

Introduction

This document evaluates the safety aspects and suitability of permitting mixed use on the roads under the jurisdiction of the Fishlake National Forest. The evaluation includes Forest System Roads with maintenance levels of 1, 2, 3, 4, 5, and unauthorized roads. A list of the roads and risk analysis for each road considered for mixed use is shown in the appendix.

Forest Service Handbook 7709.59 Chapter 50 Supplement 7709.59-2004-1 and U.S.D.A. Forest Service EM-7700-30 (12/2005) Publication titled Guidelines for Engineering Analysis of Motorized Mixed Use on National Forest System Roads sets the course for evaluating mixed use on Forest Development Roads.

Factors for Evaluation	Discussion
Road Management Objectives	Included in this report and the Forest-Wide Roads Analysis for the Fishlake OHV Route Designation Project
Traffic Speed, volume, and composition	Included in this report and the Forest-Wide Roads Analysis for the Fishlake OHV Route Designation Project
Road standards	Included in this report and the Forest-Wide Roads Analysis for the Fishlake OHV Route Designation Project
Alternative routes/options	The OHV Route Designation Project FEIS discusses opportunities to transition some roads to motorized trails.
Opportunities/facilities accessed	Included in the OHV Route Designation Project FEIS
Demand for use	Included in the OHV Route Designation Project FEIS including public comments and the Forest-Wide Roads Analysis for the Fishlake OHV Route Designation Project
Environmental effects	Included in the OHV Route Designation Project FEIS
State law and/or FS Regulations	<p>Utah State Law, Section 41-22-10.1, <u>Vehicles operated on posted public land</u>. (1) Currently registered off-highway vehicles may be operated on public land, trails, streets, or highways that are posted by sign or designated by map or description as open to off-highway vehicle use by the controlling federal, state, county, or municipal agency.</p> <p>Executive Order 116-4, Use of Off-Road Vehicles on the Public Lands, provides direction for managing off-road vehicle use. Forest Service Regulations, Forest Service Manual Chapter 2350, Supplement Number r4-2300-2003-2, and Forest Service Handbook 7709.59 Chapter 50 Supplement 7709.59-2004-1 provides direction for mixed use of off-highway vehicles on Forest System Roads</p>

Factors for Evaluation	Discussion
Enforcement mechanisms, Motorized Use Map, Obliteration, Barriers, Education	Included in the OHV Route Designation Project FEIS and the Forest-Wide Roads Analysis for the Fishlake OHV Route Designation Project
Consultation with local county attorney/law enforcement	Included in the OHV Route Designation Project FEIS, referenced in this report and documented in response to comments
Proposed signs and markers, public information and education	Included in the OHV Route Designation Project FEIS, Roads Analysis Supplement
Mitigation measures	Included in the OHV Route Designation Project FEIS and Roads Analysis Supplement
Forest Plans, ROS	Included in the OHV Route Designation Project FEIS
Risk Analysis	Included in this report and the Forest-Wide Roads Analysis for the Fishlake OHV Route Designation Project
Inconsistencies	Included in Pre-NEPA (NFMA) Assessment, the OHV Route Designation Project FEIS, and Public Comments

Data sources include:

INFRA and GIS Data Bases: These databases provide the road miles by maintenance level for this report.

Road Management Objectives: The Forest-Wide Roads Analysis provides the road management objectives for each of the 5 levels of road maintenance classification.

Traffic Surveillance Data: Traffic data has been collected from both electronic and visual observation methods. This data documents the average daily traffic (ADT) on roads. Not all roads have traffic surveillance data collected.

Forest Law Enforcement Officer Specialist Report. The report identified specific roads where mixed use has been a problem. The report also summarized the accidents for years 2001 and 2002. The OHV serious accidents used in this report was taken from data provided by the report. A serious accident is defined as serious injury accidents and fatalities.

Road Hazards: Information from Forest personnel identifying roads or road segments suitable for mixed use and areas where road hazards exist that may jeopardize safety if mixed use is permitted.

Forest Accident Atlas: The atlas is a pin map disclosing the location and severity of accidents on forestlands. The pins were lost from the map resulting in lost data concerning the type and severity of accidents. The location of accidents remained from the pinholes in the map. This report summarizes the accidents from the pin map as accidents of unknown type or severity.

Forest-Wide Road Analysis and Supplement: The analysis provides critical information to inform line officers and the public about the existing and desired state of the road system. The information is used to help develop and maintain a road system that is safe, responsive to public needs and desires, affordable, and efficiently managed.

Public Comments: In the project record, including input from State agencies, Counties, and other local jurisdictions.

Current Inventory of Forest System Roads Miles by Objective Maintenance Levels:

Maintenance Level	Fillmore Ranger District	Loa Ranger District	Beaver Ranger District	Richfield Ranger District	Total
Unclassified	79	69	49	206	403
1	0	0	4	4	8
2	477	294	361	422	1,554
3	52	32	49	102	235
4	11	4	1	2	18
5	3	5	1	0	9
Total	622	404	465	736	2227

Roads may be currently maintained at one level and planned to be maintained at a different level at some future date. The operational maintenance level is the maintenance level currently assigned to a road considering today's needs, road condition, budget constraints, and environmental concerns: in other words, it defines the level to which the road is currently being maintained. The objective maintenance level is the maintenance level to be assigned a future date considering future road management objectives, traffic needs, budget constraints, and environmental concerns. The objective level may be the same as, or higher or lower than, the operational maintenance level. The transition from operational maintenance level to objective maintenance level may depend on reconstruction or disinvestments.

Forest roads are roads wholly or partially within or adjacent to the National Forest System lands that the Forest Service determines is necessary for the protection, administration, and utilization of the National Forest System and the use and development of its resources. (36 CFR 212.1). Unauthorized roads are roads on the National Forest System lands that are not managed as part of the forest transportation system, such as unplanned roads, abandoned travelways, and off-road vehicle tracks that have not been designated and managed as a trail; and those roads that were once under permit or other authorization and were not decommissioned upon termination of the authorization (CFR 212.1).

MAINTENANCE LEVEL 1 ROADS

Roads: Reference the Appendix B and C for road listings that includes a summary of risk assessment and recommended decision associated with allowing mixed use.

These roads are currently closed to motorized traffic. Roads taken from a closed to motorized traffic status to open to motorized traffic would be managed as maintenance level 2 roads.

Road Management Objectives (From the Forest-Wide Roads Analysis)

Resource Mgt Objective: Open for non-motorized use only. Non-motorized use to minimize impacts to water quality, wildlife habitat, and reduce annual road maintenance expenditures.

Ecosystem Management Objectives (For all Traffic Types): Forest Plan Management Areas; Reference the Forest Land and Resource Management Plan for specific Management Area Direction. Roads within Area are subject to; Travel Restriction B, all motorized vehicles restricted year long to routes as shown on the travel map except over snow machines operating on adequate snow depth.

Safety, Physical, Traffic & Vehicles: Barricade roads with gates, fences, earth mounds, or vegetative material to discourage motorized use. Sign appropriately. Deny motorized access.

Economics & Design Elements: For General Public Use design for standard pickup or SUV. For Commercial Use design for the critical vehicle.

Operational Requirements: Not subject to the Highway Safety Act. Public use may be permitted on case-by-case basis.

Maintenance Requirements: Closed to motorized public use, the closure period must exceed one year. Basic custodial maintenance is performed to keep damage to adjacent resources to an acceptable level. If the road is no longer necessary for management and meets the requirements of NFMA it may be removed from the transportation inventory

MAINTENANCE LEVEL 2 ROADS

Roads: Reference the Appendix B and C for road listings that includes a summary of risk assessment and recommended decision associated with allowing mixed use.

Volume: Generally 5 vehicles per hour or less.

Composition: Roads open for use by high clearance vehicles. Passenger car traffic is not a consideration. Design speed is 15 M.P.H. or less.

Signing: Minimal signing other than a route identification marker.

Road Characteristics. Road surface is normally native materials, road obstructions may impede travel, roadside clearing is minimal, and waterbars for functional road drainage is common. Road maintenance is generally limited to one grading every 10+ years.

Road Management Objectives (From the Forest-Wide Roads Analysis)

Resource Mgt Objective: Vehicle access to Dispersed and Developed Recreation Sites. Manage access to minimize impacts to water quality, wildlife habitat, and other resource values. Provide for quality forest user experience. Limited recreation, fire, timber, and law enforcement administrative traffic. Commercial uses limited to vegetative management and grazing allotment access.

Ecosystem Management Objectives (For all Traffic Types): Forest Plan Management Areas; Reference the Forest Land and Resource Management Plan for specific Management Area Direction. Access and Travel Management reference the Forest Visitor/Travel Map for Area Travel Restrictions. Develop BMPs to protect or improve 303d listed waterbodies. Inspect and replace deficient culverts at perennial stream crossings. Apply dust abatement materials for road stabilization as necessary. Reference current NEPA Documents for additional or clarification of management objectives. Prepare and reference road analysis documents to manage roads in concert with the Natural Resource Agenda. Promote road maintenance and road reconstruction to improve road conditions in (1) Forest Priority Watersheds and (2) Other Forest Watersheds.

Safety, Physical, Traffic & Vehicles: Provide for High Clearance Vehicles and where permitted ATV use. Install safety and informational signs as necessary. Limit use to dry or frozen conditions. Mixed traffic occurs.

Economics & Design Elements: For public use design for Standard Pickup or SUV. For commercial traffic depending on intended use, design for log truck, low bed tractor/trailer, cattle truck, or stock truck/trailer as the critical vehicle. Provide functional roadway drainage.

Operational Requirements: Not subject to the Highway Safety Act. Single lane roads with turnouts. Road surface may vary depending on individual road evaluation. Roads may be closed seasonally or restricted during periods of commercial activity. Install safety signs during commercial use. Commercial use by permits or contracts only.

Maintenance Requirements: Maintenance level 2. Prepare and implement annual road maintenance plans to provide for safe use and reduce the impact of road use on watershed values. Commercial uses to perform or contribute commensurate share of maintenance level 2 during use.

Mitigation Measures: Appropriate signing and mapping the routes such that mixed use of the road is clear. Designate the roads open for mixed use on a travel map available to the public. Forest Service patrols during higher use periods to enforce state OHV laws and Forest Service regulations and orders. Roads may be closed during periods of commercial use.

Conclusion: Mixed use is usually suitable on these roads. In general, the more challenging the road conditions the more conscientious the drivers are to speed and anticipation of road hazards. The risk associated with mixed use is mitigated by the generally low traffic volume and slow speeds on these roads. The Forest Law Enforcement Officer concluded most of the serious injury accidents and fatalities involving ATVs occur on major arterial roads. Arterial roads are typically the higher use improved maintenance level 3, 4, and 5 roads.

MAINTENANCE LEVEL 3 ROADS

Road Name: Reference the Appendix B and C for road listings that includes a summary of risk assessment and recommended decision associated with allowing mixed use.

Reference the appendix for the road listing

Volume: Generally 10 vehicles per hour or less.

Composition: Roads opened and maintained for travel by a prudent driver in a standard passenger car. User comfort and convenience are not considered priorities. Design speed is 20 M.P.H. or less.

Signing: Route identification markers and destination signs are generally installed. Cautionary signs are occasionally installed.

Road Characteristics. Road surface is generally native materials with few road sections of gravel surfacing. Road maintenance is generally limited to one grading annually. Obstructions may impede travel, roadside clearing is minimal, and culverts and intercepting ditches for functional road drainage is common.

Road Management Objectives (From the Forest-Wide Roads Analysis))

Traffic Type: Public Use and Recreational Traffic

Resource Mgt Objective: Vehicle access to Dispersed and Developed Recreation Sites. Manage access to minimize impacts to water quality, wildlife habitat, and other resource values. Provide for quality Forest User Experience

Ecosystem Management Objectives (For all Traffic Types): Forest Plan Management Areas: Reference the Forest Land and Resource Management Plan for specific Management Area Direction. Access and Travel Management Plan: Reference the Forest Visitor/Travel Map, 1997, for Area Travel Restrictions

Safety, Physical, Traffic & Vehicles: Provide for Low Clearance Vehicles and Mixed OHV Use. Install safety and informational signs as necessary.

Economics & Design Elements: Design for Standard Pickup or SUV with Camp Trailer. Passenger vehicles may use road with low to moderate difficulty.

Operational Requirements: Subject to Hwy Safety Act. Mixed ORV and highway vehicles use is permitted with Forest Supervisor's Approval. Develop Traffic Studies associated with Traffic & Accident Surveillance, Use Patterns, and ADTs.

Maintenance Requirements: Prepare and implement annual road maintenance plans to provide for safe use and reduce the impact of road use on watershed values.

Traffic Type: Administrative Traffic

Resource Mgt Objective: Limited Recreation, Fire, Timber Admin, Law Enforcement

Ecosystem Management Objectives (For all Traffic Types): Develop BMPs to protect or improve 303d listed waterbodies. Inspect and Replace culverts at Perennial Stream Crossings that are not functioning properly and/or not adequate to accommodate peak flows. Use Mag Chloride for road stabilization and/or dust abatement as appropriate. Reference current NEPA Documents for additional or clarification of Management Objectives.

Safety, Physical, Traffic & Vehicles: Provide for Moderate to Low Clearance Vehicle Access Conduct Hazard Analysis commensurate with Traffic Volume

Economics & Design Elements: Design for Standard Pickup or SUV. Provide functional road drainage

Operational Requirements: Use as Necessary for Administrative Purposes

Traffic Type: Commercial Traffic

Resource Mgt Objective: Limited Timber Sale & Vegetation Management Traffic. Grazing allotment access

Ecosystem Management Objectives (For all Traffic Types): Prepare and Reference Roads Analysis Documents to manage roads in concert with the Natural Resource Agenda. Promote road maintenance and road reconstruction to improve road conditions in (1) Forest Priority Watersheds and (2) Other Forest Watersheds.

Safety, Physical, Traffic & Vehicles: Mixed traffic on haul roads including ATV use. Limit periods of use with emphasis on protection of road investments and minimize watershed impacts associated with use.

Economics & Design Elements: Depending on the intended use; Provide for Log Truck, Low Bed Tractor/Trailer, Cattle Truck, or Stock Truck/Trailer as the Critical Vehicle. Provide functional roadway drainage.

Operational Requirements: Install Safety Signs During Commercial Use, Consider/Recognize and plan for mixed traffic during commercial use periods. Commercial Use by Permit or Contract Only

Maintenance Requirements: Commercial User to perform or contribute commensurate share of Maintenance Level 3 during Commercial Use

Mitigation Measures: Appropriate signing and mapping of routes to assure mixed use of the road is clear. Designate the roads open for mixed use on a travel map available to the public. Forest Service patrols during higher use periods to enforce state OHV laws and Forest Service regulations and orders. Roads may be closed to mixed use during periods of commercial use.

Conclusion: Mixed use is generally suitable on these roads. While these roads are assigned as objective maintenance level 3, operationally many roads can only be maintained as maintenance level 2. Typically high clearance vehicles travel these roads. The physical characteristics of these roads result slower speeds. A road listing at the end of this document includes an example of roads that mixed use is not recommended.

MAINTENANCE LEVEL 4 ROADS

Road Name: Reference the Appendix B and C for road listings that includes a summary of risk assessment and recommended decision associated with allowing mixed use.

Volume: Generally 15 vehicles per hour or less.

Composition: Roads opened and maintained for travel by a prudent driver in a standard passenger car. Roads provide a moderate degree of user comfort and convenience at moderate travel speeds. Design speed is 25 M.P.H. or less.

Signing: Route identification markers, destination signs and cautionary signs are generally installed.

Road Characteristics. Road surface is gravel surface or paved. Roads are relatively easy to travel in a passenger car. Generally the road alignment provides for greater visibility, where visibility is limited turnouts are available to provide free flowing traffic. Most roads begin at state, county, or city road systems and connect to roads or trails open for OHV use.

Road Management Objectives (From the Forest-Wide Roads Analysis)

Traffic Type: Public Use and Recreational Traffic

Resource Mgt Objective: Vehicle access to Dispersed and Developed Recreation Sites. Manage access to minimize impacts to water quality, wildlife habitat, and other resource values. Provide for quality Forest User Experience

Ecosystem Management Objectives (For all Traffic Types): Forest Plan Management Areas: Reference the Forest Land and Resource Management Plan for specific Management Area Direction. Access and Travel Management Plan: Reference the Forest Visitor/Travel Map, 1997, for Area Travel Restrictions.

Safety, Physical, Traffic & Vehicles: Provide for Low Clearance Vehicles. Install safety and informational signs as necessary.

Economics & Design Elements: Design for Standard Pickup or SUV with Camp Trailer. Passenger vehicles may use road with a moderate degree of user comfort and convenience at moderate travel speeds. Most Roads are Double Lane with Paved or Aggregate Surface.

Operational Requirements. Subject to Highway Safety Act. Mixed OHV and highway vehicles use is permitted with Forest Supervisor's Approval. Develop Traffic Studies associated with Traffic & Accident Surveillance, Use Patterns, and ADTs

Maintenance Requirements: Prepare and implement annual road maintenance plans to provide for safe use and reduce the impact of road use on watershed values.

Traffic Type: Administrative Traffic

Resource Mgt Objective: Limited Recreation, Fire, Timber Admin, Law Enforcement

Ecosystem Management Objectives (For all Traffic Types): Develop BMPs to protect or improve 303d listed waterbodies. Inspect and Replace culverts at Perennial Stream Crossings that are not functioning properly and/or not adequate to accommodate peak flows. Use Mag Chloride for road stabilization and/or dust abatement as appropriate. Reference current NEPA Documents for additional or clarification of Management Objectives

Safety, Physical, Traffic & Vehicles: Provide for Moderate to Low Clearance Vehicle Access. Conduct Hazard Analysis commensurate with Traffic Volume

Economics & Design Elements: Design for Standard Pickup or SUV. Provide functional road drainage

Operational Requirements: Use as Necessary for Administrative Purposes

Traffic Type: Commercial Traffic

Resource Mgt Objective: Limited Timber Sale & Vegetation Management Traffic. Grazing allotment access

Ecosystem Management Objectives (For all Traffic Types): Prepare and Reference Roads Analysis Documents to manage roads in concert with the Natural Resource Agenda.

Promote road maintenance and road reconstruction to improve road conditions in (1) Forest Priority Watersheds and (2) Other Forest Watersheds.

Safety, Physical, Traffic & Vehicles: Mixed traffic on haul roads including ATV use. Emphasis is given to public travel. Commercial Use is tailored to accommodate mixed traffic

Economics & Design Elements: Depending on the intended use; Provide for Log Truck, Low Bed Tractor/Trailer, Cattle Truck, or Stock Truck/Trailer as the Critical Vehicle. Provide functional roadway drainage.

Operational Requirements: Install Safety Signs During Commercial Use, Consider Recognize and plan for mixed traffic during commercial use periods. Commercial Use by Permit or Contract only.

Maintenance Requirements: Commercial User to perform or contribute commensurate share of Maintenance Level 4 during Commercial Use. High degree of attention to road maintenance to accommodate low clearance vehicles.

Mitigation Measures: On roads opened for mixed use appropriate signing and mapping of routes to assure mixed use of the road is clear. Designate the roads open for mixed use on a travel map available to the public. Forest Service patrols during higher use periods to enforce state OHV laws and Forest Service regulations and orders. The Chalk Creek Road 100, from the end of the Millard County Road to Copley's Cove has an alternative OHV route to eliminate mixed use on that portion of road. Mixed use on this portion of road is prohibited except by permit only. Permits may be issued for group travel associated with events such as OHV Jamborees. Such use would require additional public notice of mixed use, additional signs, pilot vehicles or flaggers to guide OHV group travel, or other measures deemed necessary for safe use of roads.

Conclusion: The low average daily traffic on these roads, generally less than 150 vehicles per day, poses minimal risk associated with mixed use. These roads begin at state, county, or city road systems and either connects to roads or trails open for OHV use or provides access to campgrounds, boat ramps, hiking or horse trailheads, and administrative sites. Allow mixed use on roads that connect city or county roads to forest OHV routes. The Forest generally does not allow mixed use on roads that provide access to campgrounds, boat ramps, hiking or horse trailheads, and administrative sites. The increased potential of accidents by permitting OHV use in these areas where other uses are dominant does not warrant approval for mixed use. Mixed use is not allowed on roads when an alternative OHV route is provided (such as Chalk Creek Road 100 from Millard County Road to Copleys Cove). A road listing at the end of this document includes an example of roads that mixed use is not recommended.

MAINTENANCE LEVEL 5 ROADS

Road Name: Reference the Appendix B and C for road listings that includes a summary of risk assessment and recommended decision associated with allowing mixed use.

Volume: Generally 20 vehicles per hour or less.

Composition: Roads opened and maintained for travel by a prudent driver in a standard passenger car. Most roads provide access to campgrounds, boat ramps, hiking or horse trailheads, and administrative sites. Roads are generally less than 1 mile in length and while road conditions are improved vehicle speed up to 40 MPH.

Signing: Route identification markers, destination signs and cautionary signs are generally installed.

Road Characteristics. Road surface is gravel surface or paved. Roads are relatively easy to travel in a passenger car. Generally the road alignment provides for good visibility, and may be double lane with a paved or aggregate road surface. When not double lane, where visibility is limited turnouts are available to provide free flowing traffic. Most roads begin at state, county, or city road systems.

Road Management Objectives (From the Forest-Wide Roads Analysis)

Traffic Type: Public Use and Recreational Traffic

Resource Mgt Objective: Vehicle access to Dispersed and Developed Recreation Sites. Manage access to minimize impacts to water quality, wildlife habitat, and other resource values. Provide for quality Forest User Experience

Ecosystem Management Objectives (For all Traffic Types): Forest Plan Management Areas: Reference the Forest Land and Resource Management Plan for specific Management Area Direction. Access and Travel Management Plan: Reference the Forest Visitor/Travel Map, 1997, for Area Travel Restrictions.

Safety, Physical, Traffic & Vehicles: Provide for Low Clearance Vehicles

Install safety and informational signs as necessary.

Economics & Design Elements: Design for Standard Pickup or SUV with Camp Trailer. Passenger vehicles may use road with a High Degree of user comfort and convenience at moderate travel speeds. Most Roads are Double Lane with Paved or Aggregate Surface.

Operational Requirements: Subject to Hwy Safety Act. Mixed ORV and highway vehicles use is permitted with Forest Supervisor's Approval. Develop-Traffic Studies associated with Traffic & Accident Surveillance, Use Patterns, and ADTs (Average Daily Traffic)

Maintenance Requirements: Prepare and implement annual road maintenance plans to provide for safe use and reduce the impact of road use on watershed values. High Emphasis to Maintain to Standard

Traffic Type: Administrative Traffic

Resource Mgt Objective: Limited Recreation, Fire, Timber Admin, and Law Enforcement

Ecosystem Management Objectives (For all Traffic Types): Use BMPs (Best Management Practices) to protect or improve 303d listed waterbodies. Inspect and Replace culverts at Perennial Stream Crossings that are not functioning properly and/or not adequate to accommodate peak flows. Use Mag Chloride for road stabilization and/or dust abatement as appropriate. Reference current NEPA Documents for additional or clarification of Management Objectives.

Safety, Physical, Traffic & Vehicles: Provide for Moderate to Low Clearance Vehicle Access. Conduct Hazard Analysis commensurate with Traffic Volume.

Economics & Design Elements FSH 7709.56: Design for Standard Pickup or SUV. Provide functional road drainage

Operational Requirements FSH 7709.59 Use as Necessary for Administrative Purposes

Maintenance Requirements FSH 7708.58: Maintenance Level

Traffic Type: Commercial Traffic

Resource Mgt Objective: Limited Timber Sale & Vegetation Management Traffic. Grazing allotment access.

Ecosystem Management Objectives (For all Traffic Types): Prepare and Reference Roads Analysis Documents to manage roads in concert with the Natural Resource Agenda.

Promote road maintenance and road reconstruction to improve road conditions in (1) Forest Priority Watersheds and (2) Other Forest Watersheds.

Safety, Physical, Traffic & Vehicles: Mixed traffic on haul roads including ATV use. Emphasis is given to public travel. Commercial Use is tailored to accommodate mixed traffic.

Economics & Design Elements FSH 7709.56: Depending on the intended use; Provide for Log Truck, Low Bed Tractor/Trailer, Cattle Truck, or Stock Truck/Trailer as the Critical Vehicle. Provide functional roadway drainage.

Operational Requirements FSH 7709.59 Install Safety Signs During Commercial Use, Consider Recognize and plan for mixed traffic during commercial use periods.

Commercial Use by Permit or Contract Only

Maintenance Requirements FSH 7708.58: Commercial User to perform or contribute commensurate share of Maintenance Level 5 during Commercial Use. High degree of attention to road maintenance to accommodate low clearance, free flowing vehicles

Mitigation Measures: Roads opened to mixed use has appropriate signing and mapping of routes to assure mixed use of the road is clear. Designate the roads open for mixed use on a travel map available to the public. Forest Service patrols during higher use periods to enforce state OHV laws and Forest Service regulations and orders. When routes cross state or federal highways a permit from UDOT is necessary.

Conclusion: Generally these roads provide access to campgrounds, boat ramps, hiking or horse trailheads, and administrative sites and mixed use is generally not allowed. The Oak Creek Road 089 is an example of a road connecting a city road system to forest OHV routes. Mixed use is recommended except on the paved section of road.

UNAUTHORIZED ROADS

Road Name: Reference the Appendix B and C for road listings that includes a summary of risk assessment and recommended decision associated with allowing mixed use.

Unauthorized roads are roads that are not a forest road or a temporary road and that is not included in a forest transportation atlas. (CFR 212.1).

Unauthorized roads may be added to the Forest Transportation System with a decision supported by the Travel Analysis for the Fishlake OHV Route Designation Project and the Environmental Impact Statement for the Fishlake National Forest Off-Highway Route Designation Project. These roads would enter the authorized road system as maintenance level 2 roads. The evaluation for mixed use would be the same as maintenance level 2 roads with an emphasis to conduct a hazard analysis on the roads as soon as possible to assure road characteristics are adequate for the intended use.

INDIVIDUAL ROADS WITH MITIGATION

FOREST ROAD 40068

Road Name: Monroe Mountain Road 068

Location: Located on the Richfield Ranger District. Begins at the end of a Sevier County Road and continues 61 miles to a Bureau of Land Management Road connecting to State Road 62.

Volume: Traffic surveillance data for August 2002 indicates the Average Daily Traffic (ADT) was 38 – with increases during the weekends ranging from 40 to 78 ADT.

Composition: 27 Miles of the road is Maintenance Level 3 the remainder is Maintenance Level 2. Commercial Timber Haul occurs often on approximately 10 miles of the Maintenance Level 3 portion of the road. The road is a primary travel route across Monroe Mountain offering some outstanding recreational opportunities and is heavily used by ATV enthusiasts.

Signing: Route identification markers and destination signs are installed. During Commercial Timber Haul warning signs are installed by the Timber Purchaser alerting road users of log truck traffic. Commercial use is not permitted on major holidays or weekends.

Road Characteristics. The road surface varies, most of the road has no improved road surface, the portion of road used for Commercial Timber Haul has an improved pit run aggregate surface. The road alignment dictates a vehicle speed of approximately 25 – 30 MPH as a safe travel speed with lower travel speed on curves or steeper road grades. The road is maintained annually; generally one blading a year except the Timber Purchaser may blade the haul route one additional time.

Road Problem. 2 serious ATV accidents and 2 accidents of unknown type or severity have been reported along the road. None of the reported accidents have occurred at the same location. The Forest Law Enforcement Officer recommends widening the road to remove a road hazard near Monument Peak. The hazard is a result of a sharp horizontal road curve with limited sight distance and a narrow road width.

Current Suitability for Mixed Use: Not suitable for mixed use near Monument Peak where a traffic hazard has been identified.

Required Mitigation Measure if Mixed Use is Allowed: Remove the road hazard near Monument Peak. Install signs meeting the Manual of Uniform Traffic Control Devices (MUTCD) during Commercial Timber Haul. Install signs to inform users that mixed use is permitted on the road.

FOREST ROAD 113

Road Name: Kimberly Road 113

Location: Located on the Beaver Ranger District. Begins on Interstate 70 Frontage Road and Ends near the City of Marysvale.

Volume: Traffic surveillance data is not available. Traffic is expected to be less than 5 vehicles per hour or 50 ADTs.

Composition: Length is 23 miles, all Maintenance Level 3. Approximately 15 Miles is also the Paiute ATV Trail. The road provides access from the City of Marysvale to Big Johns Flat, State Road 153, Interstate Highway 70, Fremont Indian State Park, the Old Kimberly Mining District, and the Tushar Mountains. The road is primarily used for recreational purposes with limited administrative and mineral exploration traffic.

Signing: Route identification markers and destination signs are installed.

Road Characteristics. The road surface varies; most the road has no improved road surface. The road alignment dictates a vehicle speed of approximately 25 – 30 MPH as a safe travel speed with lower travel speed on curves or steeper road grades. The road is maintained annually, generally one blading a year. With limited maintenance it is not uncommon for road obstructions to be encountered.

Road Problem. 2 serious ATV accidents have been reported along the road. None of the reported accidents have occurred at the same location. The Beaver Ranger District Recreation Staff recommends removing road hazards near Winkler Point. The hazards are a result of roadside vegetation limiting sight distance.

Current Suitability for Mixed Use: Not suitable for mixed use near Winkler Point where a traffic hazard has been identified.

Required Mitigation Measure if Mixed Use is Allowed: Correct the road hazard near Winkler Point. Install signs meeting the Manual of Uniform Traffic Control Devices (MUTCD) alerting users that mixed use is allowed on the road.

FOREST ROAD 100

Road Name: Chalk Creek Road 100

Location: Located on the Fillmore Ranger District. Begins at the end of a Millard County Road near the City Limits of Fillmore ends at Forest Road 096 in the Pahvant Mountains.

Volume: Traffic surveillance data from August 2002 and August 2003 indicates 45 ADT and 56 ADT respectively. Expect the ADT during weekends to averages 70 to 100 ADT equating to 7 to 10 vehicles per hour (ADT divided by 10 hours per day).

Composition: Approximately 6.6 miles of the road, beginning at the end of the Millard County Road is maintenance level 4, the remaining 13 miles is maintenance level 2. Of the 6.6 miles of maintenance level 4 the first approximate 4 miles to the Copleys Cove Junction is not recommended for mixed use. This portion of road has difficult road alignment increasing the potential for mixed-use conflict. The remaining approximate 2.6 miles to the maintenance level 2 portion of road is more suitable for mixed use, with improved road alignment and limited length of road.

Signing: Route identification markers, destination signs, and some cautionary signs are installed.

Road Characteristics. The first 4 miles of the maintenance level 4 portion of road is primarily a gravel surface, typically with commercial dust abatement. This portion of road has steep topography and difficult road alignment. An OHV route is established to avoid conflicts with this section of road. The following 2.6 miles of maintenance level 4 road, from Copleys Cove Junction to the maintenance level 2 portion of road has a mixed road surface with some segments of gravel and other of native materials, commercial dust abatement is generally applied, the alignment more favorable for sight distances. There is no OHV trail to avoid OHV travel on this segment of road.

Road Problem. 5 accidents of unknown type or severity have occurred on the portion of road from the end of Millard County Road and Copleys Cove Junction. None of the reported accidents have occurred at the same location.

Current Suitability for Mixed Use: Not suitable for mixed use from Millard County Road to Copleys Cove.

Required Mitigation Measure if Mixed Use is Allowed: From Millard County Road to Copleys Cove permits have been issued for group travel associated with the Fillmore OHV Jamboree. Such use has required additional public notice of mixed use, additional signs, pilot vehicles or flaggers to guide OHV group travel, or other measures deemed necessary for safe use of roads. From Copleys Cove to Forest Road 096 install signs to clearly identify where use if allowed and where use is restricted.

FOREST ROAD 103

Road Name: Sandrock Ridge Road 103

Location: Located on the Fillmore Ranger District. Begins at Junction of Millard County Road near the City Limits of Fillmore ends at Forest Road 096 in the Pahvant Mountains.

Volume: Traffic surveillance data is not available. Anticipated use is less than 5 vehicles per hour or 50 ADTs during weekend use and less during weekday use.

Composition: Length is approximately 10.5 miles with 9.3 miles of Forest Road.

Signing: Route identification markers and destination signs.

Road Characteristics. The Forest Road is native surface, steep narrow road with poor alignment on steep topography. Road obstructions are common.

Road Problem. 6 accidents of unknown type or severity have occurred on a short portion of road near White Pine Peak and Mine Camp Peak. At this time it is not evident what road hazard may exist to result in these numbers.

Current Suitability for Mixed Use: Not suitable for mixed use until mitigation measures are taken.

Required Mitigation Measure if Mixed Use is Allowed: Evaluate the road segment where 6 accidents have occurred to determine if a road hazard exists. If hazards are found take appropriate action to correct or mitigate them.

FOREST ROAD 108

Road Name: Dog Valley Road 108

Location: Located on the Fillmore Ranger District. Begins at Junction of Forest Road 106 ends at OHV Trail.

Volume: Traffic surveillance data is not available. Anticipated use if less than 5 vehicles per hour or 50 ADTs during weekend use and less during weekday use.

Composition: Length is approximately 4.7 miles.

Signing: Route identification markers.

Road Characteristics. The Forest Road is native surface, steep narrow road with poor alignment on steep topography. Road obstructions are common.

Road Problem. 4 accidents of unknown type or severity have occurred on a short portion of road near Bull Valley/Big Oaks Hollow Area. At this time it is not evident what road hazard may exist to result in these numbers.

Current Suitability for Mixed Use: Not suitable for mixed use until mitigation measures are taken.

Required Mitigation Measure if Mixed Use is Allowed: Evaluate the road segment where 4 accidents have occurred to determine if a road hazard exists. If found correct the road hazard.

FOREST ROAD 123

Road Name: Big Johns – Marysvale Road 123

Location: Located on the Beaver Ranger District. The maintenance level 3 portion of the road, approximately 4.7 miles, begins at Junction of State Road 153 and continues North to end at Big Johns Flat. The maintenance level 2 portion of road, approximately 11.0 miles, begins at Big Johns Flat and ends at the junction of the Kimberly Road 113. The Kimberly Road 113 is maintenance level 3.

Volume: Traffic surveillance data is not available. Anticipated use is less than 10 vehicles per hour or 100 ADTs during weekend use and less during weekday use.

Composition: Length is approximately 15.7 miles.

Signing: Route identification markers.

Road Characteristics. The Forest Road is native surface, steep narrow road with poor alignment on steep topography. Road obstructions are common. The maintenance level 3 portion of the road is closed to OHV; a separate OHV route is available to OHV travel.

Road Problem. The Beaver Ranger District Recreation Staff has indicated several areas of the road having rock outcrops in the road cut slope that results in narrow road widths resulting in poor sight distance and roadside vegetation also impairing sight distance. The road does not have adequate turnouts/pullouts in the steeper topography areas to accommodate vehicles/OHVs to pass safely.

Current Suitability for Mixed Use: Not suitable for mixed use until mitigation measures are taken.

Required Mitigation Measure if Mixed Use is Allowed: Improve the road conditions with emphasis on the steeper topography areas. Improvements would include removing roadside vegetation to improve sight distance, constructing turnouts/pullouts for vehicles to pass safely, and remove rock outcrops where possible. Install signs indicating mixed use is permitted. Install hazard markers to call attention to narrow road sections and rock outcrops in areas where the hazards are not common to the remainder of the road

Do not allow mixed use on the portion of the road from State Road 153 to the junction of Paiute Trail 01; an alternate OHV route is available for OHV travel.

ROADS NOT SUITABLE FOR MIXED USE

The following roads are not recommended for mixed use. These roads are generally connected to improved State or County Road systems where use is primarily highway vehicles. These roads generally provide access to campgrounds, boat ramps, hiking or horse trail access, and administrative sites. The increased potential of accidents by allowing OHV use in these areas where other uses are dominant is not recommended for mixed use. Other areas where the dominate use is OHV recreation, for example is a campground where the primary objective is to stage OHVs, mixed use is recommended.

FOREST ROAD 027	Frying Pan Campground Access
FOREST ROAD 033	Gooseberry Ranger Station Access
FOREST ROAD 061	Aspen Heart – Lake View Access
FOREST ROAD 062	Fishlake RS Access
FOREST ROAD 063	Mackinaw Campground Access
FOREST ROAD 064	Twin Creek Picnic Area Access
FOREST ROAD 065	Doctor Creek Campground Access
FOREST ROAD 066	Doctor Creek SH Access
FOREST ROAD 067	Bowery Creek Campground Access
FOREST ROAD 100	Chalk Creek from County Road to Copley’s Cove Jct,
FOREST ROAD 101	Maple Grove Campground Access
FOREST ROAD 123	Big John-Marysvale from State Road 153 to Dispersed Camping Area (Jct of Paiute Trail 01, Grizzly Ridge Trail PST 226)
FOREST ROAD 137	Kent’s Lake Road
FOREST ROAD 138	Ponderosa Campground Access
FOREST ROAD 143	Sunglow Campground Access
FOREST ROAD 581	Big Flat from SR 153 to Road 1086
FOREST ROAD 1458	Tasha Campground Access
FOREST ROAD 1459	Lake Creek Trailhead Access
FOREST ROAD 148	Mahogany Cove Campground Access
FOREST ROAD 149	Little Cottonwood Campground Access
FOREST ROAD 161	Monrovian Park Access
FOREST ROAD 351	South Overflow Mallard Bay Access
FOREST ROAD 364	Piute Parking Access
FOREST ROAD 365	Johnson Valley Boat Ramp Access
FOREST ROAD 572	Kent’s Lake Campground Access
FOREST ROAD 573	Little Reservoir Campground Access
FOREST ROAD 574	Anderson Meadow Campground Access
FOREST ROAD 636	LaBaron Campground Access

FOREST ROAD 643	Lakeside Parking Access
FOREST ROAD 644	Bowery Creek Parking Access
FOREST ROAD 1015	Tushar Campground Access
FOREST ROAD 1732	Forsyth Reservoir Boat Ramp Access

Other roads may not be recommended for OHV use because areas adjacent to roads are reserved as “quiet areas” associated with camping or other recreational experiences. Some roads may not be recommended for OHV use to discourage OHV access to State, County, National Park or Forest Roads closed to OHV use. The decision to prohibit use on these roads is not part of this analysis.

Reference the appendix for a road listing that includes a summary of risk assessment and determination of suitability for mixed use.

OTHER ROADS NOT UNDER FOREST SERVICE JURISDICTION

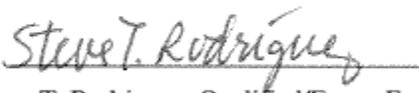
Roads under the jurisdiction of other agencies, state, county, and cities were not analyzed for mixed use with this analysis. However these other roads were considered while developing the route network displayed in the OHV Route Designation Project FEIS.

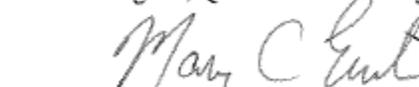
REVIEW AND APPROVALS

This document was prepared by Dan Bond Transportation Engineer in consultation with; District Representatives Cindy Mackelprang, Dandy Pollock, Von Gillies, Bill Wright, Dave Bell, and Dave Christensen. Also with EIS Team Leader Dale Deiter, Recreation Staff Officer Max Reid, and Law Enforcement Officer Maggie Williams. Reviewed by Steve T. Rodriguez Forest Engineer.

This analysis is consistent with the U.S.D.A. Forest Service EM-7700-30 (12/2005) Publication titled Guidelines for Engineering Analysis of Motorized Mixed Use on National Forest System Roads.


 Dan Bond, Transportation Engineer 10/23/06
 Date


 Steve T. Rodriguez, Qualified/Forest Engineer 10/24/06
 Date


 Mary C. Erickson, Forest Supervisor 11/28/06
 Date

Enclosures include:

[Appendix A](#) - Risk Analysis for Mixed Use on Forest System Roads

[Appendix B and Appendix C](#) - Risk Analysis for Mixed Use on Forest System Roads Maintenance Level 3, 4, and 5 roads & Risk Analysis for Mixed Use on Forest System Roads Maintenance Level 1, 2, and Unclassified/Unauthorized roads