the Proposed Action's new highway alignment, are *not eligible* for the NRHP. The Proposed Action will result in *no historic properties affected.*

Effects Determinations - No Action Alternative

Denver South Park & Pacific Railroad Segments (5ST395.4 and 5ST395.8): The eastern terminus of segment 5ST395.4 (less than 15 m in length) will be impacted by the No Action Alternative, where slopes adjacent to the existing highway ROW and immediately east of the grade will be cut back to accommodate lane widening. The eastern terminus of segment 5ST395.8 (less than 25 m in length) will be impacted where cuts and fills will be excavated up to 10 m beyond the existing highway ROW to accommodate widening. Because segments 5ST395.4 and 5ST395.8 are considered non-supporting elements of the overall resource, impacts will result in *no adverse effect.*

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Cabin Ruins (5ST1444): The site is located a terrace above the highway, more than 30 m beyond proposed ground-disturbing activities associated with widening the existing highway alignment. Because 5ST1444 is *not eligible* for inclusion on the NRHP and is located outside of the proposed impact zone, the No Action Alternative will result in *no historic properties affected.*

State Highway 9 (5ST1461.1): Areas exhibiting existing rock cuts along Leslie's Curve will be widened to accommodate the additional lanes and shoulders. This will require extensive excavation and tree removal in several areas along the inside curve of the highway. Since this segment of SH 9 does not support the significance of the resource as a whole, the No Action Alternative will result in *no adverse effect.*

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The enclosed documentation provides additional information about the proposed project and the resources listed above. As a consulting Native American nation, we welcome your comments on this project. Should you elect to respond, we request your comments within 45 days of receipt of these materials. If we do not hear from you in this time frame, we will assume you do not plan to comment. If you have questions or require additional information in order to complete your review, please contact CDOT Senior Staff Archaeologist Dan Jepson at (303) 757-9631, or via email at daniel.jepson@state.co.us, or Senior Staff Historian Lisa Schoch at (303) 512-4258 or lisa.schoch@state.co.us.

Very truly yours,

for Jane Hann, Manager
Environmental Programs Branch

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cc: S. Gibson & M. Urban, FHWA

STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION
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4201 East Arkansas Avenue
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(303) 757-9281

DEPARTMENT OF TRANSPORTATION

June 13, 2013

Ms. Jennifer Cram
Planning Commission
Community Development Department
P.O. Box 168
Breckenridge, CO 80424

SUBJECT: Eligibility and Effects Determinations (Historical and Archaeological Resources) and Notification of Section 4(f) Finding of *De Minimis*, CDOT Project C 0091-041, State Highway 9 Iron Springs Alignment, Summit County

Dear Ms. Cram:

Attached for your review are the historic properties survey report, site forms and associated supporting materials for the Colorado Department of Transportation (CDOT) project referenced above. The undertaking proposes to realign a 1.3-mile segment of State Highway 9 east of the Town of Frisco (Figure 1). CDOT and the Federal Highway Administration (FHWA) are completing an Environmental Assessment to document the environmental and social impacts of the proposed project.

CDOT is submitting this to you in compliance with Section 106 of the National Historic Preservation Act, which requires federal agencies to evaluate the effects of their undertakings on historic properties. The Breckenridge Planning Commission, a certified local government, has been identified as a potential consulting party for this project. For more information about Section 106 and how you can participate as a consulting party, please visit the Advisory Council on Historic Preservation's web site, which contains the Citizen's Guide to Section 106 Review at http://www.achp.gov/docs/CitizenGuide.pdf.

Background - State Highway 9 Corridor Improvements

In 2004, CDOT and FHWA completed a Final Environmental Impact Statement (EIS) and Record of Decision (ROD) for improvements to the 14.5-mile segment of SH 9 between Breckenridge and Frisco. The Selected Alternative as described in the ROD was a reduced section four-lane roadway including turn lanes, acceleration/deceleration lanes, curb and gutter, medians, and shoulders. Improvements would enhance transportation mobility by decreasing travel time, improving safety, and supporting the transportation needs of local and regional travelers while minimizing impacts to the surrounding environment and communities. Since completion of the Final EIS and ROD, CDOT has implemented the Selected Alternative along portions of SH 9 with the intention of continuing improvements as funding becomes available.

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Area of Potential Effects
The Area of Potential Effects (APE) established for the undertaking encompasses approximately 237 acres (95.5 hectares), including lands administered by the USFS, the Town of Frisco, Summit County, and the Denver Water Board, in addition to privately-owned property and state highway right-of-way (Figure 4). The APE encompasses the footprint of the Proposed Action and No Action Alternatives and the boundaries of historic properties that may be directly or indirectly affected by the undertaking. Please refer to the survey report for additional information specific to the APE.

Inventory Results and Eligibility Determinations
As a result of previous inventories, eight historic-era resources were known to exist in the APE and had been documented (5ST215, 5ST217, 5ST395.4, 5ST717, 5ST724.2, 5ST758, 5ST883, and 5ST905). These include mineral prospecting pits, a large placer mining operation, water conveyance ditches, log cabin remnants, a residential property, and a segment of the Denver, South Park and Pacific (DSP&P) railroad grade. Due to a lack of historical significance and deteriorated condition, five of these resources (5ST215, 5ST217, 5ST717, 5ST724.2, and 5ST905) were determined not eligible for the National Register of Historic Places (NRHP) during Section 106 consultation for earlier undertakings. Consequently, those localities were not re-evaluated and are not discussed further herein.

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ROW and immediately east of the segment will be cut back to accommodate widening the road from two to four lanes.

Segment 5ST395.8 is located about one-half mile east of 5ST395.4, roughly following the existing alignment of SH 9 toward Dillon Reservoir. The eastern terminus of 5ST395.8 will likely be impacted

NRHP Eligibility and Effects Determinations

Resource Number	Site Name/Type	NRHP Eligibility Determinations	Effects Determinations	
			No Action Alt.	Preferred Alt.
5ST395.4	DSP&P railroad segment	Does not support overall resource	No adverse effect	No adverse effect
5ST395.8	DSP&P railroad segment	Does not support overall resource	No adverse effect	No adverse effect
5ST758	Antler House	Not eligible	No historic properties affected	No historic properties affected
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5ST1443	Historic prospect pits	Not eligible	No historic properties affected	No historic properties affected
5ST1444	Historic cabin remnant	Not eligible	No historic properties affected	No historic properties affected
5ST1445	Prehistoric isolated find	Not eligible	No historic properties affected	No historic properties affected
5ST1446	Prehistoric isolated find	Not eligible	No historic properties affected	No historic properties affected
5ST1461.1	State Highway 9 segment	Does not support overall resource	No adverse effect	No adverse effect

by the Proposed Action (less than 15 m in length), where construction activity will occur in association with transforming this portion of the existing highway into a recreational trail. While the overall resource 5ST395 has been determined *officially eligible* for inclusion on the NRHP, segments 5ST395.4 and 5ST395.8 are considered non-supporting elements. Impacts to these segments will therefore result in *no adverse effect* to the larger resource.

Antler House (5ST758): Located along the north side of SH 9 opposite Summit High School, the Antler House is a small wood framed structure built in 1959. The Proposed Action will widen the existing alignment in this area from two to four lanes via construction of an elevated roadbed, in the process eliminating access to the Antler House and thus requiring a full property acquisition. The resource is determined *not eligible* and therefore results in *no historic properties affected.*

Dillon Placer Mine (5ST883): Under the Proposed Action, construction of the new highway alignment south of Leslie's Curve will result in the excavation of cut and fill slopes in the western portion of the mine. Construction activities would directly impact the remains of several flumes that channeled water to the mine workings when the mine was active ca. 1900-1905. The impacts of the Proposed Action would effectively remove the flumes while leaving the placer mine workings in the eastern portion of the site

intact. As a result, the Proposed Action would result in an *adverse effect* to 5ST883. See the attached graphic for more information (Figure 5).

Because of the adverse effect to the mine site, if the Proposed Action is implemented CDOT proposes mitigation in the form of Level II Documentation as established by your office in Form 1595. Additional mitigation may be identified as the Section 106 consultation process continues. If you have suggestions for other mitigation ideas, please include those recommendations in your response letter.

Cabin Ruins (5ST1444): Situated north of the Iron Springs Road just west of SH 9, this site contains remnants of cabin foundations and an associated artifact scatter located within the proposed highway alignment. Construction of cut slopes in this area will directly impact the resource. The site is evaluated as *not eligible* and therefore the Proposed Action will result in *no historic properties affected.*

State Highway 9 (5ST1461.1): The Proposed Action would shorten SH 9 by approximately 0.4 miles, removing Leslie's Curve and moving the highway further from Dillon Reservoir. The existing road alignment along Leslie's Curve will be converted to a paved recreational path with little to no disturbance to the original road cut. For the purposes of Section 106 consultation, the entire highway is treated as *eligible* for the NRHP. However, this segment of SH 9 does not support the significance of the resource as a whole, which results in a finding of *no adverse effect.*

Historic Isolated Finds (Mining Prospect Pits 5ST1440, 5ST1441, 5ST1442 & 5ST1443): All four mining prospect pits, located south of Leslie's Curve, are evaluated as *not eligible* NRHP. Consequently the Proposed Action will result in *no historic properties affected.*

Prehistoric Isolated Finds (5ST1445 & 5ST1446): Both prehistoric isolates, located north of Iron Springs Road just west of SH 9 within the Proposed Action's new highway alignment, are *not eligible* for the NRHP. The Proposed Action will result in *no historic properties affected.*

Effects Determinations - No Action Alternative

Denver South Park & Pacific Railroad Segments (5ST395.4 and 5ST395.8): The eastern terminus of segment 5ST395.4 (less than 15 m in length) will be impacted by the No Action Alternative, where slopes adjacent to the existing highway ROW and immediately east of the grade will be cut back to accommodate lane widening. The eastern terminus of segment 5ST395.8 (less than 25 m in length) will be impacted where cuts and fills will be excavated up to 10 m beyond the existing highway ROW to accommodate widening. Because segments 5ST395.4 and 5ST395.8 are considered non-supporting elements of the overall resource, impacts will result in *no adverse effect.*

Antler House (5ST758): Widening the existing highway alignment from two lanes to four under the No Action Alternative would eliminate access to the home and require a full property acquisition. Determined *not eligible* for inclusion on the NRHP, the impacts to the Antler House will result in *no historic properties affected.*

Dillon Placer Mine (5ST883): The No Action Alternative would widen SH 9 along its existing alignment, requiring excavation of cuts and fills and associated rock cut slopes and construction of retaining walls. These actions would extend westward up to the existing bike path (approximately 75 feet from the edge of the existing highway pavement). All construction would occur east of the recreational path, outside the site boundary in an area that has been entirely disturbed by prior construction of both the highway and path. The placer workings and flumes to the west would not be impacted, resulting in *no historic properties affected.* Refer to the attached graphic for more detailed information (Figure 6).

Cabin Ruins (5ST1444): The site is located a terrace above the highway, more than 30 m beyond proposed ground-disturbing activities associated with widening the existing highway alignment. Because

5ST1444 is *not eligible* for inclusion on the NRHP and is located outside of the proposed impact zone, the No Action Alternative will result in *no historic properties affected.*

State Highway 9 (5ST1461.1): Areas exhibiting existing rock cuts along Leslie's Curve will be widened to accommodate the additional lanes and shoulders. This will require extensive excavation and tree removal in several areas along the inside curve of the highway. Since this segment of SH 9 does not support the significance of the resource as a whole, the No Action Alternative will result in *no adverse effect.*

Historic Isolated Finds (Mining Prospect Pits 5ST1440, 5ST1441, 5ST1442 & 5ST1443): All four mining prospect pits are evaluated as *not eligible*, and in addition all are situated at least 30 m beyond areas of proposed direct disturbance under the No Action Alternative. Therefore this alternative will result in *no historic properties affected.*

Prehistoric Isolated Finds (5ST1445 & 5ST1446): Both prehistoric isolates are located in an area topographically separated from the SH 9 and the realigned bike path and therefore will not be directly affected by the No Action Alternative. Coupled with their evaluation as *not eligible*, this alternative will result in *no historic properties affected.*

SECTION 4(F) AND DE MINIMIS

Background

In addition to Section 106 of the NHPA, FHWA must comply with Section 4(f), which is codified at both 49 U.S.C § 303 and 23 U.S.C. § 138. Congress amended Section 4(f) when it enacted the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (Public Law 109-59, enacted August 10, 2005) ("SAFETEA-LU"). Section 6009 of SAFETEA-LU added a new subsection to Section 4(f), which authorizes FHWA to approve a project that uses Section 4(f) lands that are part of a historic property without preparation of an Avoidance Analysis, if it makes a finding that such uses would have "*de minimis*" impacts upon the Section 4(f) resource, with the concurrence of the SHPO.

On December 12, 2005, the Federal Highway Administration issued its "Guidance for Determining *De Minimis* Impacts to Section 4(f) Resources" which indicates that a finding of *de minimis* can be made when the Section 106 process results in a *no adverse effect* or *no historic properties affected* determination, when the SHPO is informed of the FHWA's intent to make a *de minimis* impact finding based on their written concurrence in the Section 106 determination, and when FHWA has considered the views of any Section 106 consulting parties participating in the Section 106 process. This new provision of Section 4(f) and the associated guidance are in part the basis of this letter, and of FHWA's determination and notification of *de minimis* impacts to the Breckenridge Planning Commission with respect to the proposed project. At this time we are notifying the Section 106 consulting parties per section 6009(b)(2)(C). On March 12, 2008, FHWA issued a Final Rule on Section 4(f), which clarifies and implements the procedures for determining a *de minimis* impact. In addition the Final Rule moves the Section 4(f) regulation to 23 CFR 774.

Notification of Section 4(f) *De Minimis* Determination

This project has been determined to result in no adverse effect to several historic properties. As a result, FHWA may make a *de minimis* finding for the Section 4(f) requirements for these properties.

In addition, it is FHWA and CDOT's determination that the archaeological remains of the Dillon Placer Mine (5ST883) fall under the provisions of the Section 4(f) exception for archaeological resources (23 CFR 774.13(b)) in that the remains are limited and as such have no value for preservation in place (e.g., the site is not NRHP eligible under Criterion D).

The enclosed documentation provides additional information about the proposed project and the resources listed above. As a certified local government, we welcome your comments on this project. Should you choose to respond, we request your comments within 30 days of receipt of these materials. If we do not hear from you in this time frame, we will assume you do not plan to comment. If you have questions or require additional information in order to complete your review, please contact CDOT Senior Staff Archaeologist Dan Jepson at (303) 757-9631, or via email at daniel.jepson@state.co.us, or Senior Staff Historian Lisa Schoch at (303) 512-4258 or lisa.schoch@state.co.us.

Very truly yours,

for Jane Hann, Manager
Environmental Programs Branch

Enclosures: Survey Report
Site Forms, including photos & maps
Figure 1 - Project Location Map
Figure 2 - Proposed Action Alternative Map
Figure 3 - No Action Alternative Map
Figure 4 - Land Ownership within APE
Figure 5 – Placer Mine Impacts, Proposed Action Alternative Map
Figure 6 – Placer Mine Impacts, No Action Alternative Map

cc: A. Brogan, White River National Forest

United States Department of the Interior

FISH AND WILDLIFE
SERVICE
COLORADO FIELD OFFICE/LAKEWOOD
P.O. BOX 25486, DENVER FEDERAL CENTER
DENVER, COLORADO 80225-0486

IN REPLY REFER TO:
ES/CO: CDOT
TAILS: 06E24000-2013-I-0571

JUN 17 2013

John M. Cater
Division Administrator
Federal Highway Administration
12300 West Dakota Avenue, Suite 180
Lakewood, Colorado 80228

Dear Mr. Cater:

Based on the authority conferred to the U.S. Fish and Wildlife Service (Service) by the Endangered Species Act of 1973 (ESA), as amended (16 U.S.C. 1531 *et seq.*), the Service reviewed your June 4, 2013, report regarding realigning a 1.3-mile section of State Highway 9 (SH9) between mileposts 95 and 93, south of Frisco, Summit County, Colorado. The proposed project occurs within potential habitat for the threatened Canada lynx (*Lynx canadensis*), and the candidate North American wolverine (*Gulo gulo*).

The new alignment will be four lanes wide and located farther inland from Dillon Reservoir than the existing alignment; it would shorten SH9 by approximately 0.4 mile. The proposed project also includes realigning a portion of the existing Frisco to Breckenridge shared use path. The path would be moved to the alignment currently occupied by SH9, and it would, therefore, be 0.4 miles longer, but at a gentler grade than the current alignment. Additional elements of the project include constructing an underpass at each end of the project. These underpasses would be designed primarily for recreationists, but would be available for use by wildlife. They will not be lit at night. A 10 x 16-foot arched wildlife crossing will also be installed under the new alignment. Native trees and shrubs will be planted at the portals of each of the crossings to provide cover for wildlife. The new road alignment is expected to result in an increase in safety, improved water quality, and reduced maintenance.

Reconstruction of SH9 from Frisco to Breckenridge was analyzed in a Final Environmental Impact Statement completed in 2004. In that document, the 0.3-mile section being analyzed here would have stayed on the existing alignment, and would have required concrete barriers on both shoulders and 600 yards of retaining walls up to 15 feet high. Consultation in 2002 on reconstruction of SH9 from Frisco to Breckenridge concluded with a concurrence with your "may affect, not likely to adversely affect" determination.

Construction on the realignment could start as soon as 2015, and could require approximately two years for completion. If nightwork is needed, it will occur on a schedule of four consecutive nights of work followed by at least three consecutive nights of no work.

The project area lies within the Snake River Lynx Analysis Unit (LAU), and within habitat mapped as "other." "Other" habitat provides uses other than denning or winter foraging such as summer foraging. Within the impact area, 2.57 acres consists of aspen/mixed conifer surrounded by pure lodgepole pine that has been largely killed off by the mountain pine beetle. Approximately 1.5 acres of this lodgepole pine forest is scheduled to be clear-cut by the U.S. Forest Service and has been described by them as lacking the horizontal cover required for snowshoe hare to achieve densities needed to support a resident lynx. Other habitat types in the area include sagebrush with a grass/forb component or shrubs with a grass/forb component, neither of which is preferred by either the lynx or the wolverine. The site of the new alignment lies within an area disturbed by human development, with a hospital located approximately 0.6 miles to the southwest, and a high school located approximately 0.5 miles to the southeast. It also occurs on a peninsula that extends into Dillon Reservoir, truncating the habitat on three sides. The area may be used for dispersing lynx, but it has no quality foraging habitat and is further degraded by the dying forest canopy and is unlikely to be used year-round.

Approximately 1.5 miles south of the southern end of the project, a lynx was killed by a vehicle on SH9. Since that time, the mountain pine beetle has degraded the habitat's suitability to lynx through injuring or killing most of the lodgepole pine in the area.

Implementation of the proposed project may cause short term avoidance of the area due to noise, dust, and increased human presence; however, normal behavior would likely return shortly after completion. Implementation will also result in the permanent loss of 6.72 acres of forested and grassland habitat, 2.57 acres of which could be considered marginally usable by lynx. The project will not result in an increase in barrier effect because traffic volume and speeds are not expected to increase. Sight distance will be improved over the existing alignment, which may result in fewer vehicle collisions with wildlife.

Given the low quality of the habitat affected, the land use in and around the project area, and the construction of three underpasses, the Service finds the report acceptable and concurs with your determination that the impacts resulting from the proposed project are not likely to adversely affect the Canada lynx, nor will it jeopardize the continued existence of the North American wolverine.

Please note that should project plans change or if additional information regarding listed or proposed species becomes available, this determination may be reconsidered under the ESA. If the proposed project has not commenced within one year, please contact the Colorado Field Office to request an extension.

We appreciate your submitting this report to our office for review and comment. If the Service can be of further assistance, please contact Alison Deans Michael of my staff at (303) 236-4758.

Sincerely,

Susan C. Linner
Colorado Field Supervisor

ec: CDOT, HQ (Jeff Peterson)
CDOT, R1 (Chuck Attardo)
CDOT, R3 (Mike Vanderhoof)
Michael

Ref: Alison\H:\My Documents\CDOT 2007+\Region 1\SH9_Iron_Springs_lynx_&_wolverine_concur.docx

HISTORY Colorado

June 28, 2013

Jane Hann
Manager
Environmental Programs Branch
Department of Transportation
4201 East Arkansas Avenue
Shumate Building
Denver, Colorado 80222

Re: Eligibility and Effects Determinations (Historical and Archaeological Resources) and Notification of Section 4(f) Finding of *De Minimis*, CDOT Project C 0091-041, State Highway 9 Iron Springs Alignment, Summit County (CHS #64273)

Dear Ms. Hann:

Thank you for your correspondence dated June 13, 2013 (received by our office on June 18, 2013) regarding consultation of the referenced undertaking under Section 106 of the National Historic Preservation Act.

Based on our review of the documentation provided, we concur with your determination that site 5ST883 is eligible for the National Register of Historic Places (NRHP). We concur with your determination that linear segments 5ST395.4, 5ST395.8, and 5ST1461.1 do not support the overall eligibility of the entire resource. We concur with your determination that sites 5ST758, 5ST1442, and 5ST1444 are not eligible for the NRHP. Finally, we concur with your determination that isolated finds 5ST1440, 5ST1441, 5ST1443, 5ST1445, and 5ST1446 are not eligible for the NRHP.

With regard to project effect, we concur that the no action alternative will result in no adverse effect. Moreover we concur that the proposed action for the Iron Springs Alignment, if chosen, will have an adverse effect on the Dillon Placer Mine (5ST883). As such, we find proposed treatment using Level II documentation an acceptable approach, but suggest interpretative signage along the Blue River Bikeway as a possible alternative. We anticipate that additional consultation will occur regarding the resolution of adverse effects [36 CFR 800.6]. If adverse effects cannot be avoided, the lead agency shall notify the Advisory Council on Historic Preservation. We acknowledge that FHWA intends to make a *de minimis* determination in respect to the requirements of Section 4(f).

The consultation process does involve other consulting parties such as local governments and Tribes, which as stipulated in 36 CFR 800.3 are required to be notified of the undertaking. Additional information provided by the local government, Tribes or other consulting parties may cause our office to re-evaluate our comments and recommendations.

We look forward to the continued consultation with CDOT and other parties, as appropriate, regarding the effect of the undertaking on historic properties. If we may be of further assistance, please contact Mark Tobias, Section 106 Compliance Manager, at (303) 866-4674 or mark.tobias@state.co.us.

Sincerely,

for Edward C. Nichols
State Historic Preservation Officer
ECN/MAT

U.S. Department of Transportation
Federal Highway Administration

Colorado Division
September 26, 2013

12300 W. Dakota Avenue, Suite 180
Lakewood, CO 80228
720-963-3000

Reid Nelson, Director
Office of Federal Agency Programs
Advisory Council on Historic Preservation
1100 Pennsylvania Avenue, NW, Ste. 803
Washington, DC 20004
Attn: Carol Legard

Subject: Documentation for Finding of Adverse Effect, Project C 0091-041, State Highway 9 Iron Springs Alignment, Summit County, Colorado, SA 19298

Dear Mr. Nelson:

Transmitted herewith is the Documentation for Finding of Adverse Effect for the Colorado Department of Transportation (CDOT) project referenced above. According to 36 CFR 800, the proposed undertaking will result in an adverse effect to the Dillon Placer Mine (5ST883).

FHWA is submitting this Documentation for Finding of Adverse Effect pursuant to the Advisory Council Regulations, 36 CFR 800.6(a)(1). In accordance with the process set forth in the regulations, CDOT is in the process of identifying mitigation measures for the project as indicated in Item 5 of the enclosed documentation. Per 36 CFR 800.6(a)(1)(iii), the Council shall advise the agency official whether it will participate within 15 days of receipt of this documentation.

If there are any questions regarding this project, please contact CDOT Senior Staff Historian Lisa Schoch at 303-512-4258 or FHWA Environmental Manager Stephanie Gibson at 720-963-3013.

Sincerely yours,

John M. Cater, P.E.
Division Administrator

By: Stephanie Gibson
Environmental Manager

Enclosure: Documentation for Finding of Adverse Effect

Cc: Joshua Kiel, FHWA Operations Engineer
Stephanie Gibson, FHWA Environmental Program Manager
Lisa Schoch, CDOT Environmental Programs Branch
Chuck Attardo, CDOT Region 1
Michael Vanderhoof, CDOT Region 3

File: 19298
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Summit County
ESTABLISHED 1861
COLORADO

OPEN SPACE & TRAILS DEPARTMENT

970-668-4060
fax 970-668-4225

Post Office Box 5660
0037 Peak One Drive, SCR 1005
Frisco, Colorado 80443

September 27, 2013

James S. Lochhead, CEO/Manager
Denver Water
1600 West 12th
Denver, CO 80254

Dear Mr. Lochhead:

On behalf of Summit County Government, I am writing to inform you about Summit County's request to update the exhibits in the Summit County Trails Intergovernmental Agreement (IGA). Denver Water, Town of Dillon, Town of Frisco and Summit County are parties to this IGA, which describes the rights and responsibilities of the parties in relation to local government's trails systems that cross Denver Water property.

Attached is a copy of the IGA for your information. Section 2 states that any party to the IGA may request the addition or deletion of trails at any time. The other parties are responsible for reviewing the request, and if acceptable, providing written approval.

Summit County's request to amend the exhibits to the IGA is spurred by plans to realign SH 9 between Farmer's Korner and Frisco through the Iron Springs Open Space. As part of the project, CDOT is realigning the highway to the location of the current Recreational Pathway (Recpath), and the Recpath will be relocated within the current highway prism. In order to make the connection with the Swan Mountain Recpath near the Blue River Inlet, Summit County is requesting an addition to the IGA to include approximately 1,000 linear ft. of trail on Denver Water property as shown in the attached map.

Neil Sperandeo, Recreation Manager for Denver Water, has prepared the enclosed Exhibit A2 and Exhibit B2 that encompasses Summit County's requested changes.

Please review Exhibit A2 and Exhibit B2, which are proposed to be attached to the IGA. Indicate your written approval by signing below and returning this letter to me.

If you have questions, or comments about this request, please contact Brad Eckert, Resource Specialist, at 970-668-4213, or email, Brade@co.summit.co.us.

Sincerely,

Brian Lorch
Open Space and Trails Director

Attachments as stated.

Attachments as stated.

APPROVED AND ACCEPTED:

CITY AND COUNTY OF DENVER, ACTING BY AND THROUGH ITS BOARD OF WATER COMMISSIONERS

By: _____
10/02/13

TOWN OF DILLON

By: _____

_____

TOWN OF FRISCO

By: _____

_____

COUNTY OF SUMMIT, STATE OF COLORADO

By: _____ COUNTY MANAGER
11/5/13

Attachments as stated.

APPROVED AND ACCEPTED:

CITY AND COUNTY OF DENVER, ACTING BY AND THROUGH ITS BOARD OF WATER COMMISSIONERS

By: _____

_____

TOWN OF DILLON

By: _____

_____

TOWN OF FRISCO

By: _____

Town Manager

COUNTY OF SUMMIT, STATE OF COLORADO

By: _____

_____

DILLON RESERVOIR/DENVER WATER SUMMIT COUNTY/FRISCO/DILLON TRAILS AGREEMENT
EXHIBIT A-2

	NAME	TYPE	USE	LENGTH (APPROX)	SEASON	DESCRIPTION	JURISDICTION
1	Summit County Recpath Blue River to School - Property sold to County, no longer included in Agreement						
2	Frisco Lakefront Trail	HS	NM,P,B	1660 ft	all	Frisco Wastewater Treatment Plant to Summit Middle School	Frisco
3	Frisco Lakefront Trail	HS,BW	NM,B,P	5030 ft	all	Summit Middle School to Lakepoint Subdivision	Frisco (trail located within unincorporated Summit County)
4	Summit County Recpath	HS	NM,P,B	2875 ft	all	Lakepoint Subdivision to Dillon Dam Road	Summit County Maintainted by Frisco and Summit County
5	Summit County Recpath	HS	NM,P,B	2250 ft	all	Morning Glory Inlet (Glory Hole) to Town of Dillon	Summit County
6	Dillon Lakefront Recpath	HS	NM,P,B	1865 ft	all	Dillon west town limits to County Dam Road ROW and County Dam Road ROW to Point Dillon Condos	Dillon
7	Dillon Recpath	HS	NM,P,B	2721 ft	all	County Dam Road ROW to Anemone Trail from tunnel and County Dam Road ROW to Silverthorne/Dillon Path at Hwy 6 from Dam Road	Dillon
8	Dillon Recpath Short Section	HS	NM,P,B	20 ft	all	Section by Point Dillon Condos	Dillon
9	Dillon Pedestrian Short Section	HS	NM,P	40 ft	all	Section by Amphitheater	Dillon
10	Dillon Lakefront Recpath	HS	NM,P,B	9100 ft	all	Dillon East Town Limits to Tenderfoot Town Entrance	Dillon
11	Dillon Nature Preserve Overlook	SS	P	50 ft	all	Nature Preserve Trail System to Overlook	Dillon
12	Dillon Valley Flumes	SS	NM,P,B	2000 ft	all	Dillon Valley to Straight Creek Road	Summit County
13	Oro Grande	SS	NM,P,B	1800 ft	all	Straight Creek Rd to Tenderfoot Trail, Northwest of Dillon Cemetery	Summit County
14	Snake River Recpath	HS	NM,P,B	400 ft	all	Forest Service property to Restrooms (2 parcels)	Summit County
15	North Tenmile Trail	SS	NM,P,B	1800 ft	all	Frisco Main Street Exit and I-70	Summit County
16	Swan Mountain Recpath	HS	NM, P,B	35 ft	all	Swan Mountain Road at Highway 9	Summit County
17	Swan Mountain Recpath	HS	NM, P,B	1000ft	all	Breck San District to Highway 9	Summit County

KEY

Trail Type	Trail Use
HS-Hard Surface	NM-Non-motorized
SS-Soft Surface	P-Pedestrian
BW-Boardwalk	B-Biking
	M-Motorized

R. 78 W.

R. 77 W.

WHITE RIVER NATIONAL FOREST

WHITE RIVER NATIONAL FOREST

WHITE RIVER NATIONAL FOREST

WHITE RIVER NATIONAL FOREST

DILLON RESERVOIR

DWD

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

Breckenridge Wastewater Treatment Site

New Summit County High School Property

T. 5 S.
T. 6 S.

N

--- LEGEND ---

- DENVER WATER PROPERTY
- DENVER WATER FLOOD EASEMENT
- TOWN OF DILLON
- NEW SUMMIT COUNTY HIGH SCHOOL
- TOWN OF FRISCO
- SUMMIT COUNTY MIDDLE SCHOOL
- DILLON NATURE PRESERVE
- DENVER WATER PROPERTY BOUNDARY
- RIVERS & STREAMS
- DENVER WATER R.O.W.
- U.S. FOREST SERVICE
- HIGHWAYS & ROADS
- DILLON BOUNDARY
- FRISCO BOUNDARY
- SILVERTHORNE BOUNDARY
- TRAILS
- D.R.U.R.A. BOUNDARY

EXHIBIT "B-2"

The accuracy of this drawing does not exceed that of USGS 7.5 minute quadrangle maps.

Denver Water owns 13.8 miles of Dillon Reservoir shoreline out of a total of 27.2 miles.

The accuracy of these figures does not exceed the accuracy of the map.

DENVER WATER ENGINEERING

DILLON RESERVOIR
TRAILS IGA

Scale: 1in = 2000ft | Date: September 24, 2013
Drawn: MT/ADM | Checked:
Approved: | By: No.
SHEET 1 OF 1 SHEETS

Preserving America's Heritage

October 21, 2013

John M. Cater, P.E.
Division Administrator
FHWA – Colorado Division
12300 W. Dakota Avenue, Suite 180
Lakewood, CO 80228

Ref: *Proposed State Highway 9 Iron Springs Alignment Project*
Summit County, Colorado
Project # C 0091-041

Dear Mr. Cater:

The Advisory Council on Historic Preservation (ACHP) has received your notification and supporting documentation regarding the adverse effects of the referenced undertaking on a property or properties listed or eligible for listing in the National Register of Historic Places. Based upon the information provided, we have concluded that Appendix A, *Criteria for Council Involvement in Reviewing Individual Section 106 Cases*, of our regulations, "Protection of Historic Properties" (36 CFR Part 800), does not apply to this undertaking. Accordingly, we do not believe that our participation in the consultation to resolve adverse effects is needed. However, if we receive a request for participation from the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer, affected Indian tribe, a consulting party, or other party, we may reconsider this decision. Additionally, should circumstances change, and it is determined that our participation is needed to conclude the consultation process, please notify us.

Pursuant to 36 CFR §800.6(b)(1)(iv), you will need to file the final Memorandum of Agreement (MOA), developed in consultation with the Colorado State Historic Preservation Office (SHPO), and any other consulting parties, and related documentation with the ACHP at the conclusion of the consultation process. The filing of the MOA, and supporting documentation with the ACHP is required in order to complete the requirements of Section 106 of the National Historic Preservation Act.

Thank you for providing us with the notification of adverse effect. If you have any questions or require further assistance, please contact Ms. Najah Duvall-Gabriel at 202-606-8585 or at ngabriel@achp.gov.

Sincerely,

LaShavio Johnson

LaShavio Johnson
Historic Preservation Technician
Office of Federal Agency Programs

MEMORANDUM OF AGREEMENT
AMONG
THE FEDERAL HIGHWAY ADMINISTRATION,
THE COLORADO STATE HISTORIC PRESERVATION OFFICER,
AND THE COLORADO DEPARTMENT OF TRANSPORTATION
REGARDING
PROJECT C 0091-041
STATE HIGHWAY 9 IRON SPRINGS ALIGNMENT
SUMMIT COUNTY, COLORADO

WHEREAS, the Federal Highway Administration (FHWA) proposes to realign and shorten a segment of State Highway 9, which involves abandoning 1.3 miles of the highway and incorporating that alignment into the existing Blue River Bikeway system, and relocating access to the US Forest Service Dickey Day Use Area east of the Town of Frisco in Summit County, Colorado (Project); and

WHEREAS, the Colorado Department of Transportation (CDOT) carries out activities for Federal-Aid transportation projects on behalf of FHWA, including consultation under Section 106 of the National Historic Preservation Act (NHPA) and the Advisory Council on Historic Preservation's (Council) regulations, National Environmental Policy Act (NEPA) analysis, and construction contract administration; and FHWA has consulted with CDOT regarding the effects of the Project on historic properties and has invited them to sign this MOA as signatory; and

WHEREAS, FHWA has consulted with the USDA White River National Forest, which is a cooperating agency for the project, and they have declined to participate in the MOA; and

WHEREAS, FHWA is the lead federal agency for the Project, and shall be responsible for ensuring all requirements of this MOA are fulfilled; and

WHEREAS, CDOT, in accordance with 36 CFR 800.4(b) and 800.4(c), regulations implementing Section 106 of the National Historic Preservation Act (16 U.S.C. Section 470f), has inventoried historic properties within the Project Area of Potential Effects and has determined the Dillon Placer Mine (5ST883) to be eligible for inclusion in the National Register of Historic Places (NRHP) and therefore a historic property as defined at 36 CFR 800.6(a)(1) under Criterion A for its role in the development of the West's important hydraulic mining industry and as an economic force in the industrialization and development of the Dillon and Frisco areas. The property may also be significant under Criterion B for its association with Frederick R. Blount, a notable local mine operator and capitalist. The State Historic Preservation Officer (SHPO) has concurred with CDOT's eligibility determination; and

WHEREAS, CDOT has determined that the Project will have an adverse effect on the Dillon Placer Mine, and has consulted with the SHPO; and

WHEREAS, in accordance with 36 CFR 800.6(a)(1), FHWA has notified the Council of the adverse effect determination with specified documentation, and in a letter dated October 21, 2013, the Council declined to participate in the consultation pursuant to 36 CFR 800.6(a)(1)(iii); and

WHEREAS, the Summit County Historic Preservation Advisory Board, the Town of Frisco Historic Preservation Board and the Breckenridge Planning Commission were afforded an opportunity to review the project and did not comment on the project;

NOW, THEREFORE, FHWA, SHPO and CDOT agree that the Project shall be implemented in accordance with the following stipulations in order to take into account the effect of the Project on historic properties.

STIPULATIONS

FHWA shall ensure that the following stipulations are implemented:

I. MITIGATION

A. ARCHIVAL DOCUMENTATION

The Dillon Placer Mine will be documented prior to construction so that there will be a permanent record of its present appearance and history. Recordation shall consist of archivally-stable medium format photography and a descriptive and historical narrative of the site. All documentation must be accepted by the SHPO prior to the start of construction. CDOT shall commit to the following:

1. The Dillon Placer Mine will be documented in accordance with the standards required for Level II documentation found in *OAHP form #1595, Historical Resource Documentation: Standards for Level I, II, III Documentation.*

2. All documentation activities will be performed or directly supervised by architects, historians, photographers, and/or other professionals meeting the qualification standards for their field in the *Secretary of Interior's Professional Qualifications Standards* (36 CFR 61, Appendix A).

3. Originals of the documentation will be provided to the SHPO and a local library or archive in Frisco or Dillon, Colorado.

B. INTERPRETIVE MITIGATION

1. CDOT will consult with SHPO to develop an interpretive sign panel regarding the history of the Dillon Placer Mine and the mining industry in the local area. The design, format, content, and location of the sign will be determined in consultation with the SHPO.

II. DISCOVERIES AND UNANTICIPATED EFFECTS

If CDOT or FHWA determines the Project will affect a previously unidentified property that may be eligible for the National Register, or affect a known historic property in an unanticipated manner, CDOT will address the discovery or unanticipated effect in accordance with 36 CFR 800.13(b).

III. ADMINISTRATIVE PROVISIONS

A. MONITORING AND REPORTING

Reporting for this agreement shall be included in the Section 106 Annual Tracking Report as provided in Section XIII (B) of the May 2010 *Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the Colorado State Historic Preservation Officer, and the Colorado Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in Colorado.*

B. CONFIDENTIALITY

The MOA parties acknowledge that the historic properties covered by this MOA are subject to the provisions of Section 304 of the NHPA, relating to the disclosure of information to the public about the location, character, or ownership of the historic resource. If the federal agency determines, after consultation with the Secretary of Interior, that the disclosure may risk harm to the historic resource, and, having so acknowledged, it will ensure that all actions and documentation prescribed by this MOA are consistent with said sections.

C. DISPUTE RESOLUTION

Should any party to this agreement object at any time to any actions proposed or the manner in which the terms of this MOA are implemented, FHWA shall consult with the objecting party(ies) to resolve the objection. If FHWA determines, within 30 days, that such objection(s) cannot be resolved, FHWA will:

1. Forward all documentation relevant to the dispute to the Council in accordance with 36 CFR 800.2(b)(2). Upon receipt of adequate documentation, the Council shall review and advise FHWA on the resolution of the objection within 30 days. Any comment provided by the Council, and all comments from the parties to the MOA, will be taken into account by FHWA in reaching a final decision regarding the dispute.

2. If the Council does not provide comments regarding the dispute within 30 days after receipt of adequate documentation, FHWA may render a decision regarding the dispute. In reaching its decision, FHWA will take into account all comments regarding the dispute from the parties to the MOA.

3. FHWA's responsibility to carry out all other actions subject to the terms of this MOA that are not the subject of the dispute remain unchanged. FHWA will notify all parties of its decision in writing before implementing that portion of the Project subject to dispute under this stipulation. FHWA's decision will be final.

D. AMENDMENTS

Any signatory party to this MOA may propose that this MOA be amended, whereupon all signatory parties shall consult for no more than 30 days to consider such amendment. If any signatory to this MOA, including any invited signatory, determines that its terms will not or cannot be carried out or that an amendment to its terms must be made, that party shall immediately consult with the other parties to develop an amendment to this MOA pursuant to 36 CFR 800.6(c)(7) and 800.6(c)(8). The amendment will be effective on the date a copy signed by all of the original signatories is filed with the Council. If the signatories cannot agree to appropriate terms to amend the MOA, any signatory may terminate the agreement in accordance with Stipulation III.E, below.

E. TERMINATION

1. If this MOA is not amended as provided for in Stipulation III.D, or if a signatory party proposes termination of this MOA for other reasons, the signatory party proposing termination shall, in writing, notify the other MOA parties, explain the reasons for proposing termination, and consult with the other parties for at least 30 days to seek alternatives to termination.

2. Should such consultation result in an agreement on an alternative to termination, the signatory parties shall proceed in accordance with the terms of that agreement.

3. Should such consultation fail, the signatory party proposing termination may terminate this MOA by promptly notifying the other MOA parties in writing. Termination hereunder shall render this MOA without further force or effect.

4. If this MOA is terminated hereunder, and if FHWA determines that the Project will nonetheless proceed, then FHWA shall comply with the requirements of 36 CFR 800.3-800.6.

F. DURATION

1. This agreement shall take effect when it is filed with the Council.

2. Unless terminated pursuant to section E of this stipulation, or superseded by an amended MOA, this MOA will remain in effect until FHWA, in consultation with the other signatory parties, determines that all of its stipulations have been satisfactorily fulfilled.

3. The terms of this MOA shall be satisfactorily fulfilled within five years following the date of execution by the signatory parties. If FHWA determines that this requirement cannot be met, the MOA parties will consult to reconsider its terms. Reconsideration may include continuation of the MOA as originally executed, amendment of the MOA, or termination. In the event of termination, FHWA will comply with section E.4 of this stipulation if it determines that the Project will proceed notwithstanding termination of this MOA.

   If the Project has not been implemented within five years following execution of this MOA, this MOA shall automatically terminate and have no further force or effect. This time frame can be expanded if agreed to in writing by the signatory parties prior to the expiration date. Prior to such time, FHWA may consult with the other signatories to reconsider the terms of the agreement and amend it in accordance with Stipulation III.C.

IV. COORDINATION WITH THE NATIONAL ENVIRONMENTAL POLICY ACT (NEPA): FHWA shall use this agreement as part of its responsibility to meet the requirements of NEPA.

EXECUTION of this MOA by FHWA, SHPO, and CDOT, its filing with the Council pursuant to 36 CFR 800.6(b)(1)(iv) prior to FHWA's approval of this Project, and implementation of its terms shall evidence that FHWA has taken into account the effects of this Project on historic properties and afforded the Council an opportunity to comment.

SIGNATORIES:

Colorado Department of Transportation

By: Debra Perkins-Smith for Date 1/8/2014
Don Hunt, Executive Director

Colorado State Historic Preservation Officer

By: [signature] Date 1/10/14
Edward Nichols, State Historic Preservation Officer

Federal Highway Administration

By: Stephen P. Gibson Date 1/14/14
for John M. Cater, P.E., Division Administrator

STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION
Region 1

2000 South Holly Street
Denver, Colorado 80222

March 27, 2014

Mr. James S. Lochhead
CEO/Manager
Denver Water
1600 West 12th
Denver, CO 80254

Subject: Request for Concurrence – Section 4(f) Transportation Enhancement Exception
Construction of Recreational Pathway on Denver Water Blue River Inlet Property
Part of CDOT Project Number C0091-041, Summit County

Dear Mr. Lochhead:

The Colorado Department of Transportation (CDOT) is proposing to realign a portion of State Highway 9 (SH 9) south of the Town of Frisco (see attached **Figure 1**). CDOT is currently preparing an Environmental Assessment (EA) to evaluate this Proposed Action, which is referred to as the Iron Springs Alignment. CDOT has previously coordinated with Denver Water on this Proposed Action, and Denver Water has expressed support for the project (see attached letter), noting specifically the water quality and spill mitigation benefits.

As an element of the Proposed Action, a multi-use recreational pathway segment will be constructed across a portion of the Denver Water Blue River Inlet property, which is managed by Denver Water as part of the Dillon Reservoir Recreation Area. This recreational pathway segment (shown on the attached **Figure 2**) will be a 12-foot-wide paved trail, approximately 1,000 feet long. It will be constructed along an alignment of a former paved trail that is currently closed. It will become part of the Summit County Recreational Path (Rec Path) system.

Section 4(f) of the Department of Transportation Act of 1966 affords special protection to parks and recreational resources when they are being converted to a non-recreational use. Because the Blue River Inlet property is designated as a recreation area, Section 4(f) protection applies; however, there will be no permanent use of the Blue River Inlet property due to this project. To clear this project under the provisions of Section 4(f), we will apply an enhancement exception. This exception requires concurrence from the official with jurisdiction over the property that there will be an enhancement of the recreational value of the property.

Summit County recently coordinated with Denver Water to update the Summit County Trails Intergovernmental Agreement (IGA) to include this recreational pathway segment (see attached). The recreational pathway segment to be constructed on the Denver Water Blue River Inlet property will provide a connection between the Swan Mountain Rec Path and the realigned recreation path to be constructed along the current SH 9 alignment, as described in the Summit County letter. The pathway connection will provide recreational enhancements to the Summit County Rec Path system. It will also provide recreational enhancements to the Denver Water Blue River Inlet properly by providing improved access and connectivity for pedestrians and cyclists to the recreational opportunities available at the Blue River Inlet. As such, it will complement, and not conflict with, other recreational opportunities and amenities available on the Blue River Inlet property.

As stated above, the recreational pathway will be constructed along the alignment of a former paved trail. Access will be needed during construction, but there will be no temporary or permanent negative impacts to recreation amenities on the Blue River Inlet property. The project will also be responsible for reestablishing any disturbed vegetation near the pathway. CDOT will continue to coordinate with Denver Water during final design and construction.

Based on the information described above, we believe that these activities meet the requirements of the Department of Transportation Act of 1966 Section 4(f) enhancement exception in 23 CFR 774.13(g). We are requesting Denver Water concurrence on the following:

1. The use of the Section 4(f) property is solely for the purpose of preserving or enhancing an activity, a feature, or an attribute that qualifies the property for Section 4(f) protection; and

2. The signature on the concurrence line below provides the written agreement from the official with jurisdiction over the Section 4(f) resources that the above criterion is met with the project.

We are now finalizing the EA and your prompt reply would be greatly appreciated. Please indicate concurrence by signing and dating on the lines provided below, and returning a signed copy to CDOT. An emailed scan of the concurrence page would be acceptable and appreciated. If you have questions or concerns, please contact Chuck Attardo at (303) 859-9535 (cell) or by email at chuck.attardo@state.co.us.

Sincerely,

Chuck Attardo

Chuck Attardo
COOT, Region 1 Planning and Environmental Manager

cc: Grant Anderson, PE, Resident Engineer, COOT Region 3, Mountain Residency
Troy Halouska, COOT Environmental Programs Branch

Attachments
Figure 1 -Proposed Action -SH 9 Iron Springs Alignment
Figure 2 -Proposed Recreational Pathway -Blue River Inlet
Letter dated April 4, 2013 from Kevin Keefe of Denver Water to COOT
Letter dated September 27, 2013 -Summit County Trails IGA Update

DENVER WATER CONCURRENCE

By: _____

Title: CHIEF OF DIST & PROP MANAGEMT

Date: 1-Jul 14

Figure 1. Proposed Action – SH 9 Iron Springs Alignment

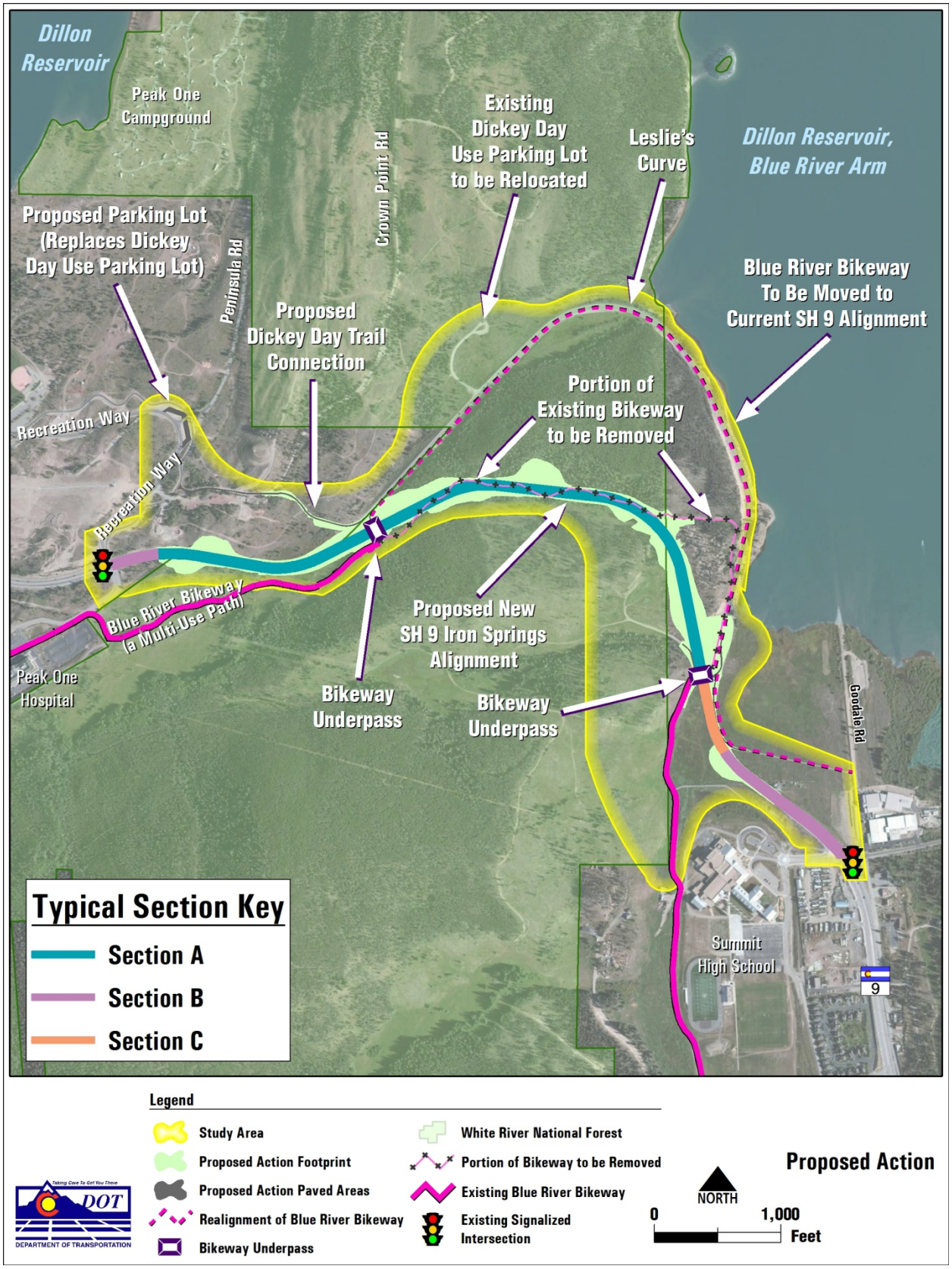
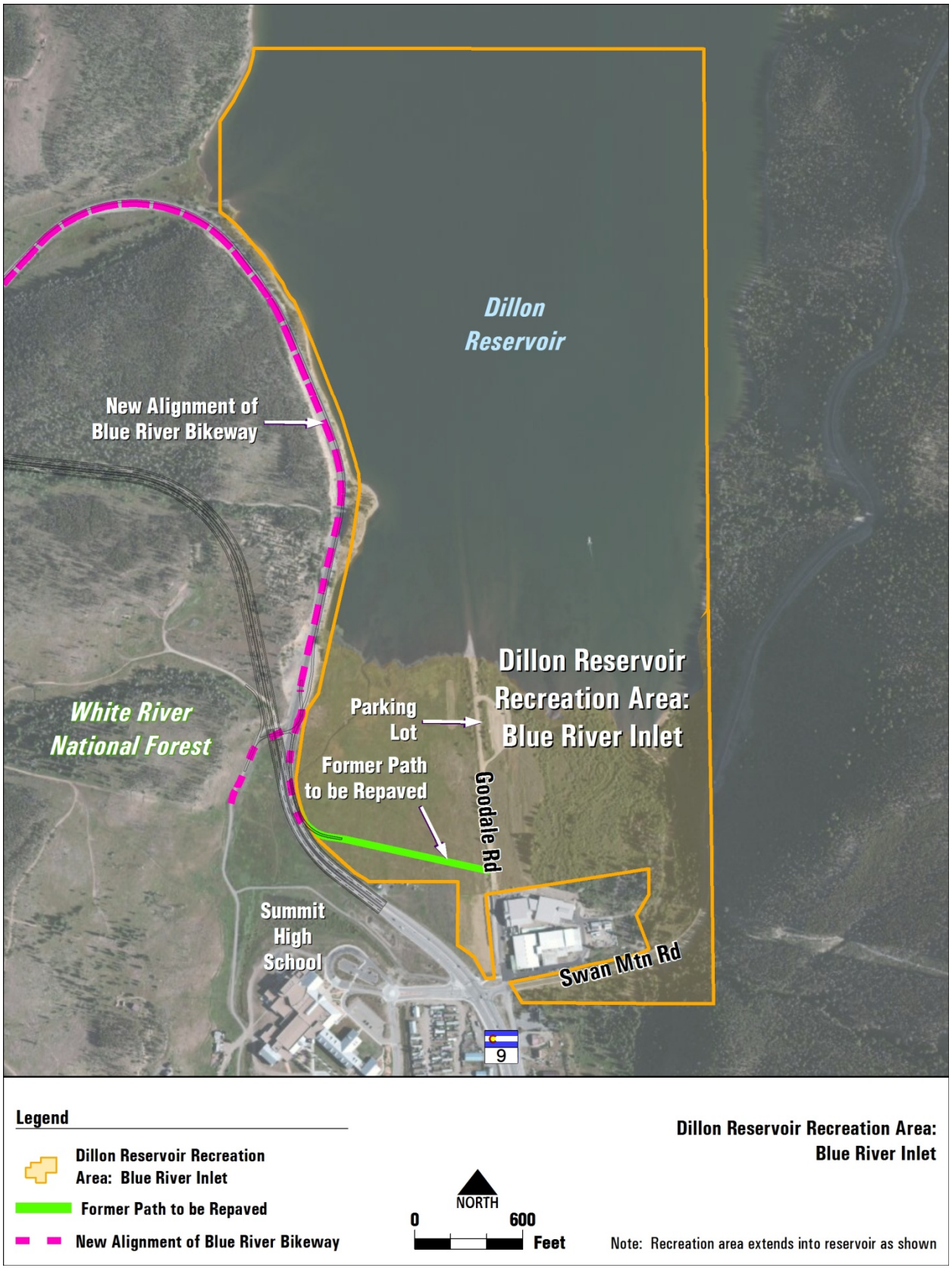


Figure 2. Proposed Recreational Pathway – Blue River Inlet



DENVER WATER
1600 West 12th Avenue • Denver, Colorado 80204-3412
Phone 303-628-6000 • Fax No. 303-628-6199 · denverwater.org

April 4, 2013

Grant Anderson, P.E.
Colorado Department of Transportation
Region 1, Mountain Residency
P.O. Box 399
Dumont, Co 80436

Dear Mr. Anderson,

Thank you very much for your and Holly Huyck's presentation on the Iron Springs road alternative for State Highway 9 widening project. This road alternative eliminates a difficult stretch of Highway 9 perched on a rock face next to a major drinking supply reservoir for the citizens of Denver. The benefits of the alternative road alignment are easily discernible, water reservoir protection, improved traffic flow and ease of construction. One of Denver Waters biggest concerns is source water contamination. This proposal offers an alternative alignment to an area that has always had the potential for a hazardous spill that would likely enter the reservoir rather quickly. Any effort to delay the travel of spilled material to the reservoir is a benefit. This proposed road alignment gives us the option of time to mitigate a spill. Denver Water supports the Iron Springs EA and alternative road alignment.

Sincerely,

Kevin Keefe
Superintendent of Source of Supply
Denver Water

Summit County
ESTABLISHED 1861
COLORADO

OPEN SPACE & TRAILS DEPARTMENT

970-668-4060
fax 970-668-4225

Post Office Box 5660
0037 Peak One Drive, SCR 1005
Frisco, Colorado 80443

September 27, 2013

James S. Lochhead, CEO/Manager
Denver Water
1600 West 12th
Denver, CO 80254

Dear Mr. Lochhead:

On behalf of Summit County Government, I am writing to inform you about Summit County's request to update the exhibits in the Summit County Trails Intergovernmental Agreement (IGA). Denver Water, Town of Dillon, Town of Frisco and Summit County are parties to this IGA, which describes the rights and responsibilities of the parties in relation to local government's trails systems that cross Denver Water property.

Attached is a copy of the IGA for your information. Section 2 states that any party to the IGA may request the addition or deletion of trails at any time. The other parties are responsible for reviewing the request, and if acceptable, providing written approval.

Summit County's request to amend the exhibits to the IGA is spurred by plans to realign SH 9 between Farmer's Korner and Frisco through the Iron Springs Open Space. As part of the project, CDOT is realigning the highway to the location of the current Recreational Pathway (Recpath), and the Recpath will be relocated within the current highway prism. In order to make the connection with the Swan Mountain Recpath near the Blue River Inlet, Summit County is requesting an addition to the IGA to include approximately 1,000 linear ft. of trail on Denver Water property as shown in the attached map.

Neil Sperandeo, Recreation Manager for Denver Water, has prepared the enclosed Exhibit A2 and Exhibit B2 that encompasses Summit County's requested changes.

Please review Exhibit A2 and Exhibit B2, which are proposed to be attached to the IGA. Indicate your written approval by signing below and returning this letter to me.

If you have questions, or comments about this request, please contact Brad Eckert, Resource Specialist, at 970-668-4213, or email, Brade@co.summit.co.us.

Sincerely,

Brian Lorch
Open Space and Trails Director

Attachments as stated.

Attachments as stated.

APPROVED AND ACCEPTED:

CITY AND COUNTY OF DENVER, ACTING BY AND THROUGH ITS BOARD OF WATER COMMISSIONERS

By: _____
10/02/13

TOWN OF DILLON

By: _____

_____

TOWN OF FRISCO

By: _____

_____

COUNTY OF SUMMIT, STATE OF COLORADO

By: _____ COUNTY MANAGER
11/5/13

Attachments as stated.

APPROVED AND ACCEPTED:

CITY AND COUNTY OF DENVER, ACTING BY AND THROUGH ITS BOARD OF WATER COMMISSIONERS

By: _____

_____

TOWN OF DILLON

By: _____

_____

TOWN OF FRISCO

By: _____

Town Manager

COUNTY OF SUMMIT, STATE OF COLORADO

By: _____

_____

DILLON RESERVOIR/DENVER WATER SUMMIT COUNTY/FRISCO/DILLON TRAILS AGREEMENT
EXHIBIT A-2

	NAME	TYPE	USE	LENGTH (APPROX)	SEASON	DESCRIPTION	JURISDICTION
1	Summit County Recpath Blue River to School - Property sold to County, no longer included in Agreement						
2	Frisco Lakefront Trail	HS	NM,P,B	1660 ft	all	Frisco Wastewater Treatment Plant to Summit Middle School	Frisco
3	Frisco Lakefront Trail	HS,BW	NM,B,P	5030 ft	all	Summit Middle School to Lakepoint Subdivision	Frisco (trail located within unincorporated Summit County)
4	Summit County Recpath	HS	NM,P,B	2875 ft	all	Lakepoint Subdivision to Dillon Dam Road	Summit County Maintainted by Frisco and Summit County
5	Summit County Recpath	HS	NM,P,B	2250 ft	all	Morning Glory Inlet (Glory Hole) to Town of Dillon	Summit County
6	Dillon Lakefront Recpath	HS	NM,P,B	1865 ft	all	Dillon west town limits to County Dam Road ROW and County Dam Road ROW to Point Dillon Condos	Dillon
7	Dillon Recpath	HS	NM,P,B	2721 ft	all	County Dam Road ROW to Anemone Trail from tunnel and County Dam Road ROW to Silverthorne/Dillon Path at Hwy 6 from Dam Road	Dillon
8	Dillon Recpath Short Section	HS	NM,P,B	20 ft	all	Section by Point Dillon Condos	Dillon
9	Dillon Pedestrian Short Section	HS	NM,P	40 ft	all	Section by Amphitheater	Dillon
10	Dillon Lakefront Recpath	HS	NM,P,B	9100 ft	all	Dillon East Town Limits to Tenderfoot Town Entrance	Dillon
11	Dillon Nature Preserve Overlook	SS	P	50 ft	all	Nature Preserve Trail System to Overlook	Dillon
12	Dillon Valley Flumes	SS	NM,P,B	2000 ft	all	Dillon Valley to Straight Creek Road	Summit County
13	Oro Grande	SS	NM,P,B	1800 ft	all	Straight Creek Rd to Tenderfoot Trail, Northwest of Dillon Cemetery	Summit County
14	Snake River Recpath	HS	NM,P,B	400 ft	all	Forest Service property to Restrooms (2 parcels)	Summit County
15	North Tenmile Trail	SS	NM,P,B	1800 ft	all	Frisco Main Street Exit and I-70	Summit County
16	Swan Mountain Recpath	HS	NM, P,B	35 ft	all	Swan Mountain Road at Highway 9	Summit County
17	Swan Mountain Recpath	HS	NM, P,B	1000ft	all	Breck San District to Highway 9	Summit County

KEY

Trail Type	Trail Use
HS-Hard Surface	NM-Non-motorized
SS-Soft Surface	P-Pedestrian
BW-Boardwalk	B-Biking
	M-Motorized

R. 78 W.

R. 77 W.

WHITE RIVER NATIONAL FOREST

WHITE RIVER NATIONAL FOREST

WHITE RIVER NATIONAL FOREST

WHITE RIVER NATIONAL FOREST

DILLON RESERVOIR

DWD

SILVERTHORNE

DILLON

OLD DILLON RESERVOIR

DILLON NATURE PRESERVE

SUMMIT MIDDLE SCHOOL

FRISCO

SUMMIT COUNTY MIDDLE SCHOOL

FOREBAY RECREATION AREA

SNAKE RIVER ARM

BLUE RIVER ARM

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

Breckenridge Wastewater Treatment Site

New Summit County High School Property

T. 5 S.
T. 6 S.

N

--- LEGEND ---

- DENVER WATER PROPERTY
- DENVER WATER FLOOD EASEMENT
- TOWN OF DILLON
- NEW SUMMIT COUNTY HIGH SCHOOL
- TOWN OF FRISCO
- SUMMIT COUNTY MIDDLE SCHOOL
- DILLON NATURE PRESERVE
- DENVER WATER PROPERTY BOUNDARY
- RIVERS & STREAMS
- DENVER WATER R.O.W.
- U.S. FOREST SERVICE
- HIGHWAYS & ROADS
- DILLON BOUNDARY
- FRISCO BOUNDARY
- SILVERTHORNE BOUNDARY
- TRAILS
- D.R.U.R.A. BOUNDARY

EXHIBIT "B-2"

The accuracy of this drawing does not exceed that of USGS 7.5 minute quadrangle maps.

Denver Water owns 13.8 miles of Dillon Reservoir shoreline out of a total of 27.2 miles.

The accuracy of these figures does not exceed the accuracy of the map.

DENVER WATER ENGINEERING

DILLON RESERVOIR
TRAILS IGA

Scale: 1in = 2000ft | Date: September 24, 2013
Drawn: MT/AEM | Checked:
Approved: | By: | No.
SHEET 1 OF 1 SHEETS

United States
Department of
Agriculture

Forest Service

Biological Evaluation

For the

Proposed
State Highway 9 Realignment

Dillon Ranger District, White River National Forest
Summit County, Colorado

April 2014

Prepared by:
Jeff Peterson
Colorado Department of Transportation
4201 E. Arkansas Ave., Shumate Building
Denver, CO 80222

For Information Contact:
Ashley Nettles,
Wildlife Biologist
Dillon Ranger District
White River National Forest
anettles@fs.fed.us
970-262-3457

Signatures

Reviewed by:_____ Date: _____
Wildlife Biologist, Dillon Ranger District,
White River National Forest

Approved by:_____ Date: _____
District Ranger
Dillon Ranger District,
White River National Forest

TABLE OF CONTENTS

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LIST OF FIGURES

APPENDICES

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1.0 INTRODUCTION

The purpose of this document is to present the analysis and determination of effects of the alternatives on USDA Forest Service Region 2 Sensitive Species (FSM 2670.31-2670.32), including sensitive plant species.

Threatened, endangered, candidate and species proposed for listing as well as state listed species are addressed in separate reports. All reports may be obtained from CDOT Region 1 Environmental, Denver, Colorado.

2.0 DESCRIPTION OF THE PROPOSAL

2.1 Background

In 2004, CDOT and FHWA completed a Record of Decision (ROD) for improving a 14.5 mile stretch of SH 9 from the Town of Frisco to the Town of Breckenridge (CDOT and FHWA, 2004a). The four lane reduced section roadway selected in the 2004 ROD includes necessary turn lanes, acceleration/deceleration lanes, curb and gutter, medians, and shoulders between Frisco (milepost 97) and Breckenridge (milepost 85). "Reduced section" refers to a reduction in the width of the median to 10 feet with 4-foot inside shoulders, as opposed to a full-width section with a 28-foot wide median with 4-foot inside shoulders. The four-lane reduced section roadway was selected in the ROD, rather than the four-lane full-width median roadway because it provided needed transportation and safety benefits while minimizing physical impacts along the corridor.

As stated in the 2004 ROD, the purpose is to improve transportation mobility along SH 9 by decreasing travel time, improving safety, and supporting the transportation needs of local and regional travelers while minimizing impacts to the surrounding environment and communities. Since completion of the ROD, CDOT has implemented the four-lane reduced section roadway along portions of SH 9, with the intention to continue working to complete improvements to the entire corridor as funding becomes available. The improvements identified in the 2004 ROD were all planned to be constructed by widening of the highway along the existing SH 9 alignment.

CDOT and FHWA are now proposing that a 1.3 mile stretch of SH 9, which falls between mileposts 93 and 95 just south of Frisco, be realigned (see Figure 1 – Proposed Action) rather than widened on the existing alignment (see Figure 2 – No Action Alternative). CDOT and FHWA have developed and evaluated the Proposed Action following a request from Summit County and in response to changed conditions since the 2004 ROD. In 2010, Summit County asked CDOT to look at a change in alignment, away from Dillon Reservoir, to see if there would be any advantages over the No Action Alternative. The No Action Alternative would include widening the highway directly adjacent to Dillon Reservoir which causes icy conditions in winter and presents challenges with respect to water quality protection. In addition, the extensive mountain pine beetle epidemic presented a change in regional pine forest conditions since the 2004 ROD. The U.S. Forest Service (USFS) plans to remove the majority of trees along the Proposed Action, creating conditions that will improve the biological diversity and health of the forest.

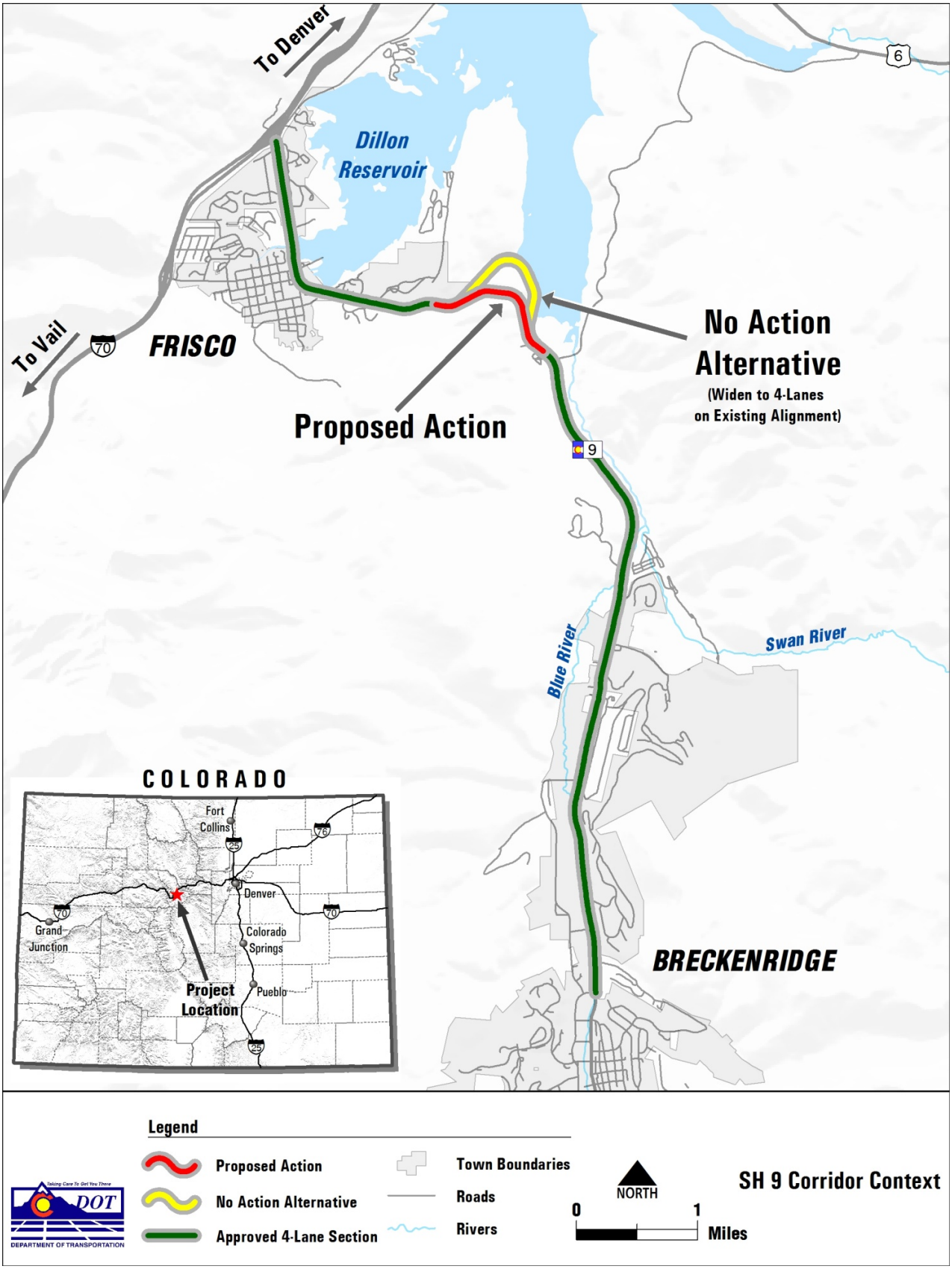

Figure 1. Proposed Action Location

As CDOT and FHWA began evaluating a change in alignment, they saw potential benefits to constructing a shorter, safer alignment and began working with the USFS as a cooperating agency. Conceptual engineering and discussions showed that the Proposed Action offers a number of benefits not provided by the No Action Alternative:

- Building a widened highway away from existing traffic would mean less impact to the traveling public during construction.
- Eliminating the problematic curve known as Leslie's Curve would improve safety.
- There would be fewer impacts to an important wetland by narrowing the footprint through a cantilevered roadway platform and retaining wall.
- Moving a portion of the Frisco-Farmers Korner-Blue River Bikeway (herein referred to as the Blue River Bikeway) to the old SH 9 alignment would make the recreation experience safer by providing a gentler grade, and would provide a visually attractive setting along Dillon Reservoir.
- There would be benefits with respect to water quality protection (for example, the addition of permanent water quality ponds).
- The recreation experience at the Dillon Reservoir shoreline would be improved by moving vehicular traffic away from the shoreline and the recreation areas located there.
- Including two large underpasses to accommodate the Blue River Bikeway, as well as an oversized drainage structure with a natural bottom near the eastern terminus between the two bikeway underpasses, would permit movement of wildlife under SH 9, making the highway more permeable to wildlife than the No Action Alternative.
- A shorter highway length would reduce maintenance.
- The need for extensive retaining walls would be reduced.

The purpose of the Proposed Action remains the same as was identified for the SH 9 corridor as a whole in the previous Final EIS and ROD - to improve transportation along SH 9 by decreasing travel time, improving safety, and supporting the transportation needs of local and regional travelers while minimizing impacts to the surrounding environment and communities.

The previously-approved widening of SH 9 along the existing alignment between mileposts 95 and 93, as well as the Proposed Action for realignment of this stretch of SH9, is described below.

2.2 Proposed Alternatives

2.2.1 Alternative 1: No Action

If the Proposed Action is not selected for implementation by CDOT and FHWA, SH 9 would be widened to provide a four-lane reduced section roadway along the existing alignment (Figures 2 and 3). This was previously approved in the 2004 ROD as the Preferred Alternative. The 2004 Preferred Alternative is considered the "No Action Alternative" for this EA and is used as a baseline for comparison with the Proposed Action.
Widening along the existing alignment would require large rock cuts and retaining walls (which would be difficult to design and construct), and the highway would remain in close proximity to Dillon Reservoir. The length of SH 9 would remain the same as the existing highway. Leslie's Curve would not be eliminated. However, safety features such as a barrier between opposing lanes would be installed to improve safety.

With this alternative, approximately 0.8 mile of the existing Blue River Bikeway would be realigned to allow space for the highway widening. The length of bikeway would not change appreciably and the current relatively steep grades on the bikeway would remain. The Dickey Day Use Parking Lot would remain with its current access position, which is unsignalized, with the potential for accidents at the highway intersection.

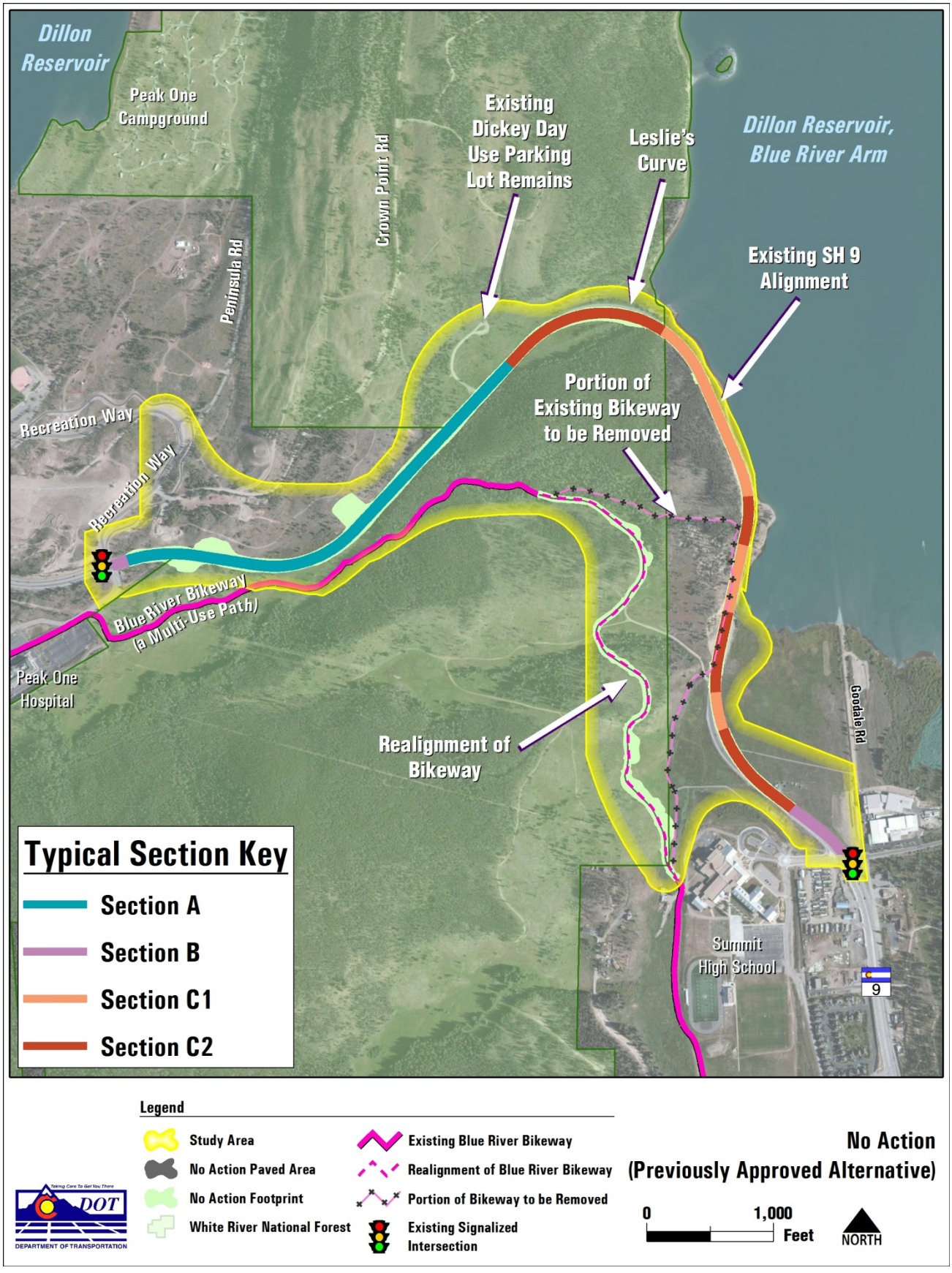

Figure 2. No Action Alternative (Previously Approved)

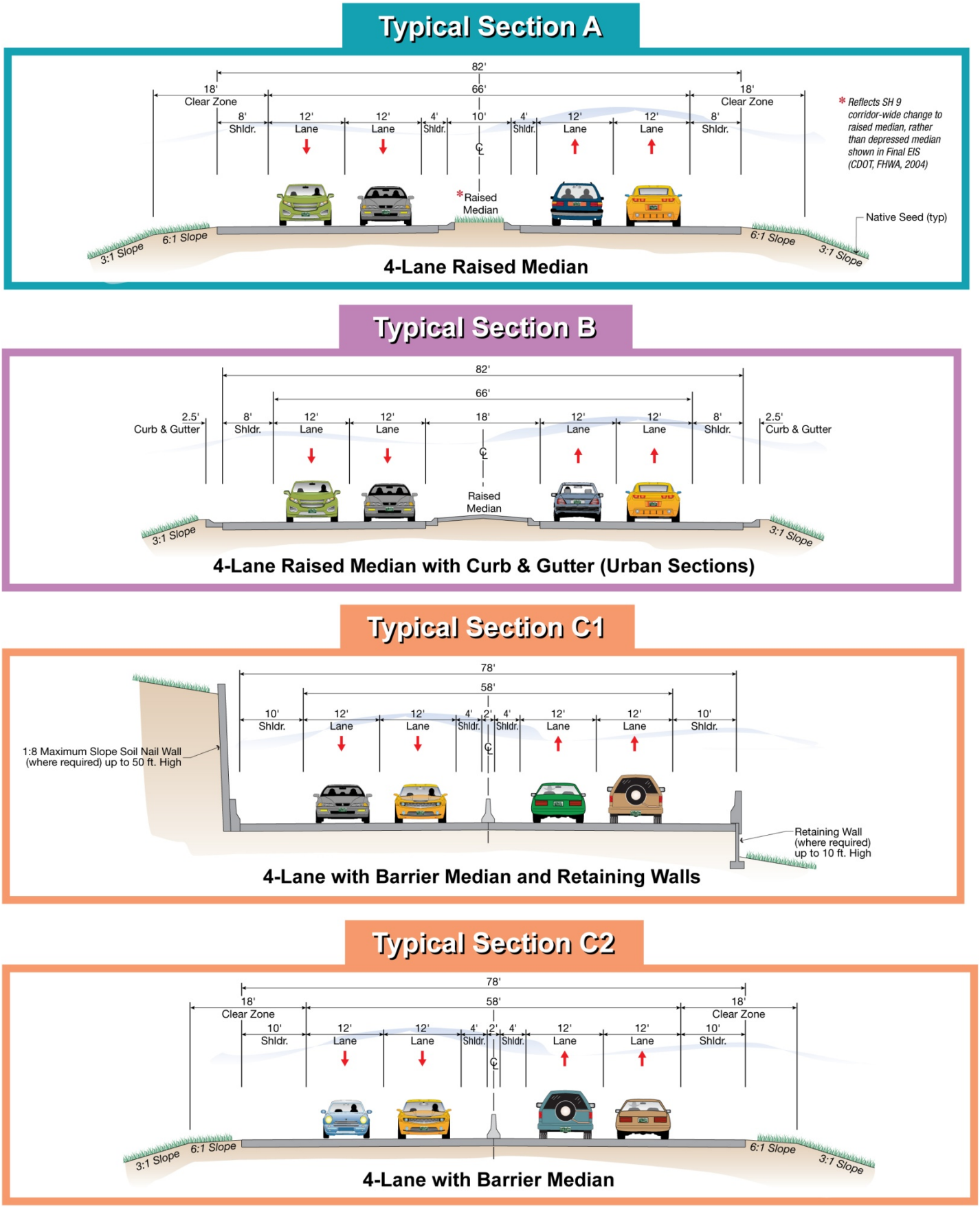

Figure 3. No Action Alternative Typical Sections

Impacts to wildlife would be minimized and mitigated by the following actions:

- Minimizing disturbance to native plant communities.
- Minimizing tree removal.
- Clearing and grubbing will be conducted in a manner to avoid impacts to migratory birds. Areas will be surveyed to protect bird nesting habitat.
- Stabilizing disturbed areas and re-establishing native vegetation communities following construction.
- Replacing disturbed or lost wetland habitats.
- Avoiding the use of palatable plants in the revegetation of highway medians and rights-of-way.
- Installing a bridge at the SH 9 crossing of the Blue River, just south of milepost 91, with an upland bench above the high-water line to allow movement under the highway for wildlife.
- Planned replacement of culverts with a bridge at the Blue River SH 9 crossing will benefit movement of fish.
- Prior to construction, boreal toad surveys will be conducted in areas of suitable habitat.
- Planned improvements in highway drainage, construction of sediment control measures and use of BMPs will reduce the introduction of roadway pollutants into aquatic habitats.
- Planned mitigation of wetlands impacted by road improvements will reduce impacts to fox sparrow habitat.
- Prompt revegetation of disturbed areas with native vegetation will follow construction.

It should be noted that these measures were agreed upon in 2004 to address concerns through the entire corridor (Breckenridge to Frisco). As such, some of these measures have already been installed or will be installed as part of different phases of the project.

2.2.2 Alternative 2: Proposed Action

The SH 9 realignment project footprint would encompass the area from Peak One Drive near the Peak One Hospital, east to Dillon Reservoir, north to the northern apex of SH9, including the Dickey Day parking area and south to about Summit High School (See Figure 4). At its lowest point, near the reservoir, the elevation is approximately 9025’ above mean sea level. It highest point on Ophir Mountain rises to about 9200’ above mean sea level. This is basically the area known as Leslie’s Curve.

Proposed Project Description

A 1.3 mile stretch of SH 9, just south of Frisco, is proposed to be realigned, rather than widened on the existing alignment (Figure 4). This stretch of SH 9, which falls between mileposts 93 and 95, would provide a four-lane reduced section roadway (Figure 5) while moving the highway away from Dillon Reservoir. The Proposed Action would shorten SH 9 by approximately 0.4 mile. The Proposed Action would provide roadway safety benefits, as well as water quality and drinking water protection benefits, as a result of straightening the highway to remove a tight, compound curve (known as Leslie's Curve), which is in close proximity to Dillon Reservoir. A compound curve is a geometric condition in which there is not a tangent (straight) section of roadway in between two curves. Leslie's Curve is considered sub-standard and contributes to accidents in the area. The Proposed Action would eliminate this curve.

The Proposed Action would include realignment of a portion of the existing Blue River Bikeway. A portion of the bikeway would be moved to the current SH 9 alignment, and the excess pavement would be removed. The realigned bikeway would be approximately 0.4 mile longer than the existing one but would be at a much gentler grade than the current alignment. In addition, the existing Dickey Day Use Parking Lot would be moved west to a proposed new parking lot, as shown on Figure 4, allowing for access via the existing signalized intersection at SH 9 and Recreation Way. A proposed Dickey trail connection would provide connectivity between the new parking lot and realigned bikeway, as well as lake access.

Implementation Methods

The project will be built with standard construction equipment. Some blasting may be needed to create the cuts needed for the new alignment. Large trucks, backhoes, front loaders, pavers and other machinery will be needed to complete the project. Night work is not expected to occur, but may become part of the project if safety becomes an issue. Staging of equipment and storing of materials will occur in previously disturbed areas. To the maximum extent possible, no equipment fueling or repair will occur within 100' of any body of water.

Predicted Project Duration

Construction funding is available. If the Proposed Action is approved, construction is anticipated to start in 2016 and would take approximately two years to complete.

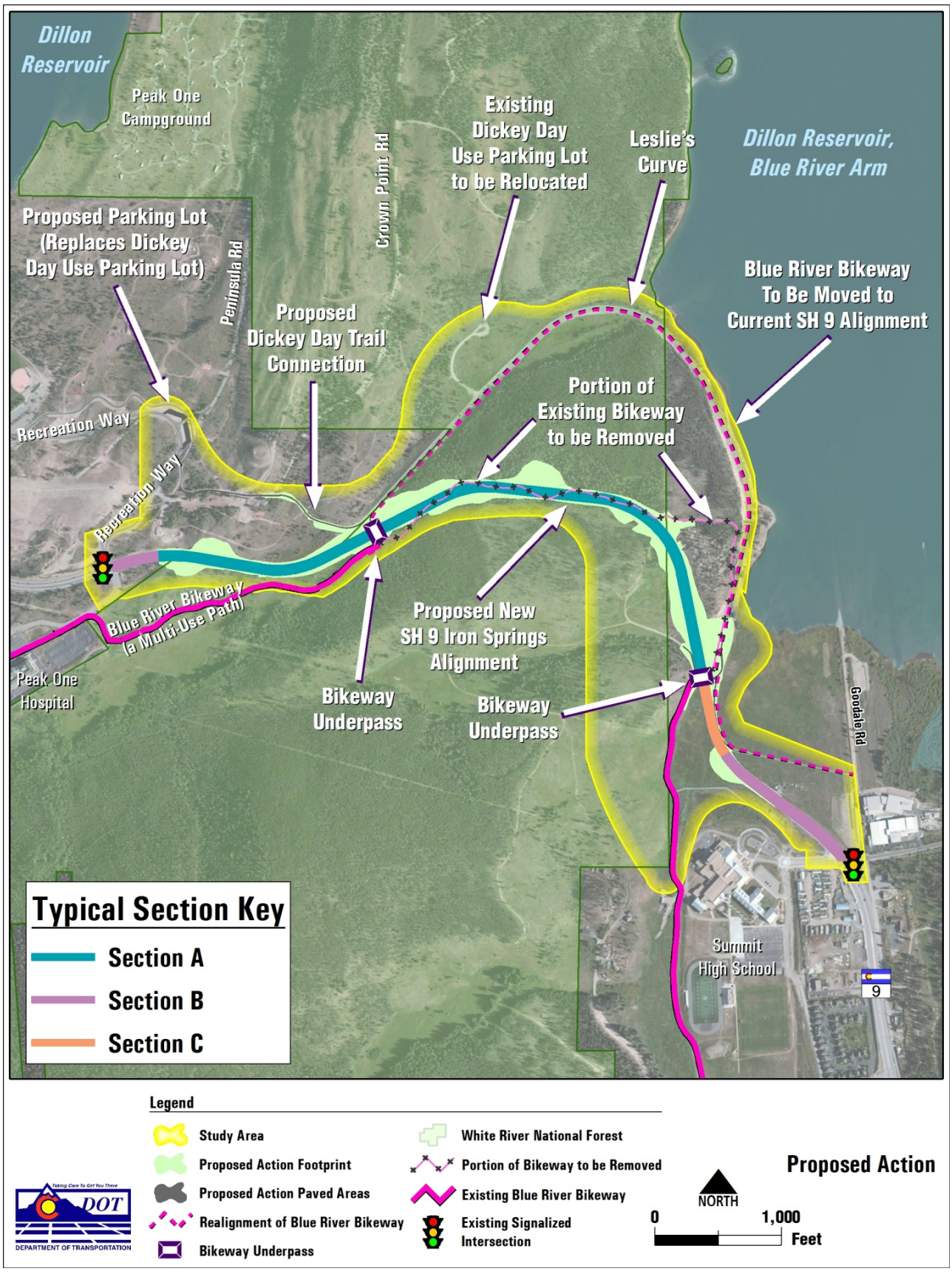

Figure 4. Proposed Action

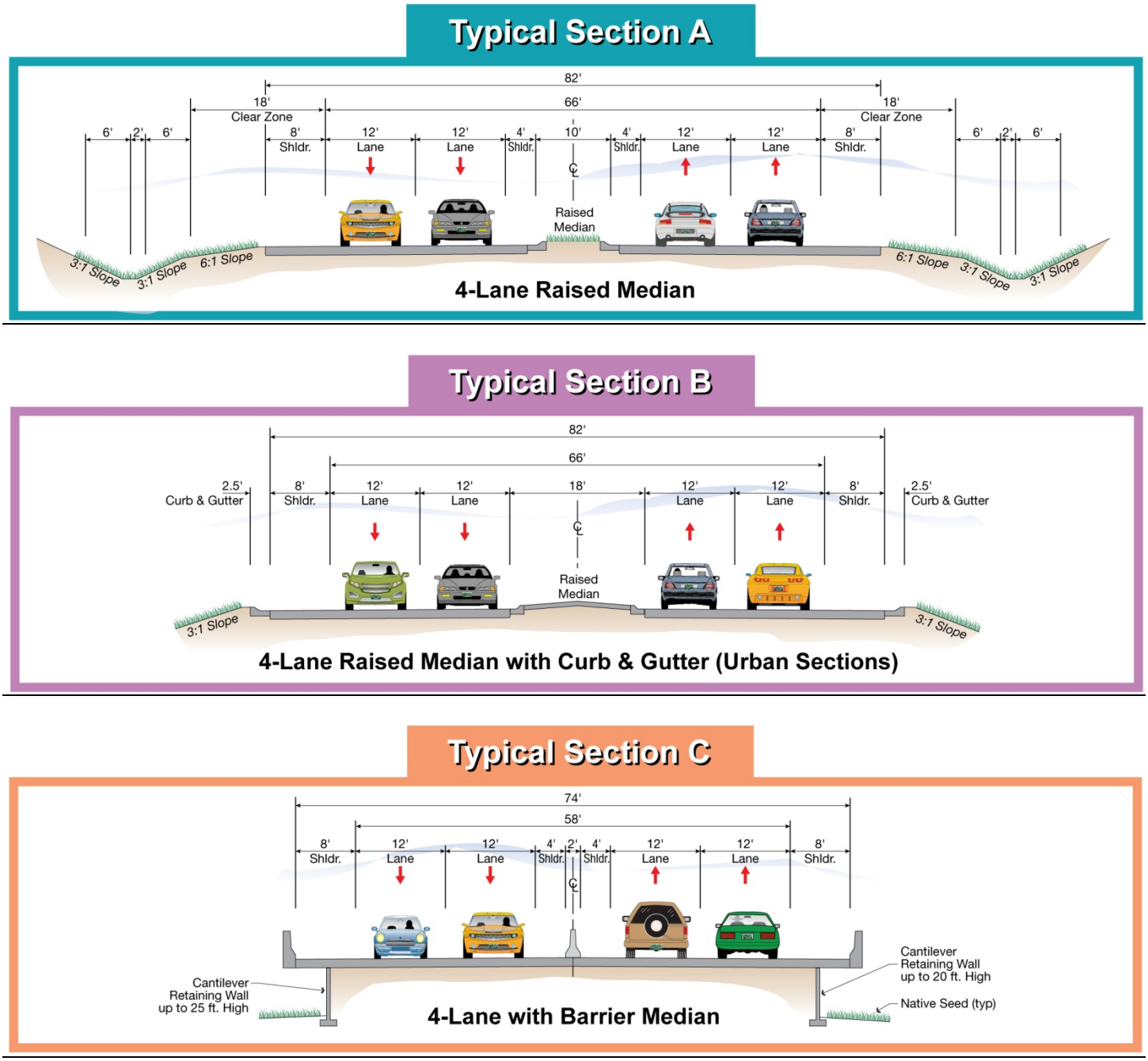

Figure 5. Proposed Action Typical Sections

Wildlife Design Features

The following is a list of design features that pertain to wildlife.

1. Protect known active and inactive raptor nests within the project area. The extent of the protection would be based on proposed management activities, human activities existing before nest establishment, species, topography, vegetation cover, and other factors. A no-disturbance buffer around active nest sites would be required from nest-site selection to fledging. Exceptions may occur when individuals are adapted to human activity as determined by a wildlife biologist. A survey for nests would occur prior to any construction that would be scheduled for that year.

2. The new drainage structure located on the east end of the new alignment will be an arch culvert with a natural bottom substrate to promote wildlife usage. This structure shall have a 10-foot high by 16-foot wide arch to encourage use by medium sized and large mammals (deer and smaller). Mature habitat adjacent to this new drainage structure shall be retained, as much as practicable during construction, by a qualified biologist designating a protected area with orange construction fencing. Enhancement of vegetation adjacent to this drainage structure and wildlife crossing will be evaluated during final design.

3. The two multi-use underpasses located at each end of the new alignment will include a 4-foot wide separate path (natural substrate) adjacent to the 12-foot wide paved trail for general wildlife usage (suitable for deer and smaller). Lighting in the underpasses will not be provided in order to promote usage by wildlife. Enhancement of vegetation adjacent to these underpasses will be evaluated during final design.

4. Surveys for Northern Goshawk nesting sites would be completed by a wildlife biologist annually in locations proposed for implementation in the same year. Surveys would occur between May 1 and June 30 during the early nesting season. If nests are found, construction would be discontinued between March 1 and September 1, or until the nest(s) become inactive, within ¼ mile of the nest(s).

5. As much vegetation as practicable will be retained. Any vegetation that has to be removed will be removed between August 31 and April 1 to avoid violating the Migratory Bird Treaty Act. If this cannot be done, a survey for active nests will be conducted by a Wildlife Biologist. A buffer of at least 50’ will be established around active nest(s) until the chicks have fledged or the nest becomes inactive. See CDOT Specification 240 in Appendix B.

6. The quality of water in Dillon Reservoir is expected to be improved as compared to both the No-Action alternative and even the existing condition for the two-lane highway through the following minimization and mitigation measures:

   - Permanent BMPs are being incorporated into the roadway design. These include, but are not limited to, approximately four stormwater runoff/sediment capture basins, riprap check dams along vegetated swales, and adding riprap to outfalls for concentrated flows. Basins have been sized approximately to capture both Water Quality Capture Volume plus an added 20% volume for sediment accumulation from sanding operations.

   - During the project design, engineers will consider other strategies to improve water quality by reducing stormwater runoff volume and velocity, enhancing infiltration, increasing length of drainage flow paths, and minimizing stream bank impacts in the drainage areas.

   - CDOT has adopted strict limitations on the amount of phosphorous that is permitted to be used in liquid deicers.

   - Moving the roadway away from being adjacent to Dillon Reservoir allows for the spreading out and dilution and absorption of phosphorous between the new alignment and Dillon Reservoir.

3.0 DESCRIPTION OF THE ANALYSIS AREA

For the purpose of this project, the Analysis Area has been defined by the outer boundaries of the WRNF Snake River Lynx Analysis Unit (LAU) the Swan Mountain LAU, because of its proximity to the boundary between the two (Figure 2). The Analysis Area is located in the eastern portion of the WRNF. It is 154,661 acres in size and contains the towns of Frisco, Dillon, Breckenridge, and Blue River. The Porcupine Peak roadless area, which is approximately 8,745 acres in size, and approximately 5,660 acres of the Tenderfoot Mountain Roadless area (8,380 total acres) occur within the northern portion of the area. Additionally the Analysis Area encompasses the Dillon Reservoir Recreation Area, Breckenridge Ski Resort, Keystone Ski Area, Arapahoe Basin Ski Area, approximately 175 miles of maintained Forest Service trails, numerous Forest Service campgrounds, picnic areas, and trailheads. The major roadways in the area include Interstate 70, which crosses the northwestern border of the Area and US Highway 6, which extends from the town of Dillon to Loveland Pass.

The dominant plant cover types in the greater area include lodgepole pine (*Pinus contorta*) forests, Engelmann spruce (*Picea engelmanii*) /subalpine fir (*Abies lasiocarpa*) forests, quaking aspen (*Populus tremuloides*) and some willow (*Salix* sp.) (Figure 6). Lodgepole pine is typically dominant between 9,000 and 10,200 feet, and spruce-fir between 10,200 and 11,500 feet. Alpine tundra and barren rock are found above 11,500 feet and riparian zones, aspen stands, and grass/shrublands are found throughout the area.

The three main forest types occurring within the area include lodgepole pine forests, spruce forests, and mixed conifer forests. The majority of the lodgepole pine forests are even-aged climax forests between 80 and 140 years in age (US Forest Service 2004). These stands have been heavily affected by the mountain pine beetle epidemic and greater than 80 percent of the trees are dead or dying. The spruce forests consist of greater than 90 percent Engelmann spruce with a small percentage of lodgepole pine, fir or aspen trees. The mixed conifer forests are composed of a mixture of Engelmann spruce, subalpine fir, and lodgepole pine.

The proposed project area occurs within the Ophir Mountain Footprint, which is scattered with hiking and mountain biking trails that are frequented by members of the local community. According to the USDA R2Veg dataset there are approximately 234 acres of barren ground, 1,016 acres of grass/forb, 133 acres of willow, 1,833 acres of mixed conifer, 40 acres of Douglas fir, 22 acres of spruce/fir, 17 acres of aspen, 307 acres of aspen mixed with conifer, and 1,750 acres of lodgepole pine in the area.

SH 9 Realignment Project Area

In the impact area, 2.57 acres consists of aspen/mixed conifer. This habitat type is surrounded by pure lodgepole pine which has a high mortality rate due to a mountain pine beetle infestation. The aspen/mixed confer habitat is also bisected by heavily used, paved, bike/pedestrian path. The area is situated between a hospital (~0.6 miles to the southwest) and a high school (~0.5 miles to the southeast) which provide a large human presence in the area.

1.5 acres of the total area of impact is pure lodgepole pine, much of which is slated to be clear-cut by the USFS to lower the existing and accumulating fuel loads and expedite the regeneration of lodgepole pine and aspen forest located within and adjacent to the project area (Figure 7).

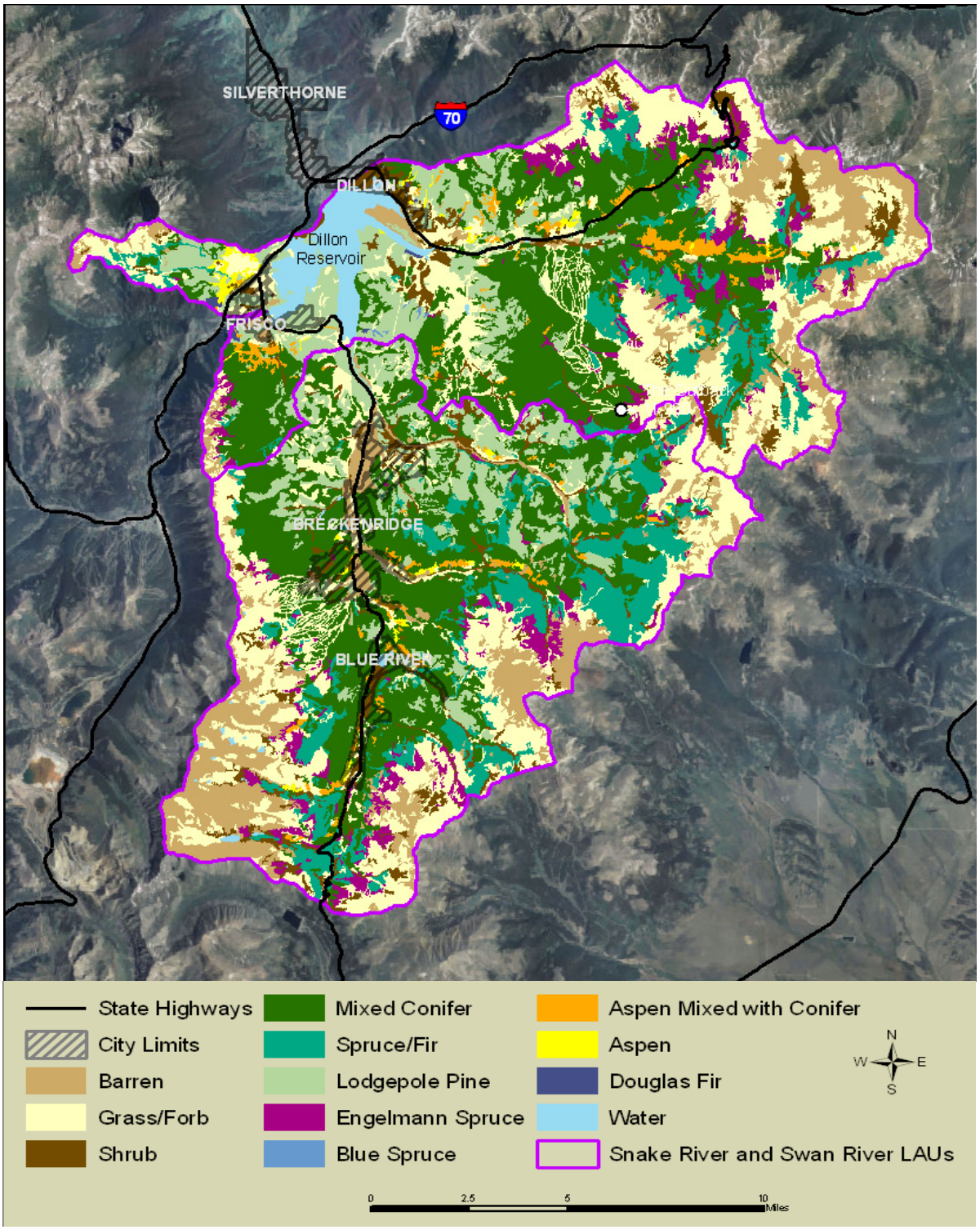

Figure 6. Vegetation Communities within the Analysis Area

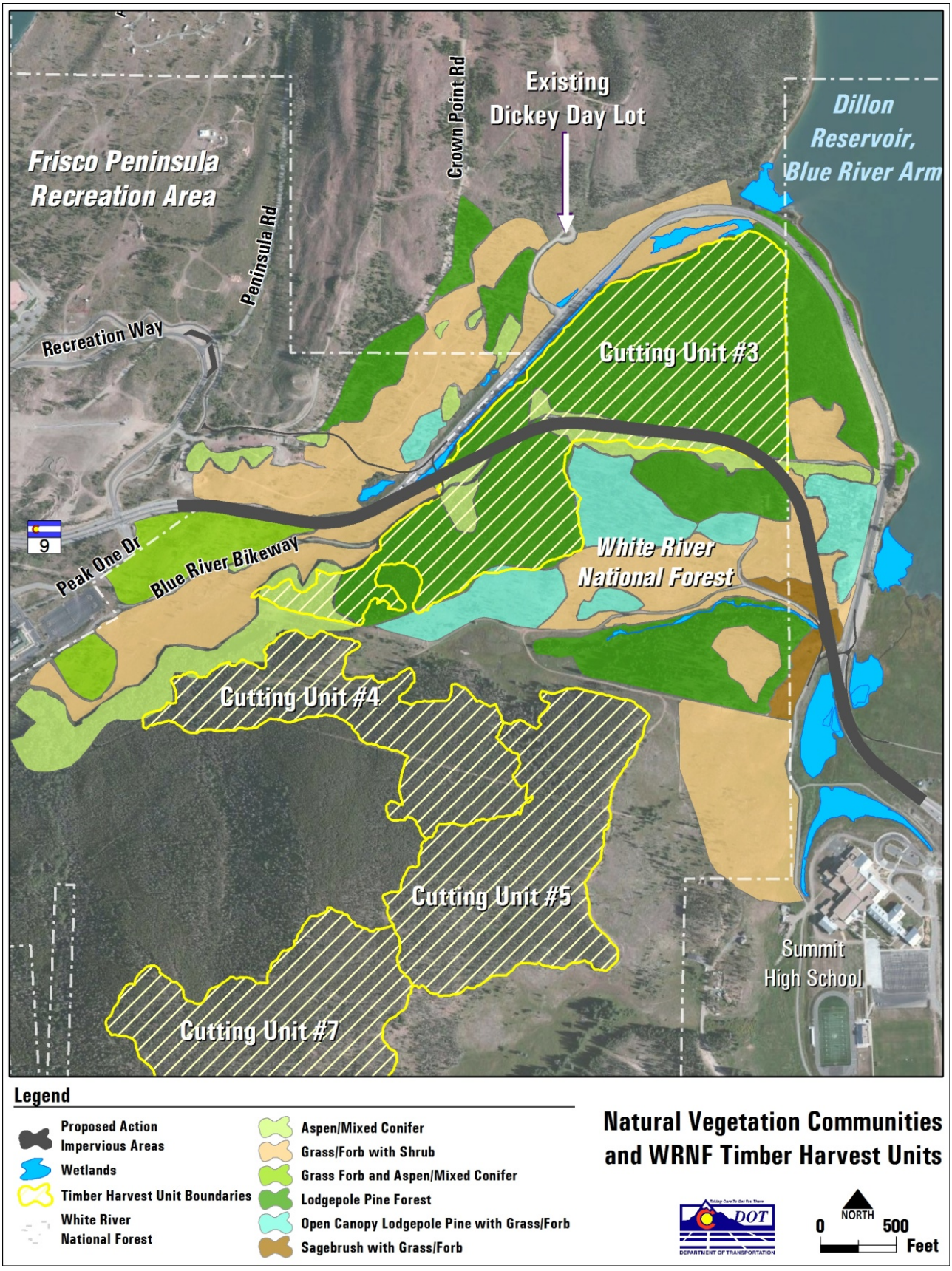

Figure 7. Natural Vegetation Communities in WRNF Timber Harvest Units in the Study Area

Construction of the No Action Alternative will result in loss of habitat in terms of vegetation and possible species composition. Direct impacts to existing vegetation and grass/forb and shrub communities within the No Action Alternative would result in the removal of vegetation and increase in impervious surface where widening along the existing SH 9 corridor and realignment of the Blue River bikeway is proposed. A total of 2.00 acres of vegetation would be permanently removed as a result of widening on the existing SH 9 alignment. In addition, a total of 1.01 acres of vegetation would be permanently impacted from the bikeway relocation. The majority of these improvements would affect the grass/forb with shrub community, which consists of roadside habitat as well as areas that have been recently logged. Table 1 and Table 2 summarize permanent and temporary impacts to vegetation communities from the No Action Alternative. Mitigation measures listed in the SH Frisco to Breckenridge EIS would be implemented to offset impacts to vegetation resources.

Table 1. Vegetation Impacts – No Action Alternative (Roadway)

Vegetation Community Type	Permanent Acre of Impact (Impervious Surface)	Temporary Impacts (Acre)
Lodgepole Pine Forest	0.61	2.62
Aspen/Mixed Conifer	0.02	0.07
Open Canopy Lodgepole Pine with Grass/Forb	0.17	1.24
Grass/Forb with Shrub	1.20	4.21
Grass/Forb and Aspen/Mixed Conifer	0	1.17
Sagebrush with Grass/Forb	0	0.10
Total Impacted Acreage	**2.00**	**9.41**

Table 2. Vegetation Impacts – No Action Alternative (Bikeway Realignment)

Vegetation Community Type	Permanent Acre of Impact (Impervious Surface)	Temporary Impacts (Acre)
Lodgepole Pine Forest	0.17	1.10
Aspen/Mixed Conifer	0.20	0.72
Open Canopy Lodgepole Pine with Grass/Forb	0	0.05
Grass/Forb with Shrub	0.64	4.03
Grass/Forb and Aspen/Mixed Conifer	0	0
Sagebrush with Grass/Forb	0	0
Total Impacted Acreage	**1.01**	**5.90**

The construction of the No Action Alternative would also increase impervious surfaces, thereby increasing runoff and exposing the surrounding vegetation to higher levels of pollutants. Soil disturbance from construction equipment would also create favorable conditions for noxious weeds to introduce and establish, or to further spread.

In order to minimize impacts to wildlife the following measures have been proposed:

- Minimizing disturbance to native plant communities
- Minimizing tree removal
- Stabilizing disturbed area are re-establishing native vegetation communities following construction
- Installing a bridge at the SH 9 crossing of the Blue River, just south of milepost 91, with an upland bench above the high-water mark to allow for movement under the highway
- Prompt revegetation of disturbed area with native vegetation will follow construction

Proposed Action:

The majority of the habitat impacts due to the Proposed Action would be to the aspen/mixed conifer community, lodgepole pine forest, and areas dominated by grass/forbs and mountain sagebrush. In addition, the permanent conversion of habitat to impervious surface reduces the amount of habitat available for future aspen and lodgepole pine forest regeneration. Table 3 summarizes permanent and temporary impacts to vegetation communities from the Proposed Action within the study area.

Table 3. Vegetation Impacts – Proposed Action- New Roadway Alignment and Dickey Day Use Trail Improvements

Vegetation Community Type	Permanent Acre of Impact (Impervious Surface)	Temporary Impacts (Acre)*
Lodgepole Pine Forest	1.50	6.51
Aspen/Mixed Conifer	2.57	2.98
Open Canopy Lodgepole Pine with Grass/Forb	0.01	0.67
Grass/Forb with Shrub	1.97	6.13
Grass/Forb and Aspen/Mixed Conifer	0.08	1.21
Sagebrush with Grass/Forb	0.56	0.95
Total Impacted Acreage	**6.69**	**18.45**

**Temporary impacts generally occur from the short-term disturbance necessary for activities like construction access, which will include temporary widening to construct the new roadway alignment.*

The construction of the Proposed Action would increase impervious surfaces, thereby increasing runoff and exposing the surrounding vegetation to higher levels of pollutants. Soil disturbance from construction equipment would also create favorable conditions for noxious weeds to introduce and establish, or to further spread. The addition of new winter maintenance practices along the new roadway alignment (e.g., liquid deicers, traction materials) could also indirectly impact vegetation. However, under the Proposed Action 1.76 miles the existing SH 9 roadway would be reduced from a standard 36-foot cross section to a 12-foot paved path (at the existing grade) and would revert to recreational use. This new 12-foot paved recreational trail would not be maintained in the winter. It's estimated that approximately 3.0 acres of the existing SH 9 alignment will be reclaimed (impervious surface removed) and revegetated with native grasses/forbs and native trees and shrubs where appropriate.

To minimize impacts to USFS Region 2 sensitive species, CDOT proposes the following conservation measures:

- A broadcast calling survey to determine Boreal Owl presence, in potentially affected habitat, will take place in the spring (March to April) prior to construction. Survey protocol, which will be provided by the USFS, will be followed. If Boreal Owls are detected, a nest survey will be conducted. If an active nest is found, a buffer area (currently a 0.25-mile radius) will be established and no work will be allowed within that buffer between April 15 and August 31.
- For Olive-sided Flycatcher, the project area will be surveyed June 1 through July 31 prior to construction. Nest surveys will be performed and active nests avoided with a buffer area (currently a 50-foot radius) around it. Nesting periods typically last three weeks (normally July 1 to August 1).
- For Northern Goshawk, the project location area will be surveyed between May 1 and June 30 prior to construction (and annually thereafter during construction). If a nest is found, a buffer recommended by CPW (currently a 0.5-mile radius) will be established and no work will be allowed within that buffer between March 1 and September 1.Alternatively, an on-site biological monitor may be used to evaluate the construction work impacts on nesting Goshawks during the breeding season in lieu of a no-work buffer area. The biological monitor will be present to monitor the nest during construction activities that occur within a 0.5 mile radius. If

construction work near the nest results in a noticeable disturbance to the Goshawks, construction will cease in the no-work buffer area or a determined disturbance area, and will commence after the young have fledged and the nest has been abandoned.

- The removal of snags greater than 25 feet in height, with a diameter at breast height greater than 8 inches, will be minimized to the extent practicable. This will help to ensure that appropriate nest sites are available for future use.

The other aspects of the project, water quality BMPs, converting the current highway into a recreation trail, a 10'x16'wildlife crossing, and the relocation of the Dickey Day parking area will not increase the barrier effect, will not increase traffic speed or numbers, will not increase light, permanently increase noise, or increase snow compaction.

Constructing the new highway will eliminate approximately 2.57 acres of aspen/mixed conifer, 0.08 acres of grass/forb and aspen/mixed conifer, 1.97 acres of grass/forb with shrub, 1.50 acres of lodgepole pine, 0.01 acres of open canopy lodgepole pine with grass/forb and 0.56 acres of sagebrush with grass/forb habitat types. A total impact of 6.69 acres of permanent impact to vegetation is expected as a result of this project (Figure 7).

4.0 SENSITIVE SPECIES CONSIDERED AND EVALUATED

All species listed on the WRNF Sensitive Species list, which was updated in November 19, 2012, were considered for this analysis (Table 4). Species were excluded from further consideration if the proposed project area did not contain suitable habitat for the species, was outside the known elevation range of the species, or was listed as threatened, endangered, proposed or as a candidate for listing under the Endangered Species Act. Listed species are addressed in a separate document entitled "Biological Assessment for the State Highway 9 Realignment at Iron Springs" submitted to and concurred by USFWS in June 2013. The BA determined that this project may affect but is not likely to adversely affect the Canada lynx (*Lynx canadensis*). Furthermore, it was determined that this project is not likely to jeopardize the continued existence of the North American wolverine (*Gulo gulo luscus*). There will be no effect on any other listed species. Please see Appendix A for the letter of concurrence from the USFWS for these determinations.

On 7/15/2013, the WRNF Botanist, CDOT's Region 1 Ecologist, and CDOT's Wildlife Biologist from Headquarters conducted a rare plant survey of the proposed new alignment of the road to determine the presence or absence of 22 species which have the potential to occupy the action area. The results of the survey indicated that no rare or special status plants were found and none are likely to be impacted by the proposed project. Several invasive exotic plant species were noted including musk thistle (*Carduus nutans)*, Canada thistle (*Cirsium arvense)*, perennial pepperweed (*Lepidium latifolium*) and toadflax (*Linaria vulgaris).* Please see Appendix C for the survey form reflecting the results of this survey.

Rare plant surveys completed for the proposed realignment were adequate to determine that they are absent from the proposed new SH 9 Iron Springs alignment. However, to date no surveys have been completed on National Forest Lands for plant species that could occur in portions of the existing SH 9 alignment which would be disturbed under both the No Action Alternative and Proposed Action, including the Dickey Day Use Parking Lot. Rare plants surveys for this area will be conducted in the design phase of the project. If a rare plant is found, coordination with the USFS Botanist will occur to ensure that any sensitive plant populations found during field reconnaissance would not be directly or indirectly negatively impacted such that a loss of viability on the White River National Forest planning unit would be realized.

Table 4. Region 2 Sensitive Species Evaluated in this Biological Evaluation

Species Name	Habitat Description	Species known or suspected to occur in project area?	Habitat present in project area?	Surveys Conducted?	Rationale for inclusion/exclusion from analysis
MAMMALS					
American marten (*Martes americana)*	Mature dense forests of mixed Douglas fir, lodgepole and spruce. Prefers late-successional stands of mesic coniferous forest.	Yes	No	No	The mixed conifer forest in the project area is dominated by lodgepole pine and does not contain fir or spruce. Habitat associated with this species would not be impacted by the proposed action.
Fringed myotis (*Myotis thysanodes)*	Low elevation conifer, oakbrush, shrublands, caves, mines, building roosts	No	No	No	Low elevation conifer, oakbrush, shrublands, caves, and mines are not located within or near the project area and would not be impacted by the proposed action.
Hoary bat (*Lasiurus cinereus)*	Deciduous or Ponderosa pine forests up to 10,000' elevation	Yes	No	No	Ponderosa pine forests do not occur within the project area and would not be impacted by the proposed action.
Pygmy shrew (*Sorex hoyi)*	Wet conifer forests, bogs, marshes, dense stream networks-wetlands above 9,600'	Yes	No	No	Project area and impacts would not extend to 9,600' in elevation.
River otter (*Lontra canadensis)*	Marine coasts, lakes, reservoirs, rivers, any permanent water source	No	No	No	Rivers, lakes, or reservoirs are not located within or near the project area and would not be impacted by the proposed action.
Rocky Mountain bighorn sheep (*Ovis canadensis canadensis*)	Rocky outcrops, cliffs, slopes, canyons adjacent to rivers and forests	No	No	No	Rocky outcrops, cliffs, slopes, canyons are not located within or near the project area and would not be impacted by the proposed action.
Spotted bat (*Euderma maculatum)*	Caves, mines, steep canyons, rock bluffs, sagebrush/pinyon-juniper surrounded by cliffs and near a water source.	No	No	No	Caves, mines, steep canyons, rock bluffs and sagebrush/pinyon-juniper are not located within or near the project area and would not be impacted by the proposed action.
Townsend's big-eared bat (*Plecotus townsendii*)	Semidesert shrublands, pinyon-juniper, caves and abandoned mine roosts.	No	No	No	Semidesert shrublands, pinyon-juniper, caves and abandoned mine roosts are not located within or near the project area and would not be impacted by the proposed action.

Species Name	Habitat Description	Species known or suspected to occur in project area?	Habitat present in project area?	Surveys Conducted?	Rationale for inclusion/exclusion from analysis
BIRDS					
American Peregrine Falcon (*Falco peregrinus anatum*)	Open spaces associated with high cliffs, caves, and bluffs overlooking rivers, sagebrush and shrub habitats	Yes	No	No	Open spaces associated with high cliffs would not be impacted by the proposed action.
Bald Eagle (*Haliaeetus leucocephalus*)	**Roosts above rivers, lakes, reservoirs**	**Yes**	**Yes**	**No**	**Rivers, lakes, and reservoirs are located within the project area and could be impacted by the proposed action. Not excluded, discussed further in this analysis.**
Black Swift (*Cypseloides niger*)	Cliff ledges, waterfall cliffs	No	No	No	High cliffs near waterfalls are not located within or near the project area and would not be impacted by the proposed action.
Boreal Owl (*Aegolius funereus*)	**Sub-alpine spruce-fir, mixed conifer, and lodgepole pine forests.**	**Yes**	**Yes**	**No**	**Not excluded, discussed further in this analysis.**
Brewer's Sparrow (*Spizella breweri*)	Sagebrush shrublands, mountain parks; may be found in alpine willow stands.	No	No	No	Sagebrush dominated shrublands, mountain parks and alpine willow are not located within or near the project area and would not be impacted by the proposed action.
Columbian Sharp-tailed Grouse (*Tympanachus phasianellus columbianus)*	Mid elevation mountain sagebrush/grassland habitat.	No	No	No	Sagebrush/grassland habitat does not occur within or near the project area and would not be impacted by the proposed action.
Ferruginous Hawk (*Buteo regalis*)	Shrub-steppe foothills, roosts/pinyon- juniper, grasslands	No	No	No	Pinyon/juniper, grasslands and shrub-steppe foothill habitat are not located within or near the project area and would not be impacted by the proposed action.
Flammulated Owl (*Otus flammeolus*)	Old-growth ponderosa pine and Douglas-fir.	No	No	No	Old-growth ponderosa pine and Douglas-fir are not located within or near the project area and would not be impacted by the proposed action.
Lewis's Woodpecker (*Melanerpes lewis*)	Ponderosa pine with open canopy and brushy understory	No	No	No	Ponderosa pine does not occur within the project area and would not be impacted by the proposed action.

Species Name	Habitat Description	Species known or suspected to occur in project area?	Habitat present in project area?	Surveys Conducted?	Rationale for inclusion/exclusion from analysis
Loggerhead Shrike (*Lanius ludovicianus*)	Sagebrush, short grass steppe, and semi-desert shrublands	No	No	No	Sagebrush, semi-desert shrublands, and open shortgrass prairies do not occur within the project area and would not be impacted by the proposed action.
Northern Goshawk (*Accipiter gentilis*)	**Old growth mature and even-aged stands**	**Yes**	**Yes**	**No**	**Not excluded, discussed further in this analysis.**
Northern Harrier (*Circus cyaneus*)	Open wetland and upland habitats, prairies grasslands	No	No	No	Wetlands, wet and dry grasslands, and cold desert shrub-steppe does not occur within the project area and would not be impacted by the proposed action.
Olive-sided Flycatcher (*Contopus cooperi*)	**Mixed-coniferous forests, and forest edges, especially disturbed forest edges**	**Yes**	**Yes**	**No**	**Not excluded, discussed further in this analysis.**
Purple Martin (*Progne subis*)	Mature aspen forests near meadows and open water	No	No	No	Mature aspen forests near meadows and open water do not occur within the project area and would not be impacted by the proposed action.
Sage Sparrow (*Amphispiza belli)*	Sagebrush shrublands	No	No	No	Sagebrush shrublands do not occur within the project area and would not be impacted by the proposed action.
White-tailed Ptarmigan (*Lagopus leucurus*)	Alpine areas above tree line, rocky areas, snowfields	No	No	No	Alpine areas above tree line, rocky areas and snowfields do not occur within the project area and would not be impacted by the proposed action.
Insects					
Great Basin silverspot (*Speyeria nokomis Nokomis)*	Spring fed and/or subirrigated wetlands at low (7,500' or less) elevation	No	No	No	The proposed project area occurs between 9,056' to 10,440' and is outside the known elevation range for this species.

Fish

Species Name	Habitat Description	Species known or suspected to occur in project area?	Habitat present in project area?	Surveys Conducted?	Rationale for inclusion/exclusion for analysis
Bluehead sucker (*Catostomus discobolus)*	Fluvial habitats ranging from cold, clear mountain streams to warm, turbid streams	No	No	No	Streams would not be impacted by the proposed action.
Flannelmouth sucker (*Catostomus latipinnis*)	Rocky pools, runs, riffles, and backwaters of medium to large rivers	No	No	No	Medium to large rivers would not be impacted by the proposed action.
Mountain sucker (*Catostomus platyrhynchus*)	Clear, cold creeks and small to medium rivers with clear rubble, gravel or sand substrate.	No	No	No	Clear, cold creeks or small rivers would not be impacted by the proposed action.
Roundtail chub (*Gila robusta*)	Rocky runs, rapids, and pools of creeks and small to large rivers;	No	No	No	Rivers would not be impacted by the proposed action.
Colorado River Cutthroat trout (*Oncorhynchus clarkii pleuriticus*)	Requires cool, clear water and well-vegetated streambanks for cover and bank stability	Yes	No	No	Streams would not be impacted by the proposed action.

Plants

Species Name	Habitat Description	Species known or suspected to occur in project area?	Habitat present in project area?	Surveys Conducted?	Rationale for inclusion/exclusion from analysis
Siberian sea thrift (*Armeria maritima* ssp. *Sibirica*)	Alpine in grassy tundra slopes with wet, sandy or spongy organic soils. 11,900' to 9,000'.	No	No	No	Grassy tundra slopes would not be impacted by this project.
Park milkvetch (*Astragalus leptaleus)*	Riparian, streamside, swales, often among edges and willow or wet aspen. 6,000'to 9,000'.	No	No	No	Riparian areas among sedges or willow would not be impacted.

Species Name	Habitat Description	Species known or suspected to occur in project area?	Habitat present in project area?	Surveys Conducted?	Rationale for inclusion/exclusion from analysis
Triangle lobe moonwort (*Botrychium ascendens)*	**Riparian among willow and historically disturbed, now stabilized habitats. 8,000' to 10,840'.**	**Yes**	**Yes**	**Yes**	**Not excluded, discussed further in this analysis.**
Narrowleaf grapefern (*Botrychium lineare)*	**Clearings and meadows. Historically disturbed, now stabilized habitats. 0' to 11,000'.**	**Yes**	**Yes**	**Yes**	**Not excluded, discussed further in this analysis.**
Paradox moonwort (*Botrychium paradoxum)*	Clearings and meadows. Historically disturbed, now stabilized habitats. Above 10,000'.	No	No	No	Below elevational tolerances.
Smooth rockcress (*Braya glabella)*	Alpine. Calcareous soils, lakeshores, scree slopes and solifluction lobes. 11,200' to 13,200'.	No	No	No	Below elevational tolerances.
Lesser panicled sedge (*Carex diandra)*	**Fen on peat or on mossy floating logs in spring fed ponds. 6,100' to 8,800'.**	**No**	**Yes**	**Yes**	**Not excluded, discussed further in this analysis.**
Livid sedge (*Carex livida)*	**Fen on peat. Often calcareous or rich fens above 6,398'.**	**No**	**Yes**	**Yes**	**Not excluded, discussed further in this analysis.**
Lesser yellow ladies' slipper (*Cypripedium parviflorum)*	**Riparian/wetlands or transitional cottonwoods, aspen and conifers. 5,800' to 11,500'.**	**No**	**Yes**	**Yes**	**Not excluded, discussed further in this analysis.**
Clawless draba (*Draba exunguiculata*)	Alpine fell fields	No	No	No	Below elevational tolerances.
Gray's draba (*Draba grayana)*	Alpine in gravelly slopes and fell fields. 11,500' to 14,000'.	No	No	No	Below elevational tolerances.
Weber's draba *(Draba grayana)*	Splash zones among the rocks along streams and lakes and spruce forests. Above 11,000'.	No	No	No	Below elevational tolerances.

Species Name	Habitat Description	Species known or suspected to occur in project area?	Habitat present in project area?	Surveys Conducted?	Rationale for inclusion/exclusion from analysis
Roundleaf sundew (*Drosera rotundifolia)*	Fens that are poor or intermediate poor on floating mats, also in iron fens. 9,100' to 9,800'.	**No**	**Yes**	**Yes**	**Not excluded, discussed further in this analysis.**
Giant helleborine (*Epipactis gigantean)*	Seeps on sandstone cliffs and hillsides; springs especially hot springs when elevation above 8,500'.	No	No	No	Seeps on sandstone cliffs would not be impacted.
Dropleaf buckwheat (*Eriogonum exilifolium)*	**Sagebrush and barrens in open, sparsely vegetated habitats. 6,900' to 8,600'.**	**Yes**	**Yes**	**Yes**	**Not excluded, discussed further in this analysis.**
Whitebristle cottongrass (*Eriophorum altaicum* var. *neogaeum)*	**Fen when open grown or partially shaded. 9,500' to 14,000'.**	**No**	**Yes**	**Yes**	**Not excluded, discussed further in this analysis.**
Russet cottongrass (*Eriophorum chamissonis*)	**Fens where graminoids and forb dominate the vegetation. 10,400' to 12,000'.**	**No**	**Yes**	**Yes**	**Not excluded, discussed further in this analysis.**
Slender cottongrass (*Eriophorum gracile)*	**Fens on floating mats of peat. Often calcareous. 6,900' to 10,500'.**	**No**	**Yes**	**Yes**	**Not excluded, discussed further in this analysis.**
Plains rough fescue (*Festuca hallii*)	**Meadows and edges of conifer forests or dry alpine tundra. 6,800' to 11,000'.**	**Yes**	**Yes**	**Yes**	**Not excluded, discussed further in this analysis.**
Simple bog sedge *(Kobresia simpliciuscula)*	**Fen in flooded marly areas. Often with *Carex simulate* and *Triglochin* spp. 6,000' to 10,000'.**	**No**	**Yes**	**Yes**	**Not excluded, discussed further in this analysis.**
Colorado tansyaster (*Machaeranthera coloradoensis)*	**Mountain parks to dry alpine tundra, little competing vegetation. 8,500' to 12,940'.**	**Yes**	**Yes**	**Yes**	**Not excluded, discussed further in this analysis.**
Kotzebue's grass of Parnassus (*Parnassia kotzebuei)*	**Riparian subalpine and alpine wet, rocky ledges, in mossy streamlets. 10,000' to 12,000'.**	**No**	**Yes**	**Yes**	**Not excluded, discussed further in this analysis.**

Species Name	Habitat Description	Species known or suspected to occur in project area?	Habitat present in project area?	Surveys Conducted?	Rationale for inclusion/exclusion from analysis
Harrington's beardtongue (*Penstemon harringtonii)*	**Open sagebrush slopes or among pinyon-juniper. Calcareous parent material. 6,400' to 9,400'.**	**No**	**Yes**	**Yes**	**Not excluded, discussed further in this analysis.**
Porter's feathergrass (*Ptilagrostis porterii)*	**Fens on hummocks among willow. Mostly on peat soils. 9,200' to 12,000'.**	**No**	**Yes**	**Yes**	**Not excluded, discussed further in this analysis.**
Ice cold buttercup (*Ranunculus karelinii)*	Among rocks and scree on exposed summits, slopes. 12,000' to 14,000'.	No	No	No	Below elevational tolerances.
Dwarf raspberry (*Rubus arcticus* ssp. *acaulis*	**Riparian/wetland species with willow or wet Partially shaded under spruce. 8,600' to 9,700'.**	**No**	**Yes**	**Yes**	**Not excluded, discussed further in this analysis.**
Sageleaf willow (*Salix candida)*	**Fens that are calcareous, among other willows. 6,600' to 9,200'.**	**No**	**Yes**	**Yes**	**Not excluded, discussed further in this analysis.**
Autumn willow (*Salix serissima)*	**Fens that are calcareous, among other willows. 6,600' to 9,200'.**	**No**	**Yes**	**Yes**	**Not excluded, discussed further in this analysis.**
Sphagnum (*Sphagnum angustifolium)*	**Fens. High mineral content and alkaline pH. Calcareous or rich fens. 7,800' to 9,720'.**	**No**	**Yes**	**Yes**	**Not excluded, discussed further in this analysis.**
Baltic sphagnum (*Sphagnum balticum)*	**Fens that are nutrient poor; iron fens and intermediate poor fens. 9,600' and 11,483'.**	**Yes**	**Yes**	**Yes**	**Not excluded, discussed further in this analysis.**
Sun-loving meadow rue (*Thalictrum heliophilum)*	Steep talus slopes, open, hot,dry sites. Soils from Green River. Formation; light colored saline/clays. Shifting substrates, harsh sites. 6,300' to 8,800'.	No	No	No	Steep, hot, dry talus slopes would not be impacted.
Lesser bladderwort (*Utricularia minor)*	**Fens in shallow water. Open grown or partially shaded. 5,500' to 9,000'.**	**No**	**Yes**	**Yes**	**Not excluded, discussed further in this analysis.**

Species Name	Habitat Description	Species known or suspected to occur in project area?	Habitat present in project area?	Surveys Conducted?	Rationale for inclusion/exclusion from analysis
American cranberry bush (*Viburnum opulus* var. *americanum*	Riparian and riparian transition to cottonwood, river birch and hawthorn. 6,000' to 7,000'.	No	No	No	Riparian and riparian transition to cottonwood, river birch and hawthorn would not be impacted

Fifteen WRNF Sensitive species (4 avian, 11 plants) are known to occur, likely to occur, or suspected to occur on or near the proposed project area, and have been carried into the analysis section of this document.

4.1 Sensitive Species Information

Bald Eagle (*Haliaeetus leucocephalus*)

Bald Eagles live throughout North America, from Alaska to Newfoundland, and from the tip of Florida to southern California (Kingery 1998). Historically, Bald Eagles were first found nesting in Colorado in 1889, although Oregon bound settlers saw them in 1839 on the Blue River in Grand County (Marsh 1931) Because of shooting, nest disturbance, loss of nest trees and nesting habitat, plus contamination of food sources by pesticides, the Bald Eagles' population fell dramatically (Kingery 1998). In 1967 the U.S. Fish and Wildlife Service listed the eagle as endangered under the Endangered Species Preservation Act of 1966, and later under the Endangered Species Act of 1973 (Buehler 2000). Increased protection and the ban on some pesticides, DDT in particular, has allowed the Bald Eagle to come back from the brink of extinction. The recovery has been so dramatic that in 2007 the USFWS removed the eagle from the list of threatened and endangered species.

Occurrence within the Proposed Action

According to Colorado Parks and Wildlife (CPW) the project location is found within summer range and winter range for the Bald Eagle. A roost site has also been located on the east side Dillon Reservoir near Swan Mountain Road. There are no known nest sites in, or around the Project Area. The nearest known nest is found approximately 31 miles northwest of Dillon Reservoir near Kremmling, Colorado. However, because the reservoir does provide foraging opportunities throughout the year, Bald Eagles may frequent the area on occasion.

Impacts of No Action Alternative

Direct and Indirect Impacts

The No Action Alternative would not directly or indirectly affect the Bald Eagle or its habitat. Bald Eagle winter activity below Dillon Reservoir would continue uninterrupted. Cumulative adverse impacts to Bald Eagles are possible if urban development or recreation activities below Dillon Reservoir displace wintering eagles. Implementation of the No Action Alternative would have no effect on Bald Eagles because there would be no loss or disruption of Bald Eagle winter roosting or foraging activity.

Impacts of Proposed Action Alternative

Direct and Indirect Impacts

There are no known nest sites within the proposed project area and implementation is not expected to hinder the species ability to travel to and from foraging areas and/or alter courtship and nesting behaviors. There is potential for individual eagles to use the project area for foraging purposes. However, Bald Eagles are known to have relatively large ranges in which to forage (NatureServe 2013) and the proposed project area would make up a minor portion of either the summer or winter range of the eagles. The roost site found east of the project has been known to be used by individuals, but does not provide sufficient cover and is located too near to human activity to function as a communal night or winter roost. The project would not be expected to increase the human activity or disturbance near the roost which would continue to function as it historically has. Additionally, improved water quality that would result from the project may result in better

quality prey species found within the reservoir. Water quality would be expected to improve because of the following actions:

- Permanent BMPs are being incorporated into the roadway design. These include, but are not limited to, approximately four stormwater runoff/sediment capture basins, riprap check dams along vegetated swales, and adding riprap to outfalls for concentrated flows. Basins have been sized approximately to capture both Water Quality Capture Volume plus an added 20% volume for sediment accumulation from sanding operations.
- During the project design, engineers will consider other strategies to improve water quality by reducing stormwater runoff volume and velocity, enhancing infiltration, increasing length of drainage flow paths, and minimizing stream bank impacts in the drainage areas.
- CDOT has adopted strict limitations on the amount of phosphorous that is permitted to be used in liquid deicers.
- Moving the roadway away from being adjacent to Dillon Reservoir allows for the [spreading out and dilution and absorption] of phosphorous between the new alignment and Dillon Reservoir.

These mitigations are anticipated to improve water quality that reaches Dillon Reservoir, as compared to both the No-Action Alternative and even existing conditions for the two-lane highway.

Cumulative Impacts

The cumulative impacts of state, private and federal activities that would occur as a result of the project are not expected to significantly impact Bald Eagles. These activities would not restrict/impair Bald Eagles' ability to reproduce and fledge their young successfully.

Other projects occurring within the Ophir Mountain area that may add cumulatively to the effects of this species include:

- County Commons, implementation occurred on 281 acres of Forest Service land in 2004;
- Gold Hill WUI, implementation occurred on 38 acres of Forest Service land in 2008;
- Red Tail WUI, implementation occurred on 126 acres of Forest Service land in 2009;
- Frisco WUI, implementation occurred on 18 acres of Forest Service land in 2008;
- Iron Springs Salvage, implementation occurred on 141 acres of Forest Service land in 2008;
- Breckenridge Forest Health and Fuels Project, implementation to occur on 4,391 acres of Forest Service land in 2011;
- Miners Creek Road Hazard Tree, implementation occurred on 44 acres of Forest Service land;
- Peaks Trail Hazard Tree, implementation occurred on 190 acres of Forest Service land;
- Colorado Trail Hazard Tree, implementation occurred on 303 acres of Forest Service land;
- Outfitters Guides
- Peak 6 Expansion, implementation to occur on 64 acres of Forest Service land in 2011 and 2012;
- Private Treatments, implementation occurring on 17,573 acres of privately owned land from 2007 through 2011 (Personal Communication, Brett Crary, Forester, WRNF).
- USFS tree harvesting on Ophir Mountain and the surrounding area.

Determination of Effects and Rationale

The following determination is tiered to the 2002 White River National Forest – Revised Land and Resource Management Plan and Final Environmental Impact Statement (US Forest Service 2002) regarding management prescriptions, standards, guidelines, Biological Evaluation, and the determinations made at that time.

In consideration of the aforementioned potential impacts, a determination of **"may adversely impact individuals, but is not likely to result in a loss of viability on the planning area, nor cause a trend to federal listing or a loss of species viability rangewide"** is made for the Bald Eagle. This decision was based on the following:

1. The project would impact the species ability to disperse or forage in the area during construction;
2. Implementation activities would not restrict/impair Bald Eagles' ability to reproduce and fledge their young successfully;

3. The project has soil, hydrology, vegetation, silviculture and wildlife design features, and Forest Plan Standards and Guidelines that provide and maintain ecological components across the area for potential prey species in the vicinity.
4. Habitat affected by the proposed project is not primary foraging habitat for the species.
5. Foraging opportunities are abundant in the surrounding area.

Boreal Owl (*Aegolius funereus*)

Boreal Owls occur throughout boreal forests of Canada and Alaska, and subalpine forests in the Rocky Mountains (Hayward and Hayward 1993). In Colorado, they primarily occur in mature to old growth Engelmann spruce and subalpine fir forests characterized by an abundant growth of moss (Righter et al. 2004), but they may also occur higher elevation lodgepole pine and aspen (Hayward and Hayward 1993). Occupied habitat is typically interspersed with small meadows, streams, and wetlands occurring above 10,000 feet above sea level (Hayward and Verner 1994).

The Boreal Owl has a large home range; winter and summer ranges both average over 1,000 hectares (Hayward and Verner 1994). Total home range may be as large as approximately 3,400 hectares in habitats of preferred vegetation that lack optimum nesting, roosting, and foraging habitat (Hayward and Verner 1994). Boreal Owls are cavity-nesting birds that prefer to utilize abandoned woodpecker holes in large aspen and conifer trees. The distribution and abundance of suitable cavities limits populations of Boreal Owls throughout much of the Rocky Mountain region. Watersheds that do not support snags or dead-top trees large enough for a cavity (~ 13" DBH) are unlikely to provide habitat for Boreal Owls (Hayward 2008). The preferred prey species, red-backed vole, depends on moss for food and cover. Boreal Owls are also known to prey upon field voles, deer mice, shrews, flying squirrels, and pocket gophers (Hayward and Verner 1994).

The presence of large diameter snags and/or dead top trees with abandoned woodpecker holes available for nesting purposes appears to be a limiting factor for this species. Logging operations that open the forest to sunlight cause the moss to dry out and vole populations to decline; subsequently Boreal Owl populations may also decline (Righter et al. 2004). Timber harvesting activities that result in clear cutting, or a disturbance such as a blow down would lead to the most dramatic changes for the Boreal Owl (Hayward and Verner 1994).

Occurrence within the Proposed Action

Boreal Owls have an average home range size of approximately 2,900 acres; however, they are not known to defend this area (Hayward and Hayward 1993). Within the project area, suitable habitat for the species would be found in the aspen and lodgepole pine components. In total, there are approximately 2.5 acres of potential Boreal Owl habitat within the project area. The even-aged lodgepole pine stands are not characteristic of having snags and large trees with cavities that are suitable for nesting purposes. However, there is potential for these stands to be used for foraging purposes. Broadcast calling to detect Boreal Owl presence of suitable habitat types in the area has not occurred.

Impacts of No Action Alternative

Direct and Indirect Impacts

The no build alternative would have no direct impact on occupied or suitable nesting habitat for Boreal Owls. Negligible impacts to Boreal Owl foraging habitat are likely with the loss and disturbance of habitat adjacent to the existing highway. Cumulative adverse effects of Boreal Owl activity and habitat from urban development and backcountry recreation are possible. Implementation of the no action alternative would have no negative impact on Boreal Owls.

Impacts of Proposed Action Alternative

Direct and Indirect Impacts
Implementation activities would affect primarily lodgepole pine trees; therefore, the proposed project is not expected to negatively impact Boreal Owls, which do not nest in lodgepole pine trees.

Implementation would result in the reduction of the forest canopy, which would allow greater amounts of light to reach the forest floor, thereby creating a hotter, drier microclimate within the stands. This has potential to reduce the number of small mammals the owl use for prey.

There will be a decrease in the number of miles of blacktop used by motor vehicles which will mean that there will be less area for small mammals and reptiles to use for thermoregulation particularly in spring, fall and at night. While this may decrease the foraging success of the owls, it will also serve to minimize the amount of time an owl will be exposing itself to the perils of moving vehicles.

The noise associated with construction would likely occur throughout the year for several years. This may negatively affect Boreal Owls by dissuading them from foraging in the area until the construction is completed. Historic foraging behavior would be expected to return shortly after completion of the project.

The area around the existing SH 9 alignment that will not be used as a ped/bike path will be revegetated with native species including trees and shrubs. This type of vegetation will serve as habitat for small mammals and may provide for nesting habitat after several years. This will help to mitigate for the loss of some foraging habitat due to the removal of trees for the project.

Cumulative Impacts
Cumulative impacts to Boreal Owls include the ongoing MPB infestation of lodgepole pine forests, which could result in a continuing loss of mostly marginal habitat for Boreal Owls. Logging and salvaging of MPB infestation areas would likely reduce the amount of closed-canopy coniferous forests available to Boreal Owl use. However considering that these lodgepole pine forests have died from MPB it is uncertain how much Boreal Owls would use these dead lodgepole pine forests, although it can be assumed to be a lesser amount than in optimal habitats. Snowmobiling and other winter-motorized activities may have indirect impacts such as noise to roosting Boreal Owls, and compaction of snow, which would decrease availability to prey species. Development and expansion of ski areas would further degrade available habitats, and in some instances would preclude Boreal Owl use of those areas.

Other projects occurring within the Ophir Mountain area that may add cumulatively to the effects of this species include:

- County Commons, implementation occurred on 281 acres of Forest Service land in 2004;
- Gold Hill WUI, implementation occurred on 38 acres of Forest Service land in 2008;
- Red Tail WUI, implementation occurred on 126 acres of Forest Service land in 2009;
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- USFS tree harvesting on Ophir Mountain and the surrounding area.

Determination of Effects and Rationale

The following determination tiers to the 2002 White River National Forest – Revised Land and Resource Management Plan and Final Environmental Impact Statement (US Forest Service 2002) regarding management prescriptions, standards, guidelines, Biological Evaluation, and the determinations made at that time.

In consideration of the aforementioned potential impacts, a determination of **"may adversely impact individuals, but is not likely to result in a loss of viability on the planning area, nor cause a trend to federal listing or a loss of species viability rangewide"** is made for the Boreal Owl. This decision was based on the following:

1. Implementation would target lodgepole pine trees, which are considered poor quality habitat for Boreal Owls but is used occasionally for foraging;
2. The project has soil, hydrology, vegetation, silviculture and wildlife design features, and Forest Plan Standards and Guidelines that provide and maintain ecological components across the area such as minimum stand and down dead material important to multiple species.
3. There is abundant potential habitat available for the species across the Rocky Mountain Region.
4. This species prefers spruce-fir habitat which will not be impacted from this project

Northern Goshawk (*Accipiter gentilis*)

Northern Goshawks (goshawks) occupy boreal and temperate forests in North America. The species breeds from North-central Alaska to Newfoundland and south, to western and southwestern montane forests in the U.S. In Forest Service Region 2, goshawks are found year-round in Colorado, Wyoming and South Dakota and during fall and winter in Kansas and Nebraska (Kennedy 2003). Goshawks are considered habitat generalists at large spatial scales. They utilize a wide range of forest community types during breeding season but prefer mature and old growth forest for nesting and hunting.

The Northern Goshawk has an average home range size of approximately 1,400 to 8,650 acres (Squires and Reynolds 1997). Aspect and slope in nesting areas may influence microclimate and habitat selection for goshawks. In southern portions of their range, goshawk nest areas typically have northerly aspects and are located near the bottom of moderate slopes (Kennedy 2003). Patterns from previous studies indicated that goshawks select nest stands that are characterized by relatively large diameter trees and high canopy closure regardless of region or forest type. The nest tree diameter at breast height (dbh) ranges from 20-50 cm and the mean tree height is 18-23 m. Goshawks have been known to nest in at least five different tree species within Region 2: cottonwood, aspen, ponderosa, lodgepole pine, and subalpine fir (Kennedy 2003). Goshawks will also utilize dead trees and/or snags for nesting and they appear to choose nest trees based upon size and structure more than the species of tree. The species prefers mature forests with large trees, relatively closed canopies (60-90%), and open understories that provide good visibility for foraging (Kennedy 2003).

Goshawk foraging success depends upon habitat requirements of important prey species, birds and small mammals (Kennedy 2003). Goshawks are food-limited, particularly in low quality habitats. This can result in reduced fitness and reproduction, greater interspecific competition for food, and greater susceptibility to predators (Kennedy 2003). Food availability may also affect distribution and abundance of goshawks, their breeding area or home range sizes, the proportion of pairs breeding, nesting success, and productivity.

Timber harvest is the principal threat to breeding populations. Fire suppression, grazing, tree disease and insect infestation are also contributing factors to the decline of adequate nesting habitat. Canopy reduction from timber harvest can also result in replacement and competition from other raptors (Nature Serve 2010). There is some evidence that goshawks are resilient to forest fragmentation and can re-establish when cleared areas are reforested (Kennedy 2003).

Occurrence within the Proposed Action

No active goshawk nests are currently known to occur within the project footprint. The nearest known nesting habitat is located approximately 1.4 miles south of the project footprint area (see Figure 8). Over the past 10 years, several observations have been documented of the species occurring within the project area (personal communication, Ashley Nettles, Wildlife Biologist, WRNF). Many plucking posts have been found in the project area and it is likely that goshawks from this known nest use the project area for foraging purposes. WRNF biologists anticipate that there may be at least one more nest within the project area, however no others ones have been located. Through project design, all

potential nesting areas will be surveyed and, if found, will be buffered as per the recommendations of the USFS and Colorado Parks and Wildlife. Annual surveys will be conducted to search for new and alternate nests until the project is complete.

Impacts of No Action Alternative

Direct and Indirect Impacts
Potentially occupied habitat within the proposed project area would likely continue to be utilized in the short term because the standing dead trees would provide nesting and forage habitat for the goshawk (Graham et al. 1999). Due to high territory fidelity and increasing prey populations, goshawks would continue to utilize the area even though the trees were dead and the habitat quality was declining. Population trends and recruitment are not anticipated to change during this period (Skorkowsky 2009). In the mid-term (6-20 years), occupied habitat would be abandoned due to the decline in prey populations and canopy cover. In the long-term (21-80+ years) foraging habitat would improve as forests recover and prey abundance increases. Nesting habitat structure would also begin to increase in the mixed pine forests that contain aspen.

Impacts of Proposed Action Alternative

Direct and Indirect Impacts
In an effort to protect occupied and potential goshawk nest sites the following design features have been incorporated in the project design.

- The project location area will be surveyed annually prior to implementation. Surveys would occur between May 1 and June 30 during the early nesting season. If a nest is found, a buffer recommended by the CPW (standard buffer is currently 0.5 mile radius) will be established and no work will be allowed within that buffer between March 1 and September 1. If a pair of goshawks nest closer that than during active construction, construction will not stop nor will a buffer be established.

- The removal of snags greater than 25 feet in height, with a diameter at breast height greater than 8", will be kept to the maximum amount practicable. This will help to ensure that appropriate nests sites are available for future use.

Construction activities, including the use of large equipment, have potential to disturb resident goshawks for extended periods, especially if they occur during the breeding season (April through July). There is potential for the high noise level and human presence associated with implementation to startle adult goshawks and cause them to flush from the nest, which could cause high levels of stress for the adults and mortality for the young. However, potential nesting sites within the project footprint will have been cleared prior to the nesting season. This will minimize the potential for nest abandonment and mortality attributed to the construction and highway operation activities.

Goshawks prefer large contiguous forested areas and the habitat fragmentation resulting from the proposed project has potential to impact this species. The proposed action also would result in a substantial reduction of canopy cover, which would preclude goshawks from nesting in close proximity to the new alignment. However, they would still be able to utilize the area for foraging purposes as the forest would remain in its current condition over most of the study area.

Furthermore, the WRNF Forest Wildlife Biologist keeps records of all known raptor nests within the forest and works to protect these sites. As mentioned above, surveys for this species would also occur within ¼ mile of the project footprint each year prior to implementation. Any nest sites found would be buffered and all activities associated with implementation would be restricted in the area from March through July.

Cumulative Impacts
The cumulative impacts of state, private and federal activities around the project area for mitigation of MPB effects will likely have localized negative impacts on northern goshawk habitat suitability through the removal of the overstory. However, lodgepole pine stands support a relatively low density of northern goshawk. Additionally, MPB-killed lodgepole pine forests would support lower densities of some goshawk prey species, most notably red squirrel. With the death of the mature lodgepole pine stands, pinecone production would be significantly reduced, which may remove much of the red squirrels food source. Red squirrel populations may experience declines following the lack of pinecone

production in certain areas. Conversely, these MPB-killed lodgepole pine forests support an increased number of woodpeckers, which is a valuable food source for the species. However, this increase in woodpecker numbers would be short-term due to the inevitable decline in beetle numbers within these dying trees.

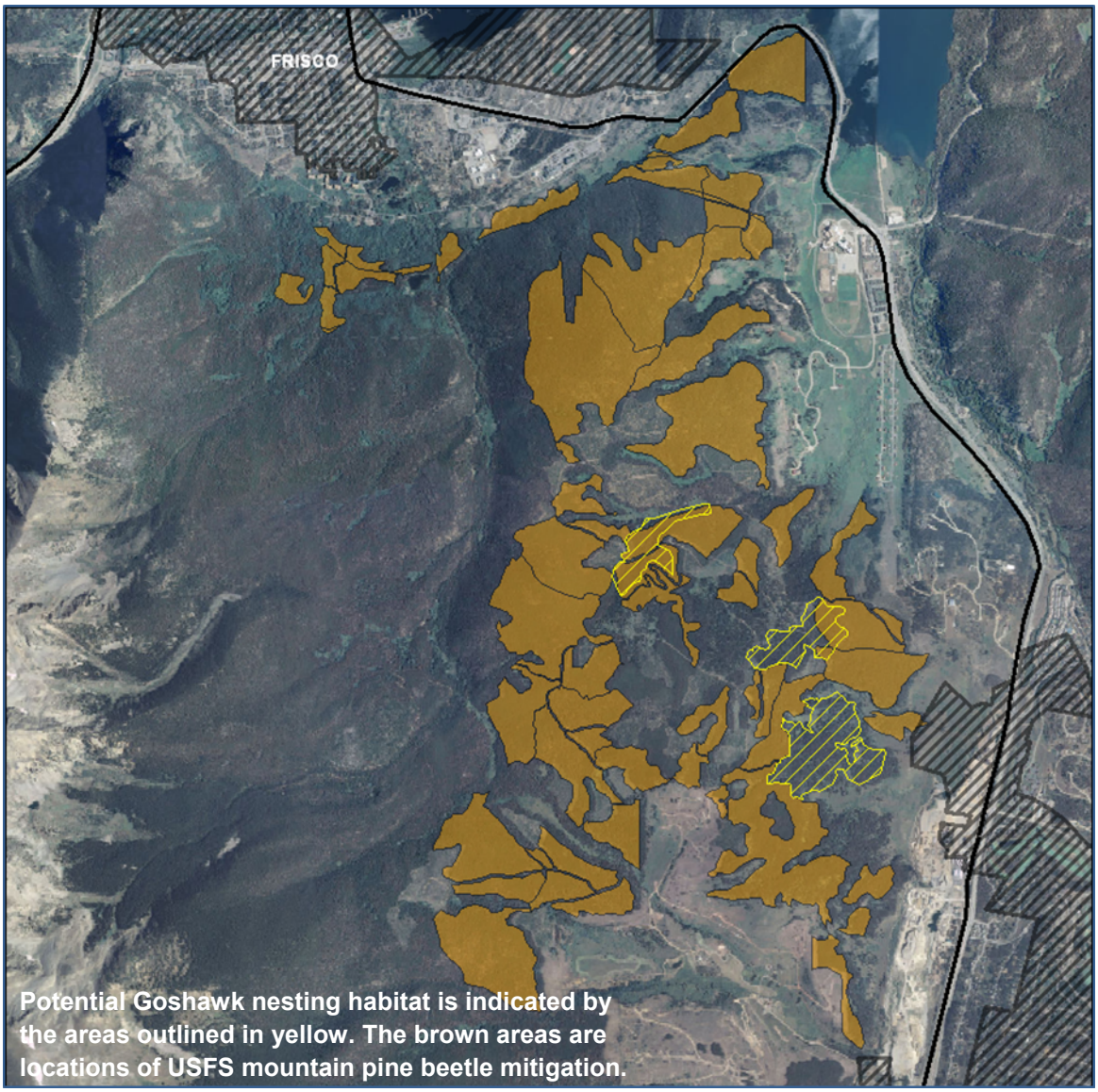

Figure 8. Potential Goshawk Nesting Sites Within and Near the Project Area

Other projects occurring within the Ophir Mountain area that may add cumulatively to the effects of this species include:

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- USFS tree harvesting on Ophir Mountain and the surrounding area.

Determination of Effects and Rationale

The following determination tiers to the 2002 White River National Forest – Revised Land and Resource Management Plan and Final Environmental Impact Statement (US Forest Service 2002) regarding management prescriptions, standards, guidelines, Biological Evaluation, and the determinations made at that time.

In consideration of the aforementioned potential impacts, a determination of **"may adversely impact individuals, but is not likely to result in a loss of viability on the planning area, nor cause a trend to federal listing or a loss of species viability rangewide"** is made for the northern goshawk. This decision was based on the following:

1. Implementation of the proposed action alternative may reduce foraging habitat in a very small area of its range.
2. There is abundant potential habitat available for the species across the Rocky Mountain Region.
3. All potential nesting habitat within and near the project area has been identified and buffered from implementation activities.
4. To enhance forage and nesting habitat, snags would be retained.
5. Surveys conducted in June, 2013 did not indicate the presence of goshawks in the area. Further surveys would be conducted annually, prior to implementation.

Olive-sided Flycatcher (*Contopus cooperi*)

Olive-sided Flycatchers breed widely across the forested portion of Canada and throughout the Rocky Mountains of the United States, including areas in north-central Colorado, and eastern Idaho and western Montana (Kotliar 2007). The species is restricted to coniferous or mixed-coniferous forests. Throughout their breeding range, they occur within subalpine, montane, and boreal forests. They may also occur along wooded shores of lakes, rivers, and bogs where forest edges, standing dead trees and where variations in tree heights are located (Kotliar 2007). This species prefers forest edges and openings caused by natural disturbances that include gaps in the forest canopy resulting from tree death in old growth forests and along edges of early successional forests. They do not usually inhabit mature forests or closed canopy forests (Kotliar 2007).

In USFS Region 2, Olive-sided Flycatchers are more commonly found at higher elevations in spruce/fir forests, but they are less frequently observed in aspen/mixed coniferous, ponderosa pine, riparian, and occasionally pinyon/juniper forests (Kotliar 2007). They are not usually observed in mature lodgepole pine stands because of the even-aged, closed canopy structure typical of these forests (Kotliar 2007).

Olive-sided Flycatcher prefers openings with dead standing trees or recent fire disturbance and blowdowns. Post fire disturbance provides forest openings, increased edge habitat, the availability of snags and an increase in aerial insects (Hutto 1995). However, a forest dominated entirely by dead trees would not support these flycatchers (Nature Serve 2010).

The territorial range for the Olive-sided Flycatchers is variable in size but is typically 10 to 26 ha in size. The spatial arrangement can be widely spaced if separated by dense forest or otherwise unsuitable habitat (Kotliar 2007). Studies show that this species is more abundant within some types of logged forest versus an unlogged forest that still contains suitable structures (i.e. Snags or dead trees).

Olive-sided Flycatchers nest in live coniferous trees but will occasionally nest in trees that have brown needles and are dead or dying. This species will utilize short-needled conifers instead of longer needled (i.e. Ponderosa pine) and deciduous trees for nesting. The Olive-sided Flycatcher will typically forage in the openings and edges of forest canopies. They will often use snags and dead topped trees as perches. Males will forage farther from the nest and at higher perches versus the females (Kotliar 2007). From their perch sites, olive-sided flycatchers mostly catch insects that are in flight but will also eat insects from leaves and the bark of trees.

The migratory route of the Olive-sided Flycatcher is through forested areas of Central America, Mexico, and western North America (Kotliar 2007). They will generally utilize a greater diversity of forest types, such as lowland and deciduous forests, than they use during the breeding season. The highest elevation for the migrants was found in Colorado, although they are generally found at lower elevations.

Necessary components of Olive-sided Flycatcher habitat include the combination of forest openings, mature forest, and the presence of snags. Harvesting practices and fire management activities resulting in even-aged and homogeneous stand conditions can adversely affect population dynamics and habitat suitability of this species (Kotliar 2007).

Occurrence within the Proposed Action

The average home range size for the Olive-sided Flycatcher is approximately 25 to 65 acres (Kotliar 2007). Riparian habitats with adjacent spruce/fir trees and dead snags provide the best habitat for this species. Such habitat is not present in the project footprint.

Impacts of No Action Alternative

Direct and Indirect Impacts

Potential impacts to Olive-sided Flycatchers for the No Action Alternative would include increasing the highway's zone of influence and a loss of habitat. The zone of influence (the area in which Olive-sided Flycatchers potentially would be affected by various disturbances including noise and visual effects) extends beyond the edge of the road, and varies with topography, vegetation type and human activity and development. A wider road would result in a slightly expanded zone of influence. The direct loss of wetland habitat for this alternative would reduce foraging opportunities.

This alternative is located within a transportation corridor heavily influenced by surrounding development and existing traffic. Minimal potential cover or suitable foraging habitat would be affected by this alternative. Cumulative adverse effects to Olive-sided Flycatchers are possible from urban development in riparian and forest habitats. Implementation of the No-Action Alternative may adversely impact individuals, but is not likely to result in a loss of viability of the area, nor cause a trend to federal listing or a loss of species viability rangewide.

Impacts of Proposed Action Alternative

Direct and Indirect Impacts

Short- and long-term impacts associated with this alternative are expected to be similar to those listed for the No Action Alternative. However, implementation of this alternative also has potential to directly impact individual birds by felling and/or damaging occupied nest trees. There is also potential for the high noise level and human presence associate with implementation to preclude nesting and foraging activities within and near the proposed project area. Adults and

fledglings could easily avoid direct impacts but nestlings would likely be killed if the nest tree were felled during the nesting season, which is a relatively short period.

Spruce-fir forests and mixed-conifer forests within the proposed project area would still be available for flycatcher use. Additionally there are several wet areas near the proposed project area and as mentioned above, construction activities would not be allowed within these areas.

Additionally, implementation may also be beneficial to this species by creating edge habitat and it would not result in a complete loss of habitat because the species is known to thrive in areas of disturbance.

Cumulative Impacts

Cumulative impacts are expected to be similar to those listed for the No Action Alternative. In addition, management activities affecting coniferous forest habitats in the area include salvage harvest projects associated with beetle killed trees, fuels reduction projects, and ski area vegetation treatments. The MPB outbreak will kill many large trees in the area, producing many suitable roosting snags; as mortality to spruce and fir trees from MPB would not occur, nesting habitats should remain intact.

Other projects occurring within the Ophir Mountain area that may add cumulatively to the effects of this species include:

- County Commons, implementation occurred on 281 acres of Forest Service land in 2004;
- Gold Hill WUI, implementation occurred on 38 acres of Forest Service land in 2008;
- Red Tail WUI, implementation occurred on 126 acres of Forest Service land in 2009;
- Frisco WUI, implementation occurred on 18 acres of Forest Service land in 2008;
- Iron Springs Salvage, implementation occurred on 141 acres of Forest Service land in 2008;
- Breckenridge Forest Health and Fuels Project, implementation to occur on 4,391 acres of Forest Service land in 2011;
- Miners Creek Road Hazard Tree, implementation occurred on 44 acres of Forest Service land;
- Peaks Trail Hazard Tree, implementation occurred on 190 acres of Forest Service land;
- Colorado Trail Hazard Tree, implementation occurred on 303 acres of Forest Service land;
- Outfitters Guides
- Peak 6 Expansion, implementation to occur on 64 acres of Forest Service land in 2011 and 2012;
- Private Treatments, implementation occurring on 17,573 acres of privately owned land from 2007 through 2011 (Personal Communication, Brett Crary, Forester, WRNF).
- USFS tree harvesting on Ophir Mountain and the surrounding area.

Determination of Effects and Rationale

The following determination tiers to the 2002 White River National Forest – Revised Land and Resource Management Plan and Final Environmental Impact Statement (US Forest Service 2002) regarding management prescriptions, standards, guidelines, Biological Evaluation, and the determinations made at that time.

In consideration of the aforementioned potential impacts, a determination of **"may adversely impact individuals, but is not likely to result in a loss of viability on the planning area, nor cause a trend to federal listing or a loss of species viability rangewide"** is made for the Olive-sided Flycatcher. This decision was based on the following:

1. There is limited available habitat for this species within the project area.
2. Effects from the proposed action alternative are similar to those of Alternative 1.
3. Implementation of the proposed action alternative may reduce nesting and foraging habitat over the short- and intermediate-term.
4. There is abundant potential habitat available for the species across the Rocky Mountain Region.

Trianglelobe moonwort **(*Botrychium ascendens*)**

A small, perennial fern with a single aboveground frond. The frond is usually about 10 cm tall, yellow-green, and divided into two segments which share a common stalk. The mostly sterile segment is once pinnatifid with up to six pairs of strongly ascending, narrowly triangular pinnae which have deeply lacerate margins. The sterile segment often has a few sporangia on the margins of the pinnae or on small branches. The fertile segment is longer than the sterile segment, is branched, and bears grape-like sporangia. Spores germinate underground and develop into minute, subterranean, non-photosynthetic gametophytes which depend on an endophytic fungus for nourishment (Natureserve, 2013).

Within USFS Region 2, *Botrychium ascendens* is found within short and tall riparian willow communities with significant moss, gravel, and cobble groundcover on volcanic or granitic alluvium at 8000 to 9000 ft (2400 to 2700 m) in elevation (Wyoming Natural Diversity Database 2003 in Beattey 2012). In Shoshone National Forest, *B. ascendens* plants were found about 1 to 2 ft (0.3 to 0.6 m) above and adjacent to a braided channel (Wyoming Natural Diversity Database 2003 in Beattey 2012). The groundcover here is mainly comprised of mosses, cobbles, and gravel, while the canopy at these sites is 3 to 6 feet (0.6 to 1.2 m) tall, dominated by *Salix* spp. (e.g., *S. wolfii, S. boothii, S. geyeriana*) communities.

Many authors have noted that several species of *Botrychium*, including *B. ascendens*, *B. crenulatum*, and *B. lineare*, occur in open habitats and microsites with evidence of slight to moderate disturbances. For example, Williston (2001 in Beattey 2012) reported that several *Botrychium* species in Canada, including *B. ascendens*, appear to be successful colonizers of disturbed habitat, such as the edges of trails or old roads and in abandoned fields. Kolb and Spribille (2001 in Beattey 2012) noted that moonworts in Summit County, Colorado were always found in non-forested and disturbed habitats, like ski runs at ski resorts, overgrown roadbeds and logging landings, and areas that had burned in the past 100 years but the canopy had not yet grown closed. Root (1999 in Beatty 2012) also found several *Botrychium* species at a highly disturbed site with cut pines, evidence of fire, and old pits in coarse, decomposed granite. The moonworts were growing in small pockets of soils around the cut logs and stumps.

An unverified occurrence is reported on the Aspen RD at Maroon peak (Elliott 2009). None are documented in the action area and none were found during the field reconnaissance (CNHP 2010, Davidson et al. 2009, Kirkpatrick 2010). It may also occur near the Copper Mountain Ski Area (Pers Com to Popovich 2010 in Biological Assessment / Biological Evaluation for the North Thompson/Four Mile and Coal Basin Cattle and Horse Grazing Allotment Permit Renewal. Proctor. 2011). The rarity of the species makes it vulnerable to extirpation due to random events and stochasticity. However, due to the small size of the plants and its scattered habitat availability, this species may be more abundant than presently known. Because the nearest documented occurrence to the action area is on Aspen/Sopris Ranger District there is a moderate likelihood that this species would be present in the action area.

However, surveys conducted in July, 2013 did not reveal the presence *B. ascendens*. According to John Proctor, the Forest Botanist for the White River National Forest, no threatened, endangered or sensitive plants were found and none are likely to be affected by the proposed project. Mr. Proctor further states that no mitigation or design changes are needed (email communication from John Proctor to Jeff Peterson, August 21, 2013).

No effects to this species would be expected. Impacts to this species would be similar for either alternative.

Narrowleaf moonwort **(*Botrychium lineare*)**

Narrowleaf Moonwort is a small, perennial fern with a single pale green, above-ground frond which stands 2.5 – 7" tall. The frond is divided into two segments, one sterile, one fertile, which share a common stalk. The sterile segment is once-pinnate (with segments, or pinnae borne on each side of an elongated central axis) with 4-6 widely spaced pairs of pinnae which are linear shaped or sometimes bifid with linear lobes. The fertile segment is 1-2 times as long as the sterile segment and has a single major axis with short branches which bear grape-like sporangia which contain thousands of spores. Spores germinate underground and develop into minute, subterranean, non-photosynthetic gametophytes (Natureserve, 2013).

Wagner and Wagner (1994) stated that it is difficult to describe a typical habitat for this species because the known sites are so different. It has been found mostly at higher elevations (about 4920-9850') in mountains, but specific habitats have ranged from a meadow dominated by knee-high grass, shaded woods and woodlands, grassy horizontal ledges on a

north-facing limestone cliff, and a flat upland section of a river valley. Possibly a colonizer of disturbed, early seral habitats (USFWS 2003).

While CNHP (2010) does not record it, *Botrychium lineare* was observed on the WRNF planning unit under a powerline near Copper Mountain by Don Farrar (Proctor pers com to Rick Thompson in Biological Assessment / Biological Evaluation for the North Thompson/Four Mile and Coal Basin Cattle and Horse Grazing Allotment Permit Renewal. Proctor. 2011). None are documented in the action area and none were found during the field reconnaissance (CNHP 2010, Davidson et al. 2009, Kirkpatrick 2010). It was also observed on the WRNF by Kathy Roche (Proctor pers com to Kathy Roche 2005 in Biological Assessment / Biological Evaluation for the North Thompson/Four Mile and Coal Basin Cattle and Horse Grazing Allotment Permit Renewal. Proctor. 2011). This species was dropped by USFWS in December 2007 from further consideration as a Candidate species for listing as Threatened under the Endangered Species Act. Review of recent information indicates there is an increase in the number of known locations of *Botrychium lineare* and the geographic range is much larger than was previously understood (Federal Register 2007). Population sites are generally small in area and number of individuals, making the species difficult to locate and survey for, or detect in plant surveys.

However, surveys conducted in July, 2013 did not reveal the presence *B. lineare*. According to John Proctor, the Forest Botanist for the White River National Forest, no threatened, endangered or sensitive plants were found and none are likely to be affected by the proposed project. Mr. Proctor further states that no mitigation or design changes are needed (email communication from John Proctor to Jeff Peterson, August 21, 2013).
No effects to this species would be expected. Impacts to this species would be similar for either alternative.

Lesser panicled sedge (Carex diandra)

Carex diandra is a perennial, tussock-forming sedge. Culms are typically 30 to 90 cm tall, sharply triangular in cross-section, strongly roughened on the angles, aphyllopodic, and equaling or exceeding the leaves. Narrow leaves measuring 1 to 3 mm in width and 14 to 30 cm in length are largely borne on the lower one-third of the culm. Membranous leaf sheaths extending 0.4 to 4 mm beyond the leaf blade are truncate or convex at the mouth and typically speckled with red dots or streaks on their ventral surface (Gage and Cooper, 2006b)

Livid sedge (*Carex livida*)

Livid Sedge occurs in small clumps arising from long, slender rhizomes, and has flowering stems up to 8" tall. Leaves are clustered on the lower third of the stem and have a thin pale-bluish waxy coating; they are 0.05 - 0.1" wide with long, pointed tips. The inflorescence consists of 2-3, or sometimes 4, loosely clustered spikes. The narrow terminal spike is 0.3 – 1.2" long and either is composed entirely of male flowers or has several fruits borne at the top. The lower spikes are composed entirely of female flowers and are borne on short stalks; the uppermost leaf (bract) just below the lowest spike usually exceeds the uppermost spike. Scales that make up the spikes are light or dark brown in color with a green midvein. The perigynia are 0.08 – 0.2" long, pale green and glabrous, and elliptic or ovate in outline with a short beak at the tip; the enclosed seed is triangular in cross-section (NatureServe, 2013).

General habitats described for *Carex livida* have included fens, peat bogs, calcareous floating mats, swampy woods, and Carex-dominated marls (Hurd et al. 1998, Ball and Reznicek 2004 in Gage and Cooper 2006b). Less commonly, *C. livida* has been described from wetlands with mineral substrates (Hulten 1968, Gleason and Cronquist 1991, Whipple personal communication 2005 in Gage and Cooper 2006). Across its range, it is most commonly found in peatlands, particularly fens with moderate to high pH and Ca2+ concentrations (Kubiw et al. 1989, Glaser 1992 in Gage and Cooper 2012)).

The most common habitats described in Colorado and Wyoming are montane and subalpine fens, including those formed in depressions such as small kettle basins or at the toes of mountain slopes or alluvial fans. The environments conducive to fen formation are generally restricted to higher elevations (Windell et al. 1986 in Gage and Cooper 2012) where cooler and wetter climatic and hydrologic conditions prevail; as a consequence, all of the *Carex livida* occurrences are found at elevations over 1,950 m (6,400 ft.).

While potential habitat occurs on the WRNF and populations are known to occur to the north and south there are currently no documented occurrences on the planning unit (CNHP 2010). Livid sedge ranges from Alaska, Canada, the Pacific

Northwest, Wyoming and Colorado in the west to the upper Midwestern and northeastern states. Although it is widespread in North America, "the distribution of *Carex livida* is very scattered; it is uncommon to rare over much of its range..." (Gage and Cooper 2006). Like many of our rare species, it reaches its southern Rocky Mountain distribution in Colorado. In Colorado, it has been found in Boulder, Grand, Jackson and Larimer counties. Similar to other species with this distribution pattern, it is ranked secure globally but critically imperiled in Colorado where it is ranked S1 by the Colorado Natural Heritage Program (CNHP 2010).

Surveys conducted in July, 2013 did not reveal the presence *B. livida*. According to John Proctor, the Forest Botanist for the White River National Forest, no threatened, endangered or sensitive plants were found and none are likely to be affected by the proposed project. Mr. Proctor further states that no mitigation or design changes are needed (email communication from John Proctor to Jeff Peterson, August 21, 2013).

No effects to this species would be expected. Impacts to this species would be similar for either alternative.

Roundleaf sundew (*Drosera rotundifolia*)

The leaves of the common sundew are arranged in a basal rosette. The narrow, hairy, 0.5 – 2" long petioles support 0.15 - 0.4" long laminae. The upper surface of the lamina is densely covered with red glandular hairs that secrete a sticky mucilage (Wikipedia, 2013).

A typical plant has a diameter of around 1.2 - 2" with a 2 – 10" tall inflorescence. The flowers grow on one side of a single slender, hairless stalk that emanates from the center of the leaf rosette. White or pink in color, the five-petalled flowers produce 0.04 – 0.06" light brown, slender, tapered seeds (Wikipedia, 2013).

In the winter, *D. rotundifolia* produces a hibernaculum to survive the cold conditions. This consists of a bud of tightly curled leaves at ground level (Wikipedia, 2013).

The plant feeds on insects, which are attracted to its bright red color and its glistening drops of mucilage, loaded with a sugary substance, covering its leaves. It has evolved this carnivorous behavior in response to its habitat, which is usually poor in nutrients or is so acidic, nutrient availability is severely decreased. The plant uses enzymes to dissolve the insects – which become stuck to the glandular tentacles – and extract ammonia (from proteins) and other nutrients from their bodies. The ammonia replaces the nitrogen that other plants absorb from the soil (Wikipedia , 2013).

Drosera rotundifolia is an obligate wetland species that requires continuously moist or saturated soils and is found in sites with shallow water table depths (Reed 1988 in Wolf 2006). The roots cannot tolerate desiccation, and the rooting zone (<6 cm below ground surface) must remain moist to saturated. *Drosera rotundifolia* can withstand ground frost with its leaves uncurled, and this occurs often within its boreal distribution (Crowder et al. 1990 in Wolf 2006). Throughout its range, *D. rotundifolia* is typically found in nutrient poor peatlands including ombrotrophic (rain-fed) bogs, poor fens, and along the margins of acidic ponds (Juniper et al. 1989, Crowder et al. 1990, Schnell 2002 in Wolf 2006). Although typically occurring in acidic environments, the species is also known from intermediate-rich and extreme-rich fens, which have circumneutral to slightly basic pH, and occasionally from wetlands with mineral, as opposed to organic, substrates (Szumigalski and Bayley 1997 in Wolf 2006). The plant prefers full sun but can survive in some shade. Shaded individuals growing within Sphagnum moss mats do not form rosettes but have long axes (Crowder et al. 1990 in Wolf 2006).

It is biologically and geographically likely that this species occurs on the planning unit. However, there are currently no documented occurrences of *Drosera rotundifolia* on the WRNF (CNHP 2010). *Drosera rotundifolia* has a circumboreal distribution and is widespread and abundant in many regions (Wolf et al 2006). Globally it is not threatened with extinction in the foreseeable future and is ranked as G5, apparently secure. However, the occurrences located within USDA Forest Service Region 2 are geographically isolated and may represent genetically distinct occurrences. The species is ranked S2, imperiled, in the state of Colorado.

Surveys conducted in July, 2013 did not reveal the presence *D. rotundifolia.* According to John Proctor, the Forest Botanist for the White River National Forest, no threatened, endangered or sensitive plants were found and none are likely to be affected by the proposed project. Mr. Proctor further states that no mitigation or design changes are needed (email communication from John Proctor to Jeff Peterson, August 21, 2013).

No effects to this species would be expected. Impacts to this species would be similar for either alternative.

Slender cottongrass ***(Eriophorum gracile)***

Slender Cottongrass is a grass-like perennial with single erect stems that are 8-23" high and which arise from slender rhizomes. The long basal and stem leaves are only 0.04 – 0.08" and deeply channeled or triangular in cross-section except near the stem. The uppermost leaf has a blade that is shorter than the sheathing portion surrounding the stem. Flowers are borne in 2-5, stalked, head-like spikelets arising from the stem tips and subtended by a single green, leaf-like bract that is shorter than the inflorescence. The spikelet stalks are covered with dense, short, soft hairs. Each flower consists of numerous long, shining, white bristles at the base of the ovary and a lance-shaped, greenish black or brown scale with a slender midrib that ends well below the tip. The light brown seeds are 0.08 – 0.16" long and 3-5 times as long as wide. The mature bristles are about 0.8" long (Natureserve, 2013)**.**

Globally, *Eriophorum gracile* is found in cool temperate, alpine, and arctic regions, in alpine and subalpine wetlands with peaty soils and poor drainage that are supported by groundwater discharge or snowmelt (Ball and Wujek 2002 in Decker 2006). In Region 2, *E. gracile* is typically found in fens and subalpine wet meadows with saturated soils, where vegetation is dominated by graminoids and forbs (Dorn 1992, Ball and Wujek 2002 in Decker 2006). These habitats are often described as bogs or marshes in the original source material. Elevations of occurrences range from about 7,000 to 11,140 feet, in Colorado, from 7,700 to 8,900 feet

No occurrences are currently documented in the action area. While CNHP (2010) does not record it, *Eriophorum gracile* was observed on the planning unit on the Dillon RD by Nancy Redner (Proctor pers com to Liz Roberts 2009 in Biological Assessment / Biological Evaluation for the North Thompson/Four Mile and Coal Basin Cattle and Horse Grazing Allotment Permit Renewal. Proctor. 2011). Slender cottongrass is circumboreal south to Pennsylvania, Iowa, Idaho, central California and Colorado, (Decker et al 2006b). According to Decker et al. (2006b), there are 36 reported locations in Region 2, eight of which are believed to be extirpated. The species is found in the mountainous areas of Wyoming and Colorado as well as the Sandhills of north-central Nebraska and southern South Dakota.

Surveys conducted in July, 2013 did not reveal the presence *E. gracile*. According to John Proctor, the Forest Botanist for the White River National Forest, no threatened, endangered or sensitive plants were found and none are likely to be affected by the proposed project. Mr. Proctor further states that no mitigation or design changes are needed (email communication from John Proctor to Jeff Peterson, August 21, 2013).

No effects to this species would be expected. Impacts to this species would be similar for either alternative.

Hall fescue ***(Festuca hallii)***

The hall fescue is a monocot, perennial plant with tufted bunchgrass with creeping rhizomes, 11 – 20" tall. The leaf blades gray-green and folded, spikelets seldom exceeding glumes in length. It is often found in meadows and the edges of conifer forests from 6800 – 11000' in elevation (Natureserve, 2013).

In Region 2, *Festuca hallii* grows in habitats that vary considerably in elevation and in associated biota. Handley and Laursen (2002 in Anderson 2006) report *F. hallii* in Wyoming from interrupted habitats in montane meadows and in edges between open meadows and *Pinus contorta-Picea engelmannii* forests, and in tundra. Tweit and Houston (1980 in Anderson 2006) documented *F. hallii* on gentle slopes (0 to 15 percent) on the Shoshone National Forest. Jones and Fertig (1999 in Anderson 2006) noted the species affinity for meadows, slopes, and open woods in Wyoming. In Colorado, a description of the Cordova Pass occurrence (Weber et al. 1979 in Anderson 2006) reads, "It occurs sparsely on a grassy saddle along the trail from the pass toward West Spanish Peak. The saddle is dominated by *Trifolium attenuatum* and *F. arizonica*, various species of *Carex* and subalpine perennials and appears to have had a history of overgrazing and recovery. The few large bunches of *F. scabrella* are best developed in deep loose soils churned up by gophers."

Populations of Hall fescue in Colorado are likely remnants of a colder climate 10,000 years or more ago (Anderson 2006). It is hypothesized that as climates warmed vegetation zones moved north then relic populations were retained in patches of suitable habitat. There are currently no documented occurrences of Hall fescue on the WRNF (CNHP 2010, Davidson et al. 2009, Kirkpatrick 2010). The nearest documented occurrences to the action area are on Cameron Pass near the Routt National Forest and on the San Isabelle National Forest. Assuming it were present within the action area, *Festuca hallii*, populations would be small and localized as they are elsewhere in Colorado. The small population sizes and rarity of

Festuca hallii and its discontinuous distribution make it vulnerable to extirpation due to stochasticity and random events (Anderson 2006). Occurrences in Region 2 are especially at risk where heavy grazing of high elevation grasslands occurs.

Surveys conducted in July, 2013 did not reveal the presence *F. hallii*. According to John Proctor, the Forest Botanist for the White River National Forest, no threatened, endangered or sensitive plants were found and none are likely to be affected by the proposed project. Mr. Proctor further states that no mitigation or design changes are needed (email communication from John Proctor to Jeff Peterson, August 21, 2013).

No effects to this species would be expected. Impacts to this species would be similar for either alternative.

Simple kobresia (*Kobresia simpliciuscula)*

Simple Kobresia is a sedge-like plant that forms small bunches with triangular stems up to 6" tall. The leaves, which are confined to near the base of the plant, are flat or rolled and ca. 1 mm wide. Dried sheaths and blades persist at the base of the plant. The 3-12 small spikes are borne in a loosely congested inflorescence at the top of the stem. Each spike is 0.2 – 0.6 long, is subtended by a small, brown, papery bract, and consists of a few flowers; male flowers with anthers are located above female flowers. Each female flower is composed of a small bract and a scale that is loosely wrapped around the ovary (Natureserve, 2013).

In USFS Region 2, *Kobresia simpliciuscula* grows in mesic to wet tundra, in shallow wetlands of glacial cirques, and in rich or extreme rich fens. In all habitats, *K. simpliciuscula* is found in wetter situations than the related *K. myosuroides*, especially along rivulets below snow banks, in cirque basins where snowmelt collects, and on hummocks in calcareous fens. Non-fen occurrences are also often associated with calcareous substrates such as gravels derived from limestone. The Wyoming occurrence is at an elevation of 6,000 to 6,600 feet. In Colorado, fen occurrences in South Park range from 8,970 to 10,040 feet while cirque and tundra occurrences range from 10,760 to 12,800 feet. (Decker 2006a)

No occurrences of this species are currently documented in the action area (CNHP 2010). One occurrence is documented on WRNF on the Dillon RD near Vail Pass (Proctor pers com to Cooper 2010 in Biological Assessment / Biological Evaluation for the North Thompson/Four Mile and Coal Basin Cattle and Horse Grazing Allotment Permit Renewal. Proctor. 2011). Although this species has a circumpolar distribution, it is described as uncommon to rare throughout its distribution (Decker et al 2006a). In Region 2, *Kobresia simpliciuscula* is one of a suite of relictual arctic-alpine species that remained in the Central and Southern Rocky Mountains following the retreat of glaciers at the end of the Pleistocene Epoch, approximately 12,000 to 15,000 years ago. Occurrences in Region 2 are most vulnerable to changes in the environment that affect their wet alpine and fen habitats. Any management activities that maintain an appropriate hydrologic regime for these habitats will benefit *Kobresia simpliciuscula*. Because we know very little about this species' response to disturbance, it is difficult to assess the severity of threats. In approximate order of decreasing priority, primary threats to *K. simpliciuscula* are hydrologic alterations, peat mining, grazing, and global climate change.

Surveys conducted in July, 2013 did not reveal the presence *K. simpliciuscula*. According to John Proctor, the Forest Botanist for the White River National Forest, no threatened, endangered or sensitive plants were found and none are likely to be affected by the proposed project. Mr. Proctor further states that no mitigation or design changes are needed (email communication from John Proctor to Jeff Peterson, August 21, 2013).

No effects to this species would be expected. Impacts to this species would be similar for either alternative.

Colorado tansyaster (*Machaeranthera coloradoensis)*

A perennial herb that forms leafy tufts, about 1.5" – 4" high. Leaves are coarsely-toothed, spoon-shaped to linear, 0.4 – 1.5" long, and densely hairy. Large, showy flower heads are borne singly on short stalks (not very high above the leaves). The flower heads have rose-colored or purple rays surrounding a yellow disk. Blooms June-September. If grows on Gravelly places or rock outcrops, often on sandstone or limestone, in dry mountain tundra at about 8530' in elevation (Natureserve, 2013).

Machaeranthera coloradoensis macrohabitats range from plains/park grassland, to dry grassland communities within ponderosa pine (*Pinus ponderosa*) or bristlecone pine (*Pinus aristata*) areas, to pinyon/juniper (*Pinus/Juniperus*) woodlands, to alpine fellfields and meadows (Chumley 1998, Johnston 2001, G. Austin personal communication 2002, University of Colorado Herbarium 2003, Colorado Natural Heritage Program 2003, Rocky Mountain Herbarium 2003 in

Beattey 2004). Within these areas, this species grows on slopes, bluffs, ridges, flats, or roadsides on sedimentary and calcareous substrates (e.g., limestone, dolomite, shale), volcanic substrates (e.g., volcanic ash), or granitic substrates (Hartman 1976, Johnston 2001, Colorado Natural Heritage Program 2003, Rocky Mountain Herbarium 2003 in Beattey 2004). This species is consistently found in areas with open exposure, but the slope, aspect, and moisture vary from site to site. *Machaeranthera coloradoensis* is found from flat areas up to 35 percent slopes, on slopes of all aspects, and in both dry and mesic areas.

Based on qualitative estimates by botanists, many occurrences are in open settings with no or scattered trees, up to 5 percent cover by shrubs, 5 to 55 percent cover by grasses, 25 percent cover by forbs, 5 to 70 percent cover by bare ground, 0 to 1 percent cover by mosses/lichen, and 10 to 70 percent cover by gravel (G. Austin personal communication 2002, Colorado Natural Heritage Program 2003 in Beattey 2004)). Macrohabitats range from plains/park grassland, to dry grassland communities within ponderosa pine (*Pinus ponderosa*) or bristlecone pine (*Pinus aristata*) areas, to pinyon/juniper (*Pinus/Juniperus*) woodlands, to alpine fellfields and meadows (Chumley 1998, Johnston 2001, G. Austin personal communication 2002, University of Colorado Herbarium 2003, Colorado Natural Heritage Program 2003, Rocky Mountain Herbarium 2003in Beattey 2004). Within these areas, this species grows on slopes, bluffs, ridges, flats, or roadsides on sedimentary and calcareous substrates (e.g., limestone, dolomite, shale), volcanic substrates (e.g., volcanic ash), or granitic substrates (Hartman 1976, Johnston 2001, Colorado Natural Heritage Program 2003, Rocky Mountain Herbarium 2003 in Beatty 2004). This species is consistently found in areas with open exposure, but the slope, aspect, and moisture vary from site to site. *Machaeranthera coloradoensis* is found from flat areas up to 35 percent slopes, on slopes of all aspects, and in both dry and mesic areas.

Based on qualitative estimates by botanists, many occurrences are in open settings with no or scattered trees, up to 5 percent cover by shrubs, 5 to 55 percent cover by grasses, 25 percent cover by forbs, 5 to 70 percent cover by bare ground, 0 to 1 percent cover by mosses/lichen, and 10 to 70 percent cover by gravel (G. Austin personal communication 2002, Colorado Natural Heritage Program 2003in Beatty 2004).

Colorado tansyaster is a regional endemic of southeastern Wyoming and central Colorado (Beatty et al. 2004). None are documented in the action area. (Davidson et al. 2009, Kirkpatrick 2010). One occurrence is documented on the WRNF above treeline on the Aspen/Sopris RD (CNHP 2010). It can also occur in mountain parks below treeline (down to 8,500 feet in elevation.). *Machaeranthera coloradoensis* is vulnerable because of its restricted geographic range and small number of documented occurrences (Beatty et al. 2004). As a whole, habitats of *Machaeranthera coloradoensis* do not appear to be at immediate risk or severely threatened by consequences of current land management. Beatty et al. (2004) cites Johnston who noted that habitats of this species appear to be stable in size and quality, and be fairly resilient to grazing and some trampling

Surveys conducted in July, 2013 did not reveal the presence *M coloradoensis*. According to John Proctor, the Forest Botanist for the White River National Forest, no threatened, endangered or sensitive plants were found and none are likely to be affected by the proposed project. Mr. Proctor further states that no mitigation or design changes are needed (email communication from John Proctor to Jeff Peterson, August 21, 2013).

No effects to this species would be expected. Impacts to this species would be similar for either alternative.

Dwarf raspberry ***(Rubus arcticus* ssp. *acaulis)***

Rubus arcticus ssp. *acaulis* is a diminutive, unarmed, rhizomatous, herbaceous perennial that is "almost stemless" (Porsild 1951). *R. arcticus* ssp. *acaulis* has short (up to 4 inches) and sometimes to 5.9 inches, upright flowering branches that lack prickles or bristles. The branches have two or three leaves and a solitary terminal flower on slender, finely pubescent peduncles. The flower has five pale-pink to deep rose-colored petals that are up to 0.8 inches long and are obviously narrowed towards the base. The sepals are lance-shaped and are up to 0.4 inches long. The calyx tube is hairless and glandless, and the calyx lobes are long-tapered and reflexed. The leaves are alternate, deciduous, and typically trifoliate but sometimes 5-foliate. The upper surface of the leaves is hairless and a dull green color whereas the underside is paler with minutely hairy margins. The terminal leaflet is stalked while the lateral pair are nearly sessile, asymmetrical, and often bear a partially developed lobe. The leaflet margins are serrate with blunt forward-pointing teeth. The fruit is an edible red raspberry (aggregate of drupelets) about 0.4" in diameter (Ladyman, 2006).

In USFS Region 2, *Rubus arcticus ssp. acaulis* grows in the montane and sub-alpine, at elevations between approximately 7,000 and 9,720 feet. Vegetation types associated with *R. arcticus ssp. acaulis* include *Salix planifolia/Carex* [rostrata] *utriculata* (plainleaf willow/beaked sedge), and *Picea engelmannii/Linnaea borealis* (Engelmann spruce/twinberry). In Colorado, R. *arcticus ssp. acaulis* grows in the upper montane willow zone (Weber 1960 in Ladyman 2006). This taxon has been reported to grow in boggy woods, marshes, mountain meadows, and alpine tundra (Fertig 2000a in Ladyman 2006). There does not appear to be documented occurrences above the treeline in USFS Region 2. In addition, although collection sites have been described as "boggy," the term might have been applied loosely when the collection site was actually a fen. Most, if not all, peatlands in the Colorado Rocky Mountains are fens (Cooper 1996 in Ladyman 2006).

While CNHP (2010) does not record it, *Rubus arcticus* var. *acaulis* has been observed in or near a fen on the on the Blanco RD at Oyster lake RD by Peggy Lions (Proctor pers com to Peggy Lions 2009 in Biological Assessment / Biological Evaluation for the North Thompson/Four Mile and Coal Basin Cattle and Horse Grazing Allotment Permit Renewal. Proctor. 2011). None are documented in the action area (CNHP 2010, Davidson et al. 2009, Kirkpatrick 2010). Populations in R2 most likely represent relic colonies that were left stranded as temperatures rose relatively rapidly at the end of the most recent glacial event (Ladyman 2006). Because the species primarily forms vegetative clones by means of rhizomes colonies may actually consist of only one or a few genetically distinct individuals. In Region 2 dwarf raspberry occurs in small and disjunct populations, leaving them vulnerable to stochastic events.

Surveys conducted in July, 2013 did not reveal the presence *R.. acticus acauliss*. According to John Proctor, the Forest Botanist for the White River National Forest, no threatened, endangered or sensitive plants were found and none are likely to be affected by the proposed project. Mr. Proctor further states that no mitigation or design changes are needed (email communication from John Proctor to Jeff Peterson, August 21, 2013).

No effects to this species would be expected. Impacts to this species would be similar for either alternative.

Peat moss ***(Sphagnum angustifolium)***

Plants small and often slender and soft, lax to compact, moderately stiff-stemmed; green to pale yellow to golden brown to brown; capitulum strongly convex in drier grown forms to strongly 5-radiate and flat in wetter growing forms. Stems pale green to pale brown, often with pinkish red patches, cortex undifferentiated. Stem leaves equilateral to isosceles-triangular, small, less than 0.3", mostly appressed to stem, apex acute to obtuse, hyaline cells efibrillose and nonseptate. Branches straight to slightly curved, usually 5-ranked; leaves not much longer at distal end than proximal end. Branch fascicles with 2 spreading and 2-3 pendent branches. Branch stems with cortex enlarged with conspicuous retort cells, often pinkish red at proximal end. Branch leaves narrowly ovate-lanceolate, 0.3 - .6" mm, straight, moderately undulate and recurved in larger and/or wetter grown forms, not undulate and slightly recurved in compact forms from drier sites; margins entire; hyaline cells on convex surface with 1(2-3) pore per cell at apical end of cell, on concave surface with round wall thinnings in cell ends and angles; chlorophyllous cells triangular in transverse section and just enclosed on concave surface. Sexual condition dioicous. Spores 21-25 µm; coarsely papillose on proximal and distal surfaces; proximal laesura more than 0.5 spore radius (eflores.org, 2013).

Wide range of habitats, from ombrotrophic to rich fens, open mires, sedge fens and muskeg.. Can form carpets,, floating mats, low hummocks and hummock sides; low to high elevations up to 15,500' (zipcodezoo.com)

This species is common across the continental boreal area, where it forms loose lawns in poor fens and bogs but is only known from fewer than a dozen locations in R2 (Kratz 2007). It is biologically and geographically likely that this species occurs on the WRNF, however there are currently no documented occurrences on the planning unit. Occurrences of *Spagnum angustifolium* in Region 2 are generally small and isolated from each other in habitat patches that are comparatively rare on the landscape including iron fens in Grand Mesa-Uncompagre NF and from intermediate poor fens in the Park Range on the Routt NF (Proctor pers com to Gay Austin 2009 in Biological Assessment / Biological Evaluation for the North Thompson/Four Mile and Coal Basin Cattle and Horse Grazing Allotment Permit Renewal. Proctor. 2011).

Surveys conducted in July, 2013 did not reveal the presence *S. angustifolium*. According to John Proctor, the Forest Botanist for the White River National Forest, no threatened, endangered or sensitive plants were found and none are likely

to be affected by the proposed project. Mr. Proctor further states that no mitigation or design changes are needed (email communication from John Proctor to Jeff Peterson, August 21, 2013).

No effects to this species would be expected. Impacts to this species would be similar for either alternative.

Lesser bladderwort *(Utricularia minor)*

Utricularia minor is a small, perennial, yellow-flowered, aquatic bladderwort that grows affixed to substrate. It has fine, smooth, thread-like stolons (stems) that have leaf and bladder segments alternating along them. The stolons grow to 12" long but are generally less than .1"wide. Portions of stolons in *U. minor* are buried and anchor the plant to substrate while the remainder of the plant floats suspended in the water column. Buried portions are colorless and have a greater number of bladders than the green stolon segments floating within the water column. They are dichotomously branched in such a way as to appear palmately divided with 7 to 22 leaflets. The end segments are moderately flattened, but this is only most readily apparent under some magnification. Lateral setulae (small bristles) are absent, and apical setulae are microscopic. *Utricularia minor* exhibits leaf dimorphism; leaves buried in substrate differ in appearance from aquatic leaves in that they are reduced to one or two elongate leaflets. Bladders of U. minor are stalked, oval-shaped, and 0.03 to .1 long. The mouth of the bladder is opposite the stalk that attaches the bladder to the plant. It has two, long, branched appendages (antennae) that curl backward over it. Additionally, the mouth is sparsely adorned with simple hairs (bristles). The two pairs of arms comprising the quadrifids in *U. minor* are unequal in length. The arms of the longer pair are almost parallel. The shorter pair of arms forms an obtuse angle and is reflexed, bending back toward the longer pair. Flowers of *U. minor* are borne on a single, narrow stem (or scape) that emerges from the water surface. The entire stem can be .7 – 8" long but only 0.1 - 0.25" thick. Two to four scales are equally spaced along the length of the scape below the terminal raceme of two to six flowers. Each has two sepals, 0.1 – 0.15" long, with the top one being wider than the bottom. The lower lip of the corolla is larger and longer than the upper one. The upper lip is roughly egg-shaped and wider near the base than at the tip, and it has an acute, slightly notched tip. The lower lip is broad and oval-shaped with the sides curving downward over a spur-like petal, which is not as well-developed as in other *Utricularia* species. Utricularia minor has two stamens borne on the petals. Pollen grains are spindle-shaped (i.e., longer than wide) and have 11 to 18 elongate but rounded longitudinal colporate (compound) furrows, with inner apertures arranged perpendicularly to the outer aperture. Stigmas are long, with two unequal lobes. The lower lobe is oval-shaped with a reflexed tip and a fringe of hairs, and the upper lobe is smaller and triangular in shape. The ovary is superior, with two fused carpels and a single locule. Fruit is a small (0.01 – 0.015") round capsule. Seeds are numerous and small (<1 mm in length and width), polygonal at the base, and rounded on top (Neid, 2006).

In USFS Region 2, *Utricularia minor* is generally associated with two different types of wetland systems. It is associated with montane fen ecological systems (Rondeau 2001in Neid 2006) and in small localized seeps at higher elevations in Colorado and Wyoming, whereas it is associated with freshwater marsh systems at lower elevations and in the Plains states. These systems correspond to the Rocky Mountain Subalpine-Montane Fen and North American Arid West Emergent Marsh ecological systems of NatureServe (2003 in Neid 2006), respectively. Montane fen and freshwater marsh systems are "small patch" systems. Small patch systems are local in scale, usually have distinct boundaries, require specific environmental conditions, and are strongly linked to and dependent upon the landscape around them (Anderson et al. 1999 in Neid 206). Both of these habitat types have distinct hydrologic regimes dictated by their surrounding landscape and underlying bedrock.

Lesser bladderwort is found in Alaska, Canada, across the northern U.S., and south to California along the Pacific Coast and to Colorado in the Rocky Mountains. Neid (2006) lists its Colorado distribution as Boulder, Delta, Jackson, La Plata, Larimer, Montezuma, and Park counties. The species is ranked G5 by NatureServe but the Colorado Natural Heritage Program ranks the species S2, meaning that it is considered imperiled in Colorado. The plant is often overlooked, partially due to the difficulty of collecting and identifying the species, and little is known about its Colorado distribution. After the July 15, 2013 surveys, The WRNF Botanist surveyed the "iron fen" and discovered a population of *U. minor.* This is the first recorded instance of this plant on the forest (email communication from John Proctor to Jeff Peterson, Jan. 24, 2014). The map below (Figure 9) indicates the location of the "iron fen" where the population was found. Based upon the location of the fen and the proposed action, it appears to be well outside of the are of influence of the proposed action. Therefore, no effects to this species would be expected. Impacts to this species would be similar for either alternative.

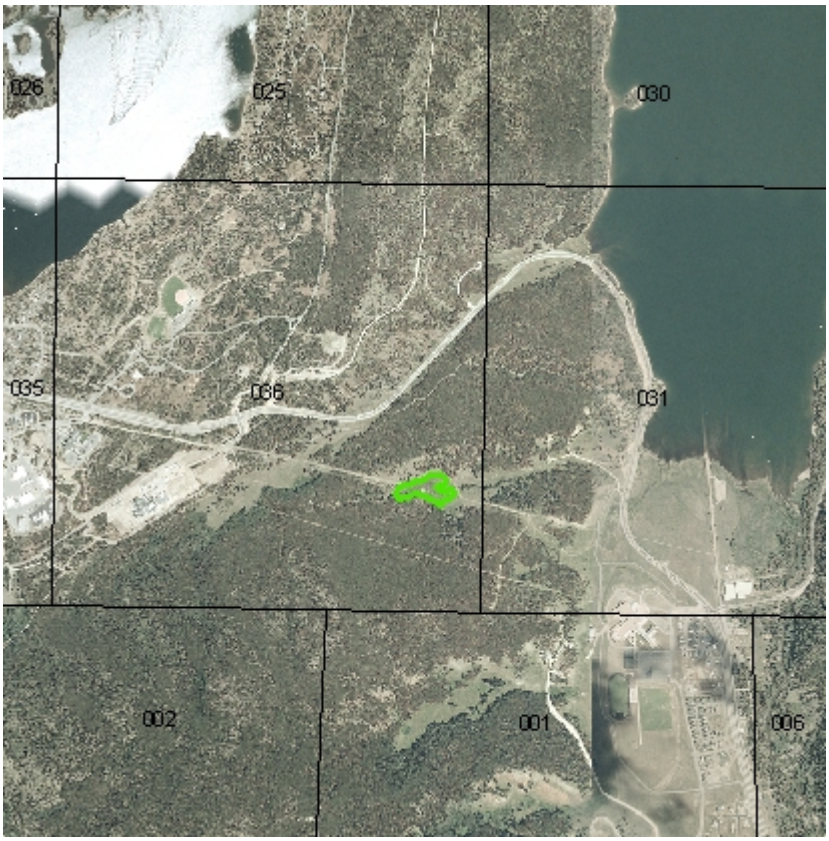

Figure 9. Location of the "Iron Fen" in Relation to the Project Area

4.2 Determination Summary

Table 5 is a summary of determinations under the proposed action alternative for Sensitive species considered in this analysis.

Table 5. Determination Summary for R2 Sensitive Species Within and Near the Proposed Project Area

Common Name	Scientific Name	Status	Determination
Birds			
Bald Eagle	*Haliaeetus leucocephalus*	**Sensitive**	**MAII**
Boreal Owl	*Aegolius funereus*	**Sensitive**	**MAII**
Northern Goshawk	*Accipiter gentiles*	**Sensitive**	**MAII**
Olive-sided Flycatcher	*Contopus cooperi*	**Sensitive**	**MAII**
Plants			
Trianglelobe moonwort	*Botrychium ascendes*	**Sensitive**	**No impact**
Narrowleaf moonwort	*Botrychium lineare*	**Sensitive**	**No impact**
Livid sedge	*Carx livida*	**Sensitive**	**No impact**
Roundleaf sundew	*Drosera rotundifolia*	**Sensitive**	**No impact**
Slender cottongrass	*Eriophorum gracile*	**Sensitive**	**No impact**
Hall fescue	*Festuca hallii*	**Sensitive**	**No impact**
Simple kobresia	*Kobresia simpliciuscula*	**Sensitive**	**No impact**
Colorado tansyaster	*Machaeranthera coloradoensis*	**Sensitive**	**No impact**
Dwarf raspberry	*Rubus arcticus* ssp *acaulis*	**Sensitive**	**No impact**
Peat moss	*Sphagnum angustifolium*	**Sensitive**	**No impact**
Lesser bladderwort	*Utricularia minor*	**Sensitive**	**No impact**

*MAII – "may adversely impact individuals, but not likely to result in a loss of viability on the planning area, nor cause a trend to federal listing or a loss of species viability range-wide."

5.0 MIGRATORY BIRDS

In order to comply with the Migratory Bird Treaty Act (MBTA), all vegetation, tree and shrub removal, shall take place outside the nesting season for migratory birds (April 1 to August 31). Work which cannot be conducted outside this season shall require inspection by a qualified Wildlife Biologist a maximum of three days prior to vegetation removal activities. Any identified active nests shall require a 50 foot buffer around the nest until after August 31 or as directed by the Project Engineer. At no time shall completed or occupied nests be removed during the nesting season. Prior to April 1, inactive nest removal and other necessary exclusionary or hazing measures (e.g. tree removal, nest building discouraging devices) may be incorporated into the work to prevent nests from becoming active. The above measures are not applicable to any identified raptor nests (currently active or inactive); such nests will require consultation with the CPW, and construction would comply with the CPW (formerly CDOW, Colorado Division of Wildlife) Raptor Buffer Guidelines (CDOW 2008). CDOT's Standard Specification 240 will be adhered to. Spec 240 can be found in Appendix B.

6.0 RESPONSIBILITY FOR A REVISED BIOLOGICAL EVALUATION

This Biological Evaluation was prepared based on presently available information. If the action is modified in a manner that causes impacts not considered, or if new information becomes available that reveals that the action may impact USFS sensitive species in a manner or to an extent not previously considered, a new or revised Biological Evaluation would be required.

7.0 LITERATURE CITED

Anderson, G.D. (2006, November 15). Festuca hallii (Vasey) Piper (Hall's fescue): a technical conservation assessment. [Online]. USDA Forest Service, Rocky Mountain Region. Available: http://www.fs.fed.us/r2/projects/scp/assessments/festucahallii.pdf . Accessed 3/18/2013.

Aubry, K.B., K.S. McKelvey, and J.P. Copeland. 2007. Distribution and broadscale habitat relations of the wolverine in the contiguous United States. Journal of Wildlife Management 71:2147–2158.

Banci, V. 1994. Wolverine Chapter 5 pages 99-127. In Ruggiero, L.F., K.B. Aubry, S.W. Buskirk, L.J. Lyon and W.J. Ziellinski (tech eds.), The Scientific basis for conserving forest carnivores: American marten, fisher, lynx and wolverine in the Western United States. General Technical Report RM-254. USDA Forest Service, Rocky Mountain Forest and Range Experiment Station. Fort Collins, CO 184 pp.

Beatty, B.L., W.F. Jennings, and R.C. Rawlinson (2003, November 12). Botrychium ascendens W.H. Wagner (trianglelobe moonwort), B. crenulatum W.H. Wagner (scalloped moonwort), and B. lineare W.H. Wagner (narrowleaf grapefern): a technical conservation assessment. [Online]. USDA Forest Service, Rocky Mountain Region. Available: http://www.fs.fed.us/r2/projects/scp/assessments/botrychiums.pdf . accessed 3/18/2013.

Beatty, B.L., W.F. Jennings, and R.C. Rawlinson (2004, January 30). Machaeranthera coloradoensis (Gray) Osterhout (Colorado tansyaster): a technical conservation assessment. [Online]. USDA Forest Service, Rocky Mountain Region. Available: http://www.fs.fed.us/r2/projects/scp/assessments/machaerantheracoloradoensis.pdf [date of access].

Beauvais, G.P. and J. McCumber. (2006, November 30). Pygmy Shrew (*Sorex hoyi*): a technical conservation assessment. USDA Forest Service, Rocky Mountain Region. Web published: http://www.fs.fed.us/r2/projects/scp/assessments/pygmyshrew.pdf

Buehler, D.A.. 2000. Bald Eagle (*Haliaeetus leucephalus)*. *In* the Birds of North America, No. 506 (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, PA.

Buskirk, S.W. and L.L. McDonald. 1989. Analysis of variability in home-range size of the American marten. Journal of Wildlife Management 53:997-1004.

Buskirk, S.W. and R.A. Powell. 1994. Habitat ecology of fishers and American martens. Pages 283-296 in Buskirk, S.W., A.S. Harestad, M.G. Raphael, and R.A. Powell eds. Martens, sables, and fishers: biology and conservation. Cornell University Press, Ithaca, N.Y.

Buskirk, S.W. and L.F. Ruggiero. 1994. American Marten Chapter 2 pages 7-37 In: Ruggiero, LF., K.B. Aubry, S.W. Buskirk, L.J. Lyon and W.J. Ziellinski (tech eds.). The Scientific basis for conserving forest carnivores: American marten, fisher, lynx and wolverine in the Western United States. General Technical Report RM-254. USDA Forest Service, Rocky Mountain Forest and Range Experiment Station. Fort Collins, CO 184 pp.

Colorado Department of Transportation (CDOT) and Federal Highway Administration (FHWA). 2004. State Highway 9 Frisco to Breckenridge Record of Decision. May.

CDOW. 2011. Colorado Listing of Endangered and Threatened Wildlife Species and Species of Special Concern - Internet website. http://wildlife.state.co.us/WildlifeSpecies/SpeciesOfConcern/ThreatenedEndangeredList/ListOfThreatenedAndEndangeredSpecies.htm?Print=true Colorado.pdf (Accessed: March 7, 2011).

Colorado Department of Wildlife. 2010. [online]. http://wildlife.state.co.us

Colorado Division of Wildlife (CDOW). 2008. Recommended Buffer Zones and Seasonal Restrictions for Colorado Raptors. Klute, David-Bird Conservation Coordinator. Unpublished

Colorado Natural Heritage Project (CNHP) Database. Accessed 2010. Fort Collins, CO.

Copeland, J.P., J.M. Peek, C.R. Groves, W.E. Melquist, K.S. McKelvey, G.W. McDaniel, C.D. Long, and C.E. Harris. 2007. Seasonal habitat associations of the wolverine in central Idaho. Journal of Wildlife Management 71:2201–2212.

Craig, G.R. and J.H. Enderson. 2004. Peregrine Falcon Biology and Management in Colorado. Technical Publication No. 43. Colorado Division of Wildlife.

Davidson, B., B. Kuhn and J. Proctor. 2009. Survey documentation for TES and Plant Species of Local Concern for the North Thompson/Four Mile – Coal Basin Grazing Analysis Area. White River National Forest. On file at Supervisor's Office, Glenwood Springs, CO.

Decker, K., D.R. Culver, and D.G. Anderson. (2006, February 6). *Eriophorum gracile* W.D.J. Koch (slender cottongrass): a technical conservation assessment. [Online]. USDA Forest Service, Rocky Mountain Region. Available: http://www.fs.fed.us/r2/projects/scp/assessments/eriophorumgracile.pdf. Accessed 3/18/2013

Decker, K., D.R. Culver, and D.G. Anderson. (2006a, March 22). *Kobresia simpliciuscula* (Wahlenberg) Mackenzie (simple bog sedge): a technical conservation assessment. [Online]. USDA Forest Service, Rocky Mountain Region. Available: http://www.fs.fed.us/r2/projects/scp/assessments/kobresiasimpliciuscula.pdf [date of access].

Defenders of Wildlife. 2010. http://www.defenders.org/wildlife_and_habitat/wildlife/peregrine_falcon.php

Elliott, B. 2009. Rare plant for survey report for Colorado Fourteener's Initiative, Maroon Peak and North Maroon Peak trail re-routes. Elliott Environmental Consulting. Unpublished report on file at White River National Forest, Supervisor Office. Glenwood Springs, CO. 1-10-2009.

Enderson, J.H . and G.R. Craig.1 988. Population turnover in Colorado Peregrines. Pages 685-688 in T.J. Cade, J.H Enderson, C.G. Thelander, and C.M. White [eds.], Peregrine Falcon populations: their management and recovery. The Peregrine Fund, Boise, ID U.S.A.

Federal Register: December 6, 2007 (Volume 72, Number 234- Page 69033-69106 Online via GPO Access [wais.access.gpo.gov] [DOCID: fr06de07-20].

Fitzgerald, J.P., C.A. Meaney, D.M. Armstrong. 1994. Mammals of Colorado. Denver Museum of Natural History. University Press of Colorado. 467 pages.

Gage, E. and D.J. Cooper. (2006a, June 2). Carex diandra (Schrank) Lesser Panicled Sedge: a technical conservation assessment. [Online]. USDA Forest Service, Rocky Mountain Region. Available: http://www.fs.fed.us/r2/projects/scp/assessments/carexdiandra.pdf. Accessed 2/6/2014.

Gage, E. and D.J. Cooper. (2006b, June 21). *Carex livida* (Wahlenberg) Willdenow (livid sedge): a technical conservation assessment. [Online]. USDA Forest Service, Rocky Mountain Region. Available: http://www.fs.fed.us/r2/projects/scp/assessments/carexlivida.pdf. Accessed 3/18/2013.

Giezentanner, K. (2008, September 22). Response of Olive-Sided Flycatcher to Epidemic Mountain Pine Beetle-CausedMortality Under a No-Action Alternative. USDA Forest Service, Rocky Mountain Region, Lakewood, CO. 10pp.

Graham, R.T., R.L. Rodriquez, K.M. Paulin, R.L. Player, A.P. Heap, and R. Williams. 1999. The Northern Goshawk in Utah: Habitat Assessment and Management Recommendations. USDA Forest Service, Rocky Mountain Research Station, General Technical Report RMRS-GTR-22, February 1999.

Hall, E.R. 1981. The Mammals of North America. John Wiley, New York.

Hayward, G.D. (2008, September 22). Response of Boreal Owl to epidemic Mountain Pine Beetle-Caused Mortality under a No-Action Alternative. USDA Forest Service, Rocky Mountain Region, Lakewood, CO. 9 pp

Hayward, G.D., and P. Hayward. 1993. Boreal Owl. in A. Poole, P. Stettenheim, F. Gill, editors. The birds of North America. Academy of Natural Science, Philadelphia; American Ornithologists'' Union, Washington, DC, USA.

Hayward, G.D. and J. Verner. (eds.) 1994. Flammulated, boreal, and great gray owls in the United States: A technical conservation assessment. Gen. Tech. Rep. RM-253. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Forest and Range Experiment Station. 214pp.

Hutto, R.L. 1995. Composition of bird communities following stand-replacement fires in northern Rocky Mountain forests. Conservation Biology 9:1041-1058.

Kennedy, P.L. (2003, January 2). Northern Goshawk (*Accipiter gentiles atricapillus*): A technical conservation assessment. [Online]. USDA Forest Service, Rocky Mountain Region. Web Published: http://www.fs.fed.us/r2/projects/scp/assessments/northerngoshawk.pdf

Kingerly, Hugh, 1998. Colorado Breeding Bird Atlas. Colorado Bird Atlas Partnership with the Colorado Division of Wildlife. Denver, CO.

Kirkpatrick, M. 2010. Preliminary results from 1 of 2 field seasons of a floristic inventory of the White River National Forest. Floristic graduate student from University of Wyoming.

Kotliar, N.B. (2007, February 20). Olive-sided Flycatcher (*Contopus cooperi*): A technical conservation assessment. USDA Forest Service, Rocky Mountain Region. Web Published: http://www.fs.fed.us/r2/projects/scp/assessments/olivesidedflycatcher.pdf

Kozlowski, S. (2009, April 3). Response of American Marten to Epidemic Mountain Pine Beetle-Caused Mortality Under A No-Action Alternative. USDA Forest Service, Medicine Bow-Routt National Forest, Laramie WY. 10pp.

Kratz, A. 2007. R2 Individual Species Recommendation for Sphagnum angustifolium. Region 2 Botanist for the USDA Forest Service. Lakewood, CO. Unpublished document on file at the White River National Forest Supervisor's Office.

Ladyman, J.A.R. (2006, October 18). Rubus arcticus L. ssp. acaulis (Michaux) Focke (dwarf raspberry): A technical conservation assessment. [Online]. USDA Forest Service, Rocky Mountain Region. Available: http://www.fs.fed.us/r2/projects/scp/assessments/rubusarcticussspacaulis.pdf. Accessed 3/18/2013.

Marsh, T.G. 1931. A history of the first records of all the birds reported to have been seen within the present boundaries of the state of Colorado prior to settlement. Master's Thesis, Univ. of Denver.

Mitchell, R.G. and H.K. Preisler, 1998. Fall rate of lodgepole pine killed by the Mountain Pine Beetle in Central Oregon. Western Journal of Applied Forestry 13(1): 23-26.

NatureServe. 2010. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. http://www.natureserve.org/explorer.

Natural Resources Council Service and Wildlife Habitat Council. 1999. American Elk (Cervus elaphus). Fish and Wildlife Habitat Management Leaflet. [accessed online]. ftp://ftp-fc.sc.egov.usda.gov/WHMI/WEB/pdf/amerELK.pdf

Neid, S.L. (2006, May 15). Utricularia minor L. (lesser bladderwort): a technical conservation assessment. [Online]. USDA Forest Service, Rocky Mountain Region. Available: http://www.fs.fed.us/r2/projects/scp/assessments/utricularia minor.pdf . Accessed 3/18/213).

Page, W.G.; M.J. Jenkins; E.G. Hebertson. 2006. "Mountain Pine Beetle Lodgepole Pine Fuel Complexes." <http://fhm.fs.fed.us/posters/posters06/mountain_pinebeetle.pdf>

Petterson, E.S. 2010. Wildlife and Aquatic Resource Reports. Breckenridge Forest Health and Fuels Mitigation Project. Dillon Ranger District, White River National Forest.

Porsild, A.E. 1951. Botany of southeastern Yukon adjacent to the Canol Road. Natural Museums of Canada Bulletin 121:1-400.

Proctor, J. 2011. Biological Assessment / Biological Evaluation for the North Thompson/Four Mile and Coal Basin Cattle and Horse Grazing Allotment Permit Renewal. USFS. White River National Forest.

Righter, R., R. Levad, C. Dexter, and K. Potter. 2004. Birds of Western Colorado Plateau and Mesa Country. Grand Valley Audubon Society, Grand Junction, Colorado.

Rocky Mountain Bird Observatory. 2000. [accessed online]. http://www.rmbo.org/pif/bcp/phy62/cliff/prfa.htm

Ruggiero, Leonard F.; Keith B. Aubry; Steven W. Buskirk; L. Jack Lyon; William J. Zielinski. 1994. tech. eds. The scientific basis for conserving forest carnivores: American marten, fisher, lynx, and wolverine in the western United States. Gen. Tech. Rep. RM-254. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Forest and Range Experiment Station. p. 99-127

Samman, Safiya; Jesse Logan, tech. eds. 2000. Assessment and response to bark beetle outbreaks in the Rocky Mountain area. Report to Congress from Forest Health Protection, Washington Office, Forest Service, U.S. Department of Agriculture. Gen. Tech. Rep. RMRS-GTR-62. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 46 p.

Siemers, J.L. 2009. Pygmy Shrew (Sorex hoyi) survey on the White River National Forest. Colorado Natural Heritage Program, Colorado State University. 19pp.

Skorkowsky, R.C. (2009, April 13). Response of Northern Goshawk Under a No-Action Alternative to Tree Mortality Resulting from a Mountain Pine Beetle Epidemic. USDA Forest Service, Medicine–Bow Routt National Forest, Steamboat Springs, CO.

Spackman, et. al., 1993, Colorado Rare Plant Field Guide. Prepared for the BLM, the USFS, and the USFWS by the Colorado Natural Heritage Program.

Squires, J.R. and R.T. Reynolds. 1997. Northern goshawk (Accipiter gentilis). In: Poole, A. and F. Gill (eds.), The birds of North America, No. 298. The Academy of Natural Sciences, Philadelphia, PA, and American Ornithologists' Union, Washington, DC, USA

Stone, T. 2007. Species Fact Sheet, California Wolverine. Umpqua National Forest, Roseburg Oregon. Date Completed: 26 September 2007

U.S. Fish and Wildlife Service. 2006. Post-Delisting Monitoring Results for the American Peregrine Falcon (Falco peregrinus anatum), 2003 Federal register October 13 2006 (Vol 71, number 198) page 60563

U.S. Fish and Wildlife Service. 2003. Draft candidate assessment and listing priority assignment form for Botrychium lineare. USFWS.

U.S. Forest Service. 2009. http://www.fs.fed.us/biology/resources/pubs/mou_moa.html.

U.S. Forest Service. 2006. Final Environmental Assessment, Management Indicator Species (MIS) Forest Plan Amendment 03/06, to the 2002 Land and Resource Management Plan- 2002 Amendment for the White River National Forest. White River National Forest, Glenwood Springs, CO.

U.S. Forest Service. 2004. Final Environmental Impact Statement: Upper Blue Stewardship Project. Dillon Ranger District, White River National Forest, Summit County, CO.

U.S. Forest Service. 2002. Record of Decision for the White River National Forest Land and Resource Management Plan 2002 Revision. Glenwood Springs, CO.

Wagner, W.H. and F.S. Wagner. 1994. Another Widely Disjunct, Rare and Local North American Moonwort (*Ophioglossacea*e: *Botrychium* subg. *Botrychium*). American Fern Journal 84(1): 5-10.

Wildlife Conservation Society 2009, 2300 Southern Boulevard, New York, NY 10460. Website: http://www.wcs.org/

Wolf, E., E. Gage, and D.J. Cooper. (2006, June 29). Drosera rotundifolia L. (roundleaf sundew): A technical conservation assessment. [Online]. USDA Forest Service, Rocky Mountain Region. Available: http://www.fs.fed.us/r2/projects/scp/assessments/droserarotundifolia.pdf . Accessed 3/18/2013.

Appendix A. USFWS Concurrence Letter

United States Department of the Interior

FISH AND WILDLIFE SERVICE
COLORADO FIELD OFFICE/LAKEWOOD
P.O. BOX 25486, DENVER FEDERAL CENTER
DENVER, COLORADO 80225-0486

IN REPLY REFER TO:
ES/CO: CDOT
TAILS: 06E24000-2013-I-0571

JUN 17 2013

John M. Cater
Division Administrator
Federal Highway Administration
12300 West Dakota Avenue, Suite 180
Lakewood, Colorado 80228

Dear Mr. Cater:

Based on the authority conferred to the U.S. Fish and Wildlife Service (Service) by the Endangered Species Act of 1973 (ESA), as amended (16 U.S.C. 1531 *et seq.*), the Service reviewed your June 4, 2013, report regarding realigning a 1.3-mile section of State Highway 9 (SH9) between mileposts 95 and 93, south of Frisco, Summit County, Colorado. The proposed project occurs within potential habitat for the threatened Canada lynx (*Lynx canadensis*), and the candidate North American wolverine (*Gulo gulo*).

The new alignment will be four lanes wide and located farther inland from Dillon Reservoir than the existing alignment; it would shorten SH9 by approximately 0.4 mile. The proposed project also includes realigning a portion of the existing Frisco to Breckenridge shared use path. The path would be moved to the alignment currently occupied by SH9, and it would, therefore, be 0.4 miles longer, but at a gentler grade than the current alignment. Additional elements of the project include constructing an underpass at each end of the project. These underpasses would be designed primarily for recreationists, but would be available for use by wildlife. They will not be lit at night. A 10 x 16-foot arched wildlife crossing will also be installed under the new alignment. Native trees and shrubs will be planted at the portals of each of the crossings to provide cover for wildlife. The new road alignment is expected to result in an increase in safety, improved water quality, and reduced maintenance.

Reconstruction of SH9 from Frisco to Breckenridge was analyzed in a Final Environmental Impact Statement completed in 2004. In that document, the 0.3-mile section being analyzed here would have stayed on the existing alignment, and would have required concrete barriers on both shoulders and 600 yards of retaining walls up to 15 feet high. Consultation in 2002 on reconstruction of SH9 from Frisco to Breckenridge concluded with a concurrence with your "may affect, not likely to adversely affect" determination.

TAKE PRIDE® IN AMERICA

Construction on the realignment could start as soon as 2015, and could require approximately two years for completion. If nightwork is needed, it will occur on a schedule of four consecutive nights of work followed by at least three consecutive nights of no work.

The project area lies within the Snake River Lynx Analysis Unit (LAU), and within habitat mapped as "other." "Other" habitat provides uses other than denning or winter foraging such as summer foraging. Within the impact area, 2.57 acres consists of aspen/mixed conifer surrounded by pure lodgepole pine that has been largely killed off by the mountain pine beetle. Approximately 1.5 acres of this lodgepole pine forest is scheduled to be clear-cut by the U.S. Forest Service and has been described by them as lacking the horizontal cover required for snowshoe hare to achieve densities needed to support a resident lynx. Other habitat types in the area include sagebrush with a grass/forb component or shrubs with a grass/forb component, neither of which is preferred by either the lynx or the wolverine. The site of the new alignment lies within an area disturbed by human development, with a hospital located approximately 0.6 miles to the southwest, and a high school located approximately 0.5 miles to the southeast. It also occurs on a peninsula that extends into Dillon Reservoir, truncating the habitat on three sides. The area may be used for dispersing lynx, but it has no quality foraging habitat and is further degraded by the dying forest canopy and is unlikely to be used year-round.

Approximately 1.5 miles south of the southern end of the project, a lynx was killed by a vehicle on SH9. Since that time, the mountain pine beetle has degraded the habitat's suitability to lynx through injuring or killing most of the lodgepole pine in the area.

Implementation of the proposed project may cause short term avoidance of the area due to noise, dust, and increased human presence; however, normal behavior would likely return shortly after completion. Implementation will also result in the permanent loss of 6.72 acres of forested and grassland habitat, 2.57 acres of which could be considered marginally usable by lynx. The project will not result in an increase in barrier effect because traffic volume and speeds are not expected to increase. Sight distance will be improved over the existing alignment, which may result in fewer vehicle collisions with wildlife.

Given the low quality of the habitat affected, the land use in and around the project area, and the construction of three underpasses, the Service finds the report acceptable and concurs with your determination that the impacts resulting from the proposed project are not likely to adversely affect the Canada lynx, nor will it jeopardize the continued existence of the North American wolverine.

Please note that should project plans change or if additional information regarding listed or proposed species becomes available, this determination may be reconsidered under the ESA. If the proposed project has not commenced within one year, please contact the Colorado Field Office to request an extension.

We appreciate your submitting this report to our office for review and comment. If the Service can be of further assistance, please contact Alison Deans Michael of my staff at (303) 236-4758.

Sincerely,

Susan C. Linner
Colorado Field Supervisor

ec: CDOT, HQ (Jeff Peterson)
CDOT, R1 (Chuck Attardo)
CDOT, R3 (Mike Vanderhoof)
Michael
Ref: Alison\H:\My Documents\CDOT 2007+\Region 1\SH9_Iron_Springs_lynx_&_wolverine_concur.docx

Appendix B. Spec 240

1

SECTION 240

PROTECTION OF MIGRATORY BIRDS

BIOLOGICAL WORK PERFORMED BY A CDOT BIOLOGIST

Section 240 is hereby added to the Standard Specifications for this project as follows:

DESCRIPTION

240.01 This work consists of protecting migratory birds during construction.

MATERIALS AND CONSTRUCTION REQUIREMENTS

240.02 The Contractor shall schedule clearing and grubbing operations and work on structures to avoid taking (pursue, hunt, take, capture or kill; attempt to take, capture, kill or possess) migratory birds protected by the Migratory Bird Treaty Act (MBTA).

(a) *Vegetation Removal.* When possible, vegetation shall be cleared prior to the time active nests are present. Vegetation removal activities shall be timed to avoid the migratory bird breeding season which begins on April 1 and runs to August 31. All areas scheduled for clearing and grubbing between April 1 and August 31 shall first be surveyed within the work limits by a CDOT biologist for active migratory bird nests. The CDOT biologist will also survey for active migratory bird nests within 50 feet outside of the work limits. Project personnel shall enter areas outside CDOT right of way only if a Form 730, *Permission to Enter Property*, has been signed by the property owner. The Contractor shall avoid all active migratory bird nests. The Contractor shall avoid the area within 50 feet of the active nests or the area within the distance recommended by the biologist until all nests within that area have become inactive. Inactive nest removal and other necessary measures shall be incorporated into the work as follows:

1. *Tree and Shrub Removal or Trimming.* Tree and shrub removal or trimming shall occur before April 1 or after August 31 if possible. If tree and shrub removal or trimming will occur between April 1 and August 31, a survey for active nests will be conducted by the CDOT biologist within the seven days immediately prior to the beginning of work in each area or phase of tree and shrub removal or trimming. The Contractor shall notify the Engineer at least ten working days in advance of the need for the CDOT biologist to perform the survey.

   If an active nest containing eggs or young birds is found, the tree or shrub containing the active nest shall remain undisturbed and protected until the nest becomes inactive. The nest shall be protected by placing fence (plastic) a minimum distance of 50 feet from each nest to be undisturbed. This buffer dimension may be changed if determined appropriate by the CDOT biologist and approved by the Engineer. Work shall not proceed within the fenced buffer area until the young have fledged or the nests have become inactive.

   If the fence is knocked down or destroyed by the Contractor, the Engineer will suspend the work, wholly or in part, until the fence is satisfactorily repaired at the Contractor's expense. Time lost due to such suspension will not be considered a basis for adjustment of time charges, but will be charged as contract time.

2. *Grasses and Other Vegetation Management*. Due to the potential for encountering ground nesting birds' habitat, if work occurs between April 1 and August 31, the area shall be surveyed by the CDOT biologist within the seven days immediately prior to ground disturbing activities. The Contractor shall notify the Engineer at least ten working days in advance of the need for the CDOT biologist to perform the survey.

   The undisturbed ground cover to 50 feet beyond the planned disturbance, or to the right of way line, whichever is less, shall be maintained at a height of 6 inches or less beginning April 1 and continuing until August 31 or until the end of ground disturbance work, whichever comes first.

   If birds establish a nest within the survey area, an appropriate buffer of 50 feet will be established around the nest by the CDOT biologist. This buffer dimension may be changed if determined appropriate by the CDOT biologist and approved by the Engineer. The Contractor shall install fence (plastic) at the perimeter of the buffer. Work shall not proceed within the buffer until the young have fledged or the nests have become inactive.

   If the fence is knocked down or destroyed by the Contractor, the Engineer will suspend the work, wholly or in part, until the fence is satisfactorily repaired at the Contractor's expense. Time lost due to such suspension will not be considered a basis for adjustment of time charges, but will be charged as contract time.

(b) *Work on structures*. The Contractor shall prosecute work on structures in a manner that does not result in a taking of migratory birds protected by the Migratory Bird Treaty Act (MBTA). The Contractor shall not prosecute the work on structures during the primary breeding season, April 1 through August 31, unless he takes the following actions:

(1) The Contractor shall remove existing nests prior to April 1. If the Contract is not awarded prior to April 1 and CDOT has removed existing nests, then the monitoring of nest building shall become the Contractor's responsibility upon the Notice to Proceed.

(2) During the time that the birds are trying to build or occupy their nests, between April 1 and August 31, the Contractor shall monitor the structures at least once every three days for any nesting activity.

(3) If birds have started to build any nests, the nests shall be removed before they are completed. Water shall not be used to remove the nests if nests are located within 50 feet of any surface waters.

(4) Installation of netting may be used to prevent nest building. The netting shall be monitored and repaired or replaced as needed. Netting shall consist of a mesh with openings that are ¾ inch by ¾ inch or less.

If an active nest becomes established, i.e., there are eggs or young in the nest, all work that could result in abandonment or destruction of the nest shall be avoided until the young have fledged or the nest is unoccupied as determined by the CDOT Biologist and approved by the Engineer. The Contractor shall prevent construction activity from displacing birds after they have laid their eggs and before the young have fledged.

If the project continues into the following spring, this cycle shall be repeated. When work on the structure is complete, the Contractor shall remove and properly dispose of netting used on the structure.

(c) *Taking of a Migratory Bird.* The taking of a migratory bird shall be reported to the Engineer. The Contractor shall be responsible for all penalties levied by the U. S. Fish and Wildlife Service (USFWS) for the taking of a migratory bird.

METHOD OF MEASUREMENT

240.03 Removal of nests will be measured by the actual number of man-hours spent removing inactive nests just prior to and during the breeding season, April 1 through August 31. During this period, the Contractor shall submit to the Engineer each week for approval a list of the workers who removed nests and the number of hours each one spent removing nests.

Netting will be measured by the square yard of material placed to keep birds from nesting on the structure. Square yards will be calculated using the length of netting measured where it is attached to the ground and the average height of the netting where it is attached to the structure.

BIOLOGICAL WORK PERFORMED BY A CDOT BIOLOGIST

BASIS OF PAYMENT

240.04 The accepted quantities measured as provided above will be paid for at the contract unit price for each of the pay items listed below that appear in the bid schedule.

Payment will be made under:

Pay Item	**Pay Unit**
Removal of Nests	Hour
Netting	Square Yard

Payment for Removal of Nests will be full compensation for all work and material required to complete the work.

Payment for netting will be full compensation for all work and material required to complete the item. Overlaps of netting will not be measured and paid for separately, but shall be included in the work. Maintenance and replacement, removal, and disposal of netting will not be measured and paid for separately, but shall be included in the work.

Clearing and grubbing will be measured and paid for in accordance with Section 201. Mowing will not be measured and paid for separately, but shall be included in the work.

Removal and trimming of trees will be measured and paid for in accordance with Section 202.

Fence (Plastic) will be measured and paid for in accordance with Section 607.

SECTION 240

PROTECTION OF MIGRATORY BIRDS

BIOLOGICAL WORK PERFORMED BY THE CONTRACTOR'S BIOLOGIST

Section 240 is hereby added to the Standard Specifications for this project as follows:

DESCRIPTION

240.01 This work consists of protecting migratory birds during construction.

MATERIALS AND CONSTRUCTION REQUIREMENTS

240.02 The Contractor shall schedule clearing and grubbing operations and work on structures to avoid taking (pursue, hunt, take, capture or kill; attempt to take, capture, kill or possess) migratory birds protected by the Migratory Bird Treaty Act (MBTA). The Contractor shall retain a qualified wildlife biologist for this project. The wildlife biologist shall have a minimum of three years experience conducting migratory bird surveys and implementing the requirements of the MBTA. The Contractor shall submit documentation of the biologist's education and experience to the Engineer for acceptance. A biologist with less experience may be used by the Contractor subject to the approval of the Engineer based on review of the biologist's qualifications.

The wildlife biologist shall record the location of each protected nest, bird species, the protection method used, and the date installed. A copy of these records shall be submitted to the Engineer.

(a) *Vegetation Removal.* When possible, vegetation shall be cleared prior to the time when active nests are present. Vegetation removal activities shall be timed to avoid the migratory bird breeding season which begins on April 1 and runs to August 31. All areas scheduled for clearing and grubbing between April 1 and August 31 shall first be surveyed within the work limits for active migratory bird nests. The Contractor's wildlife biologist shall also survey for active migratory bird nests within 50 feet outside work limits. Contractor personnel shall enter areas outside CDOT right of way only if a written, signed document granting permission to enter the property has been obtained from the property owner. The Contractor shall document all denials of permission to enter property. The Contractor shall avoid all active migratory bird nests. The Contractor shall avoid the area within 50 feet of the active nests or the area within the distance recommended by the biologist until all nests within that area have become inactive. Inactive nest removal and other necessary measures shall be incorporated into the work as follows:

1. *Tree and Shrub Removal or Trimming.* Tree and shrub removal or trimming shall occur before April 1 or after August 31 if possible. If tree and shrub removal or trimming will occur between April 1 and August 31, a survey for active nests shall be conducted by the wildlife biologist within the seven days immediately prior to the beginning of work in each area of tree and shrub removal or trimming. The survey shall be conducted for each phase of tree and shrub removal or trimming.

   If an active nest containing eggs or young birds is found, the tree or shrub containing the active nest shall remain undisturbed and protected until the nest becomes inactive. The nest shall be protected by placing fence (plastic) a minimum distance of 50 feet from each nest to be undisturbed. This buffer dimension may be changed if determined appropriate by the wildlife biologist and approved by the Engineer. Work shall not proceed within the fenced buffer area until the young have fledged or the nests have become inactive.

If the fence is knocked down or destroyed by the Contractor, the Engineer will suspend the work, wholly or in part, until the fence is satisfactorily repaired at the Contractor's expense. Time lost due to such suspension will not be considered a basis for adjustment of time charges, but will be charged as contract time.

2. *Grasses and Other Vegetation Management*. Due to the potential for encountering ground nesting birds' habitat, if work occurs between April 1 and August 31, the area shall be surveyed by a wildlife biologist within the seven days immediately prior to ground disturbing activities.

   The undisturbed ground cover to 50 feet beyond the planned disturbance, or to the right of way line, whichever is less, shall be maintained at a height of 6 inches or less beginning April 1 and continuing until August 31 or until the end of ground disturbance work, whichever comes first.

   If birds establish a nest within the survey area, an appropriate buffer of 50 feet will be established around the nest by the CDOT biologist. This buffer dimension may be changed if determined appropriate by the CDOT biologist and approved by the Engineer. The Contractor shall install fence (plastic) at the perimeter of the buffer. Work shall not proceed within the buffer until the young have fledged or the nests have become inactive.

   If the fence is knocked down or destroyed by the Contractor, the Engineer will suspend the work, wholly or in part, until the fence is satisfactorily repaired at the Contractor's expense. Time lost due to such suspension will not be considered a basis for adjustment of time charges, but will be charged as contract time.

(b) *Work on structures*. The Contractor shall prosecute work on structures in a manner that does not result in a taking of migratory birds protected by the Migratory Bird Treaty Act (MBTA). The Contractor shall not prosecute the work on structures during the primary breeding season, April 1 through August 31, unless he takes the following actions:

(5) The Contractor shall remove existing nests prior to April 1. If the Contract is not awarded prior to April 1 and CDOT has removed existing nests, then the monitoring of nest building shall become the Contractor's responsibility upon Notice to Proceed.

(6) During the time that the birds are trying to build or occupy their nests, between April 1 and August 31, the Contractor shall monitor the structures at least once every three days for any nesting activity.

(7) If the birds have started to build any nests, they shall be removed before the nest is completed. Water shall not be used to remove the nests if nests are located within 50 feet of any surface waters.

(8) Installation of netting may be used to prevent nest building. The netting shall be monitored and repaired or replaced as needed. Netting shall consist of a mesh with openings that are ¾ inch by ¾ inch or less.

If an active nest become established, i.e., there are eggs or young in the nest, all work that could result in abandonment or destruction of the nest shall be avoided until the young have fledged or the nest is unoccupied as determined by the wildlife biologist and approved by the Engineer. The Contractor shall prevent construction activity from displacing birds after they have laid their eggs and before the young have fledged.

If the project continues into the following spring, this cycle shall be repeated. When work on the structure is complete, the Contractor shall remove and properly dispose of netting used on the structure.

(d) *Taking of a Migratory Bird.* The taking of a migratory bird shall be reported to the Engineer. The Contractor shall be responsible for all penalties levied by the U. S. Fish and Wildlife Service (USFWS) for the taking of a migratory bird.

METHOD OF MEASUREMENT

240.03 Wildlife Biologist will be measured by the actual authorized number of hours a wildlife biologist is on site performing the required tasks.

Removal of nests will be measured by the actual number of man-hours spent removing inactive nests just prior to and during the breeding season, April 1 through August 31. During this period, the Contractor shall submit to the Engineer each week for approval a list of the workers who removed nests and the number of hours each one spent removing nests.

Netting will be measured by the square yard of material placed to keep birds from nesting on the structure. Square yards will be calculated using the length of netting measured where it is attached to the ground and the average height of the netting where it is attached to the structure.

BASIS OF PAYMENT

240.04 The accepted quantities measured as provided above will be paid for at the contract unit price for each of the pay items listed below that appear in the bid schedule.

Payment will be made under:

Pay Item	Pay Unit
Wildlife Biologist	Hour
Removal of Nests	Hour
Netting	Square Yard

Payment for Wildlife Biologist will be full compensation for all work and materials required to complete the item, including wildlife biologist, wildlife survey, and documentation (record of nest location and protection method)

Payment for Removal of Nests will be full compensation for all work and material required to complete the work.

Payment for netting will be full compensation for all work and material required to complete the item. Overlaps of netting will not be measured and paid for separately, but shall be included in the work. Maintenance and replacement, removal, and disposal of netting will not be measured and paid for separately, but shall be included in the work.

Clearing and grubbing will be measured and paid for in accordance with Section 201. Mowing will not be measured and paid for separately, but shall be included in the work.

Removal and trimming of trees will be measured and paid for in accordance with Section 202.

Fence (Plastic) will be measured and paid for in accordance with Section 607

INSTRUCTIONS TO DESIGNERS

Include this special provision on all projects involving migratory birds and earthwork, soil disturbance, or structure work that will be surveyed by the CDOT biologist. This includes, but is not limited to roadway earthwork, bridge demolition or construction, new signing, new lighting, new guardrail posts, erosion control, and minor drainage. Use of CDOT Maintenance personnel or others to remove nests without fledglings before construction must be coordinated with Region Environmental personnel.

Coordinate with Region Environmental personnel to determine if Wildlife Biologist duties can be completed internally. Region Environmental personnel should coordinate with design project manager to show inactive bird nests and potential nesting habitat in the plans via table or site drawing. If these activities cannot be done by CDOT personnel, then use the alternative special provision that requires the Contractor to provide a wildlife biologist.

The CDOT Biologist will record location of each protected nest, bird species, protection method used, and date installed. A copy of these records will be provided to the Engineer.

A signed Form 730, *Permission to Enter Property*, must be obtained to facilitate CDOT Biologist's and project personnel's ground surveys within adjacent property (area within 50 ft of work limits) that Region Environmental Personnel have determined ground nesting bird habitat may be present. If Permission to Enter Property is denied by a property owner, document due diligence.

Include the following paragraph when Region Environmental Personnel have determined that Bald Eagle roosts may be present:

> The CDOT Biologist will conduct dusk and dawn surveys of Bald Eagle roosts within seven days prior to the start of any construction during the winter season, November 15 to March 15. If a Bald Eagle roost is identified, construction activity shall not proceed within 0.25 mile of active nocturnal roost sites between November 15 and March 15.

Include the following paragraph when Region Environmental Personnel have determined that raptors may be present:

> The CDOT Biologist will conduct raptor nest surveys within 0.5 mile of the construction site prior to the start of construction and prior to each construction phase. This survey can be done with binoculars. If construction activities are located within the Colorado Division of Wildlife (CDOW) recommended buffer zone for specific raptors, "NO WORK" zones shall be established according to the CDOW standards or by the CDOT Wildlife Biologist in consultation with the CDOW around active sites during construction. The "NO WORK" zone shall be marked with either fencing or signing. Work shall not proceed within a "NO WORK" zone until the CDOT Biologist has determined that the young have fledged or the nest is unoccupied.

Include the following paragraph when Region Environmental Personnel have concluded that important raptor perches will be affected:

> The Contractor shall install perch poles, made from steel sign posts, 2 inch round, 24-inch T brackets without sign mounting holes at the designated locations. The poles shall be at least 12 feet in height.

Include the following paragraph when Region Environmental Personnel have concluded that important raptor perches will be affected:

> Perch poles, made from steel sign posts, (2 inch round) will be measured and paid for by the linear foot in accordance with Section 614. 24-inch T brackets without sign mounting holes will not be paid for separately but shall be included in the work.

SECTION 240

PROTECTION OF MIGRATORY BIRDS

DURING STRUCTURE WORK

Section 240 is hereby added to the Standard Specifications for this project as follows:

DESCRIPTION

240.01 This work consists of protecting migratory birds during construction work on structures.

MATERIALS AND CONSTRUCTION REQUIREMENTS

240.02 Work On Structures. The Contractor shall prosecute work on structures in a manner that does not result in a taking (pursue, hunt, take, capture or kill; attempt to take, capture, kill or possess) of migratory birds protected by the Migratory Bird Treaty Act (MBTA). The Contractor shall not prosecute the work on structures during the primary breeding season, April 1 through August 31, unless he takes the following actions:

(9) The Contractor shall remove existing nests prior to April 1. If the Contract is not awarded prior to April 1 and CDOT has removed existing nests, then the monitoring of nest building shall become the Contractor's responsibility upon Notice to Proceed.

(10) During the time that the birds are trying to build or occupy their nests, between April 1 and August 31, the Contractor shall monitor the structures at least once every three days for any nesting activity.

(11) If the birds have started to build any nests, the nests shall be removed before they are completed. Water shall not be used to remove the nests if nests are located within 50 feet of any surface waters.

(12) Installation of netting may be used to prevent nest building. The netting shall be monitored and repaired or replaced as needed. Netting shall consist of a mesh with openings that are ¾ inch by ¾ inch or less.

If an active nest becomes established, i.e., there are eggs or young in the nest, all work that could result in abandonment or destruction of the nest shall be avoided until the young have fledged or the nest is unoccupied as determined by the CDOT biologist and approved by the Engineer. The Contractor shall prevent construction activity from displacing birds after they have laid their eggs and before the young have fledged.

If the project continues into the following spring, this cycle shall be repeated. When work on the structure is complete, the Contractor shall remove and properly dispose of netting used on the structure.

The taking of a migratory bird shall be reported to the Engineer. The Contractor shall be responsible for all penalties levied by the U. S. Fish and Wildlife Service (USFWS) for the taking of a migratory bird.

METHOD OF MEASUREMENT

240.03 Removal of nests will be measured by the actual number of man-hours spent removing inactive nests just prior to and during the breeding season, April 1 through August 31. During this period, the Contractor shall submit to the Engineer each week for approval a list of the workers who removed nests and the number of hours each one spent removing nests

Netting will be measured by the square yard of material placed to keep birds from nesting on the structure. Square yards will be calculated using the length of netting measured where it is attached to the ground and the average height of the netting where it is attached to the structure.

BASIS OF PAYMENT

240.04 The accepted quantities measured as provided above will be paid for at the contract unit price for each of the pay items listed below that appear in the bid schedule.

Pay Item	**Pay Unit**
Removal of Nests	Hour
Netting	Square Yard

Payment for Removal of Nests will be full compensation for all work and material required to complete the work.

Payment for netting will be full compensation for all work and material required to complete the item. Overlaps of netting will not be measured and paid for separately, but shall be included in the work. Maintenance and replacement, removal, and disposal of netting will not be measured and paid for separately, but shall be included in the work.

****

INSTRUCTIONS TO DESIGNERS (delete instructions final draft):

Include this special provision on all projects that involve migratory birds and have only structure (bridge or CBC) work. This work includes, but is not limited to bridge demolition, repair or construction and minor drainage. Use of CDOT Maintenance personnel or others to remove nests without eggs or fledglings before construction must be coordinated with Region Environmental personnel.

If these activities cannot be done without soil disturbance or earthwork then use one of the alternative special provisions that requires either a Contractor or CDOT biologist to survey the project for migratory birds..

Appendix C. Survey Form 2012 (WRNF Rare Plant Species)

Survey Information – **Bold** Fields are required			
NRIS Survey ID	**NRIS Survey Name** (Project name/unit Number) **SH9 Iron Springs Alignment**		**Data Entered in NRIS -** ☐ Entered By: Date Entered:
Survey Protocol: Mostly Complete to Focused	**Survey Focus: Ter Rip**		EO generated by survey? **Y** N
Elev. Range (ft.) 9,200 to 9,600	**Survey date(s):** 07/15/13 (Month/day/year):	**Survey start/stop time** 0930/1230	
Observers:			
Name: John Proctor	**Qualifications:** Botanist	**Name:** Jeff Peterson	**Qualifications:** Wildlife
Name: Francesca Tordonato	**Qualifications:** Ecologist	**Name:**	**Qualifications:**

Comments	
Survey Parameters: Surveyed proposed realignment (section A) of SH9 from mile marker 93.4 at south end of Dillon Resv. To mile marker 96.0. Followed stakes proposed alignment and also surveyed proposed Dickey Day bike connector trail.	Survey Comments: "The study area has potential habitat for 22 sensitive plant species. Rare plant surveys completed for the proposed realignment segment were adequate to determine that they are absent from that segment. However, to date no surveys have been completed on NFS lands for plant species that could occur in portions of the existing SH9 alignment which would be disturbed under both the No Action and Proposed Action alternatives including Dickey's Day Parking Area".
Habitat Description: Survey began in mountain big sagebrush habitat which transitions to a clear cut LPP stand then to mature beetle killed LPP on a slope. Aspen grows in scattered patches along the segment, mostly within swales and drainages. Previously disturbed – now stabilized habitat along existing bike path provides some marginal *Botrychium* habitat. Segment ends at swale with willows and mesic forbs and graminoids. Sagebrush along bike connector trail east side of SH9 was surveyed.	

Location Data					
Quad name	Township	Range	Section	¼ section	UTM coordinates
GPS/Trimble waypoint name: Iron Springs CDOT	Datum: Nad 83 Conus				Northing See GPS survey tracks Easting

Site Description		
State/County/Region/Forest/District **CO/Summit/R2/WRNF/Dillon**	Approx. acreage of unit 1 mile at 200 foot effective	Approx. acreage of survey
Previously surveyed? Yes Year: 2012 by Francesca Tordonato	Other past disturbances? Yes If yes, describe: timber harvest, roads and trails, invasive plants, SH9.	

SPECIES (TREES & SHRUBS)	CODE (NRCS)	SPECIES (FORBS)	CODE (NRCS)	SPECIES (FORBS)	CODE (NRCS)	SPECIES (GRAMINOIDS)	CODE (NRCS)
Pinus contorta		Dugaldia hoopsii		Potentilla gracilis		KENTUCKY BLUE	
Populus tremuloides		Hieraceum albiflorum		Arnica cordifolia		Festuca thruberi	
Salix geyeri		Geum triflorum		Zigadenis elegans		Stippa lettermanii	
Rubus ideaus		Collomia linearis		Descenaria sophia		Elymus trachycaulus	
Arctostaphylos uva ursi		PERRENIAL PEPPERWEED!		Hackelia floribunda		Juncus arcticus	
Salix scouleriana		Eriogonum subalpinum		Senicio eriophyllum		Elymus elymoides	
Chrysothamnus nauseosa		Erigeron speciosa		Vicia americana		Koleria macrantha	
Potentilla fruiticosa		Penstemon strictus		Cirsium coloradense		Danthonia intermedia	
Rosa woodsii		Lathyrus leucanthus		TOAD FLAX!		SMOOTH BROME	
Juniperus communis		Iris missourensis		MUSK THISTLE		Carex geyeri	
Sheperdia canadensis		Penstemon procerus		Campanula rotundifolia		Poa secunda	
Ribes montigeum		Potentilla diverrsiloba		Astragalus miser		Bromus ciliatus	
Artesmesia cana		Gallium septronale		Heterotheca villosa			
Artesmesia tridentate vaseyana		Lupinus argenteus		Antenarria parviflora			
CANADA THISTLE		Bochera drummondii		Oxytropis fendlerana			

THREATENED AND ENDANGERED PLANT SPECIES				
Plant NRCS Code	**Scientific Name**	**National Common Name**	**Habitat Present**	**Plant Found**
EUPE10	*Eutrema penlandii (*Threatened*)*	Penland alpine fen mustard	N	N
PHSCS3	*Phacelia scopulina (*Proposed*)*	De beque phacelia	N	N
SCGL3	*Sclerocactus glaucus (*Threatened*)*	Colorado hookless cactus	N	N
SPDI6	*Spiranthes diluvialis (*Threatened*)*	Ute ladies'- tresses orchid	N	N
REGION 2 SENSITIVE PLANT SPECIES (WRNF)				
NRCS Code	**Scientific Name**	**National Common Name**	**Habitat Present**	**Plant Found**
ARMAS	*Armeria maritima* ssp. *sibirica*	Siberian sea thrift	N	N
ASLE9	*Astragalus leptaleus*	Park milkvetch	N	N
BOAS2	*Botrychium ascendens*	Triangle lobe moonwort	Y	N
BOLI7	*Botrychium lineare*	Narrowleaf grapefern	Y	N
BOPA9	*Botrychium paradoxum*	Paradox moonwort	N	N
BRGL	*Braya glabella*	Smooth rockcress	N	N
CADI4	*Carex diandra*	Lesser panicled sedge	Y	N
CALI	*Carex livida*	Livid sedge	Y	N
CYPA19	*Cypripedium parviflorum*	Lesser yellow lady's slipper	Y	N
DREX3	*Draba exunguiculata*	Clawless draba	N	N
DRGR3	*Draba grayana*	Gray's draba	N	N
DRWE	*Draba weberi*	Weber's draba	N	N
DRRO	*Drosera rotundifolia*	Roundleaf sundew	Y	N
EPGI	*Epipactis gigantea*	Giant helleborine	N	N
EREX2	*Eriogonum exilifolium*	Dropleaf buckwheat	Y	N
ERALN	*Eriophorum altaicum* var. *neogaeum*	Whitebristle cottongrass	Y	N
ERCH7	*Eriophorum chamissonis*	Russet cottongrass	Y	N
ERGR8	*Eriophorum gracile*	Slender cottongrass	Y	N
FEHA3	*Festuca hallii*	Plains rough fescue	Y	N
KOSI2	*Kobresia simpliciuscula*	Simple bog sedge	Y	N

NRCS Code	Scientific Name	National Common Name	Habitat Present	Plant Found
MACO13	*Machaeranthera coloradoensis*	Colorado tansyaster	Y	N
PAKO3	*Parnassia kotzebuei*	Kotzebue's grass of Parnassus	Y	N
PEHA11	*Penstemon harringtonii*	Harrington's beardtongue	Y	N
PTPO	*Ptilagrostis porterii*	Porter's feathergrass	Y	N
RAKA3	*Ranunculus karelinii*	Ice cold buttercup	N	N
RUARA2	*Rubus arcticus* ssp. *acaulis*	Dwarf raspberry	Y	N
SACA4	*Salix candida*	Sageleaf willow	Y	N
SASE2	*Salix serissima*	Autumn willow	Y	N
SPAN11	*Sphagnum angustifolium*	Sphagnum	Y	N
SPBA80	*Sphagnum balticum*	Baltic sphagnum	Y	N
THHE2	*Thalictrum heliophilum*	Sun-loving meadow rue	N	N
UTMI	*Utricularia minor*	Lesser bladderwort	Y	**Y**
VIOPA2	*Viburnum opulus* var. *americanum*	American cranberry bush	N	N

Notes: While no Element Occurrence records were generated as a result of this survey, **Utricularia minor* was found in the study area on a later date where it occurs in a fen well outside the area of influence of the proposed action