

EXECUTIVE SUMMARY

INTRODUCTION

This Environmental Impact Statement (EIS) considers a single proposed Federal action, with alternatives, and is a joint document between the United States Forest Service (USFS), Fishlake National Forest (Lead Agency) and the Bureau of Land Management (BLM), Richfield Field Office (Cooperating Agency). This National Environmental Policy Act (NEPA) analysis considers the potential environmental consequences associated with implementing the Proposed Action and Alternatives, as described below.

The Sevier County Special Service District Number 1 (SSD) has submitted right-of-way applications to the USFS and the BLM for the construction of the Quitchupah Creek Road, a public road. The Quitchupah Creek Road would be generally located between the Acord Lakes Road (Sevier County Road #010) and the junction with State Route 10 (SR-10). Lands along the route are administered by the USFS – Fishlake National Forest, the BLM – Richfield Field Office, Utah State School and Institutional Trust Lands Administration (SITLA) – Central Area, all based in Richfield, and private interests.

This EIS addresses the need for Federal decisions approving right-of-way applications, or an alternative, which would cross Federal lands. The Forest Supervisor for the Fishlake National Forest and the Richfield Field Office Manager for the BLM are responsible officials for the EIS. They will make their respective decisions regarding the Proposed Actions after considering the comments, responses, and environmental consequences discussed in the EIS. The rationale for each agency decision will be documented in separate Records of Decision (RODs).

PURPOSE AND NEED

The purpose of the Federal action is to respond to a request from Sevier County SSD for granting a right-of-way to construct a public road. Southern Utah Fuel Company Mine (SUFCO Mine) would then be a toll user of this public road. Due to the SUFCO Mine location in rugged terrain, and the distance to railheads and loadouts, SUFCO Mine relies on truck transport for all of its coal shipments. The need for the road project is to ensure the competitive productivity of the SUFCO Mine, as a source of economic stability for Sevier County, a potential source of additional income and revenue for Emery County, and a source of high quality coal for electrical power generating plants in eastern Utah and the Midwest.

The recently signed National Energy Policy Act 2005 seeks to provide reliable, affordable energy to our nation's consumers, and to lessen the impact on Americans of energy price volatility and supply uncertainty. The demand for electricity in the U.S. is projected to increase by 45% over the next 20 years (National Energy Policy website). Access to coal reserves via any of the road alternatives proposed in this document would reduce fuel consumption by shortening the transport routes, and would help to maintain supplies of diverse and traditional forms of energy within the U.S. (domestic oil, gas and coal). The National Energy Policy promotes such improvements in the productive and efficient use of energy.

SUMMARY OF PROPOSED ROAD

Sevier County SSD has proposed the upgrade and realignment of an existing 9.15 mile road, along Quitchupah Creek, which connects the Acord Lakes Road (Sevier County Road #010) in Convulsion Canyon, Sevier County with SR-10 in Emery County. The land ownership in this corridor is a combination of private, USFS, BLM, and SITLA.

The proposed road (Alternative B) would be 8.9 miles long, with a 28-foot wide paved surface, and an operational right-of-way of 66 feet. Six pullouts for parking off the road shoulder would be provided at various locations (See **Appendix B** - Strip Maps). The construction corridor would vary from 50 feet to 60 feet on the flatter ground (eastern end) to an average 100 feet for the remainder of the road. The road would be designed for a speed of 40 miles per hour, and constructed according to the standards of the American Association of State Highway and Transportation Officials (AASHTO) and the Utah Department of Transportation (UDOT) 2005 Standard Specifications for Road and Bridge Construction.

No facilities would be built in association with this alignment. The total new disturbance within the proposed road corridor would be 92.3 acres. Once reclamation is complete, the net loss of vegetation would be 45 acres that are dedicated to the paved roadbed and road shoulder.

All of the build alternatives would conform to the overall guidance of the Fishlake Land and Resource Management Plan (LRMP) and Final EIS, the BLM San Rafael Resource Management Plan (RMP) and Final EIS, and the BLM Forest Planning Unit Management Framework Plan (FPU MFP). This EIS tiers to the decisions of these Land Use Plans, which are available for review at the USFS and BLM offices, both located in Richfield, Utah. No plan amendments would be required for the USFS Fishlake Plan, the BLM San Rafael Plan, or the BLM FPU MFP for the Proposed Action.

The requested rights-of-way for the permanent road corridor would include 24.3 acres of USFS lands, 18.7 acres of BLM lands, 12.3 acres on SITLA lands, and 33.7 acres private lands. Rights-of-way applications have been submitted to the USFS and BLM. Rights-of-way across private lands are dependent upon individual negotiations.

ISSUES RAISED DURING SCOPING

The agencies initiated public scoping for the Quitchupah Creek Road Project on January 15, 1999, with the intent of preparing an Environmental Assessment (EA). Informal meetings were held in Emery County, including a field meeting March 30, 1999. Other meetings, including the Quitchupah Grazing Association Meeting on January 27, 1999, and the Emery County Public Lands Council Meeting, June 8, 1999, were attended by agency and consultant representatives. Due to the level of public concern for the proposed project, and the issues identified during the scoping process, the USFS and the BLM determined that the proposed project warranted preparation of an EIS. A Notice of Intent (NOI) for the Quitchupah Creek Road EIS was published in the Federal Register on July 1, 1999. The legal scoping notice, Request for Comments, was published in the *Richfield Reaper* July 14, 1999; the *Emery County Progress* July 13, 1999; and the *Salt Lake Tribune* and *Deseret News* July 15, 1999.

A total of 35 comment letters or forms were received as a result of the EIS scoping effort.

Approximately 25 comments, previously received during scoping for the EA in January and February 1999, were incorporated into the EIS scoping process for a total of 60 comments. All comments and concerns brought up during scoping can be found in the Scoping Summary and Preparation Plan for the Quitchupah Creek Road Project. As a result of the publication circulation of the Draft EIS in 2001, a total of 409 comment letters or forms were received during and after the official comment period which was between December 1, 2001 and February 15, 2002. These comments are addressed in Chapter 6.0 of this document and additional information in response to comments has been incorporated into the FEIS.

Issues raised during the scoping and the public comment period that were carried forward in analysis include:

Water Quality - Changes may occur to the water quality in Quitchupah Creek and other creeks within the Project Area due to channel realignment and consequent temporary removal of some of the stream-side hydric fringe and wetlands. Water quality may also diminish due to increased sedimentation from disturbed erodible soil sections. An increase in sedimentation in these creeks may increase salinity due to the presence of saline soils in parts of the Quitchupah Creek drainage. A substantial increase in salinity could affect the salinity management of the Colorado River system.

Soil - The presence of erodible soils and soils unsuitable as material for roadbed may impact the integrity of the roadbed and could contribute sediments and increased salts into the creek.

Wetlands - Some wetlands associated with Quitchupah Creek would be filled during construction of the road. The filled wetlands would not function to filter sediments or absorb flood flows for the creek flow regime. The two proposed filled wetlands presently function as a sediment filter to preserve the water quality of the creek and as flood basins to absorb excess waters and regulate the flows in the channel. The filled wetlands would be mitigated by constructing a small wetland complex, and enhancing an existing wetland within the channel, all at the head of the creek in Convulsion Canyon. The mitigation ratio would be at least 3:1.

A 404 permit would be required from the U.S. Army Corps of Engineers (COE) to fill or impact Waters of the U.S., including wetlands; that agency would take the lead on stream crossings for this project and coordinate with the Utah State Engineers Office.

Riparian Area - Riparian zones within the Project Area and those associated with wetlands would be impacted due to construction of the road. In East Spring Canyon, approximately 1,140 feet of the existing channel would be affected by stream realignment; riparian habitat would be re-established downstream of the culvert crossing for approximately 900 feet. The loss of riparian vegetation could impact wildlife and could cause increased sedimentation in the stream. Surface disturbance could also create direct impacts to vegetation, including the potential to encourage the invasion of noxious weeds and/or exotic plants. The plant communities of the Project Area should be identified and mapped to provide data for a more specific analysis.

Wildlife - The proposed road could interfere with big game use of the winter ranges and agricultural fields through habitat fragmentation. The potential for vehicle-wildlife collisions and possible mortality may increase due to the construction of and travel on the Quitchupah Creek Road.

TES Species - The construction of the road could impact four threatened, endangered, sensitive (TES) plant species.

Range Resources – A livestock trail is needed to facilitate continued livestock movement through the canyon.

Land Use - Landowners along the proposed route are reluctant to provide rights-of-way across their ranch lands.

Visual Resources - The aesthetics and solitude of the remote canyon would be impacted by the high speed roadway and associated increased human activity. The road would dominate the immediate landscape along the route.

Recreation - All-terrain vehicle (ATV) use in the creek area would be affected by the highway by limiting access and blocking use of an existing two-track trail. The remoteness and solitude of the canyon would be eliminated due to easy public access along the highway.

Cultural Resources - Several known historic and prehistoric sites in the narrow canyon could not be avoided by the proposed road. Known rock art sites would be indirectly impacted through ease of public access, coal truck emissions/pollution, and possibly vibrations.

Native American Religious Concerns - During the Native American consultation, the Paiute Tribe stated the entire Convulsion Canyon/Quitichupah Creek area is considered sacred and traditional. The Hopi, who claim affiliation with the Fremont culture, requested that cultural sites remain undisturbed. The Utes requested a one-mile buffer around the rock art sites, and no disturbance of known sites.

Transportation - The proposed road would reduce the round-trip coal transport by 50 miles and remove coal transport traffic from portions of Interstate 70 (I-70) and SR-10.

Socioeconomic - Emery County has questioned the need for the road and the benefits for their residents. The shorter route would greatly reduce SUFCO Mine transport costs and save energy (fuel). The agricultural community could be impacted by the loss of livestock and timing restrictions.

ALTERNATIVES

Based on the issues, four alternatives were considered for analysis in this EIS, as follows:

Alternative A No Action Alternative (**Environmentally Preferred Alternative**)

Alternative B Quitichupah Creek Road Alignment (**Proposed Action**)

Alternative C Alternate Junction with SR-10 and Alternate Design of Quitichupah Route

Alternative D Water Hollow Road Alignment (**Preferred Alternative**)

ALTERNATIVE A - NO ACTION (ENVIRONMENTALLY PREFERRED ALTERNATIVE)

Under the No Action Alternative, coal would continue to be transported from the SUFCO Mine to the Hunter Power Plant and railroad loadouts near Price, Utah via the Acord Lakes Road (Sevier County Road #010), I-70, and SR-10. In 2002, two million tons of coal was transported to the Hunter Power Plant, which equates to 52,631 truck trips. An additional one million tons were

transported to the railroad loadouts in Carbon County for shipment to eastern customers. Currently and into the foreseeable future, 4.7 million tons of coal per year would be transported west to Levan Loadout.

Under this Alternative, the environment in Quitchupah Creek would remain unchanged in the foreseeable future.

ALTERNATIVE B - QUITCHUPAH CREEK ROAD (THE PROPOSED ACTION)

The construction of the proposed road would upgrade and realign an existing 9.15 mile long road along Quitchupah Creek, connecting Acord Lakes Road (Sevier County Road #010) in Sevier County with SR-10 in Emery County. The proposed 8.9 mile road is the shortest route of the three project alternatives. It would reduce the round-trip transport of coal trucks by 55.4 miles as compared to the current Acord Lakes Road route, resulting in a savings of up to 1.6 million gallons of fuel annually.

The route would cross 3.7 miles of private land requiring the acquisition of rights-of-way from six different land owners. At the junction with SR-10, turn lanes and an acceleration lane would need to be added to the highway, which would require widening of the bridge over Quitchupah Creek. Loaded transport trucks would ascend a steep grade on SR-10 that would reduce the speed of northbound traffic (**Figure 1-2**).

No facilities would be built in association with this alignment. There would be temporary impacts to approximately 92.3 acres. Approximately 45 acres would be permanently impacted at the end of construction. The alignment would include 18 primary crossings. Applicant committed measures would include wetland mitigation, construction of a cattle trail, and riparian fencing.

ALTERNATIVE C – ALTERNATE JUNCTION WITH SR-10 AND ALTERNATE DESIGN

This alternate route would detour from the proposed route in the southwest quarter of Section 13, Township 22 South, Range 5 East and proceed east to the junction with SR-10 in the southwest corner of Section 17, Township 22 South, Range 6 East (approximately 1.5 miles north of the proposed Alternative B junction with SR-10). This road would be slightly longer in length (9.1 miles) than the proposed road (Alternative B) but it would bypass the grade on SR-10 that now slows loaded coal trucks, which potentially reduces the speed of other northbound traffic on SR-10. The average grade for this Alternative is 0.6 percent for loaded coal trucks. The loaded coal trucks on Alternative C would access SR-10 at a point 270 feet higher in elevation than the proposed junction near Quitchupah Creek. At the Alternative C junction, the grade for northbound loaded coal trucks on SR-10 is only 0.07 percent. This route would require less elevation change along the travel route and allow loaded coal trucks to utilize their momentum gained while descending Quitchupah Creek Road to ascend the 0.6 percent grade. The route would cross lower Link Canyon channel, as does the proposed route. The total new surface disturbance would be 96.3 acres (**Figure 1-2**).

This Alternate Design would incorporate features to the proposed Quitchupah Creek Road to facilitate livestock movements within allotments, and also facilitate wildlife movements to and from the winter range. The wildlife/livestock facilities would include fencing the road to keep the livestock off the roadway during the grazing season. Approximately 16.3 miles of fence would be installed under this alternate design. It is also proposed that five underpasses approximately 20

feet wide and 70 feet long would be incorporated into this build alternative to facilitate wildlife/livestock access to both sides of the fenced road for grazing purposes. The underpasses would also provide access to Quitchupah Creek, the only watering source in the associated allotments.

Fencing, underpasses, and 1.5 miles of designated livestock trail would allow trailing of livestock along portions of the proposed Quitchupah Creek Road. The alignment would include 22 primary crossings. Applicant committed measures would be the same as for Alternative B.

This road alternative would reduce the coal haul round-trip transport distance by 58.0 miles, as compared to the current Acord Lakes Road route.

ALTERNATIVE D - WATER HOLLOW ROAD ALIGNMENT (THE PREFERRED ALTERNATIVE)

Water Hollow is a large northeast-southwest trending drainage that cuts through Old Woman Plateau on the Fishlake National Forest. The Water Hollow Road would utilize the Quitchupah Creek Road Alignment for 2.0 miles of the westernmost portion of its alignment. At this point, it crosses Quitchupah Creek and follows to the south of this drainage to Water Hollow. This Alternative then continues in an easterly direction to Water Hollow Benches where it then turns south to the Saleratus Benches. From Saleratus Benches, the Water Hollow Road Alternative then turns north and east to connect with SR-10 (**Figure 1-2**).

The Water Hollow Road Alternative alignment heads at about 7,550 feet above mean sea level (AMSL). The proposed road alignment is 11.25 miles long and drops 1,430 feet in elevation for an average grade of 2.5 percent. The descent into Water Hollow from Acord Lakes Road has an average grade of four percent, and the ascent out of Water Hollow onto Water Hollow Bench is seven percent. This alignment crosses several perennial and ephemeral tributary drainages, for a total of 20 primary crossings. The acreage of new surface disturbance for the Water Hollow Road would be 146.3 acres. In addition to the applicant committed measures described under Alternatives B and C, maintenance of existing road, increased fencing, and seeding rangeland would also be done.

This road alternative would reduce the coal haul round-trip transport distance by 46.7 miles, as compared to the current Acord Lakes Road route.

SUMMARY OF ENVIRONMENTAL IMPACTS

Table 2.7-1 at the end of Chapter 2.0 Alternatives provides a detailed comparison of all impacts.

IMPACTS COMMON TO ALL ALTERNATIVES

Common to all of the alternatives, including the No Action Alternative, is the contract commitment by SUFCO Mine for delivery of coal to the Hunter Power Plant near Castledale. One million tons of coal delivered to Hunter Power Plant in 2001 resulted in 105 loads per day traveling east on existing roads. Two and one half million tons of coal delivered in 2002 resulted in 262 loads per day; the maximum transport of 4.5 million tons of coal to Hunter Power Plant would result in 474 loads per day. Coal truck traffic, wear on the roads, and noise levels on SR-10, and in the roadside communities would continue regardless of which Alternative is selected. The continued delivery of coal to the Hunter Power Plant would result in a positive economic

effect for Emery County. The coal would provide an economic benefit to Sevier, Emery, and Carbon Counties.

IMPACTS COMMON TO THE BUILD ALTERNATIVES B, C, AND D

The selection of one of the build alternatives would shift the east-bound truck traffic from portions of I-70 and SR-10 to the new route and also shift noise and human activity to Quitchupah Creek.

The proposed routes for the three build alternatives (B, C, D) junction with Acord Lakes Road (Sevier County Road #010) and traverse east for two miles on a common route dictated by constraints of Convulsion Canyon, the upper canyon of Quitchupah Creek. Within this area there would be impacts to jurisdictional wetlands (JW), riparian zones, and the upper portion of the livestock trail.

Water Quality - Improvements in roadway design for the Quitchupah Creek Road, including: implementation of BMPs for runoff control, erosion/sedimentation control, and maintenance; and distancing the road from the creek where possible in combination with the environmental protection measures, would help to reduce the potential for increasing the amount of total dissolved solids in Quitchupah Creek above current levels, though there would be some localized areas of increased erosion due to increased disturbance.

Wildlife - Wildlife-vehicle collisions would increase along with increased human presence within the Quitchupah Creek drainage and adjacent remote terrains. Habitat fragmentation would also occur. Wildlife-vehicle collisions would be reduced regionally due to decreased coal transport mileage. Fencing and wildlife crossings would help reduce the potential for wildlife-vehicle collisions.

Land Use - Construction and operation of the proposed roadway would change the land use characteristics of the area from a historically remote and rural area to one of increased human activity (i.e., significantly increasing commercial truck traffic) and accessibility.

Visual Resources - The Quitchupah Creek Road under any build alternative would be more visible than the existing two-track roadway and there would be a change in quietness and rural character of area. The proposed road, once constructed, would meet the objectives of both the USFS and BLM visual resource management classes.

Cultural Resources - Historic and prehistoric cultural sites would be directly impacted from the construction of the proposed road under Alternatives B and C. Historic and prehistoric sites, including the rock art sites, may also be indirectly impacted by the increased public visitation of the area as a result of improved public accessibility.

Native American Religious Concerns - Consultation to date by the USFS and BLM has indicated that portions of the area have been historically used by Native Americans and have cultural relevance. The tranquility and solitude of the Quitchupah Creek canyon area, which contains sacred values, would be impacted.

Socioeconomics - Cattle ranchers would have a designated cattle trail for approximately 1.5 miles

where the terrain restricts free trailing. There would likely be minimal losses due to livestock-vehicle collision. Mine life would be extended by 3 to 10 years (depending upon alternative) due to the increase in economic feasibility with reduced transportation costs.

Transportation - At the junction with SR-10, turn lanes would need to be added to the highway.

ENVIRONMENTAL PROTECTION MEASURES

The following is a discussion of applicant and agency-committed actions and how they relate to the build Alternatives.

ALTERNATIVES B & C

The applicant committed action of eliminating livestock grazing on 4.7 miles of stream in Quitchupah Creek and in Convulsion Canyon would protect the riparian zone and allow the riparian community to colonize bare sites and mature. A fully vegetated riparian community protects the streambanks, shades the water surface reducing evaporation, provides nesting habitat and feeding areas for many species of birds, provides protective cover for mammals and insects, and filters sheet flow from adjacent uplands to reduce sedimentation to the stream maintaining water quality and aquatic habitats.

The project design also provides measures to eliminate or reduce impacts to wildlife where feasible by constructing various mitigation features. The impacted wetlands would be replaced at a minimum of a 3:1 ratio onsite to maintain habitat for wildlife, and the filled perennial stream channels would be fully replaced with new adjacent realigned channels to maintain the riparian zone and aquatic habitat of the stream. An air bath after loading would be required for the coal trucks traveling on the proposed road in order for the trucks to be free of exterior coal debris. Wildlife underpasses constructed under Alternative C would allow wildlife to pass under the road to avoid the coal truck traffic, and animal carcasses would be removed from the road daily (see **Section 2.2**) to reduce scavenging on the proposed road. The reclamation of disturbed areas not required for operation of the proposed road would be completed as well as unused portions of the existing road/two-track to partially replace the upland habitats lost to road construction.

The restoration of the riparian zone, and the implementation of an improved road drainage system for the new road would help to reduce effects on downstream water quality. In summary, all the riparian habitats would be replaced or restored as well as all the upland habitats, except that required for operation of the road.

ALTERNATIVE D

The applicant committed action of eliminating livestock grazing on 4.7 miles of stream in Quitchupah Creek and in Convulsion Canyon would protect the riparian zone and allow the riparian community to colonize bare sites and mature. A fully vegetated riparian community protects the streambanks, shades the water surface thereby reducing evaporation, provides nesting habitat and feeding areas for many species of birds, provides protective cover for mammals and insects, and filters sheet flow from adjacent uplands to reduce sedimentation to the stream which maintains water quality and aquatic habitats.

The project design also provides measures to eliminate or reduce impacts to wildlife where feasible by constructing various mitigation features. The impacted wetlands would be replaced at least a 3:1 ratio onsite to maintain critical habitat for wildlife, and the filled perennial stream

channels would be fully replaced with new adjacent realigned channels to maintain the riparian zone and aquatic habitat of the stream. The coal trucks traveling on the proposed road would be required, as a performance standard, to be free of exterior coal debris that may become roadside waste and potentially affect water quality in adjacent streams. Bridges would allow wildlife to pass under the road to avoid the coal truck traffic and allow big game movement, and animal carcasses would be removed from the road daily to reduce scavenging on the proposed road.

The reclamation of disturbed areas not required for operation of the proposed road would partially replace the upland habitats lost to road construction.

The restoration of the riparian zone, and implementation of an improved road drainage system would help to minimize downstream water quality impacts. Installing water bars on the existing road, and maintaining those features, would help to reduce some of the ongoing impacts to water quality from the existing road.

In summary, all the critical wildlife habitats would be replaced or restored as well as all the upland habitats except those that are required for operation of the road.

IMPACTS THAT VARY PER ALTERNATIVE B, C, AND D

ALTERNATIVE B - QUITCHUPAH CREEK ROAD

The Quitchupah Creek Road, Alternative B, is the shortest route of the three project alternatives, measuring 8.9 miles in length. Under this Alternative, the improved drainage control design and culverted crossings of the creek could help to reduce sedimentation to the creek as now experienced on the unimproved road that currently has uncontrolled drainage and erosion problems. Forty percent of the route would be in erodible soils adjacent to the creek.

Biological clearance prior to roadway construction would allow for mitigating actions to reduce impacts to threatened, endangered, and sensitive (TES) species habitat. The construction of the road would remove four animal unit months (AUMs) of forage from the grazing allotments and 1.4 acres of cultivated pasture.

There are known cultural resource sites located where the terrain restricts road alignment; these would be impacted by the road construction. There would be the potential for indirect impacts to cultural resource and rock art sites due to accessibility.

The route would cross 3.7 miles of private land requiring the acquisition of rights-of-way from six different landowners. The junction with SR-10 would require widening of the bridge over Quitchupah Creek. Loaded coal trucks must also ascend a steep grade on SR-10 that would reduce the speed of northbound traffic, necessitating the construction of a northbound acceleration lane.

The road would reduce the round-trip coal transport route by 55.4 miles and result in a savings of up to 1.4 million gallons of fuel annually. Economic benefits would accrue to the SUFCO Mine from the cost savings and to the economy of Sevier County due to the increased profitability of the mine.

ALTERNATIVE C - ALTERNATE JUNCTION WITH SR-10 AND ALTERNATE DESIGN

This route is identical to the proposed Quitchupah Creek Road except for the inclusion of additional fencing and underpasses to facilitate wildlife/livestock use of the forage adjacent to the road and for movement of livestock along the creek. Also, the last two miles of this route deviates 1.5 miles to the north to junction with SR-10 above the grade that impedes northbound traffic due to the slowing of the truck traffic.

Impacts are similar to those summarized under Alternative B, except the road would be slightly longer at 9.1 miles. However, it would save 58 miles on the round-trip travel route, as compared to the current Acord Lakes Road route since it ends up 1.5 miles further north on SR-10; saving up to 1.5 million gallons of fuel annually. The route would also be more efficient for the truck transport because the loaded coal trucks would use the momentum gained descending Quitchupah Creek to ascend the 0.6 percent maximum grade and junction with SR-10 at a level grade.

This road alternative has the potential to impact cultural sites along Quitchupah Creek, as described under Alternative B. In addition, implementation of Alternative C has the potential to impact cultural sites located at the Link Canyon crossing.

The road would cross 2.9 miles of private land, requiring the acquisition of rights-of-way from two landowners.

ALTERNATIVE D - WATER HOLLOW ALIGNMENT

The Alternative D road deviates from the proposed Quitchupah Creek Road after exiting Convulsion Canyon by traversing Water Hollow, a perennial stream. It then crosses Water Hollow and Saleratus benches before descending to junction with SR-10 south of Quitchupah Creek. The Alternative D road traverses steeply incised terrain that would require extensive cut and fill construction.

Because the alternative diverges from Quitchupah Creek, it would result in the construction of a new roadway alignment, 11.25 miles in length. Under this scenario, the existing Quitchupah Creek two-track road would remain open up to the Forest boundary. The two-track road would continue to contribute sediments into the Creek, however water bars would be constructed to help control drainage and erosion.

The existing Water Hollow and Saleratus benches provide big game winter range. Under this scenario, the construction of a road across the benches would disturb big game habitat and movement along the road corridor and would greatly increase the potential for wildlife-vehicle collisions. Elk crossings installed in several drainages would help to reduce this potential. The potential to impact habitat for sensitive plant species is low.

Livestock-vehicle collisions would be minimized on the proposed Water Hollow Alignment by fencing. The grazing allotment would be managed as a two pasture allotment. Water would be hauled to both pastures of the allotment on the benches to reduce trailing to water and provide for better distribution of livestock in the allotment. A cattle trail would be constructed along the westernmost 1.5 miles, as it would be for Alternatives B and C.

The road would cross 0.53 miles of private land and require a right-of-way from one landowner. The route would avoid all eligible cultural sites and would not be near known rock art sites.

The Water Hollow Alternative would result in the construction of a slightly longer road than the

other alternatives and would require loaded coal trucks to ascend steep 7 percent grades. Under this Alternative, the round-trip coal haul transport distance would be shortened by 46.7 miles, as compared to the current Acord Lakes route. The resulting savings on fuel would be approximately 1.4 million gallons annually. The junction with SR-10 would be on level grade with good sight distance.