

*Record of Decision*

**Indian Springs Road Realignment  
USDA Forest Service  
Heber District, Uinta-Wasatch-Cache National Forest  
Wasatch County, Utah**

**BACKGROUND**

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The Uinta-Wasatch-Cache National Forest proposes to realign the Indian Springs Road, National Forest System Road (FSR) #70501. The Indian Springs Road is an existing route and an essential component of the Forest's transportation system. This road is located on the Heber-Kamas Ranger District approximately 35 miles south of Heber City and 25 miles east of Spanish Fork, Utah. Project implementation is proposed to begin in the spring of 2009.

The Indian Springs Road Realignment, Final Environmental Impact Statement (FEIS) describes and explains the purpose and need for realigning the Indian Springs Road, issues raised through scoping, the alternatives for road and trail location and standards, the existing affected environment, and discloses the possible environmental consequences of each alternative. The FEIS serves as the National Environmental Policy Act (NEPA) documentation for the decisions to be made in regards to this project.

The purpose of this action is to reduce adverse impacts to watershed and fisheries impacted by the existing road, provide safer driving conditions and maintain access to Strawberry Ridge from the south. This action is needed, because the existing road is a single lane, native surface road primarily occupying drainage/valley bottom or Indian Creek. The road has been identified as a chronic source of sediment to Indian Creek (USDA 2004). Indian Creek is a major contributor and spawning stream for fish from the Strawberry Reservoir. The reservoir is one of Utah's premiere freshwater fisheries. Resource impacts created by the existing road cannot be corrected by maintenance. During inclement (wet) weather conditions the road surface is readily saturated and becomes slick making travel difficult and at times impassable. This local Forest road has been in existence for many years and provides motorized (4WD and ATV) access to Strawberry Ridge from the south. It provides historic access and recreation opportunities for viewing wildlife and scenery, driving for pleasure, dispersed camping, horseback riders, mountain bikes, hikers, snowmobiles, and all-terrain vehicle (ATV) users. Further, it serves as administrative access for the management of fire, range, and other natural resource programs.

**DECISION**

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It is my decision to implement the proposed action, described in the FEIS (pg. 2-6) as Proposed Action Alternative – Realignment and Road Closure. My decision will reconstruct the Indian Springs Road on a new alignment. The majority of the existing road would be obliterated and restored to natural condition with a small portion converted to a single-track motorcycle trail. Figure A, attached to this ROD, displays the location of the road realignment and obliteration.

The new road will be 1.9 miles long with an alignment placed in an upland location just to the east of Strawberry Ridge. It will be a single lane (14 feet wide running surface) with 10 foot wide turnouts. The road grades would be significantly reduced. The entire road will be surfaced with crushed aggregate base. The average imprint on the ground will be approximately 65 feet wide (15.0 acres).

The majority of the existing Indian Spring Road would be obliterated and restored to natural condition. The full restoration of 1.4 miles (7.5 acres) will include road prism obliteration, shaping and contouring to match adjacent slopes, seeding with native species, treatment of noxious weeds, and protected from access until new vegetation is established.

Access to the Great Western Trail (GWT), a single-track (18"-24" wide) trail open to motorcycles, will be maintained along a 0.2 mile segment from Strawberry Ridge within the existing road alignment. The conversion of 0.2 miles will include reducing surface width from 10-14 feet to 2 feet and constructing adequate drainage. Area outside of reconstructed trail will be fully obliterated including shaping and contouring to match adjacent slopes, seeding with native species, and treatment of noxious weeds (1.1 acres). Under this alternative the 1.9 mile new road alignment would be open to ATV travel. The obliterated Indian Springs road (1.6 miles) and a portion of the Indian Creek road (1.8 miles) would no longer be designated open for ATV travel. The portion of the Indian Creek road is from the old intersection of the Indian Spring road (FSR#70501) in the NE1/4 NW1/4 of Section 10, T5S, R12W, USM to the intersection of the Bald Mountain road (FSR#70043) and the Indian Creek road (FSR#70042) in the NE1/4 SE1/4 section 15, Township 5 South, Range 12 West, USM.

My conclusions are based on the scientific analysis (and supporting project record) that demonstrates a thorough review of relevant scientific information, a consideration of responsible opposing views, and the acknowledgement of incomplete or unavailable information. The analysis identifies techniques and methodologies used, considers current and accurate science, and references scientific resources relied upon. The analysis includes a summary of the creditable scientific evidence relevant to evaluating reasonably foreseeable impacts.

## **MITIGATION MEASURES**

I have decided to require implementation of all mitigation measures described in Chapters 2, and included in the environmental analysis described in Chapter 3 in the FEIS. The mitigation measures are listed in Exhibit A to this ROD.

## **REASONS FOR THE DECISION**

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I selected the Proposed Action alternative with associated mitigation measures because, as described in more detail in the following sections, this alternative is consistent with Forest Plan direction and all applicable law and regulations, retains an essential component of the Forest's transportation system, and best balances achievement of the identified purpose and need with impacts on the environment. The effects of implementing this alternative have been thoroughly evaluated and these effects are disclosed in the FEIS. In reaching my decision, I carefully considered all comments received during the environmental analysis process.

Guidance for what actions are prohibited in roadless areas is provided in the reinstated 2001 Roadless Area Conservation Rule (2001 RACR). The 2001 RACR established prohibitions to road construction and/or reconstruction in areas identified in the 2000 Roadless Area Conservation Final Environmental Impact Statement. However, the Rule provided exceptions to these prohibitions. I have determined that relocation of the Indian Springs road is needed because resource damage caused by this classified road cannot be mitigated by road repair or maintenance (as detailed below) and because the route is essential for natural resource management (see "*Findings Required By Other Laws*" section of this ROD).

## RELATIONSHIP TO THE PURPOSE AND NEED

The purpose of this action is to reduce adverse impacts to watershed and fisheries impacted by the existing road, provide safer driving conditions and maintain access to Strawberry Ridge from the south. (FEIS, pg 1-2). As described in more detail below, implementation of my decision will address this purpose and need.

Implementation of my decision will result in a substantial reduction of soil erosion and sediment delivered to the stream from the road in the long term. It will restore Indian Springs Canyon to a more natural drainage and the new road alignment would be located in an upland location outside of any RHCA's with minimal impact to streams, wetlands and floodplains. This will result in improved watershed health and aquatic species habitat (FEIS, Sections 3.1, 3.2, and 3.3). The new alignment will provide safer driving conditions for all users by constructing a wider road with turnouts, improved horizontal and vertical alignments, and a crushed aggregate hardened road surface. The new road will provide reliable administrative and public access during wet weather by incorporating a hardened road surface. The road realignment will retain an essential component of the Forest's transportation system by maintaining vehicle access to Strawberry Ridge from the south (FEIS, Section 3.5). Relocation of the existing road to an upland location with a crushed aggregate hardened surface and obliteration and restoration to natural condition the majority of the existing road will reduce existing and limit future resource damage. Presently, little can be done effectively to reduce the impacts this road has on waterways and riparian areas.

Alternative A and to a higher degree Alternative B would not fully meet the established purpose and need. The relationship of these alternatives to the purpose and need is described in more detail in the "*Alternatives Not Selected and Rationale*" section of this ROD.

## RELATIONSHIP TO THE FOREST PLAN

The 2003 Uinta National Forest Land and Resource Management Plan (Forest Plan) provides a framework that guides the Uinta National Forest's day-to-day operations. When making project-level decisions the objective is to move toward the integrated direction through the proposed action. The project must be in the public's interest in the context of forest-wide goals and objectives. Forest-wide goals and objectives should guide the identification and selection of projects (USDA 2003a, p.1-3). The following discussion explains how my decision best moves towards the management direction of the Forest Plan.

- *"Soil, air, and water resources provide for watershed health, public health and safety, long-term soil productivity, and ecosystem sustainability, and meet applicable laws and regulations."* (USDA 2003a, FW-Goal-1, p.2-1)
  - *"Forest Service activities, including those permitted by the Forest Service, maintain or enhance the long-term productivity and physical, chemical, and biological processes and functions of the soil."* (Sub-goal-1-1)
  - *"Watersheds and their associated stream processes, channel stability, riparian resources, and aquatic habitats are maintained or restored to a functional condition."* (Sub-goal-1-9)
- *"Biologically diverse, sustainable ecosystems maintain or enhance habitats for native flora and fauna, forest and rangeland health, and watershed health."* (USDA 2003a, FW-Goal-2, p.2-1)
  - *"Streams are managed to provide self-sustaining fisheries by ensuring that sufficient habitat and water flow are available to support all life stages of native and desired non-native aquatic species"*( Sub-goal-2-19)
  - *"Healthy, self-sustaining riparian communities, habitat for viable populations of aquatic life, and conditions for natural stream dynamics exist on the Forest."* ( Sub-goal-2-38)

One of the established purposes for this project is to reduce adverse impacts to watershed and fisheries impacted by the existing road because the road has a native surface located in or adjacent to the drainage bottom of Indian Springs Canyon and Indian Creek resulting in stream capture and road prism erosion for much of its length. As described in the “*Relationship to the Purpose and Need*” and “*Relationship to Issues Raised*” sections of this ROD, my decision to select the Proposed Action alternative and associated mitigation measures (Exhibit A) provides for the most improved long-term soil productivity, watershed health, and water quality as directed by Forest-wide goals 1 and 2.

- “*Forest infrastructure, including facilities and transportation systems, is safe and responsive to public needs and desires; has minimal adverse effects on ecological processes and ecosystem health, diversity, and productivity; and is in balance with needed management actions.*” (USDA 2003a, FW-Goal-8, p.2-1)
  - “*A safe, effective, and economical transportation system is planned, designed, operated, and maintained to provide appropriate access associated with movement of people and materials to and through the Forest, and to support movement of materials associated with management, use, and administration of the Forest.*” (Sub-goal-8-1)
  - “*The existing transportation systems are managed and maintained in an environmentally sensitive manner. The Forest will continue to look for opportunities to realign transportation systems to reduce impacts on the environment, particularly out of riparian areas to upland areas.*” (Sub-goal-8-2)
  - “*A minimum number of Forest Service roads and trails are developed, maintained, and managed to respond to resource management objectives. Many road-related activities occur in support of timber management, dispersed and developed recreation uses, range, administration, and resource protection (including fire).*” (Sub-goal-8-6)
  - “*Safe, adequate, and economical facilities support public and administrative uses of National Forest System lands.*” (Sub-goal-8-8)
  - “*There are approximately 1,325 miles of classified roads that provide access to and through the Forest. By 2013, it is anticipated that approximately 5-15 miles of new classified roads may be constructed and 40-75 miles of classified roads may be reconstructed and/or realigned.*” (Objective-8-1)

One of the established purposes for this project is to provide safer driving conditions. This is needed because the road is steep, narrow, winding, with a 10-14-foot travel way and inadequate sight distances. The road has a native surface that when wet has high accident potential and at times is impassable. As described in the “*Relationship to the Purpose and Need*” and “*Relationship to Issues Raised*” sections of this ROD, my decision to select the Proposed Action alternative and associated mitigation measures (Exhibit A) provides safe and reliable access during wet weather conditions.

The new alignment will serve as administrative access for the management of fire, range, and natural resource programs. It will also provide historic access and recreation opportunities for dispersed camping, viewing wildlife and scenery, driving for pleasure, horseback riders, mountain bikes, hikers, and snowmobile and ATV users. The realignment will improve the existing transportation system and support public and administrative use of the National Forest as directed by Goal 8 in the Uinta Forest Plan.

Although Alternative A and B are consistent with these Forest-wide goals, they do not provide improvements to long-term soil productivity, watershed health, and water quality to the extent as my decision to implement to Proposed Action alternative and associated mitigation measures.

## RELATIONSHIP TO ISSUES RAISED

Ten issues were identified during the environmental analysis process. The effects of the alternatives are described in Chapter 3 of the FEIS. The effects of the alternatives in relation to these issues were important considerations in my decision.

**Soils.** This issue was addressed in Section 3.1 in the FEIS. The majority of the existing Indian Spring road is located in soils classified as having very high surface runoff and severe soil erosion hazard. The Strawberry Watershed Restoration Report (USDA 2004) identifies Indian Springs Road as having high road-surface erosion and contributes high sediment loads to streams. The road has a native surface of clay loam with a predicted road prism erosion of 226 tons/yr (99 tons/acre) with 36 tons/yr (16 tons/acre) of sediment delivered to streams.

The new road alignment, under all action alternatives, is located in an upland drier location in soils classified as having moderate to severe soil erosion hazard for native surface roads. The surface soil erosion is mitigated by adequate drainage structures and a crushed aggregate road surface. The predicted prism erosion for the new alignment is approximately 2 tons/year with 0 tons/year of sediment being delivered into the streams. The difference between alternatives depends on the disposition of the existing road alignment. Implementation of my decision (Proposed Action Alternative), the existing alignment will be obliterated and restored to natural condition with the exception of 0.2 mile segment that will be converted to a single-track motorcycle trail. The predicted prism erosion for this road to trail conversion is approximately 7 tons/year with 1 tons/year of sediment being delivered into the streams. Therefore, the Proposed Action alternative would substantially reduce soil erosion for the long term. Short term impacts are likely to occur until disturbed construction areas rehabilitated.

Implementation of Alternative A and to even a lesser extent Alternative B, road and trail prism erosion and sediment delivered to streams would be reduced. Considering this and the direct relationship to impacts associated with watershed resources and aquatic species (discussed below), soil surface erosion and erosion hazard were a major factor in my decision to select the Proposed Action alternative.

**Watershed Resources.** In addition to being a significant issue in the environmental analysis for this project, reduction of impacts from the Indian Springs Road on watershed resources was a major element in the identified purpose and need. The impacts of the alternatives on watershed resources are described in detail in Section 3.2 of the FEIS. Implementation of my decision (Proposed Action) will result in a short-term increase in sediment and associated negative impact on water quality as the current alignment is obliterated and during restoration work. However, the required mitigation measures (see *Exhibit A: Mitigation Measures*) will limit the intensity and duration of these adverse impacts and over the long-term road-trail-induced sediment deposition in Indian Creek will be substantially reduced (up to 97%) significantly improving water quality. In addition, implementation of the Proposed Action Alternative will locate the road in an upland, drier location outside of any RHCA's for minimal impact to streams, floodplains and wetlands. Obliteration of the majority of the existing road alignment will restore Indian Springs Canyon to a more natural functioning condition.

Both Alternatives A and B would reduce road-trail-induced sediment deposition in Indian Creek (up to 64% for Alternative A and up to 11% for Alternative B) in the long term, improving water quality. They would also reduce the miles of road in RHCA from 1.0 miles to 0.3 miles for Alternative A and 0.3 miles of road and 0.7 miles of trail for Alternative B. Neither alternative (A or B) would improve water quality and impacts to RHCAs to the same extent as my decision. The substantial improvement in water quality and restoration of watershed processes were primary components in the identified purpose and need for this project and were primary considerations in my selection of the Proposed Action alternative.

**Aquatic Species.** In addition to being a significant issue in the environmental analysis, reduction of impacts from the Indian Springs Road on aquatic species habitat was a major element in the identified purpose and need. This issue was addressed in detail in Section 3.3 in the FEIS. The effects on Threatened, Endangered and Forest Service Sensitive aquatic species were also addressed in the Biological Assessment and Evaluation. It was determined that there will be **no negative long-term impacts, direct, indirect, or cumulative effects** to aquatic species or their habitat resulting from implementation of the proposed project. My decision (Proposed Action Alternative) will have short-term negative affects on water quality and aquatic habitat in Indian Creek; however, this will result in minimal negative short-term impacts to aquatic species. Over the long-term, the Proposed Action will substantially decrease the amount of fine sediments entering Indian Creek, which will significantly improve habitat for fish and other aquatic species.

Implementation of Alternative A, and to a much lesser extent Alternative B, would reduce fine sediments levels entering Indian Creek from existing conditions, but not to the same extent as my decision. Alternative A would slightly improve and Alternative B would provide no significant improvement to fish, other aquatic species and their associated habitat in Indian Creek. The substantial improvement in habitat for fish and other aquatic species were primary components in the identified purpose and need for this project and were primary considerations in my selection of the Proposed Action.

**Recreation.** As described in Section 3.4 in the FEIS, recreation opportunities for dispersed camping, ATV routes and Great Western Trail access will continue to be provided. Implementation of any alternatives will have a minimal effect on the recreating public in the immediate area. Implementation of my decision (Proposed Action Alternative) will maintain access to Strawberry Ridge from the south, allow ATV travel on the new road alignment, provide the same amount and setting type for dispersed camping sites, and maintain access to the Great Western Trail. Total ATV opportunities on roads would decrease by 1.5 miles. Historic users of the Indian Springs road corridor will be affected.

Since under all alternatives access to Strawberry Ridge from the south would be maintained and recreation opportunities for dispersed camping, ATV routes and Great Western Trail access would continue this was a minor factor in my decision to select the Proposed Action alternative.

**Health, Safety and Transportation.** In addition to being a significant issue in the environmental analysis, providing safer driving conditions and maintaining access to Strawberry Ridge from the south on the Indian Springs Road were primary components in the identified purpose and need. This issue was addressed in detail in Section 3.5 in the FEIS. Under all alternatives, the new road alignment will provide safer and more reliable access to Strawberry Ridge from the south. The 1.9 mile road reconstruction on a new alignment will meet all Road Management Objectives (RMOs) including number of lanes, lane width, surface type, maintenance level, traffic service level, and drainage structures for the Indian Springs Road. Road relocation will provide safe and reliable access during wet weather conditions. Accident potential will be less than the no action alternative. The proposed new road will be the only FSR that connects the southern portion of Strawberry Ridge to Indian Creek Road and southern portions of Uinta National Forest. It will serve as administrative access for the management of fire, range, and natural resource programs. It will provide historic access and recreation opportunities for dispersed camping, viewing wildlife and scenery, driving for pleasure, horseback riders, mountain bikes, hikers, and snowmobile and ATV users.

Since under all alternatives safer and more reliable access to Strawberry Ridge from the south will be provided and accident potential will be low this was a minor factor in my decision to select the Proposed Action alternative.

***Inventoried Roadless Areas.*** The effects of the alternatives on wilderness attributes and roadless area characteristics are described in detail in Section 3.6 in the FEIS. Strawberry Ridge Inventoried Roadless Area (SRIRA) lies just under Strawberry Ridge in the Diamond Fork and Sheep Creek drainages with a small portion (approximately 1300 acres) that extends east over Strawberry Ridge near the head of Indian Creek. Under all action alternatives, re-alignment of 1.9 miles of the Indian Springs road would divide the roadless area into two portions with the larger portion being about 16,000 acres and the smaller portion being approximately 1300 acres. There would be no change to inventoried roadless area boundaries or management and both portions would continue to be protected as a roadless area. In the short-term approximately 15 acres (includes road cut and fill slopes) and in the long-term approximately 4 acres (road surface and ditches) would no longer be intact and operating under natural processes affecting the natural integrity of the area. The sights, sounds and smells of the motorized travelway could have a moderate to high effect on the casual visitor seeking a natural experience. The effect to the apparent naturalness, remoteness and solitude of the SRIRA will mainly occur on the eastern slope of Strawberry Ridge. There is currently little, if any, opportunity for a primitive recreation experience even when hunting or hiking in the canyons found in this portion of the SRIRA. Implementation will slightly reduce the opportunity further since the new road alignment is longer than the existing road alignment. The effects of the proposed alignment to special features will be minor. In summary effects to wilderness attributes and roadless area characteristics would be minor and limited in extent.

Under the No Action Alternative, there would be no change to the roadless area and values. This was a primary consideration on whether or not to implement an action alternative, but minor consideration in my selection of the Proposed Action Alternative.

***Livestock Management.*** This issue was addressed in detail in Section 3.7 in the FEIS. My decision (Proposed Action Alternative) will eliminate the herder's camp at Indian Springs and the herder will have to have water hauled to an alternative site. The distance to haul water would increase, but improve distribution of livestock by providing more dependable watering sites. This was a minor factor in my decision to select the Proposed Action alternative.

***Terrestrial Wildlife.*** This issue was addressed in the environmental analysis, Section 3.8 in the FEIS. My decision will have no impact on peregrine falcons or boreal toads. There may be an impact to individual migratory birds, raptors and big game or their habitat, but will not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species. It is expected that there will be **No Effect** to wildlife species listed under the Endangered Species Act, including the Canada lynx (threatened) and western-yellow-billed cuckoo (candidate). The decision may impact individuals or habitat (negative or beneficial listed by species) but will not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species for Management Indicator Species, including goshawks (negative), three-toed woodpecker (negative) and American beaver (beneficial). Forest Service Sensitive species will be impacted as follows: No Impact (Bald eagle, Columbia spotted frog, Greater sage-grouse, Fisher); and May Impact individuals or habitat but will not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species (Flammulated owl, Spotted bat, Townsend's big-eared bat). My decision will have minor effects on wildlife, but I considered the effects of the alternatives on this resource in reaching my decision to select the Proposed Action alternative.

***Vegetation and Noxious Weeds.*** This issue was addressed in Section 3.9 in the FEIS. No Threatened, Endangered or Forest Service Sensitive plants or suitable habitat for those plants were found in the area of the proposed new road alignment or the existing road. Therefore, selection of any of the alternatives will have **No Effect** on any Threatened or Endangered plant species and **will not impact** any Forest Service Sensitive plant species. My decision (Proposed Action Alternative) will disturb about 23.4 acres (14.7 acres of upland vegetation and 8.7 acres along existing road prism) and restore 8.6 acres along existing

road. In the long-term 14.8 acres of vegetation will be impacted by roads and trails with a net loss of 6.1 vegetated acres as compared to the No Action alternative. With cessation of road-related recreational impacts and restoration of the existing road, vegetation condition will improve along Indian Springs Canyon. To protect new vegetation from livestock, ATVs, and other agents, barriers will be installed (see *Exhibit A: Mitigation Measures*) until new vegetation is established. Ground disturbance from project implementation will increase the potential for the spread of noxious weeds already present in the area. However, application of the mitigation measures described herein will mitigate this potential.

Implementation of Alternative A and Alternative B, as compared to my decision, would disturb similar amounts of vegetation, but the net long-term loss in acres of vegetation would be greater. My decision will have minor affects on terrestrial wildlife and the spread of noxious weeds, but I considered the effects of the alternatives in reaching my decision to select the Proposed Action alternative.

**Visual Quality.** This issue was addressed in Section 3.10 in the FEIS. Under all action alternatives, the impact of the new road alignment is in the immediate foreground where the highest degree of sensitivity and detail of the affected landscape is anticipated. For the short term until re-vegetation of the cut and fill slopes occur the curvilinear alignment may be dominant in the characteristic landscape but will repeat the form of the landscape. In the long term for a majority of this VQO of Modification landscape once vegetation is re-established in the cuts and fills of the roadway will become subordinate to the casual visitor because of repetition of the form, line, color and texture of the surrounding landscape.

Under Alternative A, and to a lesser extent Alternative B, the 0.5 mile road to remain may dominate the immediate foreground views in this Partial Retention VQO managed landscape. Visual quality is important in this area, and on the Uinta-Wasatch-Cache National Forest as a whole. I considered the effects of the alternatives on this resource in reaching my decision to select the Proposed Action alternative and to adopt the mitigation measures described in the FEIS.

**Heritage Resources.** The effects on heritage resources were addressed in Section 3.11 in the FEIS. No traditional cultural properties, prehistoric or historic sites, artifacts, or traditional plant gathering areas are within the project area. Any cultural properties discovered during project activities will be avoided, protected, or mitigated. Considering this, impacts on heritage resources was not a factor in my decision to select the Proposed Action Alternative.

## **RELATIONSHIP TO OTHER DECISIONS THAT MIGHT BE MADE RELATIVE TO THIS PROPOSAL**

My decision regarding the realignment and disposition of the existing Indian Springs Road is not dependent on any other decisions, and no other forthcoming decisions are dependent on or expected relative to this proposal. Other projects in the area will benefit from the safer and more reliable access, but implementation of these are not dependent upon my decision, nor is implementation of my decision dependent upon those projects.

## **PUBLIC INVOLVEMENT**

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Scoping for the project began with publication of a “Notice of Intent” (NOI) in the Federal Register on May 22, 2007. The NOI asked for public comment on the proposal within 30 days from the date of publication. In addition, as part of the public involvement process, the agency sent a letter informing interested parties that the Forest was initiating preparation of an Environmental Impact Statement to relocate the Indian Springs Road. On May 18, 2007, comments were solicited through a legal notice in the *Provo Daily Herald*.

Public response included five comments. Comments were received via hard copy letters and one verbal response. Most comments were positive and supported the Forest Service proposal to realign the road. One comment suggested that the road be closed and rehabilitated. Public safety and adverse stream impacts were the primary issues raised in supporting road reconstruction. Protection and restoration of the ecosystem were the primary issues identified in supporting road closure.

A Notice of Availability for the Draft Environmental Impact Statement was published in the Federal Register on October 26, 2007. The Draft Environmental Impact Statement was mailed to and/or made available electronically, to all parties on the project's mailing list. The mailing list included federal, state and local agencies, and interested individuals and organizations (FEIS, Chapter 4). On November 1, 2007, comments were solicited through a legal notice in the Provo *Daily Herald*.

Public responses included 3 written comments. Many comments were positive and supported the purpose and need for action alternatives with minor edits. Others had specific concerns including the need to provide adequate references, necessity to realign road, provide additional information on why a road could not be constructed outside of an inventoried roadless area, potential damage to inventoried roadless area, detrimental impacts from roads and ATV use, and necessity to look closer at the effects of ATV use. Each letter was included in full and carefully responded to in the Response to Comment section in the FEIS. I considered these comments in reaching my decision on this project.

## **OTHER ALTERNATIVES CONSIDERED**

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### **ALTERNATIVES ANALYZED IN DETAIL**

Four alternatives were developed and analyzed in detail. These alternatives included three action alternatives and the "No Action" alternative. The alternatives not selected, and the reasons for my decision not to select them are described below.

#### **No Action Alternative**

Under the No Action alternative, the forest would leave the road in its current location and current management plans would continue to guide management of the project area. Ongoing activities, such as road maintenance and available public and administrative access would continue. The Forest Service would leave the Indian Springs road in its current condition (FEIS, pg. 2-4).

This alternative was not selected because it does not meet the purpose and need for this project. The existing Indian Springs road would remain and continue to adversely impact watershed resources. The road will remain in moderate to severely erosive soils (FEIS, Section 3.1). The road will continue to occupy the valley/drainage bottom or located adjacent to stream with 1.0 miles in identified RHCAs. Road prism erosion and stream sedimentation would continue at current rates, resulting in continuation of stream, floodplain, and water quality impacts (FEIS, Section 3.2). Fine sediments delivered to the stream would continue to negatively impact fish and other aquatic species and their associated habit (FEIS, Section 3.3).

The road will continue to not meet operational or objective maintenance levels. Portions of the 1.6 miles of road will continue to be narrow and winding, with inadequate horizontal and vertical alignments. During inclement (wet) weather the road surface will continue to be readily saturated and become slick, making travel hazardous increasing accident potential. During the above conditions the road at times would be impassible. Maintenance of this road will continue to be performed every 2-3 years, but will not be frequent enough to provide safe and reliable travel. The road will become more hazardous and less

reliable as the year progressed. The road will remain as the only FSR that connects the southern portion of Strawberry Ridge to Indian Creek Road and southern portions of Uinta National Forest. (FEIS, Section 3.4)

Under this alternative there would be no impacts to Strawberry Ridge inventoried roadless area (SRIRA).

### **Alternative A: Realignment and Partial Closure**

Under this alternative, the Forest Service would reconstruct the Indian Springs Road on a new alignment. A large portion of the existing road will be obliterated and restored to natural condition. Approximately 0.2 miles of a single-track motorcycle trail and 0.5 miles of the existing road would remain. (FEIS, pg. 2-8).

A primary reason this alternative was not selected is because it would not as adequately address the established purpose and need, as would the Proposed Action Alternative. More specifically, the primary reason this alternative was not selected is because it would not reduce sediment production and delivery to stream (FEIS, Section 3.1) to the same extent as the Proposed Action and a portion of the existing road (0.3 miles) would remain in identified RHCAs (FEIS, Section 3.2). The fine sediment delivered to the stream would be reduced and there would be a slight improvement to habitat for fish and other aquatic species in Indian Creek, but not the same extent as the selected alternative (FEIS, Section 3.3).

### **Alternative B: Realignment and ATV Trail**

Under this alternative, the Forest Service would reconstruct the Indian Springs Road on a new alignment (1.9 miles) and convert a large portion (1.1 miles) of the existing road at its current location to an ATV trail. Approximately 0.5 miles of a dead end road would remain. (FEIS, pg. 2-10).

A primary reason this alternative was not selected is because it would not adequately address the established purpose and need. More specifically, the primary reason this alternative was not selected is because it would not adequately reduce sediment production and delivery to stream (FEIS, Section 3.1) to reduce adverse impacts to watershed and aquatic resources. A portion of the road converted to ATV trail (0.7 miles) and a portion of the existing road (0.3 miles) would be located in RHCAs (FEIS, Section 3.2). The fine sediment delivered to Indian Creek would not be significantly reduced and would provide no significant improvement to fish and other aquatic species and their associated habitat (FEIS, Section 3.3).

## **ALTERNATIVES CONSIDERED BUT NOT ANALYZED IN DETAIL**

The National Environmental Policy Act (NEPA) mandates that an environmental analysis address a reasonable range of alternatives to the proposed action. These alternatives should achieve the same or similar public purposes, and include alternatives that address issues and avoid or otherwise mitigate adverse environmental impacts associated with the proposed action. Alternatives that are not reasonable, either because they are not consistent with the purpose and need or because of other considerations, need not be analyzed in detail; however, the rationale for not analyzing them should be explained.

In response to scoping, or in commenting on the Draft EIS, three additional alternatives were proposed for analysis. These alternatives were discussed by the interdisciplinary team but eliminated from full development and consideration. These alternatives, and the reason for eliminating them from further consideration, are described in the FEIS (pg. 2-2) and summarized below.

### **Reconstruct the Indian Springs Road in its Current Location**

This alternative was proposed during scoping as a way to limit vegetation disturbed along a new alignment. The existing 1.6 miles of road has a native surface with narrow, 10-14 feet wide travel way. The road has steep grades in excess of 10 percent. The horizontal and vertical alignments do not adequately provide safe sight distances. The clay loam native surface material has high surface runoff and has a severe soil erosion hazard (Davidson, 2007). The road is primarily occupying the valley/drainage bottom or located adjacent to Indian Springs and the unnamed tributary of Indian Creek. During inclement (wet) weather conditions the road surface is readily saturated and becomes slick.

The surface water from storm events flows across the road surface creating ruts. These ruts concentrate the flow of water and soil; erode the road and associated slopes; and expose and plug existing culverts. Sections of the road have become narrowed with deep ditches eliminated the shoulders for possible travel. The narrowed travel way is contributing to inadequate stopping site distances. During the above conditions the road is extremely hazardous, making travel difficult and at times impassible.

One element of the purpose and need, as discussed in Chapter 1, is to provide safer driving conditions. Impacts from the existing road can not be corrected by maintenance or upgraded in its current location because of existing topography and geologic features. An improved and maintainable road on this alignment would require excessive cut slopes, embankment fills, switchbacks, drainage crossings, and steep grades.

### **Closure of the Indian Springs Road**

This alternative was proposed during scoping as a way to address the element of the purpose and need to reduce adverse impacts to watershed and fisheries impacted by the existing road. Another element of the purpose and need for this action is to maintain access to Strawberry Ridge from the south. The Indian Springs Road is essential for Forest access and management (USDA 2002). This road provides administrative (recreation, fire, wildlife, range, and vegetation management) and public (driving for pleasure, dispersed camping, viewing wildlife and scenery, ATV, hiking, mountain biking, hunting and snowmobiling) access to Strawberry Ridge. It is the only available ATV connector between northeast portion of the Spanish Fork Ranger District (Halls Fork, Dip Vat, and Strawberry Ridge) to the southwest portion of the Heber-Kamas Ranger District (Trail Hollow, Willow Creek, and White River). Closure of the road would split vehicle and ATV access across this portion of the Forest and may encourage inappropriate and unsafe ATV use on arterial roads, not designated as open to ATVs. Closure of the Indian Springs Road does not meet the purpose and need to maintain access to Strawberry Ridge from the south.

### **Road relocation outside of designated Inventoried Roadless Areas**

This alternative was proposed during scoping as a way to reduce impacts to Strawberry Ridge Inventoried Roadless Area (SRIRA) and associated roadless values. The existing Indian Springs Road provides a northern boundary of the Strawberry Ridge Roadless Area. Road relocation to the north from Strawberry Ridge to Indian Creek Road was considered. The area directly north of the existing alignment has steep terrain and topography. Road development in this area would require a significantly longer road with larger cuts, fills, switch backs, and drainage crossings to connect to the Indian Creek Road. The further north you consider road construction the less extreme the terrain (eventually reaching a parallel road system with the Squaw Creek Road, FSR #70110). Construction to the north would leave a dead-end road on Strawberry Ridge (which borders SRIRA) encouraging the creation of user created roads (USDA 2007c). In order to provide non-street legal ATV access across this portion of the Forest an increase in miles of arterial roads open to ATVs would have to be designated, increasing user conflicts and accident potential. This conflicts with the need to provide safer driving conditions. This alternative would not meet components of the purpose and need was eliminated from detailed study.

## **FINDINGS REQUIRED BY OTHER LAWS**

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After consideration of the discussion of environmental consequences (FEIS, Chapter Three), and as outlined below, I have determined that my decision is consistent with other laws and regulations.

### **CONSISTENCY WITH THE NATIONAL FOREST MANAGEMENT ACT**

All resource plans must be consistent with the Forest Plan [16 U.S.C. 1604 (i)]. Consistency with the Forest Plan occurs when a project complies with applicable objectives, standards, project specific outputs, and activity schedules. Forest Plan implementation, project-level decisions, occurs when management activities are initiated to meet standards and guidelines that work toward objectives in order to achieve overall goals (USDA 2003a, pg. 1-3). Standards and guidelines are addressed in terms of Management Activity, Recreation Opportunity Spectrum (ROS) Class, and Management Prescription (USDA 2003, pg. 3-1).

On the basis of the data and analysis contained in the FEIS and all other information available, I have evaluated the features of the selected alternative for consistency with the Uinta National Forest Land and Resource Management Plan (Forest Plan). Through this evaluation, I have determined that the decision is consistent with the Forest Plan (see “*Reason for the Decision, Relationship to the Forest Plan*” section of this ROD). This decision does not supercede any management direction currently in the Forest Plan pertaining to soils; watershed resources; aquatic species; recreation opportunities; health, safety and transportation; inventoried roadless area management; livestock management; terrestrial wildlife; vegetation; visual quality; heritage resources; and threatened, endangered and sensitive species, and is consistent with Forest Plan goals, objectives and monitoring requirements.

The primary Management Activity associated with my decision is transportation management. My decision will relocate the Indian Springs road to an upland, drier location outside of any Riparian Habitat Conservation Areas (RHCAs) minimizing impacts wetlands, floodplains and streams and avoiding natural hydrological flow paths (USDA 2003a, Trans-10, p.3-32). The new road alignment will be opened to ATV and complete linkage to Strawberry Ridge from the south (USDA 2003a, Trans-2&3, p.3-32). The existing steep road alignment will be obliterated and restored to a more natural condition which will reduce road soil erosion sedimentation to Indian Creek by up to 97% (USDA 2003a, Trans-15, p.3-33). My decision is consistent with standards and guidelines associated with transportation management. All standards and guidelines for associated management activities (aquatic and riparian habitat, soil and water resources, wildlife and fish habitat, noxious weeds, vegetation, grazing, recreation, and scenery) are incorporated into mitigation measures and are included in my decision (Exhibit A).

The entire project area lies within the Strawberry Reservoir Management Area (SRMA) with designated Recreation Opportunity Spectrum (ROS) Classes Roded Natural and Roded Modified; and Management Prescriptions 4.4 –Dispersed Recreation and 5.2 Forested Ecosystems – Vegetation Management.

My decision to realign the Indian Springs road will construct a road in ROS classes Roded Natural and Roded Modified. This decision fully meets the Forest Plan standards and guidelines for the ROS classes including limiting motorized recreation use to classified roads and inventoried trail systems and allowing opportunities for road construction and reconstruction. Allowable activities include construction of temporary and new classified roads and reconstruction or realignment of existing classified roads to address public safety and resource concerns (USDA 2003a, ROS-1,4,&6, pgs.3-35,36). The new road alignment will also meet ROS class recreation opportunity objectives which include mostly natural to

substantially modified environment, some to moderate evidence of other users, and motorized access and travel by sedans, trailers, RVs, ORVs and motor bikes.

My decision to convert 0.2 miles of the existing road to a single-track motorized trail and relocate displaced dispersed camping sites to turnouts along the new road alignment will construct features in Management Prescriptions 4.4 –Dispersed Recreation and 5.2 Forested Ecosystems – Vegetation Management. This decision fully meets the Forest Plan standards and guidelines for the Management Prescriptions. Allowable activities include construction of additional motorized trails and recreation developments limited to a level that facilitates the dispersed recreation experience and address resource concerns (USDA 2003a, MP-4.4-1&2, p.3-46 and MP-5.2-1&3, p.3-47).

## **CONSISTENCY WITH ROADLESS AREA CONSERVATION RULE**

The Forest Service’s Roadless Area Conservation Rule (RACR), Special Areas; Roadless Area Conservation; Final Rule, as published in the Federal Register: January 12, 2001 Vol. 66 No. 9 (Federal Register, 2001) prohibits road construction and reconstruction in inventoried roadless areas with certain exemptions. On September 20, 2006, the United States District Court for the Northern District of California issued a decision in the consolidated cases California v. USDA and Wilderness Society v. USFS enjoining the 2005 State Petitions Rule and reinstating the 2001 Roadless Rule.

Guidance for what actions are prohibited in roadless areas is provided in the reinstated 2001 Roadless Area Conservation Rule (2001 RACR). The 2001 RACR established prohibitions to road construction/reconstruction and timber harvest in areas identified in the 2000 Roadless Area Conservation Final Environmental Impact Statement. However, the Rule provided exceptions to these prohibitions if the Responsible Official determines that one of the listed circumstances exists. Under 36 CFR 294.12 Prohibitions on road construction and road reconstruction the fourth circumstance states “Road realignment is needed to prevent irreparable resource damage that arises from the design, location, use or deterioration of a classified road and that cannot be mitigated by road maintenance. Road realignment may occur under this paragraph only if the road is deemed essential for public or private access, natural resource management, or public health and safety”. Relocation of the Indian Springs road is needed because resource damage caused by this classified road cannot be mitigated by road repair or maintenance and because the route is essential for natural resource management (as “*Relationship to Purpose and Need*” and “*Relationship to Issue Raised*” sections of this ROD). Under 36 CFR 294.13 Prohibitions on timber cutting, sale, or removal the second circumstance states “The cutting, sale or removal of timber is incidental to the implementation of a management activity not otherwise prohibited by this subpart”. As part of the road construction about 13 acres of aspen/aspen conifer will be cut. The Preamble to the RACR provides examples of these activities and includes timber cutting, sale and removal for road construction where allowed by this Rule (66 FR 3244). Because the realignment of Indian Springs Road meets the exception to the road construction prohibition it further meets the exception to the timber harvest prohibition.

The direct, indirect, and cumulative impacts on Strawberry Ridge Inventoried Roadless Area have been evaluated in the analysis for all alternatives considered in detail (FEIS, Section 3.6 and Cumulative Effects). I have determined that my decision is consistent with the RACR (see “*Relationship to Issues Raised*” section of this ROD).

## CONSISTENCY WITH OTHER LAWS AND REGULATIONS

### **Clean Water Act**

The Clean Water Act requires each state to implement water quality standards. The State of Utah's Water Quality Antidegradation Policy requires maintenance of water quality to protect existing instream beneficial uses on streams designated as Category 1 High Quality Waters. All surface waters geographically located within the outer boundaries of the National Forest, whether on private or public lands, are designated as High Quality Waters (Category 1). Water quality is to be maintained with little or no degradation. New point source discharges are prohibited; non-point sources will be controlled to the extent feasible through implementation of Best Management Practices (BMPs) or regulatory programs (Utah Division of Water Quality 1997). The State of Utah and the Forest Service have agreed through a 1993 Memorandum of Understanding to use Forest Plan Standards and Guidelines, and the Forest Service Handbook (FSH) 2509.22 Soil and Water Conservation Practices (SWCPs) as BMPs. The use of SWCPs as BMPs meets the water quality protection elements of Utah's Non-point Source Management Plan.

The Strawberry Reservoir is included on the 2004 State of Utah 303(d) list of impaired waters for total phosphorous and dissolved oxygen. Indian Springs contributes approximately 18% of the streamflow into this reservoir. The Strawberry Watershed Restoration Report (USDA 2004) identified the Indian Springs road as one the chronic and long-term contributors of fine sediments to Indian Creek. This project was conceived, primarily, to reduce sediment produced from this road and improve water quality.

With implementation of my decision, including required application of the BMPs and mitigation measures (see Mitigation Measures section of this ROD), the beneficial uses and water quality in the streams in the project area would be maintained during and in the short-term following project implementation. Over the long-term, my decision will improve water quality in Indian Creek, and better provide for beneficial uses (FEIS, Section 3.2). This was a primary consideration in my decision not to select the No Action Alternative. Implementation of my decision is consistent with the Clean Water Act.

### **Executive Order 11990**

This executive order requires the Forest Service to take action to minimize destruction, loss, or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands. No wetlands were identified in the project area. My decision is consistent with Executive Order 11990.

### **Executive Order 11988**

This order requires the Forest Service to provide leadership and to take action to: (1) minimize adverse impacts associated with occupancy and modification of floodplains and reduce risks of flood loss, (2) minimize impacts of floods on human safety, health, and welfare, and (3) restore and preserve the natural and beneficial values served by flood plains. The impacts of the alternatives on floodplains and runoff were evaluated in the environmental analysis (FEIS, Sections 3.2). None of the alternatives considered in detail in the FEIS will measurably affect the risk of flooding. My decision (Proposed Action Alternative) will result in a minor short-term increase, and long-term decrease in area of impacted riparian areas and streams. Through rehabilitation of the existing road prism, the Proposed Action will result in a long-term restoration and preservation of the natural and beneficial values of riparian areas and streams impacted by the existing road (FEIS, Section 3.3). Any potential impacts to floodplains will be further mitigated through application of BMPs and mitigation measures (see Mitigation Measures section of this ROD). My decision is consistent with Executive Order 11988.

### **Endangered Species Act, as Amended**

Based upon the effects analysis in the FEIS (Sections 3.3 and 3.8.5), and Biological Assessments (Bornstein 2008, Smith 2007b, and Van Keuren 2008), implementation of my decision (Proposed Action Alternative) will have **No Effect** on the Bonneville or Colorado River cutthroat trout, June sucker, Utah

valvata snail, Western yellow-billed cuckoo, Canada lynx, and Ute ladies' –tresses. No consultation with the FWS or NMFS was required since the Forest Service determined that the proposed action will have no effect on threatened or endangered species or designated critical habitat. My decision is consistent with the Endangered Species Act, as amended.

### **Migratory Bird Treat Act**

The FEIS (section 3.8) evaluated the effects of the alternatives on terrestrial wildlife and their habitats. This includes migratory bird species (FEIS, Section 3.83). My decision, Proposed Action Alternative is not expected to result in direct measurable effects on any migratory birds. The selected alternative will also reduce disturbance in and effects on riparian habitats important to many migratory bird species. The areas impacted have not been identified as critical habitat for any species of concern, and reduction in impacts to riparian areas will benefit many migratory bird species. My decision is consistent with the Migratory Bird Treaty Act, and the January 10, 2001 Executive Order pertaining to this Act.

### **American Antiquities Act and Historic Preservation Act**

The effects of my decision on cultural, archeological and historic resources were evaluated and disclosed in the FEIS (Section 3.11). No traditional cultural properties, prehistoric or historic sites, artifacts, or traditional plant gathering areas are within the project area. Any cultural properties discovered during project activities will be avoided, protected, or mitigated. My decision is consistent with the American Antiquities Act and Historic Preservation Act.

### **Clean Air Act, as Amended**

The selected alternative will not involve operation of any rock crushing plants, asphalt plants, or cement batch plants, and the alternative will be consistent with the Clean Air Act and Utah Air Conservation Rule R307-400.

### **Civil Rights**

Based upon comments received during scoping and the comment period for the DEIS, no conflicts have been identified with other Federal, State, or local agencies or with Native Americans, other minorities, women, or civil rights of any United States citizen.

### **Energy**

The decision would not have unusual energy requirements.

### **Minerals**

The project area lies on currently leased lands. My decision will have no effects on the availability of lands for location, lease, or sale of mineral and energy resources.

### **Secretary of Agriculture Memorandum 1827**

My decision does not impact prime farmland, rangeland or forestlands, and is consistent with this memorandum.

### **Executive Order 12898**

This executive order directs federal agencies to integrate environmental justice considerations into federal programs and activities. Environmental justice means that, to the greatest extent practicable and permitted by law, all populations are provided the opportunity to comment before decisions are rendered, are allowed to share in the benefits of, are not excluded from, and are not affected in a disproportionately high and adverse manner by government programs and activities affecting human health or the environment. My decision sought (see Public Involvement section of this ROD) and incorporated public involvement. My decision will not have a discernible effect on minorities, Native Americans, or women, or the civil rights of any United States citizen. Nor will my decision have a disproportionate adverse impact on minorities or low-income individuals. My decision is consistent with this order.

### **Travel Management Rule of November 9, 2005 (36 CFR Parts 212 and 261)**

The rule requires designation of roads, trails, and areas open to motor vehicle use. It prohibits the use of motor vehicles off the designated system. The current alignment is open to motor vehicle use and the new alignment will be open to motor vehicle use. The change in location of the Indian Springs Road will be shown on the Motor Vehicle Use Map. My decision complies with provisions in the Travel Rule.

## **ENVIRONMENTALLY PREFERRED ALTERNATIVE**

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The CEQ regulations (40 CFR 1500-1508) require that the ROD identify the alternative(s) that could be considered environmentally preferable. The environmentally preferred alternative is defined by CEQ as: (1) the alternative that causes the least damage to the biological and physical environment, and (2) the alternative that best protects, preserves, and enhances historic, cultural, and natural resources. Based on a comparison of the environmental consequences of all alternatives considered in detail in the FEIS, Proposed Action Alternative – Realignment and Road Closure would result in the most enhanced and improved watershed health, and riparian and aquatic habitat as well as the least net loss in acres of vegetation within the project area, and thus is the environmentally preferred alternative. This alternative proposes a new road alignment and obliteration and restoration to natural condition the majority of the existing road alignment all on National Forest System lands. This alternative will initially increase environmental impacts, but within 5 years will have measurably less environmental impacts as compared to the No Action Alternative and current levels.

## **IMPLEMENTATION DATE**

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If no appeal is received, implementation of this decision may occur on, but not before 5 business days from close of the appeal filing period. If an appeal is received, implementation may not occur for 15 days following the date of the appeal decision. (36 CFR 215.10)

## **ADMINISTRATIVE REVIEW**

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This decision is subject to administrative review (appeal) pursuant to 36 CFR Part 215. The appeal must be filed (regular mail, fax, email, hand-delivery, or express delivery) with the Appeal Deciding Officer at *Appeal Deciding Officer, Harv Forsgren, Regional Forester, 324 25<sup>th</sup> Street, Ogden, Utah 84401 fax 801-625-5277*. The office business hours for those submitting hand-delivered appeals are: 8:00 a.m. to 4:00 p.m. Monday through Friday, excluding holidays. Electronic appeals must be submitted in a format such as an email message, plain text (.txt), rich text format (.rtf), and Word (.doc) to [appeals-intermtn-regional-office@fs.fed.us](mailto:appeals-intermtn-regional-office@fs.fed.us). In cases where no identifiable name is attached to an electronic message, a verification of identity will be required. A scanned signature is one way to provide verification.

Appeals, including attachments, must be filed within 45 days from the publication date of this notice in the Provo Daily Herald, the newspaper of record. Attachments received after the 45 day appeal period will not be considered. The publication date in the Provo Daily Herald, newspaper of record, is the exclusive means for calculating the time to file an appeal. Those wishing to appeal this decision should not rely upon dates or timeframe information provided by any other source.

Individuals or organizations who submitted written comments or otherwise expressed interest before the close of the comment period specified at 215.6 may appeal this decision. The notice of appeal must meet the appeal content requirements at 36 CFR 215.14.

## **CONTACT PERSON**

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For further information about this project contact Jim Percy, Uinta-Wasatch-Cache National Forest, Heber-Kamas Ranger District, 2460 South Highway 40, Heber City, Utah, 84032, (435) 654-0470.

\_\_\_\_\_  
JULIE K. KING

District Ranger

Heber-Kamas Ranger District

Uinta-Wasatch-Cache National Forest

Intermountain Region, Forest Service

U.S. Department of Agriculture

\_\_\_\_\_  
Date

Figure A – Map of the Selected Alternative

Exhibit A – Mitigation Measures

**FIGURE A. Map of Selected Alternative**



## Exhibit A: Mitigation Measures for Selected Alternative

**GEO 1:** Lay back cut slopes as far as possible.

**GEO 2:** If subsurface flows are encountered, subsurface drains will be employed where necessary to improve drainage of these areas.

**GEO 3:** Soil and Water Conservation Practices (SWCP's) for the construction of road drainage structures will be used. These include a combination of relief culverts, surface cross drains, and holding ponds that capture water and release it back into the subsurface flow.

**GEO 4:** Out slope and/or crown the road prism.

**GEO 5:** Cut and fill slopes will be revegetated after construction where applicable. Topsoil replacement, erosion blankets, and heavier seeding will be used when necessary to promote revegetation success.

**GEO 6:** Recontour the existing road prism as close to the pre-road contour as possible. It may be necessary to lay the recontoured slopes back further than natural to promote revegetation success and promote slope stability.

**GEO 7:** Place blockades to prevent ATV and/or grazing access on the rehabilitated area until revegetation is established.

**GEO 8:** Routine maintenance will be conducted to keep the integrity of the road prism, ditches, holding ponds, relief culverts, and surface cross drains.

**WAT 1:** Implement all applicable BMP's and SWCP's needed to support UNF LMP Management Practices and Standards and Guidelines relative to soils, watershed, flood plains, wetlands, and riparian habitat.

**WAT 2:** Silt fence and/or applicable collection devices will be installed along Indian Creek during construction activities to capture disturbed mobile sediment where appropriate.

**WAT 3:** Realigned road will be constructed in accordance with Forest Service standards and proper drainage structures will be installed to control surface runoff so that erosion is minimized and sediment is trapped to enhance establishment of vegetation.

**WAT 4:** Disturbed areas will be seeded and mulched (where needed) after construction.

**WAT 5:** Fence will be installed or constructed around the obliterated road sections (where needed) in the project area to exclude livestock and off highway vehicles until vegetation has had a chance to recover.

**AQU 1:** Implement all applicable BMP's and SWCP's needed to support UNF LMP Management Practices and Standards and Guidelines relative to soils, riparian habitat, wildlife and fish.

**AQU 2:** Water quality will be monitored pre and post construction

**AQU 3:** All instream work will be conducted after July 1 to allow Bonneville cutthroat trout to spawn undisturbed.

**AQU 4:** Sheep will be excluded from all disturbed areas associated with construction activities to allow adequate vegetation recovery.

**REC 1:** Post and maintain signs and provide public notices during project implementation informing the public of the closure of the existing Indian Spring road alignment and alternative routes.

**REC 2:** Design roads to terrain with adequate cut and vegetated fill slopes (see VIS 6) to discourage illegal ATV use.

**REC 3:** Dispersed camping sites will be at the same level and setting type as existing condition. Relocate obliterated dispersed camping along existing alignment to areas along new alignment.

**Exhibit A: Mitigation Measures for Selected Alternative**

**REC 4:** Dispersed recreation sites will be located in areas designated to minimize impacts, discourage illegal ATV use, and signed to inform the public of travel management regulations.

**REC 5:** Within site distance of existing and proposed Indian Springs road alignments rip, re-contour and seed existing unauthorized trails/roads. Where applicable (not in RHCAs), fell some adjacent trees or branches onto the unauthorized trails/roads to create micro climates and to appear natural.

**HST 1:** Post and maintain signs and provide public notices during project implementation informing the public of the closure of the existing Indian Spring road alignment and alternative routes.

**HST 2:** Maintain and replace infrastructure (roadbase and cross drainage structures) as needed to maintain capital investment and meet acceptable health and safety standards.

**HST 3:** Design roads to Forest Service standards including Road Management Objective design criteria and associated design elements; cut and fill slope ratios for appropriate soil type and material depth; cross drainage structures; and signing.

**HST 4:** Realign road to applicable Forest Service standards as outlined in *Standard Specifications for Highway Projects, FP-03* and associated Forest Service Special Project Specifications.

**HST5:** Seasonally close road when access and weather conditions warrant protection of infrastructure - investment.

**IRA 1:** Road obliteration and restoration will include recontouring cut and embankment slopes to match existing undisturbed slopes where possible.

**IRA 2:** Along existing and proposed Indian Springs road alignments rip, re-contour and seed existing unauthorized trails/roads within sight distance of designated routes. Where applicable, fell some adjacent trees or branches onto the unauthorized trails/roads to create micro climates and to appear natural.

**LM 1:** Develop water sites within turnouts along new alignments to replace displaced sites adjacent to existing road alignment.

**WLF 1:** Protect known three-toed woodpecker nesting sites by prohibiting vegetative management activities from April 15 – September 1 annually in a 30-acre nest area.

**WLF 2:** Prohibit forest vegetation manipulation (timber harvest, prescribed burning, fuelwood, thinnings, etc.) within active northern goshawk nest areas during the active nesting season (normally from March 1 to September 30).

**WLF 3:** Prohibit management activities around active raptor nest sites (for species other than northern goshawk) from nest site selection to fledgling.

**WLF 4:** No activities will occur during the primary nesting season of April 1 – June 30 for migratory birds.

**VEG 1:** Select weed-free locations for project staging areas.

**VEG 2:** Pressure wash all heavy equipment prior to entering National Forest lands

**VEG 3:** If subsurface flows are encountered, subsurface drains will be employed where necessary to improve drainage of these areas.

**VEG 4:** Revegetate all disturbed areas with native plant species. All seed will be free from weeds (see current Utah Noxious Weed List) and meet all applicable standards set in the Utah Noxious Weed Act.

**Exhibit A: Mitigation Measures for Selected Alternative**

**VEG 5:** Cut and fill slopes will be revegetated after construction where applicable. Topsoil replacement, erosion blankets, and heavier seeding will be used when necessary to promote revegetation success. Cut slopes in excess of 30 feet will be treated with jute netting or similar material if surface erosion is evident.

**VEG 6:** Place blockades to prevent ATV and/or grazing access on the rehabilitated area until revegetation is established.

**VEG 7:** Intensively treat for noxious weeds sites to be disturbed prior to beginning ground disturbing activities, stockpiles of topsoil, and revegetated areas for 5-10 years following construction and obliteration

**VIS 1:** The existing road will be obliterated by deep ripping, recontouring where appropriate, and seeding with approved native species consistent with surrounding vegetation.

**VIS 2:** Where practical, road obliteration and closure activities will use natural materials in lieu of steel gates, wire fences and other man-made structures. Broken sections of logs, etc., will be scattered randomly on obliterated sections of the existing road.

**VIS 3:** Cut and fill slopes will be seeded with native seed after construction to encourage re-vegetation to occur as soon as possible.

**VIS 4:** Road width, curve widening, and associated cuts/fills will be constructed to mimic the existing landforms in the adjacent landscape. Where excess material is available fill slopes should be layed back to reflect the side slope of the mountain. Any silhouetting of the road or cuts will be avoided.

**VIS 5:** Signage associated with the road will be kept to an appropriate minimum.

**VIS 6:** Place downed large woody material along and at the base of fill slopes to help create micro-climates to encourage re-vegetation. Disperse woody material as natural appearing as possible along these slopes. At a minimum of 150 foot spacing to provide wildlife passage through downed material.

**VIS 7:** Where stumps are removed in the road prism use in the construction of tree wells to protect remaining overstory.