U.S. Department of the Interior
Bureau of Land Management
White River Field Office
220 E Market St
Meeker, CO 81641

ENVIRONMENTAL ASSESSMENT

NUMBER: DOI-BLM-CO-110-2009-067-EA

CASEFILE/PROJECT NUMBER: COC74583

PROJECT NAME: Willow Creek Access Trail

LEGAL DESCRIPTION: Sixth Principal Meridian
T.4S., R.97W.,

Sec. 4, E½SW¼, S½SE¼,
Sec. 9, SE¼SE¼,
Sec. 10, NE¼NE¼, S½NE¼, NE¼SW¼ ,S½SW¼,
Sec. 11, SW¼NW¼.

APPLICANT: DOI – BLM – White River Field Office

ISSUES AND CONCERNS (optional): Privately owned lands adjacent to the proposed action, riparian area and water crossing in East Willow Creek, route exiting the East Willow Creek drainage is in the side drainage bottom for ¼ mile.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:

Background/Introduction: ExxonMobil owned lands in the bottom of Willow Creek are locked by the permitee during the big game hunting seasons. This is to lessen traffic that may impact privately owned lands further to the south in East Willow Creek. The locked gate across the road and fences without gates intersecting the area effectively restrict the general public to foot access only into the adjacent public lands. There is a well maintained road system in the bottom of both the East and West forks of the Willow Creek drainage that are currently utilized by private land owners, permittees and Oil & Gas companies. Those that have permission to use the private access in the drainage bottom have motorized access to the adjacent public lands. However, the general public must park and walk ¼ mile between two well traveled and maintained roads to gain access to additional BLM lands. Discussions about access through 0.2 miles of privately owned lands were conducted and denied by ExxonMobil based on the preferences of the surface permitee.

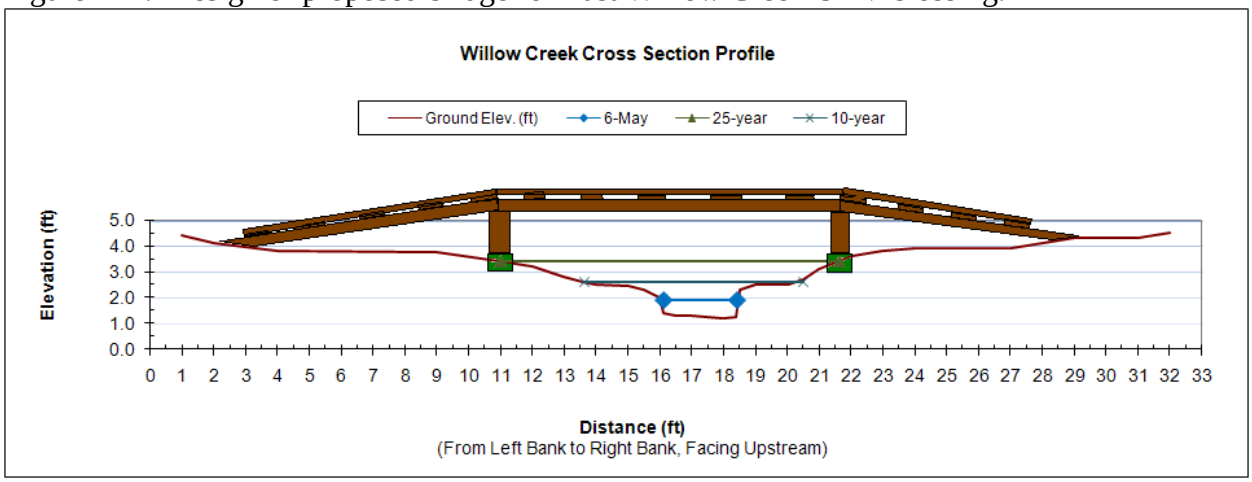
Proposed Action Common to Both Alternatives: It is proposed that a trail be constructed around the small section of privately owned land. The proposed trail will connect the maintained road in the West Willow Creek drainage to the maintained road in the East Willow Creek drainage with an estimated total length of 0.3 miles. There is a short distance of approximately 850 feet of trail that will require a cut in the hillside to allow for safe travel.

Two gates will be installed at entry points along the main road on BLM managed lands to restrict access to the privately owned lands. One gate will be placed across the road in section 4 and the other will be placed across the road in section 16. There is a fence that runs adjacent to the road in East Willow that will need to be crossed as well as a fence that runs the ridgeline down to private in the south central portion of section 4. A cattle guard or gate will be constructed at these crossings to mitigate livestock management.

Alternative A, Off Highway Vehicle (OHV) Trail: There are two trails proposed in this alternative. The first trail will bypass the private land in the bottom of Willow Creek in section 4 with a total length of 0.3 miles. This route contours a hillside above the private land, crosses the water in the bottom of East Willow Creek and intersects two fences, one on the hillside and the other at the road. The construction of the trail and route layout will be designed to create access by OHV, with a maximum width of 50 inches (maximum trail width of 84 inches or 7 feet), as well as to accommodate safe travel by foot and horseback. Construction of the trail will be conducted by a private group through grants and donations as well as volunteering time and resources. This group will also supply all of the materials and equipment required for construction.

A bridge is proposed to be constructed were the trail will intersect East Willow Creek. The 7 foot wide bridge will be set on reinforced timbers, anchored on each side, elevated on supports about 2 feet and have small railings on the side to give a visual barrier to aid drivers. The bridge anchors will be in upland vegetation and will be outside the average flood flow, bankfull and channel maintenance flow for the channel. The span of the bridge will be 12 feet between support anchors. Supports will go up from anchors at least two feet above the natural grade at the anchor points and a ramp on either side will be constructed (See Figure A-1). The supports and anchors will be designed to be inundated during a storm event greater than the 25-year event without impeding flows.

Figure A-1: Design of proposed bridge for East Willow Creek OHV crossing.



The second trail will begin in section 9, extend to the east and end on top of Scandard Ridge in section 10. For travel east of East Willow Creek, This trail will connect two old existing roads, one in the bottom of the drainage to an abandoned well and the other coming off of the top of the Scandard Ridge. The trail follows the old road to an abandoned well on the north side of the drainage for approximately 1/3 miles. Before getting to the well site the route crosses the drainage, moving the trail to the south side and continues along the drainage bottom for approximately 1/4 mile. The original trail travels the actual drainage bottom for 1/4 mile before exiting to the adjacent hillside. The proposed route would be moved onto the hillside to reduce impacts in the channel. This route will involve new construction for approximately 1/3 mile. The trail then joins and follows the existing road to the top of the ridge above Scandard Gulch for the remaining 2/3 of a mile.

Informative kiosks will be placed at the trail head in section 4, and in sections 9 and 10 where the trail links Willow Creek with Scandard Ridge. The kiosks will show a location and route map accompanied by a description of the route, restrictions and responsibilities of the public if the route is used.

Alternative B, Horse and Foot Trail: Construct the trail in section 4 to allow for foot and horseback access only. There will be a need for all of the same construction standards to allow for safe travel across the hillside and allow for gates to be inserted at fence crossings. There will be no need for the bridge over East Willow Creek or for additional access east of the East Willow Creek area as game trails may be utilized after the fence crossings.

Informative kiosk will be placed at the trail head in section 4 and will show a location and route map accompanied by a description of the route, restrictions and responsibilities of the public if the route is used.

No Action Alternative: Do not construct the trail for OHV and/or horseback use and maintain the access into the area as foot traffic only.

ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD: None

NEED FOR THE ACTION: The purpose of the proposed action is to manage multiple uses on public lands in a manner that avoids, minimizes, reduces, or mitigates potential impacts to other resource values.

PLAN CONFORMANCE REVIEW: The proposed action is subject to and has been reviewed for conformance with the following plan (43 CFR 1610.5, BLM 1617.3):

Name of Plan: White River Record of Decision and Approved Resource Management Plan (ROD/RMP).

Date Approved: July 1, 1997
Decision Number/Page: 2-53

Decision Language: "Administrative and public access will be obtained through acquisition of easement, acquisition of land through exchanges, road construction or renovation, or by other appropriate means. … Lands Identified for public access enhancement include: 1) large block of inaccessible BLM lands or lands with limited/restricted public access."

AFFECTED ENVIRONMENT / ENVIRONMENTAL CONSEQUENCES / MITIGATION MEASURES:

STANDARDS FOR PUBLIC LAND HEALTH: In January 1997, Colorado Bureau of Land Management (BLM) approved the Standards for Public Land Health. These standards cover upland soils, riparian systems, plant and animal communities, threatened and endangered species, and water quality. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands. Because a standard exists for these five categories, a finding must be made for each of them in an environmental analysis. These findings are located in specific elements listed below:

NATURAL, BIOLOGICAL, AND CULTURAL RESOURCES

AIR QUALITY

Affected Environment: The proposed action is located in rural northwest Colorado in the White River Basin, more than ten miles from special designation air sheds or non-attainment areas. Overall air quality conditions in the White River Basin are likely to continue to be good for some time due to effective atmospheric dispersion conditions and limited transport of air pollutants from outside the area. The White River Basin has been classified as either attainment or unclassified for all air pollutants (NAAQS and CAAQS standards), and most of the area has been designated for the prevention of significant deterioration Class II. for the PSD areas nearby. Because the historic air quality in the White River Basin has been good, small changes in air quality may have noticeable localized effects, especially on visibility.

Environmental Consequences of Alternative A, OHV Trail: The proposed action includes building the OHV trail. If this trail is not built with proper drainage features like water bars it is likely to deteriorate more quickly and dramatically increase dust production during OHV use. The mitigation required in the Soils and Water Quality section will reduce these impacts to an acceptable level. During construction dust production is likely, especially when conditions are dry and/or are windy. As vegetation re-establishes, the only dust production will be during use of the trail by the OHVs and other uses.

Environmental Consequences of Alternative B, Horse and Foot-trail: This alternative would result in less trail construction and the type of trail needed for this type of travel would be less impacting. Horse and foot travel on the path would result in dust production along the trail and depending on soil moisture; however impacts are likely to be less than by OHV travel.

Environmental Consequences of the No Action Alternative: This area is currently accessible with horses and by foot. Impacts from horses and foot travel would be similar, although it is likely that public use of this area would be the least under this alternative and thus dust production from use.

Mitigation: See the Water Quality Section for trail design specifications.

SOILS

Affected Environment: The OHV trail will not pass through soils identified as fragile, with slopes over 35% or with landslide potential.

Soil Classifications within 30 Meters of the Project (greater than 1 Acre in size)

Soil Classification	Range Site Description	Acres Potentially Impacted
Glendive fine sandy loam	Foothills Swale	16
Castner channery loam, 5-50% slopes	Pinyon-Juniper woodlands	2
Veatch channery loam,12-50%slopes	Loamy Slopes	5
Irigul-Parachute complex, 5-30% slopes	Loamy Slopes/Mountain Loam	21
Torriorthents-Rock Outcrop, complex, 15-90% slopes	Stoney Foothills	4

Environmental Consequences of Alternative A, OHV Trail: Impacts to soils from the proposed action include removal of vegetation, mixing of soil horizons, soil compaction, increased susceptibility to erosion and loss of topsoil productivity. The primary effect of surface disturbances on soil resources is in increasing erosion. Increased erosion of soils would also directly reduce vegetative productivity. If reclamation is successful impacts from this project will be minor and localized to disturbed areas.

Environmental Consequences of Alternative B, Horse and Foot-trail: This alternative would result in less trail construction and the type of trail needed would be less impacting. The

crossing on East Willow Creek would be a ford and a trail would not be built. Soil impacts would generally be limited to the trail and would depend on the amount of use the trail received. Horse and foot travel on the path would result in compaction of soils along the trail and depending on soil moisture would cause noticeable damage to soils in some locations from hoof action. Foot travel is likely to be minimal in impacts but depending on the amount of use can still cause compaction and erosion of soils.

Environmental Consequences of the No Action Alternative: This area is currently accessible with horses and by foot. Impacts from horses and foot travel would be similar, although it is likely that public use of this area would be the least under this alternative.

Mitigation:

- All construction activity shall cease when soils, road and trail surfaces become saturated to a depth of three inches unless there are safety concerns or activities are otherwise approved by the Authorized Officer.
- The Half Rule described on page 17 of Trail and Construction and Maintenance Notebook, 2007 Edition (Trail Notebook) will be used whenever possible.
- Trail Sections on cross slopes will be built according to the diagrams in Figure 1 and Figure 2, unless this design would result in more resource damage, including a 3 to 6% outslope design and the minimum trail width to achieve safe passage of single file OHVs. Trails will use the Full-Bench method of construction described 51 of the Trail Notebook with only the topsoil kept for side-casting whenever possible
- All disturbed surfaces beside the running surface of the trail will be hand raked and seeded with an approved BLM seed mix when soil moisture conditions are optimal for seed germination.
- On all sections of the trail will use the Grade Reversal method described on page 31 of the Trail Notebook; except when the trail climbs out of the second tributary crossing. On this section of the trail water bars will be constructed using a waterbar methods described starting on page 36 of the Trail Notebook at a minimum spacing of 20 feet.
- After the second tributary crossing and after the trail climbs the side hill there is a section of the trail that has active erosion. If in future years after use the trail begins to creep down the slope or becomes unstable a Crib Wall will be constructed for this trail section as described on page 115 of the Trail Notebook.
- The trail crosses an unnamed tributary to East Willow Creek and will require rock to reduce erosion and impacts to the channel.

Finding on the Public Land Health Standard for upland soils: With mitigation this action is unlikely to reduce the productivity of soils impacted by surface disturbing activities.

WASTES, HAZARDOUS OR SOLID

Affected Environment: There are no known hazardous or other solid wastes on the subject lands. No hazardous materials are known to have been used, stored, or disposed of at

sites included in the project area. No wastes are expected to be generated from any of the alternatives.

Environmental Consequences of Alternative A, OHV Trail: Accidental releases associated with equipment failures, equipment maintenance and refueling could cause soil, surface water, and/or groundwater contamination.

Environmental Consequences of Alternative B, Horse and Foot-trail: This alternative is likely to result in less impacts due to less construction needed and since OHVs would not be used on this trail.

Environmental Consequences of the No Action Alternative: No hazardous or other solid wastes would be generated under the no action alternative.

Mitigation: None identified.

WATER QUALITY, SURFACE AND GROUND (includes a finding on Standard 5)

Affected Environment: This project is entirely within Willow Creek with is tributary to Piceance Creek. The water quality classification of Piceance Creek Tributaries to the White River (segment 16) is for Aquatic Life Warm 2, Recreation Primary, and Agriculture.

Environmental Consequences of Alternative A, OHV Trail: Potential impacts to the surface waters include increased runoff; erosion and sedimentation due to soil disturbance associated with construction activities; increased sedimentation in watercourses; water quality impairment of surface waters; and potential depletion of surface water flows. The magnitude of the impacts to surface water resources would depend on the proximity of the disturbance to drainage channels, slope, aspect and gradient, degree and area of soil disturbance, soil character, duration of construction activities, and the timely implementation and success/failure of mitigation measures. Surface disturbance would increase wind and water erosion and change soil properties leading to increased runoff and rain splash erosion. Impacts would likely be greatest shortly after the start of construction activities and would likely decrease in time due to stabilization, reclamation, and revegetation efforts. If reclamation is successful impacts from this project will be minor and localized to disturbed areas.

Impacts would likely be greatest shortly after the start of construction activities and would likely decrease in time due to stabilization, reclamation, and revegetation efforts. Changes in surface hydrology from the trail would continue through the life of the project. Sediment transportation in ephemeral and headwater systems requires storm events and typically occurs in stages with periodic intense, localized storms. For example, increased surface runoff or concentrated flows during these storms caused rills and gullies to form in upland hillsides. Eroded material may transport material to stream channels where it may be stored for months or years in sediment deltas or along the banks on terraces. The amount of additional sediment that would reach drainages downstream of the project area depends on natural factors and the effectiveness of the site-specific stormwater management plan for each well. Natural factors which attenuate the

transport of sediment into creeks include water available for overland flow; the texture of the eroded material; the amount and kind of ground cover; the slope shape, gradient, and length; and surface roughness.

OHV use of the trail can increase the wear and erosion on the trail and if the trail is not properly built or maintained impacts can be significant. This occurs when the drainage features on the trail are inadequate and surface runoff is concentrated along the trail itself. Waterbars, rolling dips and other drainage features can be effective mitigation of this impact and specifications are given in the conditions of approval. With the mitigation described in the Soil section impacts are expected to be minor and localized. The crossing on East Willow Creek should not result in additional impacts due to the bridge and the bridge design that keeps it outside of the active flood plain. The crossing on the unnamed tributary to East Willow Creek as the trail goes up to Scandard Ridge is steep on the approach going into the drainage and out the other side and one additional crossing is needed on an unnamed tributary into this drainage. Impacts on the crossing could be dramatic if the crossings are not armored as required by the mitigation below. Armored crossings are likely to reduce impacts from erosion or concentrated surface runoff.

The most likely failure of the bridge crossing would be during flood events. A cross-section was collected during a field visit and storm events were estimated based on channel characteristics. The 10 year event was estimated at 4 cfs and the 25 year event was estimated at 9 cfs. BLM has a streamflow measurement site upstream from the bridge site and the average discharge measured is about 1.4 cfs during typical summer streamflows.

Environmental Consequences of Alternative B, Horse and Foot-trail: This alternative would result in less trail construction and the type of trail needed would be less impacting. The crossing on East Willow Creek would be a ford and a trail would not be built. Impacts from erosion would generally be limited to the trail and would depend on the amount of use the trail received. Horse and foot travel on the path would result in compaction of soils along the trail and depending on soil moisture would cause noticeable increases and concentration of surface runoff. Foot travel is likely to be minimal in impacts but depending on the amount of use can still cause erosion.

Environmental Consequences of the No Action Alternative: This area is currently accessible with horses and by foot. Impacts from horses and foot travel would be similar, although it is likely that public use of this area would be the least under this alternative.

Mitigation: The following should be attached as conditions of approval:

- Provide for erosion-resistant surface drainage by adding necessary drainage facilities and armoring prior to fall rain or snow. When erosion is anticipated, sediment barriers shall be constructed to slow runoff, allow deposition of sediment, and prevent it from leaving the site. In addition, straining or filtration mechanisms may also contribute to sediment removal from runoff.
- Stream crossing on the two unnamed tributaries to East Willow Creek will use the armored crossing method described on page 91 of the Trail Notebook.

Finding on the Public Land Health Standard for water quality: It is unlikely that this project would result in an exceedence of state water quality standards.

WETLANDS AND RIPARIAN ZONES and WILDLIFE, AQUATIC (includes a finding on Standards 2 and 3)

Affected Environment: The proposed trail in T4S, R97W, Section 4 would cross East Willow Creek. A Proper Functioning Condition (PFC) assessment was conducted on the creek in August 2009 and it was rated as "functional – at risk" due primarily to noxious weeds, livestock trampling, and impacts from the adjacent road.

East Willow Creek is not known to support a native fishery, although speckled dace and the BLM-sensitive mountain sucker occupy downstream reaches of mainstem Willow Creek. East Willow is believed to be capable of supporting these fish and their absence may be attributable to a downstream barrier (e.g., culvert or irrigation structure). Rainbow trout have been observed in East Willow Creek, but it is believed that they originated from a private stocking upstream and are not considered self-sustaining.

Environmental Consequences of Alternative A, OHV Trail: Under Alternative A, two trail segments would be built and access would be allowed by foot, horseback, and OHVs less than 50 inches wide. Since the East Willow Creek bridge crossing would span the flood-prone area, the likelihood of adversely influencing channel character with bridge installation and use would be low. The most prominent issues associated with OHV use in the East Willow Creek bottom are the increased risk of weed seed dispersal and physical stream damage attributable to vehicle use or camping/equipment mobilization along the creek. Horse-oriented access may also be expected to result in trailhead-like situations where water is most accessible in lower East Willow. Concentrated and prolonged use of this area for camping or equipment/animal use would likely lead to further physical damage of bank and floodplain features of East Willow and increase the risk of exaggerating system dysfunction and long-term deterioration of upstream (e.g., down-cutting, bank-caving) and downstream (e.g., sedimentation, channel widening) riparian and aquatic habitats. Further deterioration of channel conditions in East Willow Creek would diminish or preclude opportunities for occupation of this stream by native and special status fish.

Environmental Consequences of Alternative B, Horse and Foot-trail: Under Alternative B, only the private land bypass trail in the bottom of Willow Creek will be constructed and it would only be open to foot or horseback travel. The principle issues associated with foot or horseback travel across the creek would be similar to the Alternative A. Promoting horse-oriented access would increase the likelihood of trail-head development where water is most accessible in lower East Willow. Concentrated and prolonged use of this area by horses would likely lead to heavy physical damage of bank and floodplain features of East Willow and increase the risk of exaggerating system dysfunction and long-term deterioration of riparian and aquatic habitat.

Environmental Consequences of the No Action Alternative: There would be no change from the present situation. The area is currently accessible to members of the public who are willing to hike in from existing access points. There is no reason to believe that existing use patterns will change in the future.

Mitigation: Mitigation to reduce the impacts of the stream crossing on bank and floodplain features (i.e., a bridge) has been incorporated into the proposed action.
To reduce the likelihood of further channel damage and aquatic/riparian system deterioration, no camping, equipment storage/mobilization, or corralling/tying/hobbling of animals would be allowed within 300 feet of the East Willow Creek channel.

Finding on the Public Land Health Standard for riparian systems and aquatic wildlife: The East Willow Creek channel is currently failing to meet public land health standards for riparian systems. East Willow Creek was most recently assessed as being "Functional At Risk" with a downward trend. Livestock trampling damage, noxious weeds, and impacts from the adjacent road were noted as the primary factors that need to be resolved in order for the creek's condition to improve. Without proper consideration (i.e., 300' activity buffer) and compliance, both action alternatives would contribute to the risk and likelihood of further deterioration in riparian and aquatic conditions in East Willow Creek. Assuming activity constraints are effective, both action alternatives (as well as the no action alternative) would have negligible influence on channel character or condition and would have a neutral influence on the present land health status.

VEGETATION (includes a finding on Standard 3)

Affected Environment: The proposed trail in section four between West Willow Creek and East Willow Creek is composed mainly of mid to late seral mixed mountain shrub vegetation including: serviceberry (*Amelanchier alnifolia*), mountain mahogany (*Cercocarpus montanus*), and Wyoming big sagebrush (*Artemisia tridentate*). The understory is mainly composed of western wheatgrass (*Pascopyrum smithii*), muttongrass (*Poa fendleriana*), and bluebunch wheatgrass (*Pseudoroegneria spicata*). The portions of the trail that go through sections 9 and 10 are composed primarily of late-seral big sagebrush (*Artemisia tridentate*) and rubber rabbitbrush (*Chrysothamnus nauseosis*) with an understory of western wheatgrass (*Pascopyrum smithii*), basin wildrye (*Leymus cinerius*), letterman needlegrass (*Achnatherum lettermanii*), and Columbia needlegrass (*Achnatherum nelsonii*).

Environmental Consequences of Alternative A, OHV Trail: The proposed trails would disturb approximately 8 acres of vegetation along the project area. Construction of the trail would require the removal of all the overstory and understory vegetation about 84 inches wide to make the trail safe for use by all terrain vehicles (ATV's) and utility terrain vehicles (UTV's). Removal of vegetation would increase the potential for noxious/invasive weed establishment as well as decreased soil stability, however vegetation removal would be required to make a safe trail for users.

Environmental Consequence of Alternative B, Horse and Foot-trail: Alternative B would only require construction of trail in section 4. Vegetation will be removed on approximately 0.5 acres to allow for foot and horseback travel. Removal of vegetation on less area will decrease the potential area for weeds to establish and maintain more soil stability in the area.

Environmental Consequences of the No Action Alternative: The no action alternative would not require the removal of any vegetation therefore limiting the ability for new weeds to establish and limiting soil movement.

Mitigation: None

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Wildlife, Aquatic and Wildlife, Terrestrial)*:* In general, the proposed project area is meeting land health standards for plant communities There is a small component of cheatgrass in the project area. Cheatgrass is not the dominate vegetation in the area, and in general there is good diversity within in plant communities. It is not anticipated that any of the alternatives will prevent the project area from continuing to meet land health standards.

INVASIVE, NON-NATIVE SPECIES

Affected Environment: Within the immediate area of the proposed project, cheatgrass *(Bormus tectorum*), houndstongue (*Cynoglossum officinale),* and Canada thistle (*Cirsium arvense*) are the only noxious weed known to occur. In Hunter Creek, there is a large infestation of leafy spurge (*Euphorbia esula*), and in Bull Fork, there is a large infestation of yellow toadflax (*Linaria vulgaris*). Musk thistle (*Carduus nutans*) is also known to occur within the vicinity of the project area.

Environmental Consequences of Alternative A, OHV Trail: Implementation of the proposed action would require the removal of approximately 8 acres of vegetation. Removal of vegetation often times creates a pathway for noxious/invasive weed establishment. Increased ATV/UTV traffic also increase the chances for weeds to establish as these vehicles often act as vectors for weed seeds when they get caught up on the frame of the vehicles. Horses can also transport weed seeds in fecal material or when seeds get caught in their fur.

Environmental Consequences of Alternative B, Horse and Foot-trail: Implementation of Alternative B would also create a potential pathway for weed establishment, however the area impacted would be much less. Vegetation would still be removed on areas between West and East Willow Creek, and weed seeds could still be brought into the area from horses or foot traffic. It is not expected there would be nearly as much traffic in the area as ATV's or UTV's are unable to enter the area so the potential for off-site weed to be transportation to the area would be decreased compared to the Alternative A.

Environmental Consequences of the No Action Alternative: No trails will be constructed and there will be no increase in potential for weed establishment in the area.

Mitigation: BLM WRFO shall monitor the area for weed establishment and treat the area as needed in accordance with the integrated weed management plan.

THREATENED, ENDANGERED, AND SENSITIVE PLANT SPECIES (includes a finding on Standard 4)

Affected Environment: There are no plant species listed, proposed, or candidate to the Endangered Species Act, or plants considered sensitive by the BLM, that are known to inhabit areas influenced by the proposed action. One federally listed threatened plant species, *Spiranthes diluvialis*, is known to inhabit riparian areas of the Rocky Mountain West, though to date it has not been observed within the White River Resource Area. A survey within 100 meters of the riparian area affected by the proposed action was conducted by the BLM botanist on July 14, 2010. No *S. diluvialis* individuals were located.

Environmental Consequences of Alternative A, OHV Trail: Neither the proposed action nor alternatives A and B are expected to affect special status plant species or associated habitats.

Environmental Consequences of Alternative B, Horse and Foot-trail: Same as Alternative A

Environmental Consequences of the No Action Alternative: The no action alternative is not expected to affect special status plant species or associated habitats.

Mitigation: None

Finding on the Public Land Health Standard for Threatened & Endangered species: The proposed and no-action alternatives should have no influence on populations or habitats of plants associated with the Endangered Species Act or BLM-sensitive species and, as such, should have no influence on the status of applicable land health standards.

THREATENED, ENDANGERED, AND SENSITIVE ANIMAL SPECIES (includes a finding on Standard 4)

Affected Environment: There are no threatened or endangered animal species known to inhabit the project area, but the project has potential to influence several BLM sensitive species, including the greater sage-grouse, fringed myotis, northern goshawk, and mountain sucker.

Greater sage-grouse are currently candidate for listing under the Endangered Species Act. The proposed project is located within the overall range of the Parachute-Piceance-Roan (PPR) greater sage-grouse population. Although the installation of new trails would not involve habitat suitable for sage-grouse (i.e., basin big sagebrush bottoms or mixed mountain shrub slopes), the trail and road network intended to be made vehicular-accessible involves at least 200 acres of occupied habitat in the Middle Fork of Stewart Gulch watershed and at least 500 acres of occupied habitat in the West Fork of Stewart Gulch watershed (including Scandard Ridge).

Habitat enhancement projects implemented in the future to aid sage-grouse recovery may add substantially to the occupied habitat base in this area. Although there are no leks known to be active in the area potentially influenced by the project, an inactive lek and 2 historic leks are located about 2.5 miles south of the Scandard Ridge trail intersection. Despite the lack of activity on these leks, ongoing sage-grouse telemetry work by the Colorado Division of Wildlife (CDOW) indicates these areas continue to function as nest and brood-rearing habitat. Acoustic surveys conducted on West and East Willow Creek in August 2008 indicate the presence of fringed myotis. This bat is associated with sage-steppe and pinyon-juniper woodlands. Rock outcrops and mature pinyon-juniper woodlands, representing potential roost substrate for small numbers of bats, particularly solitary males during the summer, are widely available in the project area. Although suitable mature woodland habitat is widely available in the area influenced by the project, there are no records of BLM-sensitive northern goshawk nests within the project area. See *Wetlands and Riparian Zones* and *Aquatic Wildlife* section for a discussion of the BLM-sensitive fish, the mountain sucker.

Environmental Consequences of Alternative A, OHV Trail: Under Alternative A, two trail segments would be built and access would be allowed by foot, horseback, and OHVs less than 50 inches wide. The East Willow Creek crossing would be via a bridge. There would be no direct habitat loss to any of the BLM sensitive species due to construction or maintenance of the trails. It is assumed that most of the use on these trails would be in conjunction with big game hunting seasons in the fall, however they will be open year-round and it is possible that they may also be used by the public at other times of the year.

Sage-grouse would be subject to influence by Alternative A since public recreational use of occupied ridgeline habitats in the West Fork and Middle Fork of Stewart Gulches (T4S, R97W, Sections 15 and 22) would increase. Increasing use of the existing road network in these areas during the late summer through early winter months would not be expected to interfere with important reproductive functions of sage-grouse nor compromise the fitness of yearling or adult grouse. Once OHV access is established to the Scandard Ridge road, the likelihood of further trail proliferation, via unauthorized pioneering and unintended use of pipeline corridors, would be high, and it possible that vehicle use would eventually extend to concentrated core-use areas on Barnes Ridge. In the event substantial recreational use of this road and trail network occurs during, and substantially compromises, sage-grouse reproductive activity (i.e., from March 15 to July 15) on BLM-administered sage-grouse habitats between Willow Creek and Middle Fork of Stewart Gulch, or extends via unauthorized pioneering or right-of-way (ROW) use beyond drainages and tributaries associated with the Middle Fork of Stewart Gulch (e.g., Barnes Ridge), seasonal closure of the East Willow access may be required to aid conservation and promote recovery of this species.

Sage-grouse hunting in the Piceance Basin has been closed for many years, however it is legal to hunt dusky grouse (formerly called blue grouse). Providing information on project kiosks regarding how to identify sage-grouse from dusky grouse would help to minimize accidental shooting of protected sage-grouse.

Construction and use of the trails would not be expected to have any behavioral effect on bats roosting in mature woodland habitats. It is also unlikely that Alternative A would have any

influence on northern goshawk nest activity, since vehicle use should remain relegated to the existing road network and concentrated recreation use should occur after goshawk nesting activity is complete by mid-August.

Environmental Consequences of Alternative B, Horse and Foot-trail: Under Alternative B, only the private land bypass trail in the bottom of Willow Creek will be constructed and it will only be open to foot or horseback travel. Members of the public would still be able to access Scandard Ridge by following existing two-track roads or game trails. A primary concern with vehicle access to Scandard Ridge during critical breeding and nesting times for sage-grouse is the amount of noise generated by OHVs. Thus, it is less likely that sage-grouse would be negatively influenced by horseback access.

Environmental Consequences of the No Action Alternative: There would be no change from the present situation. The area is currently accessible to members of the public who are willing to hike in from existing access points. There is no reason to believe that existing use patterns will change in the future.

Mitigation: Mitigation is considered appropriate for special status species in Alternative A only, but see mitigation for aquatic habitat concerns (i.e., BLM sensitive mountain suckers) in the *Riparian and Wetlands* and *Aquatic Wildlife* sections.

In the event substantial recreational use of this road and trail network occurs during, and substantially compromises, sage-grouse reproductive activity (i.e., from March 15 to July 15) on BLM-administered sage-grouse habitats between Willow Creek and Middle Fork of Stewart Gulch, or extends via unauthorized pioneering or ROW use beyond drainages and tributaries associated with the Middle Fork of Stewart Gulch (e.g., Barnes Ridge), seasonal closure of the East Willow access may be required to aid conservation and promote recovery of this species.

Finding on the Public Land Health Standard for Threatened & Endangered species: On a landscape scale, the area potentially influenced by the proposed project achieves (bats, goshawk) or marginally meets (fish, sage-grouse) the public land health standards for special status wildlife. The potential contribution of East Willow Creek to native fisheries is presently clouded by circumstances that may not be under BLM control. Sage-grouse habitat on public land in the project area generally meets most of the land health indicators, however, the PPR sage-grouse population appears to be in a long-term declining trend. While there has been a substantial apparent decline in sage-grouse lek counts in Piceance over the last three years, the cause of the decline is unclear. Increasing vehicle or recreational activity in the area made more readily accessible to the public would not contribute to habitat-related modifications, but this activity may be additive with behavioral disturbances associated with ongoing natural gas development and privately-controlled recreation use. If recreation use associated with this access proposal is largely confined to the late summer and fall/early winter periods, the action alternatives would remain relatively benign. Pronounced increases in the frequency or intensity of vehicle use, or the unauthorized expansion of vehicle use into more important sage-grouse habitats during the spring and early summer months would be inconsistent with the land health standard by contributing to further declines in habitat utility.

MIGRATORY BIRDS

Affected Environment: There are a number of migratory birds that nest in the project area, primarily during the months of May, June, and July. Birds associated with basin big sagebrush drainage bottoms (e.g., spotted towhee, Brewer's sparrow, and blue-gray gnatcatcher) and the upland big sagebrush/serviceberry complex or mixed shrub community (e.g., green-tailed towhee, Virginia's warbler, dusky flycatcher) would be directly affected by new trail installation. Limited riparian vegetation associated with the East Willow Creek crossing is likely to support song sparrow and MacGillivray's warbler as the only riparian associates. This trail system is intended to provide vehicular access to at least 18,000 acres of public land that involves large tracts of pinyon-juniper woodland, mixed shrub, mountain shrub, and upland and bottomland sagebrush communities.

Environmental Consequences of Alternative A, OHV Trail: Because Alternative A consists primarily of linking existing trails and roads, newly constructed trail would involve clearing 2 narrow segments (~2 meters wide): one to circumvent private property (about 500 meters), the other to route vehicle travel from an ephemeral channel (about 550 meters). These features would involve about 1 acre of basin big sagebrush (0.1 acre) and mixed shrub (0.5 acre) vegetation. Trail construction and maintenance that may coincide with the migratory bird nesting season would intersect and temporarily disrupt a number of breeding territories (up to 2 dozen), but would have a low likelihood of physical nest destruction.

This trail system and the expansive road network and area it would serve would likely receive most of its use in conjunction with deer and elk hunting seasons in Game Management Unit 22 (Piceance Basin) that would begin in mid to late August and cease by late January. These timeframes would avoid involvement of virtually all migratory bird nesting activity. Because most big game hunting in GMU 22 is allocated by the State, this trail system would not have a dramatic influence on vehicle activity attributable to hunters in GMU 22 (i.e., would not promote increased participation), but would rather redistribute existing numbers (primarily ATV/UTV users) across a broader area.

Horse-oriented access may be expected to result in trailhead-like conditions where water is most accessible in lower East Willow. Concentrated and prolonged use of this area by horses would likely lead to heavy physical damage of bank and floodplain features of East Willow and increase the risk of exaggerating system dysfunction and long-term deterioration of riparian habitat available for migratory bird nesting.

Environmental Consequences of Alternative B, Horse and Foot-trail: Limiting access to foot (presently available) and horses would have effects on migratory birds would be smaller in scope, but essentially identical to the Alternative A during trail installation and maintenance activity. Public use of the trail system would likely be less frequent and involve fewer persons, although activity associated with the big game hunting seasons is generally irrelevant with respect to migratory bird nesting activity. Promoting horse-oriented access would increase the likelihood of trail-head development where water is most accessible in lower East Willow. Concentrated and prolonged use of this area by horses would likely lead to heavy physical

damage of bank and floodplain features of East Willow and increase the risk of exaggerating system dysfunction and long-term deterioration of riparian habitat available for migratory bird nesting.

Environmental Consequences of the No Action Alternative: There would be no action authorized that would influence migratory bird nesting activity through disturbance or riparian habitat deterioration.

Mitigation: See mitigation presented in *Riparian and Wetland* section.

WILDLIFE, TERRESTRIAL (includes a finding on Standard 3)

Affected Environment: The immediate project site is located at the upper elevational limit of general big game (deer and elk) winter range. The larger area influenced by this project would be composed primarily of general winter range (about 13,000 acres or 70% of area), with lesser involvement of summer range (3500 acres or 20% of area) and lower-elevation severe winter range (1500 acres or 10% of area).

Nongame passerine birds are addressed in the *Migratory Bird* section. Small mammal populations are poorly documented; however, the 20 or so species that are likely to occur in this area are widely distributed and display broad ecological tolerance throughout the Great Basin or Rocky Mountain regions. It is likely that the small mammal community associated with the bottomland sites are dominated by relatively few generalized species, such as deer mouse and least chipmunk. No narrowly distributed or highly specialized species or subspecific populations are known to occur in the project area.

Environmental Consequences of Alternative A, OHV Trail: Because most big game hunting in GMU 22 is allocated by the State, use of the road and trail network in the Stewart Gulch complex would not have a dramatic influence on vehicle activity attributable to recreational hunting across GMU 22 (i.e., would not promote increased participation), but would rather redistribute existing numbers of users (primarily ATV/UTV) across a broader area. The inherent contradictions between hunting-related disturbances to big game and achieving big game population and recreational hunting objectives are well established and accepted by the BLM and State. Construction-related loss of woody and herbaceous forage and cover for big game and nongame animals would be discountable.

Once OHV access is established to the Scandard Ridge road, the likelihood of further trail proliferation, via unauthorized pioneering and unintended use of pipeline corridors, would be high. Predicting the scope and frequency of trespass trail proliferation is impossible, and with the difficulties associated with enforcement and compliance, they are likely to eventually involve high value summer habitats (e.g., aspen and spring flows). Similar to the discussion for sage-grouse (*Threatened, Endangered, and Sensitive Animal* section), vehicle use that is largely confined to the big game seasons would be less intrusive than new patterns of use that may develop during the spring and summer reproductive seasons.

Environmental Consequences of Alternative B, Horse and Foot-trail: Promoting horseback access would preclude additional vehicle-related disturbances on big game ranges in the Stewart Gulch complex. Horse-related use of the trail system would likely be less frequent and involve fewer persons, and the risk of unauthorized trail proliferation would be essentially precluded. Construction-related loss of woody and herbaceous forage and cover for big game and nongame animals would be discountable.

Environmental Consequences of the No Action Alternative: There would be no change from the present situation. The area is currently accessible to members of the public who are willing to hike in from existing access points. There is no reason to believe that existing use patterns will change in the future.

Mitigation: None.

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Vegetation and Wildlife, Aquatic): The project area, both in its immediate and larger context, currently meets the land health standard for terrestrial wildlife communities. Although difficult to predict, the risk of unauthorized off-road trail proliferation is probably high under Alternative A, and discountable in Alternatives B and the no action alternative. Expanded vehicle activity in the Stewart Gulch complex would detract from, but would not necessarily compromise the long-term achievement of land health objectives in the project area.

CULTURAL RESOURCES

Affected Environment: Many oil and gas related surveys have been done in the area around the proposed project with little found. The dense vegetation and steep slopes of the majority of the proposed project area also make it unlikely for finding cultural resources. The entire proposed route has been surveyed at a Class III level (Bowen 2010). During this survey only one artifact was located, an isolated find not eligible to the National Register of Historic Places.

Environmental Consequences of Alternative A, OHV Trail: Under Alternative A, two trails would be built and access would be allowed by foot, horseback, and OHVs less than 50 inches wide. Under this alternative there will be no direct impacts to any cultural resources potentially eligible to the National Register. It is unlikely that there are resources outside of the inventoried area that would be indirectly impacted by the proposed action.

Environmental Consequences of Alternative B, Horse and Foot-trail: Under Alternative B, only the private land bypass trail in the bottom of Willow Creek will be constructed and it will only be open to foot or horseback travel. This alternative would potentially bring less people into the project area than Alternative A, however no impacts are expected to cultural resources from either alternative. The proposed project should have no effect to any cultural resources potentially eligible to the National Register.

Environmental Consequences of the No Action Alternative: Under this alternative there would be no surface disturbance resulting in no effects to any cultural resources.

Mitigation: The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the AO. Within five working days the AO will inform the operator as to:

- whether the materials appear eligible for the National Register of Historic Places
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary)
- a timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer (SHPO), that the findings of the AO are correct and that mitigation is appropriate

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the AO, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

PALEONTOLOGY

Affected Environment: The proposed lease area is located in an area generally mapped as Uintah Formation (Tweto 1979) which the BLM Colorado State Office has classified as a potential fossil yield classification (PFYC) 5 formation meaning that it is a highly fossiliferous unit that consistently and predictably produces significant fossils in this area. Vertebrate and invertebrate fossils could be found as listed in Armstrong and Wolney (1989) such as: Eocene mammals (titanotheres, uintatheres, miacid carnivores, possibly others), reptiles (turtles and crocodilians), fish (vertebrae, spines, and scales, likely including Lepisosteidae), gastropods (high-spired and turitellid snails), insect larvae, and plants (leaves, wood, algae, etc.).

Environmental Consequences of Alternative A, OHV Trail: Under Alternative A, two trails would be built and access would be allowed by foot, horseback, and OHVs less than 50 inches wide. The entire proposed route was recently covered by an archaeological survey in which no paleontological resources were located (Bowen 2010), so the trail construction and

usage will cause no direct impacts to fossil resources. It is unlikely that there are resources outside of the inventoried area that will be impacted by the proposed action.

Environmental Consequences of Alternative B, Horse and Foot-trail: Under Alternative B, only the private land bypass trail in the bottom of Willow Creek will be constructed and it will only be open to foot or horseback travel. The proposed project should have no effect to any fossil resources.

Environmental Consequences of the No Action Alternative: Under this alternative there would be no surface disturbance resulting in no effects to fossil resources.

Mitigation: The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for disturbing or collecting vertebrate fossils, collecting large amounts of petrified wood, or collecting fossils for commercial purposes on public lands. If significant paleontological resources are discovered during surface disturbing actions or at any other time, the operator or any of his agents must stop work immediately at the site, immediately contact the appropriate BLM representative, and make every effort to protect the site from further impacts, including looting, erosion, or other human or natural damage.

The BLM or designated paleontologist will evaluate the discovery and take action to protect or remove the resource within 10 working days. Work may not resume at that location until approved by the official BLM representative.

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, significant delays may occur while the AO enacts mitigation procedures. The operator may elect to contract an approved paleontologist to execute site mitigations in order to expedite proceedings. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

ELEMENTS NOT PRESENT OR NOT AFFECTED:

No flood plains, prime and unique farmlands, exist within the area affected by the proposed action. There are also no known Native American religious or environmental justice concerns associated with the proposed action.

OTHER ELEMENTS: For the following elements, only those brought forward for analysis will be addressed further.

Non-Critical Element	NA or Not Present	Applicable or Present, No Impact	Applicable & Present and Brought Forward for Analysis

Non-Critical Element	NA or Not Present	Applicable or Present, No Impact	Applicable & Present and Brought Forward for Analysis
Visual Resources			X
Fire Management		X	
Forest Management			X
Hydrology/Water Rights		X	
Rangeland Management		X	
Wild Horses	X		
Realty Authorizations			X
Recreation			X
Access and Transportation			X
Geology and Minerals		X	
Areas of Environmental Concern	X		
Wilderness	X		
Wild and Scenic Rivers	X		
Cadastral	X		
Socio-Economics	X		
Law Enforcement			X

VISUAL RESOURCES

Affected Environment: The area of the proposed action is located within a Visual Resource Management (VRM) Class III area which has the objective to partially retain the existing characteristics of the landscape so that activities may not attract attention to the casual observer. The area has been and is currently being developed for the extraction of natural gas. The linear features in the area that attract attention would be the road network, fence lines and pipelines.

Environmental Consequences of Alternative A, OHV Trail: The proposed action in this alternative will increase the presence of linear features within the area. The casual observer travels Rio Blanco County road (RBC) 5 and due to the distance to Alternative A, will never see it from that county road. The only observers would be the private land owners, natural gas workers, guide/outfitters and the general public recreationalist that are looking for trails or routes to travel. This alternative will allow for minimal disturbance that will attract attention to the casual observer therefore the characteristics of the VRM class III will be retained.

Environmental Consequences of Alternative B, Horse and Foot-trail: This alternative will have the same consequences as demonstrated in Alternative A.

Environmental Consequences of the No Action Alternative: There would be no new trails constructed that would add to the linear features in the area.

Mitigation: None

FOREST MANAGEMENT

Affected Environment: The project area has pinion-juniper and a few Douglas fir trees. On the north facing slopes there are a few dispersed pinion-juniper and Douglas fir trees encroaching into a mountain browse vegetative community. The south facing slopes are populated with mature and sub-mature pinion-junipers in an open stand structure with some serviceberry, mountain mahogany and sagebrush.

Environmental Consequences of Alternative A, OHV Trail: This alternative will remove a few sub-mature pinion-junipers on the north facing slopes through construction activities. The removal of the trees will have little impact on the surrounding environment.

Environmental Consequences of Alternative B, Horse and Foot-trail: In this alternative, some sub mature and young pinion-juniper trees will be removed on the north facing slope above the road. The removal of the trees will have little impact on the surrounding environment.

Environmental Consequences of the No Action Alternative: There would be no removal of pinion-junipers from the landscape.

Mitigation: None

RECREATION

Affected Environment: Currently, the project area has limited recreational use for the general public. The majority of the recreational use in the area is through outfitted and guided hunting. There are a few additional public hunters that have in the past used the area but have done so on foot without the assistance of horse or mechanical equipment. In the past, the public has not been able to use motorized vehicles in the area due to the limited or restricted access.

Environmental Consequences of Alternative A, OHV Trail: A trail built to allow an OHV 50 inches or less will increase the public's ability to access new areas of public lands that have had limited/restricted access primarily by privately owned lands. The size of the trail will restrict the use of some of the newer models of UTV's and ATV's, but it will also eliminate the possibility of the public to use some of the smaller full size vehicles like an early model Jeep. A trail design that accommodates horses, hikers and ATV/UTV users would allow a majority of the public to gain access to approximately 21,000 acres of additional dispersed recreational area. The area to be accessed has three permitted outfitting companies that have not had to operate with additional public in the area. The area has been actively developed for the extraction of natural gas and the traffic associated with this development has a purpose and predictable direction. This traffic generally does not have an immediate interest in the same activities and services that are being provided by the outfitting companies. Increased public may have an impact on the

outfitting companies' solitude and ability to operate the business without additional distractions. An increase in recreational users to a fairly new area could increase possible conflicts with adjoining landowners and guide/outfitters, unauthorized trail construction and could also increase trash. Increased interactions between the public and private land owners may increase the frequency of trespass incidents in the newly opened area.

Environmental Consequences of Alternative B, Horse and Foot-trail: This alternative will still open up the approximately 21,000 acres of additional dispersed recreational area to hikers and horseback. This alternative will limit the amount of public willing to utilize the area because OHV use will not be allowed. It will still increase the possibility of trash and potential conflicts with adjoining landowners and guide/outfitters.

Environmental Consequences of the No Action Alternative: Only the hiking recreationalists will continue to use a small portion of the area in conjunction with the guide/outfitters in the area.

Mitigation: Information in the Kiosks will have a map of the area and identify trails that may be used. Private lands will need to be posted for the public to reduce possible conflicts with adjacent landowners.

ACCESS AND TRANSPORTATION

Affected Environment: Currently, the project area receives traffic that is mostly oil and gas, grazing or, in the fall, guided or outfitted hunting-related. Over the years, a well developed road network has been established to improve access and allow for mineral development and private land access. The area is currently being actively developed for the extraction of natural gas. There are multiple wells being drilled or maintained that utilize the existing road network. The guide/outfitting companies using the area also use the existing road network to access the private lands and mobilize clients to hunting locations. This specific area was identified by map location in the 1997 White River Resource Area Resource Management Plan Record of Decision as an area to gain public access as a result of limited/restricted access due to private lands.

Environmental Consequences of Alternative A, OHV Trail: Construction of the trail under this alternative will increase the amount of public use within the approximate 21,000 acres of BLM administered lands. Increased public access could increase the likelihood of interaction with natural gas employees, guide/outfitters and private land owners. ATV's and UTV's accessing the area may begin to drive off of the road network and create new trails throughout the area and possibly on the pipeline ROWs.

Environmental Consequences of Alternative B, Horse and Foot-trail: Construction of the trail under this alternative will increase the ability of the public to access the area but it will be limited to foot or horseback access. This will reduce the amount of penetration into the approximate 21,000 acre area and limit the number of interactions with the natural gas employees, guide/outfitters and private land owners.

Environmental Consequences of the No Action Alternative: Under this alternative there will be no new access for the public.

Mitigation: Post the private/BLM managed land boundary on the travel routes to increase awareness. In the Kiosk, post maps that show the existing roads for travel and post no off road travel especially along pipelines ROWs.

REALTY AUTHORIZATIONS

Affected Environment: The project area is located in an area with limited development at the current time, but with the possibility of expanded oil and gas development in the future. Existing linear facilities, including pipelines and power lines, generally parallel the existing roads.

Environmental Consequences of Alternative A, OHV Trail: Approximately 10,100 feet of trail would be constructed and would be serialized as COC74583 under Fed LD513, to be held by BLM WRFO. . Designated OHV routes would increase access to facilities within the area now land-locked, but would likely concentrate the use to the routes rather than more random impacts. Access to the pipeline and road corridor along the ridge in T.4S., R.97W., section 11, could increase use of adjacent pipelines as an OHV road.

Environmental Consequences of Alternative B, Horse and Foot-trail: Approximately 1800 feet of trail would be constructed and would be serialized as COC74583 under Fed LD513, to be held by BLM WRFO. Impacts from foot or horse traffic would not likely impact existing ROW facilities.

Environmental Consequences of the No Action Alternative: If none of the trails are authorized or developed, there would be no additional impacts to Realty.

Mitigation: Displays in the kiosks will include information about preserving reclaimed lands and prohibition of driving on pipeline routes.

LAW ENFORCEMENT

Affected Environment: The location is in GMU 22 which receives a large number of upland big game hunters on both private and public lands. The project area has traditionally only seen impacts from guide and outfitting activities, permissible private land access, grazing activities and oil & gas related activity. Minimal trespass cases have been observed or documented.

Environmental Consequences of Alternative A, OHV Trail: This action would increase the public's ability for motorized and non motorized access into an area where they did not have adequate access before. This also gives law enforcement (federal, state, local) the ability to access the area without having to gain access through private property. Increased access both

motorized and non-motorized could increase the possibility of trespass cases because of unrestricted access to private lands. Because of very little public activity in the project area, public/private lands are not adequately identified. This activity does open up 21,000 acres of public lands that the general public has not been able to access for multiple use in the past. Remoteness of the area could require obtaining private land access for emergency services personnel to respond to emergencies in a timely manner.

Environmental Consequences of Alternative B, Horse and Foot-trail: Same as Alternative A, OHV Trail.

Environmental Consequences of the No Action Alternative: No consequences involved.

Mitigation: Signing of BLM managed lands to reduce the possibilities of trespass and increase the public's ability to identify private land boundaries on existing roads.

CUMULATIVE IMPACTS SUMMARY: Alternative 8 will add up to 8 acres of new linear disturbance and allow increased public access to approximately 21,000 acres of BLM administered land, thus increasing the amount of traffic in the area. The Big Jimmy, Willow Creek, Scandard Ridge and West Fork areas are currently being developed for the extraction of natural gas. Development includes, but is not limited to, the construction of well pads, production facilities, pipelines, refining facilities, compressor stations, power lines and roads. Contribution of any of the alternatives to the impacts from these existing activities/facilities (spread of noxious weeds, soil erosion, and impacts to water quality) would be minimal.

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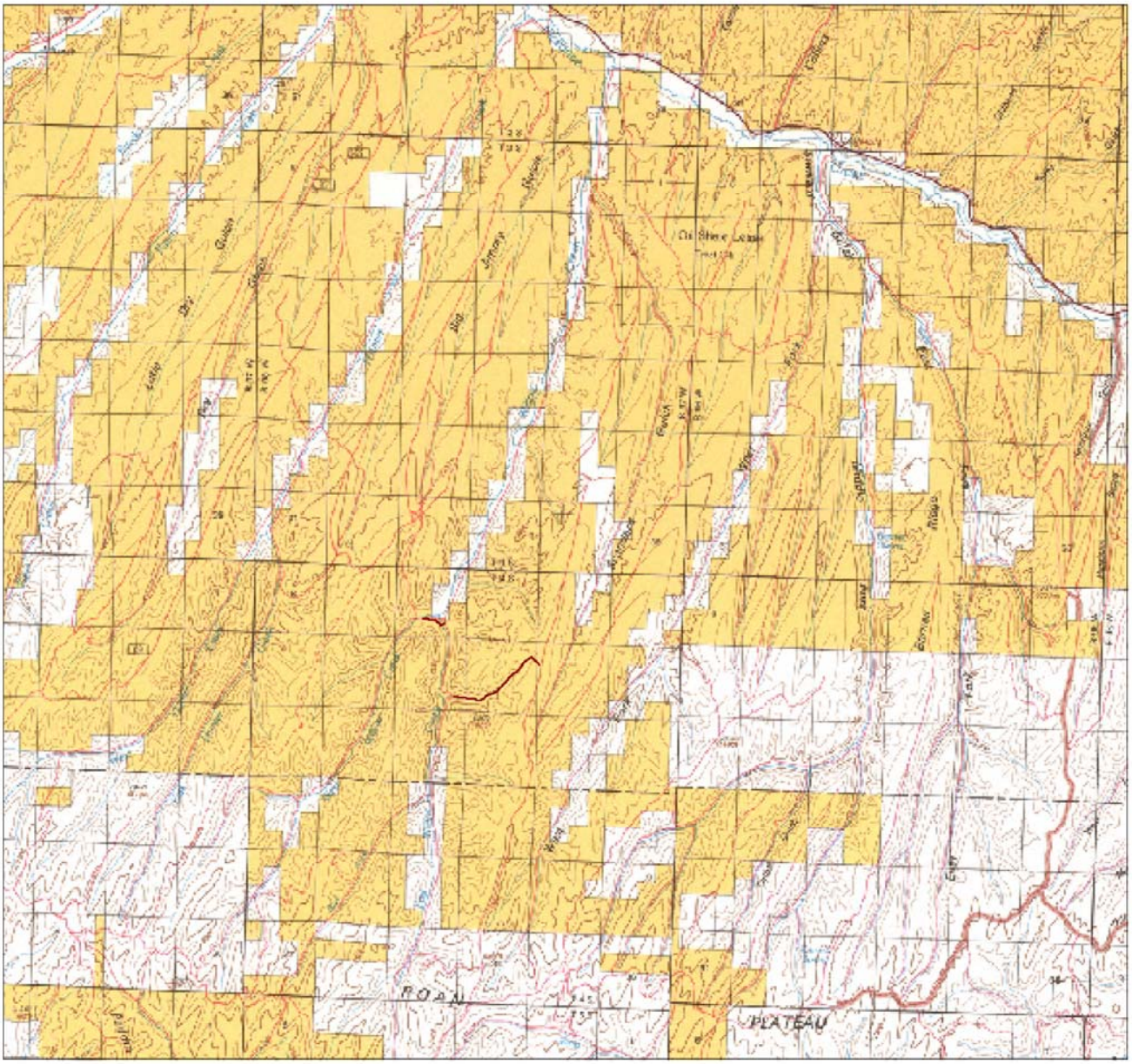
Tweto, Ogden
1989 *Paleontological Resources of Northwest Colorado: A Regional Analysis*. Museum of Western Colorado, Grand Junction, Colorado.

PERSONS / AGENCIES CONSULTED: Colorado Division of Wildlife (CDOW), Rio Blanco County Sheriff's Department, Jerold Oldland, Chris Shults, Clayton Burke

INTERDISCIPLINARY REVIEW:

Name	Title	Area of Responsibility
Bob Lange	Hydrologist	Air Quality, Wastes (Hazardous or Solids), Water Quality (Surface and Ground), Hydrology and Water Rights, and Soils
Jill Schulte	Botanist	Areas of Critical Environmental Concern, Threatened and Endangered Plant Species
Kristin Bowen	Archaeologist	Cultural Resources, Paleontological Resources
Matthew Dupire	Rangeland Management Specialist	Invasive, Non-Native Species, Vegetation , Rangeland Management
Heather Sauls, Ed Hollowed	Wildlife Biologist	Migratory Birds, Threatened, Endangered and Sensitive Animal Species, Terrestrial and Aquatic Wildlife, Wetlands and Riparian Zones
Jim Michels	Outdoor Recreation Planner	Wilderness, Access and Transportation, Recreation,
Jim Michels	Fire / Fuels Technician	Fire Management
Jim Michels	Forester	Forest Management
Paul Daggett	Mining Engineer	Geology and Minerals
Linda Jones	Realty Specialist	Realty Authorizations
Jim Michels	Natural Resource Specialist	Visual Resources
Melissa J. Kindall	Range Technician	Wild Horses
Don Miller	Ranger	Law Enforcement

Willow Creek OHV Trail, Vicinity



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Sources:
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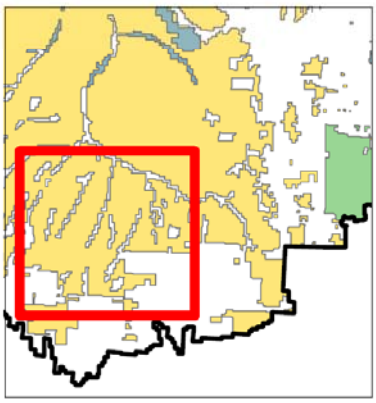
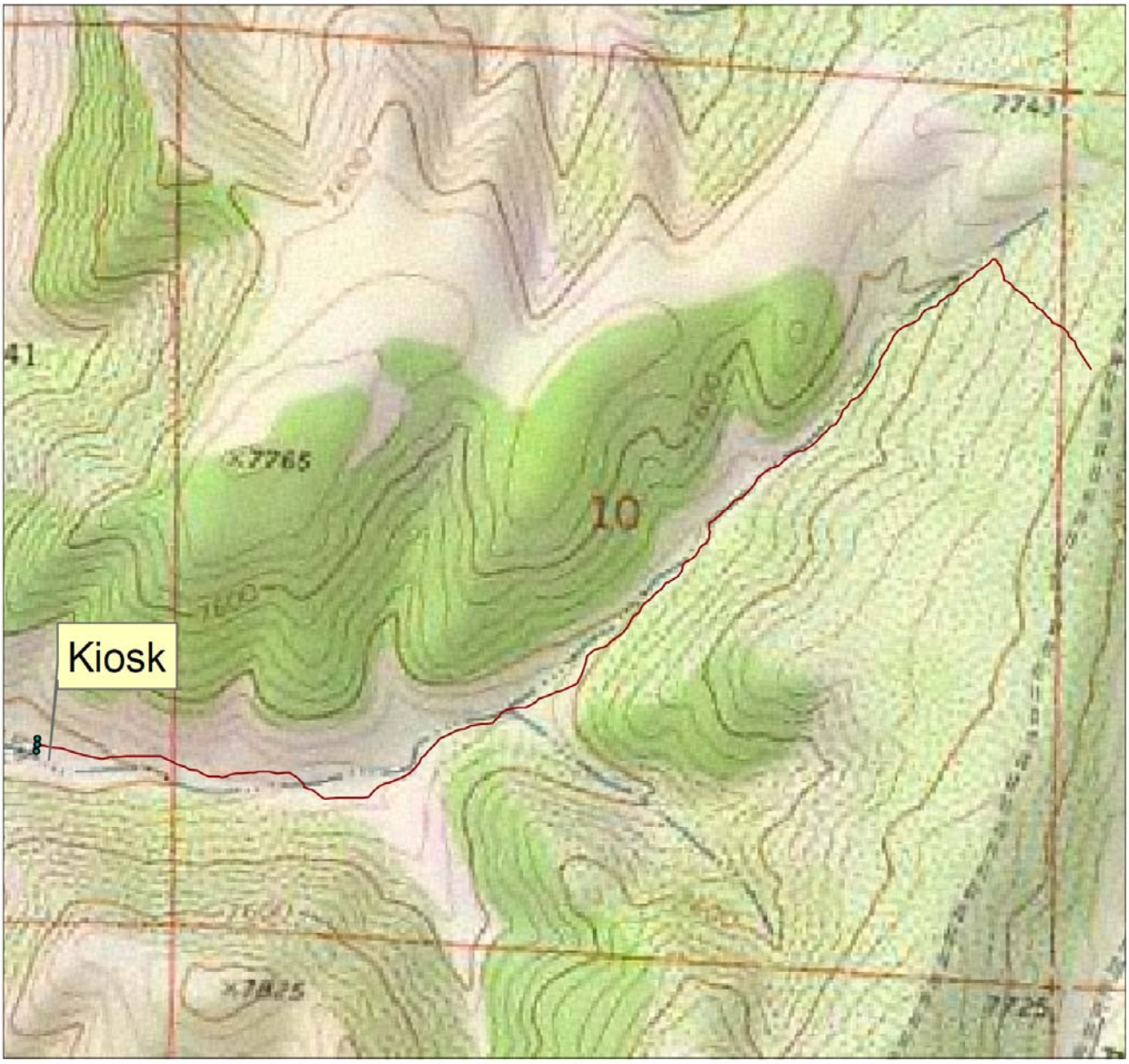


Willow Creek OHV Trail, route 2



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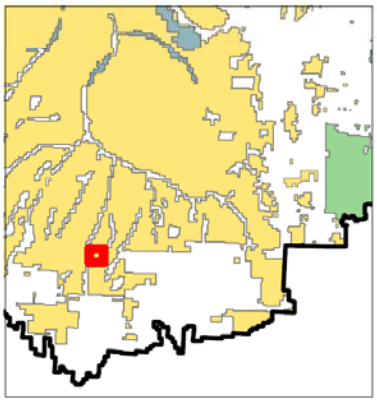

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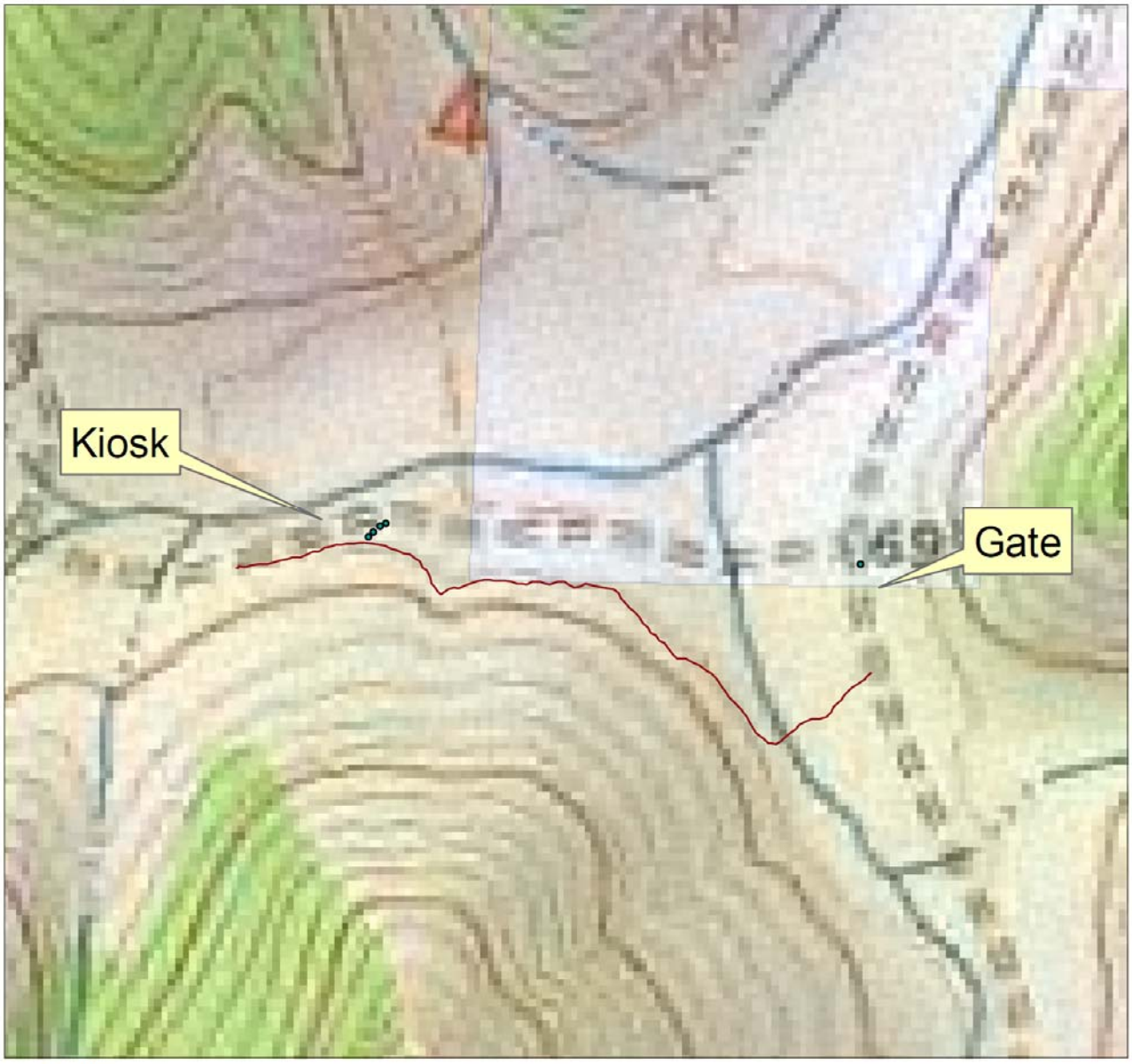

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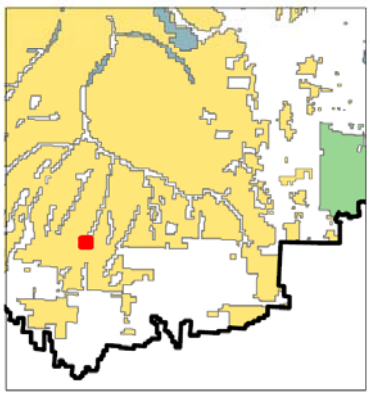
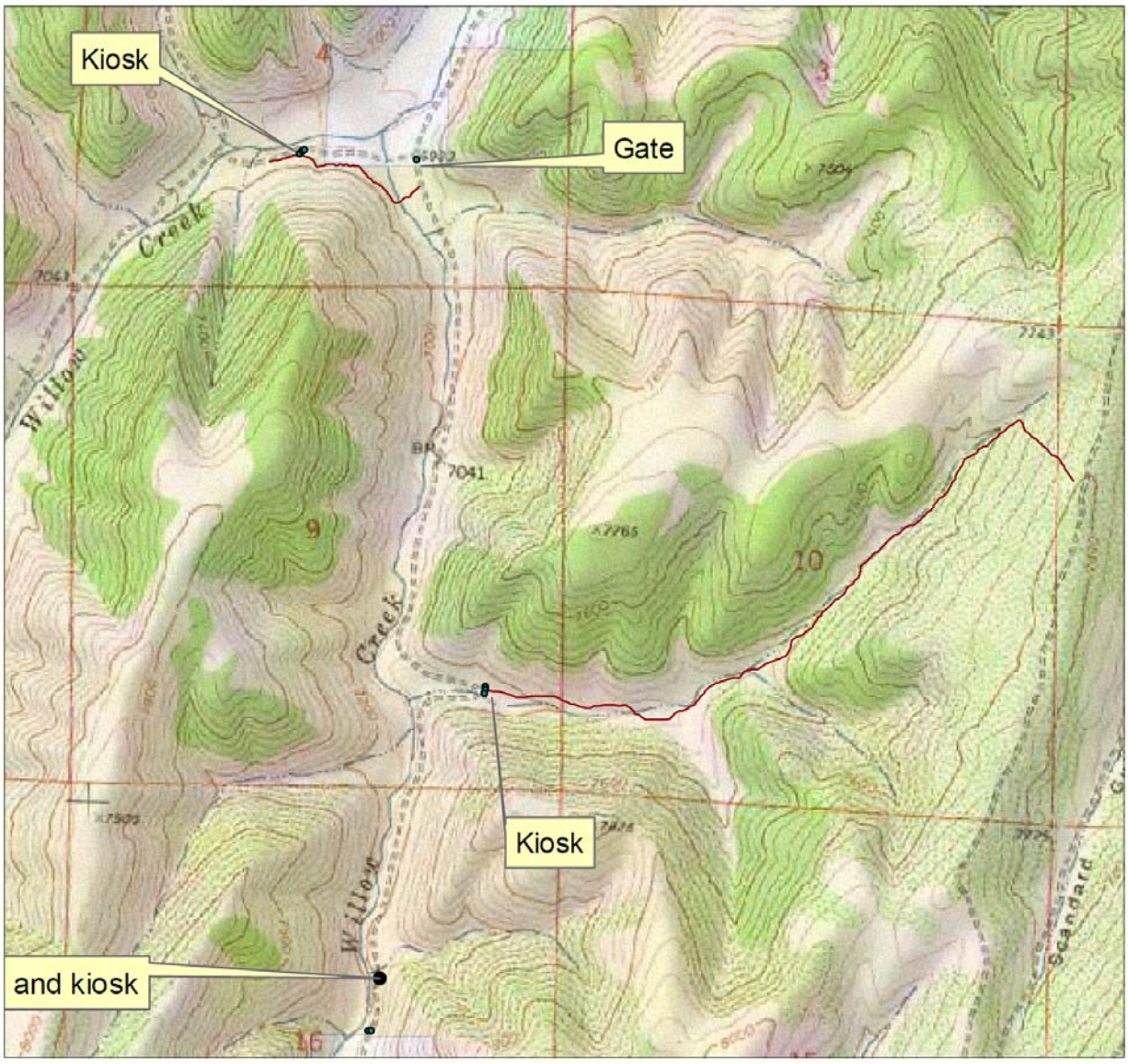


Willow Creek OHV Trail



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Sources:
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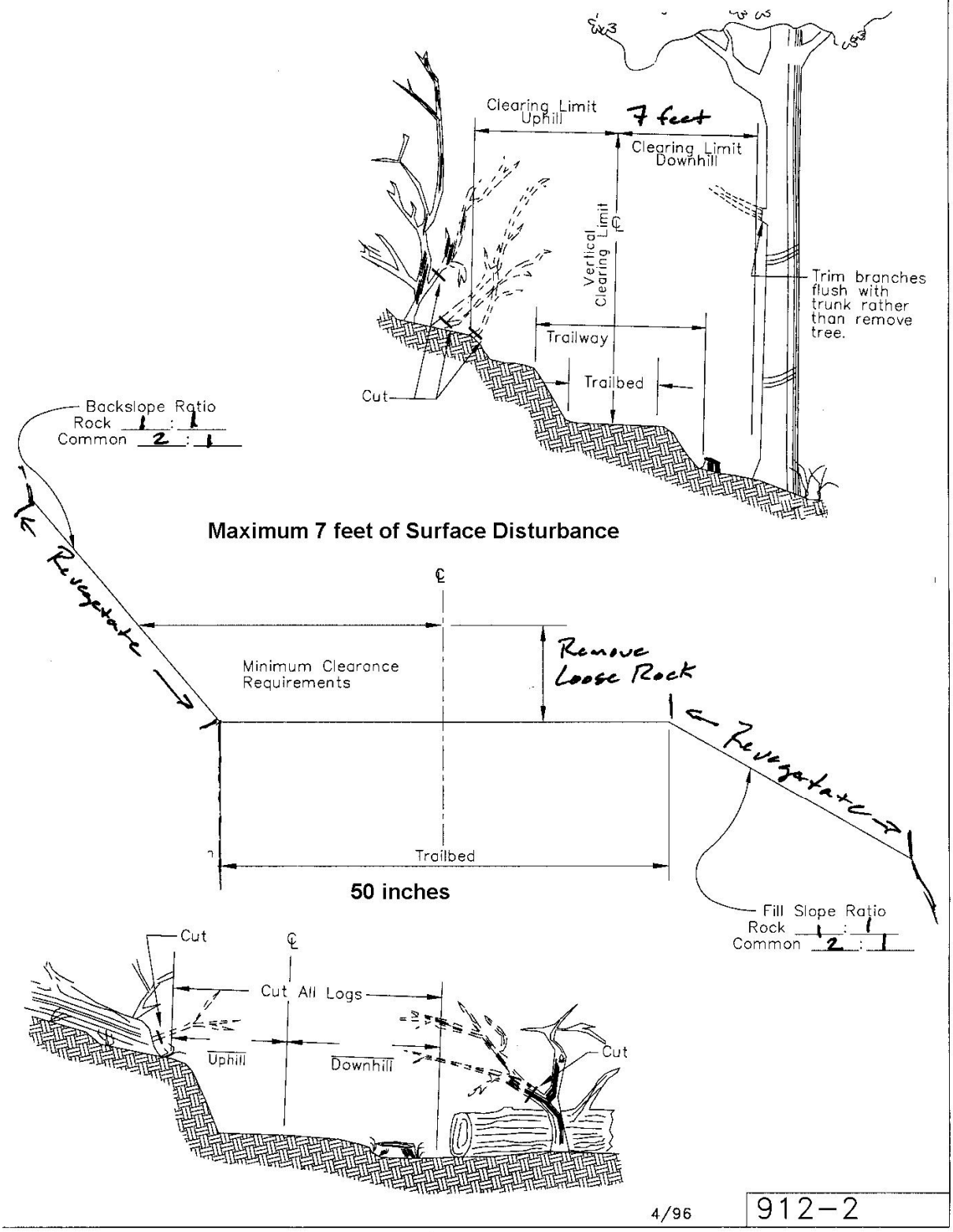
TRAILBED AND SLOPE FINISH

NOT TO SCALE



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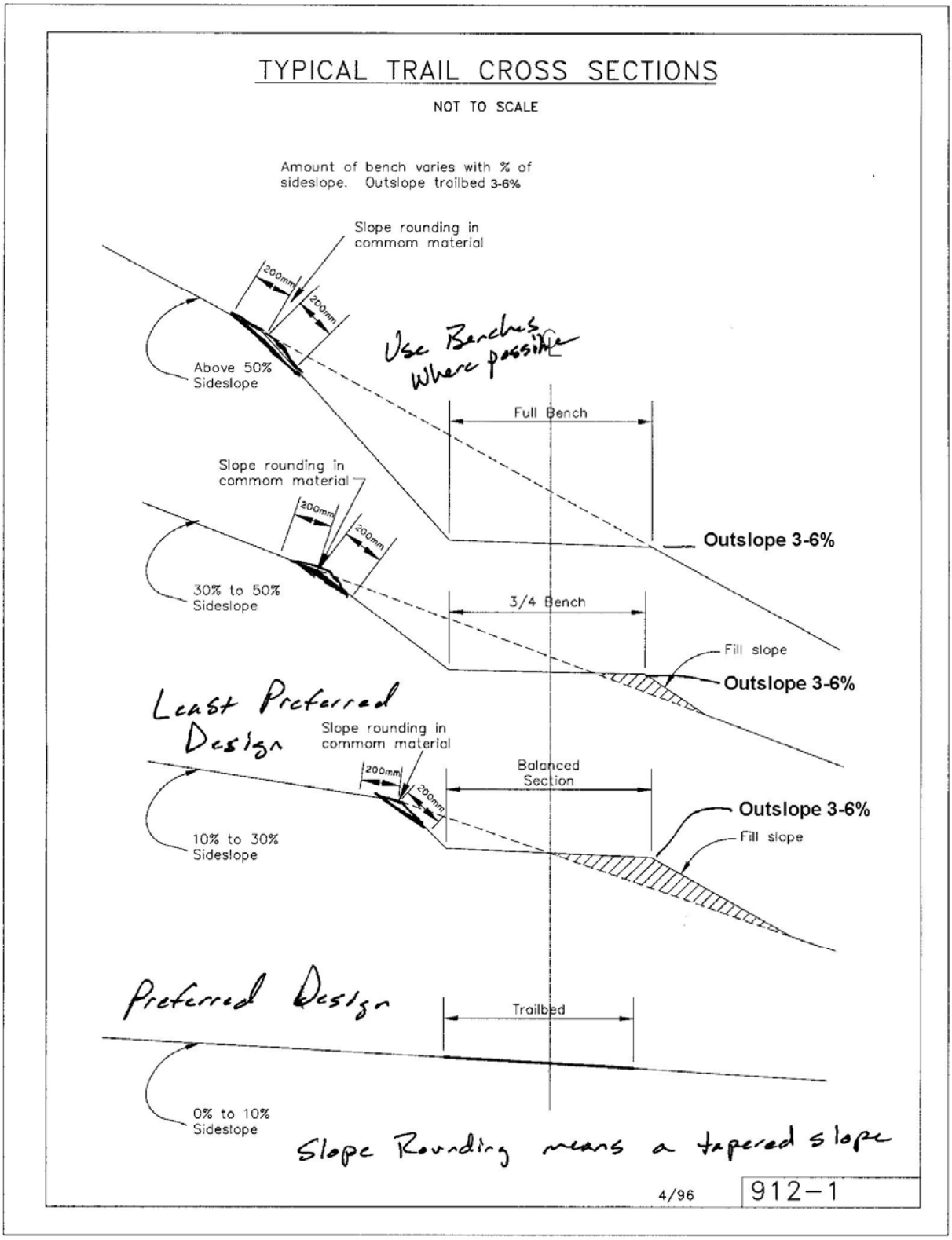
TYPICAL TRAIL CROSS SECTIONS
NOT TO SCALE
Amount of bench varies with % of sideslope. Outslope trailbed 3-6%
Slope rounding in commom material
200mm
200mm
Use Benches Where possible
Above 50% Sideslope
Full Bench
Slope rounding in commom material
200mm
200mm
Outslope 3-6%
30% to 50% Sideslope
3/4 Bench
Fill slope
Outslope 3-6%
Least Preferred Design
Slope rounding in commom material
200mm
200mm
Balanced Section
Outslope 3-6%
Fill slope
10% to 30% Sideslope
Preferred Design
Trailbed
0% to 10% Sideslope
Slope Rounding means a tapered slope
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