

FISHLAKE OHV ROUTE DESIGNATION PROJECT

Heritage Resources Report

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Proposed Alternatives and Connected Actions

Full descriptions of the proposed actions are contained in Chapter 2 of the Fishlake OHV Route Designation Project Final Environmental Impact Statement. **Tables 1, 2, 3 and 4** contain a summary of the proposed alternatives. Alternative 1 is the No Action alternative, which would maintain the use and management associated with the existing motorized travel plan designations and rules. Alternative 2 is the proposed action that was presented to the public on June 7, 2004 with the release of the Notice of Intent and was the first alternative to address the Purpose of and Need for Action. Alternative 3 is the modified proposed action and preferred alternative, which incorporates comments and concerns from public scoping and additional inventory and review from the 2004 field season. Alternative 4 is an alternative that provides additional protection of roadless areas and more emphasis on non-motorized recreation opportunities. Alternative 5 is the final preferred alternative that blends features from each of the above alternatives based on public comments to the DEIS and additional internal review.

It is critical to understand that no new routes will be constructed as part of the Fishlake OHV Route Designation Project. Only existing routes are being designated as open or closed to motorized use. The impacts associated with existing routes and route use and motorized cross-country travel are already occurring. The route designation project offers the prospect of reducing existing resource damage while reducing the potential for future impacts.

The proposed actions are comprised of changes to type or season of motorized use, route status and designation changes, and changes to travel plan definitions. **Table 1** provides a summary of the proposed changes in route types and status for each alternative.

Table 1. Comparison of Alternatives - Route type mileage summary.						
Route Type		Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Forest Roads¹	change	0	+ 167.3	+ 160.9	- 45.3	+ 210.0
	result	1,971.5	2,138.8	2,132.4	1,926.2	2,181.5
Forest Motorized Trails	change	0	+ 221.3	+ 251.5	- 134.3	+ 308.5
	result	330.3	551.6	581.8	196.0	638.8
Forest Non-motorized Trails	change	0	+ 131.3	+ 120.9	+ 342.7	+ 110.3
	result	891.9	1,023.2	1,012.8	1,234.6	1,002.2
Unauthorized Roads	change	0	-554.4	-554.4	-554.4	-554.4
	result	554.4	0	0	0	0
Unauthorized Motorized Trails	change	0	- 684.1	- 684.1	- 684.1	- 684.1
	result	684.1	0	0	0	0
Unauthorized Non-motorized Trails	change	0	- 128.1	- 128.1	- 128.1	- 128.1
	result	128.1	0	0	0	0

¹ State, Federal, and County roads located on forest are added for completeness even though they are not Forest Roads.

Table 2 displays a summary of the proposed changes and resulting route designations for each alternative.

Table 2. Comparison of Alternatives - Route designation mileage summary.						
Route Designations		Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Open Yearlong	change	0	+ 115.7	+ 158.3	- 281.8	+ 195.4
	result	1,859.1	1,974.8	2,017.4	1,577.3	2,054.5
Open Seasonally	change	0	+ 61.5	+ 52.0	- 98.0	+ 95.0
	result	328.6	390.1	380.6	230.6	423.6
Street Legal Only	change	0	+ 44.3	+ 43.4	+ 33.1	+ 38.5
	result	225.2	269.5	268.6	258.3	263.7
Administrative Use Only	change	0	+ 26.5	+ 18.1	+ 26.5	+ 48.8
	result	29.6	56.1	47.7	56.1	78.4
Undesignated Open	change	0	- 764.3	- 764.3	- 764.3	- 764.3
	result	764.3	0	0	0	0
Undesignated Closed	change	0	- 333.4	- 333.4	- 333.4	- 333.4
	result	333.4	0	0	0	0

Table 3 displays miles of obliteration planned by route type by alternative.

Table 3. Comparison of Alternatives – Route obliteration mileage summary.					
Route Type	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Forest Road	0	45.6	48.8	51.8	63.3
Forest Motorized Trail	0	1.0	1.0	9.3	9.4
Forest Non-motorized Trail	0	0.1	6.0	6.0	8.2
Unauthorized Road	0	298.5	300.2	503.0	215.2
Unauthorized Motorized Trail	0	476.9	456.0	609.6	420.2
Unauthorized Non-motorized Trail	0	24.5	21.1	23.8	21.6
Forest Totals	0	846.6	833.1	1,203.5	737.9

Table 4 displays a summary of the changes to area designations associated with the motorized travel plan by alternative.

Table 4. Comparison of Alternatives - Area designation acreage summaries.						
Area Designations		Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Open Use Areas ¹	change	0	- 908,142	-908,146	-909,115	-908,236
	result	909,115	973	969	0	879
Designated Routes Only	change	0	+ 1,084,677	+ 1,084,681	+ 1,085,650	+ 1,084,771
	result	368,730	1,453,407	1,453,411	1,454,380	1,453,501
Seasonal Winter Closure ²	change	0	-126,530	-126,530	-126,530	+ 9,940
	result	126,530	0	0	0	136,470
All Winter Closure ²	change	0	- 106,894	-157,032	-157,032	- 19,068
	result	176,535	69,641	19,503	19,503	157,467
¹ includes Alternative 1 “A” area designations that are unrestricted from April 1 to December 31 but does not include distance designations for dispersed camping for any of the alternatives ² technically these classes have more acreage if you include restricted areas that do not get adequate snow for over-snow vehicle use and/or where terrain limits motorized winter use.						

The following vehicles and uses are exempted from the prohibitions to motorized cross-country travel by 36 CFR part 212.51:

- a. Aircraft;
- b. Watercraft;
- c. Over-snow vehicles [Note: Limited restrictions of over-snow vehicles are included in the proposed actions consistent with (§212.81)]
- d. Limited administrative use by the Forest Service;
- e. Use of any fire, military, emergency, or law enforcement vehicle for emergency purposes;
- f. Authorized use of any combat or combat support vehicle for national defense purposes;
- g. Law enforcement response to violations of law, including pursuit; and
- h. Motor vehicle use that is specifically authorized under a written authorization issued under Federal law or regulations.

Cross-country travel by OHVs for game retrieval and antler shed hunting is prohibited.

The limited use of motor vehicles within 150 feet [Alternatives 3, 4, and 5 or 300 feet for Alternative 2] of roads and motorized trails would be allowed solely for the purposes of dispersed camping. The following text will be added to the motor vehicle use map to clarify the intent of the distance designations. “Where allowed on this map, motor vehicles may travel up to 150’ [or 300’ for Alternative 2] from designated routes, for travel to an existing dispersed campsite along an existing track. Travel within the corridor for any other purpose is prohibited. Existing campsites can be distinguished by evidence of rock fire rings, old tent sites, and tracks from earlier vehicle access. This access does not authorize creation of new campsites or travel ways. Motorized travel between multiple dispersed campsites, establishment of motorized play areas, racetracks, or travel across wet meadows or riparian areas is prohibited.” Most of the distance designations will be removed over time as dispersed camping access needs are verified and designated where needed.

The action alternatives also have required design criteria that are part of the proposed actions. Those that are required regardless of which alternative is selected or that relate to other resource issues are described in the FEIS. Requirements for protection of heritage resources are described below.

REQUIRED DESIGN CRITERIA

The following criteria must be applied during project implementation if a proposed action is selected. These requirements also apply to connected actions. The purpose of these measures is to completely avoid, or to the fullest extent possible, minimize the potential for adverse effects to heritage resources.

Programmatic Agreement with Utah State Historic Preservation Office

The terms specified for site survey and documentation in the programmatic agreement between the Fishlake National Forest and Utah State Historic will be followed.

Designation of Roads, Trails and Areas

Designation of roads, trails and areas for motorized vehicle travel is necessary to put into effect the prohibition on cross-country travel, and to provide sustainable systems of routes for travel and recreation with a minimum of impact to historic properties. The Forest will also propose additions to the designated route system, which incorporates non-system and user-created routes after applying an array of criteria including potential impacts to historic properties.

National Policy on Cultural Resources and Road and Trail Designations

Section 106 of the National Historic Preservation Act (NHPA) and the Advisory Council on Historic Preservation's (ACHP) implementing regulations, *Protection of Historic Properties* (36 CFR Part 800) require that federal agencies take into account the effect of their undertakings on historic properties and that agencies provide the ACHP (via the State Historic Preservation Officer, SHPO, and the Tribal Preservation Officer, THPO) with an opportunity to comment on those undertakings. The following categories of proposals shall be considered "undertakings" with the potential to affect historic properties, triggering evaluation under Section 106 of NHPA, 36 CFR Part 800.

- Construction of a new road or trail;
- Obliteration of an existing road or trail;
- Authorization of motor vehicle use on a route currently closed to vehicles; and
- Formal recognition of a user-developed (unauthorized) route as a designated route open to motor vehicles.

Area of Potential Effect

The Area of Potential Effect (APE) for a designated road, trail or open use area shall include corridors or zones adjacent to the road, trail or area that the Forest determines to be subject to direct or indirect effects due to local environmental factors or the proximity of particularly sensitive resources. This will include road, trail, or area surfaces, passing or parking areas, and campsites or other features established as part of the road or trail. It shall also include additional affected areas or properties if the designation would facilitate increased access to those historic properties.

Obliteration of OHV Routes within Historic Properties

Many of the historic sites on the Forest have been impacted, to some extent, by ATV's. Because of their visibility and proximity to designated trails (i.e., historic roads), standing structures, milling facilities, abandoned town sites, hard rock gold mines and coal mine sites are particularly vulnerable. Impacts are apparent in the form of ATV trails in, around and through the properties. Mine dumps are also routinely used as "play hills". The track bed of a *circa* 1870-1900 mule train from the Webster Mine to the Dalton Mill in Bullion Canyon has been brushed and is now a user-developed ATV trail. Less apparent and measurable is the collection of historic artifacts.

Trail obliteration is a Federal undertaking and must be subject to survey, site evaluation and SHPO review. In most cases, obliteration techniques will use passive restoration techniques. Passive techniques rely on removing the cause of the disturbance and then relying on natural recovery. In some instances, native vegetation may be hand-sown into two track trails caused by ATV's. Boulders and other natural barriers, and fencing, should be employed where ATV's continue to re-enter historic properties. In all cases, where historic properties are visible from the designated road, trail or area, the site must be signed as a protected historic site (USDA 27-7).

REASONABLY FORESEEABLE ACTIVITIES

Appendix C of the FEIS contains a list of reasonably foreseeable activities and their potential for cumulative interactions and effects with the Fishlake OHV Route Designation Project.

HISTORIC USES

The forest's Land and Resource Management Plan (IV-12) establishes a standard for heritage resources. It requires that management will "protect, find an adaptive use for, or enhance all [significant] cultural resources on National Forest Lands". A number of sites and areas have been opened, adapted, enhanced and interpreted for the benefit of the public. One historic area and two sites have been developed specifically for motorized recreation. Bullion Canyon, west of Marysville, has a driving tour with ten interpretive stops. The last stop on the tour is the Miners' Park where historic mining equipment, a blacksmith's shed, a two room log cabin and a reconstructed mine are displayed. Visitation from June through October averages about 1,500 people a month with an estimated 60% to 70% of the visitors arriving on ATV's.

To the north and west of Marysville, the Silver King Mine lies just off of the Paiute ATV Trail below Gold Mountain. This site is especially intriguing because the existence of historic records and surviving descendents allowed the story of mine's superintendent and his family to be reconstructed. This is in stark contrast to Bullion Canyon where the chronological history is well known but nothing of the story of the individuals who worked and toiled in the "canyon of gold". Working with a Passport-in-Time volunteer crew, the mine was cleaned up, an interpretive trail was built and a brochure was published. Visitation at the mine varies from 500 to 700 a month between June and October. At the Silver King Mine, 95% of the visitors arrive on ATV's.

PRIMARY ISSUES

The issues identified below are the primary considerations applied during the development and design of the proposed actions. **Table 5** lists these issues and the indicators that will be used to assess potential impacts.

Table 5:
Management Consideration- Heritage Resources

Primary Issues

Motorized Cross-country Travel

Issue Descriptions and Indicators

Heritage resources, especially prehistoric sites, are vulnerable to motorized trespass because the technology gives the user ready access to areas not formerly open to larger vehicles. Resources previously protected by their remoteness or non-accessibility, are now susceptible to digging, vandalism and erosion.

Indicators:

- User-designated trails within 150 feet of a heritage resource.
- Off road ATV tracks across a heritage resource that impact erodible soils.
- Collector piles on a heritage resource.
- Shovel probes or digging within the heritage resource.
- Vandalism, removal of weathered boards for birdhouses, etc., use of structural wood for camp fires, or modern trash present on and around structural historic sites.

Amount and Proximity of Roads and Motorized Trails to Heritage Resources

Heritage resources, especially historic sites, are vulnerable to artifact collection, digging, vandalism and erosion because they are both close to designated trails and are highly visible. In Bullion Canyon, artifacts have been collected, structures have been pushed over and burned, an ore train bed has been made into an ATV trail and mine dumps are used as play hills. Prehistoric sites, the majority of which are lithic or ceramic scatters, are considerably less visible and recognizable by the people on fast-moving ATV's. However, they remain vulnerable to people who are collectors and to people who inadvertently camps on these sites.

Table 4- Management Considerations (cont.)

Indicators

- ATV tracks in, around and through large historic complexes like mill sites.
- ATV tracks and collector piles or digging on prehistoric sites.
- Eroded mine dumps with ATV tracks and lacking historical integrity.
- Historic equipment either moved from its original location on the site or missing altogether.
- Boards pulled from historic framed structures.
- Downed structures that appear recently toppled or burned.
- User-designated trails on rail beds, wagon roads, and foot or stone boat trails.
- The occurrence of modern camping within the

- boundaries of an historic or prehistoric site.
- Vandalism to the infrastructure at interpreted sites (e.g., Signage, restrooms, display artifacts, and register/brochure boxes).

Adherence and Enforcement
of the Travel Management Plan

Heritage resources are irreplaceable. Archeological sites vulnerable to ATV-related damage must be monitored with any impacts reported to the Forest archeologist for review and possible mitigation. Suspects will be investigated and cited if appropriate.

Indicators

- ATV tracks in and through an historical site. This includes the use of mine dumps and mill tailings as play hills or areas.
- Missing boards from frame buildings.
- Missing artifacts known to have been on the site.
- ATV tracks and collector piles on prehistoric sites.

METHODS

The following methods, definitions and assumptions were used to inform and determine the analyses presented in this report.

Sources of Information

- * Forest heritage site database.
- * Forest project database.
- * Forest heritage overview dated January 18, 1986.
- * Field surveys conducted specifically for the OHV Route Designation Project.
- * Programmatic Agreement between the Fishlake National Forest and Utah SHPO.
- * USDA Forest Service Policy for Section 106 of the NHPA Compliance in Travel Management: Designated Routes for Motor Vehicle Use dated December, 2004.
- * Forest Geographic Information System maps and attribute data for heritage resources including a logistic regression site-probability model developed for the Fishlake National Forest.
- * Forest Roads Analysis dated January 10, 2003 and supplement prepared for the FEIS.
- * Fishlake National Forest Land Management Plan dated 1986
- * Twenty-five years experience as the Fishlake National Forest archeologist.

Delineation of Cumulative Effects

Effects on any resource can be positive or negative. With heritage resources, and especially prehistoric sites, the prohibition of cross-country travel is a very positive effect. The prohibition limits the range and mobility of people who would collect or dig historic properties to designated routes plus their physical ability to walk and carry equipment over varying distances and uneven terrain. This action also discourages the establishment of user-designated trails over or through sites.

With designated routes, the preferred distance designation between the trail or road and a heritage resource is 150 feet. **Table 7** under the **Cumulative Effects Summary** illustrates the average distance from the center of heritage resources falling *within* the 150 foot distance from designated routes. Prehistoric sites are generally, but not always, obscure to someone on a motorized vehicle. Flakes and small tools, and features like hearths or ash-stained areas, are not readily identifiable and it would defeat the element of obscurity to install fences or signage. If a road is impacting a prehistoric

site, movement of the road is unlikely then mitigation, as outlined by the NHPA, should be undertaken. Trails are more easily moved, obliterated and rehabilitated and this should be considered as a mitigative measure if ATV's impact sites.

Historic sites, on the other hand, are the most negatively impacted by ATV traffic because of their visibility and accessibility from designated routes. Damage to these types of heritage resources includes the collection of artifacts, vandalism and the establishment of two-track trails on and around the sites. Because wagon roads that have become modern access routes first accessed historic sites, it is not possible in most instances to close motorized routes that pass historic sites.

Mitigation of effects will include, as discussed previously, barriers, fencing and signage. Interpretation of historic properties can also minimize damage by informing the public of a property's importance and place in history. This approach has been used in Bullion Canyon and at the Silver King Mine on Gold Mountain. One can only speculate the fate of a site like the Silver King if it had been perceived only as an old dilapidated property instead of the former home and livelihood of a young married couple living in the wilderness of 19th century Utah.

Definitions

National Historic Preservation Act (1966): This law, passed during Lyndon Johnson's presidency, established a legal process by which archeological sites are inventoried, evaluated for significance, protected or mitigated if a federal action or undertaking will cause adverse impacts to significant properties. This process is referred to as "Section 106" of the NHPA and applies mostly to actions on federal lands.

State Historic Preservation Officer (SHPO): State review of Federal undertakings under the Section 106 process of the NHPA.

Tribal Historic Preservation Officer (THPO): Native American review of Federal undertakings under the Section 106 process of the NHPA.

Undertaking: This is an action that is initiated by a federal agency or permittee of that agency. The construction of Interstate 70 through Clear Creek Canyon was an undertaking of the Federal Highway Administration. As required by the NHPA, archeological surveys were conducted to inventory and evaluate sites for significance. When a large and significant Fremont village could not be avoided by highway construction, this site was excavated to recover scientific information and artifacts before its destruction.

Archeological site/heritage resource: Under the definition of the Antiquities Act (1906) and the National Historic Preservation Act (1966), any person-made, modified or utilized object is called an artifact. Clusters of artifacts, sometimes in association with structures, hearths or trash dumps, are called sites. This is simply an area where human beings carried out activities as simple as skinning a deer to a full-fledged farming or mining community where they both resided and made a living.

Historic sites: Historic sites are anything person-made during the era of written records. By legal definition, anything over 50 years of age is historic. In our area, examples of historic sites include homestead cabins, fences, irrigation canals, older buildings, Forest Service guard stations, and mining sites with cabins, sheds, outbuildings, head-frames, tunnels, shafts, and wagon roads. These types of sites date to the era of written records beginning with the Dominguez-Escalante Expedition of 1776.

Prehistoric sites: Prehistoric sites can date before the era of written records (>1776) or have their origin with a people and culture that left no written records. In our area, Native American people were first introduced to a written language by the Latter Day Saints (Mormons) who arrived in Utah

in 1847. Native American people are thought to have been in Utah for 12,000 years so everything before 1776 is prehistoric. The period between 1776 and 1847 is called “proto-historic” by some.

Historical integrity: Integrity means that the state of preservation, minus natural decay, remains as the original builders, occupants, or litter bugs left their donation to history. This means that rock art panels are not defaced by graffiti or gunfire and that mine dumps are not marred and altered by ATV’s using them as play hills.

Collector piles: When people collect an archeological site, especially prehistoric sites, they gather small pieces of rock called flakes, broken tools and pieces of broken ceramic pots. They carry this stash in their wanderings around a site, eventually pick out what they want and leave the rest of the material in a pile on the ground.

Assumptions

Required Design Criteria: The effect analysis assumes that the updated motorized travel plan, including the proposed route obliterations and the installation of signs and barriers, is accomplished in the first year of implementation. However, it is recognized that the plan will take several years to fully implement. In reality, this means that the impacts and benefits from the proposed actions will also be spread out over several years.

Motorized Travel Plan Effectiveness: The effects analysis recognizes that public compliance and enforcement by the Forest Service is critically important in order to create the benefits for the action alternatives. This is especially critical when one realizes that heritage resources are irreplaceable. Once they have been destroyed, they are gone forever. They cannot be obliterated and revegetated like a user-designated trail.

Potential for Unintended Consequences: Heritage resources are very sensitive to increasing use. More people and ATV’s means more potential for irreversible damage. Use, to a certain level, can be managed. Beyond that level, the incidence and severity of impacts will increase. High levels of use, coupled with road and area closures, will unintentionally displace motorized use to new areas resulting in additional resource damage.

Adaptive Management: The effect analysis assumes that the Forest Service will continue to monitor, assess, prioritize, mitigate and/or rehabilitate routes that create undesirable impacts to heritage resources.

Effects Common to All Alternatives

The following impacts will occur regardless of which alternative is chosen:

Reasonably Foreseeable Projects: The Fishlake has numerous current and planned projects across the Forest that will be implemented regardless of which OHV Route Designation alternative is selected. Effects from reasonably foreseeable activities in combination with the OHV Route Designation Project are described in Appendix C of the FEIS. Appendix C also includes several potential transportation related projects that are not addressed in the OHV Route Designation Project because they are complicated enough to warrant separate NEPA analysis.

Standard Road and Trail Maintenance: Road and trail brushing, blading, shaping, and ditch cleaning help maintain the structures and intended design for cross drainage. This work results in exposed soil, which can erode. Either the blading operation or the erosion process can adversely impact heritage resources.

Existing Resource Impacts: The Forest Service has used its discretionary authority to limit the scope of this project. Addressing all transportation or transportation related issues, uses, and impacts is a much larger task than is feasible to cover in one assessment. It will take decades of incremental improvement through adaptive management to meet all of the objectives and requirements for transportation planning stated in Forest Service directives and policy assuming current funding levels. Accordingly, the Forest Supervisor has limited the scope of the project to what is specified in the Purpose of and Need for Action. The most immediate and important transportation impacts and conflicts are being addressed. As such, all alternatives have unresolved resource impacts and conflicts related to the transportation system and motorized use. However, each action alternative makes substantial improvements towards reducing redundant routes, and minimizing resource impacts and user conflicts as required by 36 CFR 212.55 and Executive Orders 11644 and 11989. The amount of time for implementing each of the action alternatives will push the limit for the shelf life of the OHV route designation NEPA document even with the added priority the forest is giving to implementation. Implementation will also push the limits of available funding and personnel resources available to the forest, but this project is a top priority.

Cumulative Impacts with Adjoining Lands: The Richfield BLM Field Office is in the process of revising its Resource Management Plan (RMP). The new RMP will include greater restrictions on motorized cross-country travel and will designate a motorized travel network. Based on ongoing coordination, the new travel plan will be more consistent across lands managed by both agencies than what exists currently. This should make the travel plans from both agencies easier for the public to understand and for the agencies to enforce. The RMP should improve on dated management direction for all or most of the resources managed by the respective BLM offices. This should reduce land use impacts to some degree as the new plans are implemented. Since BLM lands adjoin National Forest System lands managed by the Fishlake National Forest, this should result in a net decrease in cumulative impacts over time. The same reasoning can be applied to the revision of the Forest Plans for the Dixie and Fishlake National Forests.

Effects Common to All Action Alternatives

All routes being considered in the OHV Route Designation Project currently exist and are being used to varying degrees. The impacts to heritage resources are already occurring. Rather than creating new effects, the proposed actions are designed to maintain or reduce existing impacts to heritage resources associated with motorized use on designated routes.

Potential for Cumulative Impacts: Closing the Forest to motorized cross-country travel will have the effect of reducing the potential for direct and indirect off-route interactions and impacts with other land uses. By definition, this will have the effect of reducing actual and potential cumulative impacts to nearly all other resource values and uses on the forest.

Designation of Additional Routes to Dispersed Campsites: During the implementation of an action alternative, there may be inventoried or uninventoried campsites that do not have an existing motorized access route. Any route or campsite that could affect heritage resources must be evaluated under the Section 106 process of the NHPA.

Effects from Roads and Motorized Trails and Open Use Areas on Heritage Resources

Affected Environment

Encroaching routes within the riparian influence zone are defined in this analysis as roads and trails within 50 feet or 300 feet of heritage resources. Human beings, past, present, and presumably in the

future have been and will be drawn to water because of thirst, hunger, comfort, recreation or as a source of power for industry. Many prehistoric and historic sites are found on stream terraces, lake margins, and around wetlands. Therefore, adverse hydrologic conditions caused by motorized vehicles must be considered.

Routes within 300 feet of stream channels, lakes, and wetlands are considered to be within the “riparian influence zone”. In addition to being a mechanism of disturbance, encroaching and riparian roads and trails are also instrumental in providing access to and concentrating use within riparian areas and streams by livestock and humans. This is especially true in areas that are open to snow free motorized cross-country travel such as what occurs around and between undeveloped dispersed campsites. More concentrated use can result in the trampling or erosion and intentional vandalism of heritage resources.

Table 6 shows, by alternative, the miles of roads and motorized trails within 300 feet of stream terraces, lakes and wetlands within each cumulative effects watershed that encompasses the Forest.

Table 6. Riparian motorized route cumulative effects indicator.						
HUC Number	Cumulative Effects Watershed	Miles of Motorized Route in the Riparian Influence Zone				
		Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
1407000201	Ivie Creek - Upper Colorado River	63.7	53.0	52.8	47.3	53.9
1407000205	Salt Wash	38.8	29.6	31.2	28.8	34.1
1407000301	Headwaters Fremont River	110.3	79.2	82.2	68.1	91.7
1407000302	Pine Creek-Fremont River	3.4	2.7	2.8	2.3	3.1
1407000303	Deep Creek-Fremont River	23.9	15.7	17.5	15.0	18.8
1603000106	City Creek-Sevier River	40.0	27.8	28.1	26.8	29.2
1603000201	Upper Otter Creek	62.5	52.6	55.3	35.6	55.6
1603000202	Lower Otter Creek	21.8	19.2	17.1	9.9	17.1
1603000205	Lower East Fork Sevier River	0.1	0.1	0.1	0.1	0.1
1603000301	Clear Creek	96.0	80.7	80.7	75.2	79.6
1603000302	Beaver Creek-Sevier River	70.5	57.1	57.0	51.0	57.5
1603000303	Cottonwood Creek-Sevier River	128.8	91.3	91.9	58.0	90.2
1603000304	Salina Creek	155.8	134.1	135.4	113.7	139.0
1603000305	Lost Creek-Sevier River	71.9	56.3	51.9	38.1	54.4
1603000306	Willow Creek-Sevier River	13.4	10.7	10.6	8.3	11.1
1603000501	Ivie Creek - Lower Sevier River	16.8	14.0	13.7	11.6	16.2
1603000504	Upper Sevier River	10.3	8.9	8.6	7.8	8.3
1603000512	Middle Sevier River	29.9	24.8	24.9	18.7	24.6
1603000513	Corn Creek	49.4	51.4	51.3	35.8	52.0
1603000514	Chalk Creek	75.9	69.3	71.3	53.4	70.2
1603000515	Oak Creek	54.3	48.8	47.6	34.3	45.9
1603000601	Fremont Wash	6.2	5.5	5.5	5.5	5.7
1603000701	Indian Creek	18.6	16.2	17.5	15.9	17.9
1603000702	South Creek-Beaver River	87.8	79.8	79.6	69.8	81.8
1603000705	Cove Creek	28.0	20.6	20.6	19.1	25.2
1603000801	Pahvant Valley	24.7	22.4	23.2	11.4	21.7
CEA - FOREST TOTALS		1302.7	1071.8	1078.2	861.4	1104.8

For reference, **Table 7** shows the existing number of individual inventoried dispersed campsites within 50 feet (encroaching) and 300 feet (riparian influence zone) of stream terraces, lake margins, and wetlands. This information is important to know because dispersed camping and picnicking are activities are typically associated with motorized access.

Table 7			
HUC Number	Cumulative Effects Watershed	Encroaching on Channels, Lakes, and Wetlands	Within Riparian Influence Zone
1407000201	Ivie Creek - Upper Colorado River	8	45
1407000205	Salt Wash	21	90
1407000301	Headwaters Fremont River	47	151
1407000302	Pine Creek-Fremont River	0	0
1407000303	Deep Creek-Fremont River	2	17
1603000106	City Creek-Sevier River	8	20
1603000201	Upper Otter Creek	3	28
1603000202	Lower Otter Creek	4	11
1603000205	Lower East Fork Sevier River	0	0
1603000301	Clear Creek	24	54
1603000302	Beaver Creek-Sevier River	9	43
1603000303	Cottonwood Creek-Sevier River	9	55
1603000304	Salina Creek	33	198
1603000305	Lost Creek-Sevier River	16	60
1603000306	Willow Creek-Sevier River	14	44
1603000501	Ivie Creek - Lower Sevier River	5	10
1603000504	Upper Sevier River	0	0
1603000512	Middle Sevier River	2	8
1603000513	Corn Creek	9	36
1603000514	Chalk Creek	4	29
1603000515	Oak Creek	7	43
1603000601	Fremont Wash	4	6
1603000701	Indian Creek	6	24
1603000702	South Creek-Beaver River	55	146
1603000705	Cove Creek	7	23
1603000801	Pahvant Valley	0	4
CEA - FOREST TOTALS		297	1,145

Alternative 1 – No Action Consequences

The No Action alternative provides a baseline comparison for the action alternatives. This alternative maintains the greatest amount of routes and open use areas that encroaches directly on or near heritage resources. This alternative authorizes use that would result in continued expansion of user created route networks and continued motorized use of non-motorized trails. No Action maintains cross-country travel, which perpetuates existing risk elements for prehistoric sites located off of existing roads or trails. Even in the short-term, the impacts to heritage resources would continue to increase because of the rapid growth in motorized use that is expected. This fact should not be used to imply that all use of motorized routes and open use areas are creating negative impacts to heritage resources across the Forest. However, continuing management under a motorized travel plan that has known deficiencies at the current use levels should not be expected to function better with even more motorized users.

The issues and management strategies identified in the FEIS for the Fishlake OHV Route Designation Project and from the forest scale Roads Analysis Supplement make clear that closing the Forest to cross-country travel and other measures are necessary. This will keep motorized use compatible with resource protection needs. Over the long-term, the no action alternative would accumulate significant negative impacts across the Forest. This alternative has the most potential for adverse cumulative impacts with other resource uses and land management because it retains significantly more open use area than any other alternative.

Alternative 2 – Proposed Action Consequences

This alternative represents the first attempt by the Forest to address the Purpose of and Need for Action discussed in the EIS. This alternative would result in a substantial reduction in the mileage of motorized routes and acres of open use areas adjacent to some high probability areas for the occurrence of heritage resources (e.g., aquatic zones and unroaded areas). As discussed under “Required Design Criteria”, the proposed action would require road and trail obliteration, authorizing some unauthorized routes, and maintaining some open use areas to be reviewed by the Section 106 process of the NHPA. In addition, sites impacted by ATV’s will be protected by physical barriers, signs and, some cases, interpreted for the benefit and understanding of the public.

Alternative 3 – Modified Proposed Action Consequences

The effects for Alternative 3 are very similar to those described for Alternative 2. Alternative 2 has more obliteration than Alternative 3, but this is primarily on routes that were inventoried during the summer of 2004 after the proposed action was released to the public. Beneficial effects to heritage resources would be comparable to Alternatives 2 and 3 for the designated routes. However, Alternative 3 has less area that would fall within distance designations for dispersed camping, which would further reduce potential for impacting heritage resources.

Alternative 4 – Non-motorized Emphasis Consequences

This alternative results prohibits cross-country travel and proposes the in the lowest mileage of routes and acres of open use areas being located in or around a high probability area for heritage resources, namely the riparian influence zone. Under Alternative 4, for example, open use areas within the riparian influence zone decrease by about 88 percent relative to No Action. This change is achieved by switching to travel on designated routes and areas and through route obliteration. When the route and open use indicators are considered together, the net result is for a beneficial effect for heritage resources.

If the proposed area closures could be enforced, it would still be likely that the users who use the open use areas would be displaced to other areas on public or private land. This could well result in new and perhaps greater impacts than what currently exists. The open use areas proposed in Alternatives 2, 3, and 5 would not respond quickly to removing all motorized use because the sites are semi-arid and much of the damage that can occur has occurred, especially at Velvet Ridges which has sparse vegetation and is characterized by geologic parent material rather than soil.

There are no significant archeological sites in or around the Velvet Ridges open use area. However, surveys at the Richfield open use area have revealed a series of very significant rock art panels that are probably associated with the 1,000-year-old Backhoe Village site underneath Snow College South. Most of these panels have been defaced by gunfire and by modern graffiti that predates the use of the area by ATVs. On the positive side, there will be very few people either on foot or carrying firearms in area used by fast-moving ATVs. Fences and other barriers or signage has been ruled out because it will only attract attention.

Alternative 5 – Final Preferred Alternative

Alternative 5 limits the potential damage to heritage resources in a number of areas. Miles of motorized routes within the riparian zone, which acted as a magnet to both prehistoric and historic peoples, decreases from 1,302.7 miles in the No Action Alternative to 1104.8 miles under the preferred alternative. In addition, 737.9 miles of mostly motorized routes have been proposed for obliteration. This alternative also includes the closure of the play area west of Richfield along the CCC road. Most important is the number of acres of heritage resources within the travel corridor that are potentially subject to damage. The preferred alternative decreases the number of sites within dispersed camping distance designations from the No Action Alternative by 70% (i.e., 420 to 128). This is the least number of acres of all action alternatives except Alternative 4 (i.e., 101). Even so, Alternative 5 has the most miles of routes of any of the action alternatives. Alternative 5, like all of the action alternatives, is compliant with the National Historic Preservation Act. Only Alternative 1, the No Action Alternative is non-compliant.

Effects from Motorized Route Density and Mileage, and Open Use Areas on Heritage Resources

Under the provisions of the NHPA, archeological sites, when discovered, are evaluated as significant (eligible for listing on the National Register of Historic Places) or not eligible (for listing). These terms are also synonymous with “significant” and “non-significant”. Until evaluated, all sites are considered significant and irreplaceable. The largest impact to heritage properties by OHVs is cross-country travel. Archeological sites are trampled, subject to erosion, and on occasion, collected and dug. The fact that all of the action alternatives eliminate cross-country travel, except for a few open use areas greatly reduces the possibility for the occurrences of adverse impacts.

Barriers, fences and signage will also go a long way in protecting very visible historic sites along designated routes. If people are barred from riding through the sites and are educated about the importance of the site by an interpretive sign, adverse impacts should decrease drastically.

As stated in the previous section, only one of the two proposed open use areas has archeological sites. It is our contention that ATVer’s will have considerably less impact on a series of rock art panels near Richfield because their activities and presence will prevent the two historic sources of impacts: gunfire and graffiti.

Cumulative Effects Summary

All routes considered in the OHV Route Designation Project currently exist and are being used to varying degrees. As such, the impacts to the various resources described in the FEIS are already occurring. Rather than create new effects, the proposed actions encourage the maintenance and reduction of existing impacts associated with the route network and motorized use. Closing the Forest to motorized cross-country travel will have the effect of reducing the potential for direct and indirect off-route interactions and impacts with other land uses. By definition, this will have the effect of reducing actual and potential cumulative impacts to nearly all resource values and uses on the Forest. **Table 8** reflects the number of significant archeological sites areas within open use and dispersed camping distance designations. The number of sites in Table 8 will decrease further as distance designations are either dropped or replaced by designated routes to campsites.

Time Period	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5
Historic	32	19	16	12	15
Prehistoric	379	167	113	86	109
Multi	9	6	4	3	4

(Prehistoric & Historic)					
Total	420	192	133	101	128

Table 9 shows the acres of eligible sites by alternative. This is even more graphic than **Table 8** data, especially compared to the existing condition. The number of sites in Table 9 will decrease further as distance designations are either dropped or replaced by designated routes to campsites.

Table 9				
Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5
855	245	137	86	133

As expected, the No Action alternative has the largest number of designated routes and open areas close to archeological sites. Of the action alternatives, Alternative 4 has the fewest number of ATV routes and open areas close to archeological sites. As a general statement, all of the action alternatives reduce the actual and potential impacts to the riparian influence zone (i.e., high probability area for archeological sites) and prohibit cross-country travel. This is a plus for heritage resources.

Short-term Uses and Long-term Productivity

NEPA requires consideration of “the relationship between short-term uses of mans’ environment and the maintenance and enhancement of long-term productivity” (40 CFR 1502.16). Section 106 of the NHPA goes one step further. This law requires that “the agency official shall consult with the SHPO/THPO and other consulting parties, including Indian tribes and Native Hawaiian organizations, to develop and evaluate alternatives or modifications to the undertaking that could avoid, minimize or mitigate adverse effects on historic properties” (36 CFR 800.6(a)). Each of the action alternatives addresses the need to balance short-term uses and long-term-productivity. In the management of significant heritage resources, there is no balance only the total protection of historic properties or the mitigation of those elements that are adversely impacting them.

Unavoidable Adverse Effects

While impacts from roads and motorized trails and open use areas can be minimized, they cannot be eliminated. As a minimum, a percentage of historic and prehistoric sites, determined as significant and eligible for inclusion on the National Register, must be monitored each year by a qualified archeologist to identify impacts from motorized vehicles. A best guess estimate is that the majority of impacts, and mitigating measures by the Forest, will occur on historic sites visible from the designated trail, road or open use area. Maintaining the integrity of these properties is crucial to both the history and the tourism economy of a given area. People come to vicariously enjoy the old Wild West through old buildings and scattered artifacts.

Irreversible and Irrecoverable Commitments of Resources

Irreversible commitments of resources are those that cannot be regained. Heritage resources are an excellent example of this type of resource. Once vandals burn an old cabin to the ground, it will never rise from the ashes like the wild flowers in a meadow after a blazing forest fire. Once comprised or destroyed, historic values are lost forever and therefore do not meet the definition of irretrievable commitments, which are temporary.

Consistency with the Forest Plan

All of the alternatives are consistent with the Fishlake National Forest plan from the standpoint that existing support of heritage resources will be maintained. Only the actions alternatives improve protection of heritage resources. Each action alternative and reasonably foreseeable action applies Forest Plan Standards and Guidelines relative to heritage resources.