

# **EXHIBIT 11**

Forest Service Manual



## FOREST SERVICE MANUAL NATIONAL HEADQUARTERS (WO) WASHINGTON, DC

### FSM 7700 – TRAVEL MANAGEMENT

#### CHAPTER 7730 –TRANSPORTATION SYSTEM OPERATION AND MAINTENANCE

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**Approved:** GREGORY SMITH  
Acting Associate Deputy Chief, NFS

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**Posting Instructions:** Amendments are numbered consecutively by title and calendar year. Post by document; remove the entire document and replace it with this amendment. Retain this transmittal as the first page(s) of this document. The last amendment to this title was 7700-2010-1 to 7700\_zero\_code.

<b>New Document</b>	7730	45 Pages
<b>Superseded Document(s) by Issuance Number and Effective Date</b>	7730 (Amendment 7700-2008-3, 10/7/2008)	39 Pages

#### **Digest:**

7730 - Changes title from “Road Operation and Maintenance” to “Transportation System Operation and Maintenance.” Revises and recodes parts of the chapter; incorporates technical changes; updates reference; adds trail bridge operation and maintenance policy; removes obsolete codes, captions, and direction; updates and adds new responsibilities, sets forth new direction; and makes grammatical and formatting changes throughout the chapter.

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### **7730.1 - Authority**

In addition to the authorities enumerated in FSM 7701, the following apply:

1. Section 4 of the National Forest Roads and Trails Act (FRTA) (16 U.S.C. 535). Authorizes the Forest Service to provide for the acquisition, construction, and maintenance of National Forest System (NFS) roads in and near the NFS in locations and according to specifications that will permit maximum economy in harvesting timber from NFS lands tributary to those roads while meeting the requirements for protection, development, and management of NFS lands and for utilization of NFS resources. Financing of these roads may be accomplished through:
  - a. Expenditure of appropriated funds;
  - b. Requirements imposed on purchasers of National Forest timber and other forest products, including provisions for amortization of road costs in contracts;
  - c. Cooperative financing with other public agencies, private entities, or individuals; or
  - d. A combination of these methods.
2. Section 6 of FRTA (16 U.S.C. 537). Authorizes the Forest Service to require users of the NFS roads to maintain roads commensurate with their use and to reconstruct roads when necessary to accommodate their use. If this maintenance or reconstruction cannot be provided or would not be practical, the Forest Service may require the users to deposit sufficient funds to cover the users' share of the maintenance or reconstruction.
3. The Cooperative Law Enforcement Act of August 10, 1971 (16 U.S.C. 551a). Authorizes cooperation with States and local governments in the enforcement of State and local laws on NFS lands.

### **7730.2 - Objectives**

Operate and maintain NFS roads in a manner that meets road management objectives (RMOs) and provides for:

1. Safe and efficient travel;
2. Access for the administration, utilization, and protection of NFS lands; and
3. Protection of the environment, adjacent resources, and public investment.

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### **7730.3 - Policy**

1. Establish RMOs for NFS roads that include operation and maintenance criteria.
2. Document these criteria in accordance with FSM 7714. These criteria must describe how to operate and maintain NFS roads to meet management needs as determined through land management planning, travel analysis, and route and area designation (36 CFR part 212, Subpart B). At a minimum, the criteria must:
  - a. Identify vehicle classes and types of use for which the road is intended.
  - b. Identify seasonal or yearlong designations necessary for meeting RMOs.
  - c. Identify measures needed to protect the investment in the road.
  - d. Document whether the road is subject to the Highway Safety Act (FSM 7705), (for example, whether it is managed as a public road) (FSM 7730.5).
  - e. Identify applicable Forest Service and State water regulatory authority established Best Management Practices (BMPs) necessary to protect the waters of the United States.
3. Develop annual maintenance plans for NFS roads to meet RMOs.
4. Coordinate road maintenance plans with cooperators in areas where investment sharing agreements are in effect (FSM 5467).
5. Operate and maintain NFS roads consistent with the limitations inherent in their original design.

### **7730.5 - Definitions**

Administrative NFS Road. Any NFS road that is not a public road.

Commensurate Share. The proportion of maintenance and reconstruction associated with an NFS road that is assignable to a commercial hauler for purposes of cost recovery under FSM 7730 (16 U.S.C. 537).

Commercial Hauler. A person or entity engaging in commercial hauling.

Commercial Hauling. For purposes only for cost recovery under FSM 7730, commercial use of NFS roads to transport:

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1. Federal or non-Federal products from Federal, State, or private lands;
2. Livestock, other than livestock authorized to use NFS lands, feed for livestock authorized to use NFS lands, and livestock from farms and ranches in or adjacent to the NFS; or
3. Goods for, supplies for, or customers of commercial uses or activities on NFS lands pursuant to a special use authorization or other written authorization issued by the Forest Service, other than:
  - a. A Forest Service contract;
  - b. An agreement between the Forest Service and another Federal agency, unless the agreement specifically provides for cost recovery;
  - c. A grazing permit;
  - d. An authorization for a concession involving federally owned facilities; and
  - e. A special recreation permit issued under the Federal Lands Recreation Enhancement Act (16 U.S.C. 6802(d)(2)).

Commercial Use or Activity. For purposes only of this chapter, a use or activity on NFS lands whose primary purpose is the sale of a good or service, regardless of whether the use or activity is intended to produce a profit.

Cooperator. An individual or entity that is a party to an investment sharing agreement or is granted an easement for acquisition, construction, or maintenance of an NFS road pursuant to Title 16, United States Code, section 535.

Cost Recovery. For purposes only of this chapter, requiring users of NFS roads to maintain them commensurate with their use, to reconstruct them when necessary to accommodate their use, or to deposit sufficient funds to cover the users' share of the maintenance or reconstruction (16 U.S.C. 537; 36 CFR 212.5(d)).

Emergency Relief Federally Owned (ERFO) Roads Program. A program administered by the Federal Highway Administration that provides funding for repair and reconstruction of federally owned roads and trails damaged or destroyed by natural disasters over a wide area or by catastrophic failures from external causes (23 U.S.C. 125).

Investment Share. The proportion of acquisition, construction, and maintenance costs associated with an NFS road that is assignable to a cooperator, a commercial hauler, or the Forest Service for purposes of investment sharing (16 U.S.C. 535).



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Investment Sharing.

1. Provides for acquisition, construction, and maintenance of NFS roads pursuant to an investment sharing agreement or easement to meet mutual needs of the United States and others for access (16 U.S.C. 535; 36 CFR 212.9(a)-(c), (e), and (f));
2. Enters into a cooperative agreement with a commercial hauler who is not a party to an investment sharing agreement for the agency to recoup the commercial hauler's investment share through the commercial hauler's contribution of funds or performance of maintenance or reconstruction required to accommodate the commercial hauler's use (16 U.S.C. 535); or
3. Requires a commercial hauler who is not a party to an investment sharing agreement or a cooperative agreement to reimburse the Forest Service or, in lieu of reimbursement, perform maintenance or reconstruction required to accommodate the commercial hauler's use, for the commercial hauler's investment share (16 U.S.C. 535; 36 CFR 212.5(c) and 212.9(d)).

Off-Highway Haul. The use of vehicles on a regular basis on NFS roads for hauling products or commodities that exceed the maximum load, weight, length, height, or width restrictions applicable to State or county road systems.

Overload Permit. A type of road use permit authorizing a vehicle that exceeds the maximum legal loads specified by the American Association of State Highway Transportation Officials or a bridge's posted load limit (FSH 7709.56b, sec. 92.3) to cross the bridge under specific restrictions and conditions stated in the permit.

Public Road. A road that is:

1. Available, except during scheduled periods, extreme weather, or emergency conditions;
2. Passable by four-wheel standard passenger cars; and
3. Open to the general public for use without restrictive gates, prohibitive signs, or regulation other than restrictions based on size, weight, or class of registration. (23 U.S.C. 101(a)(27); 23 CFR 460.2(c) and 660.103).

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Road Use Order. An order that institutes or terminates traffic rules on NFS roads (36 CFR 261.54; FSM 5330.13).

Road Use Permit. A written authorization issued pursuant to Title 36, Code of Federal Regulations, Part 212, Subpart A, that allows an act or omission on an NFS road or NFS road segment and associated transportation facilities that would otherwise be in violation of a traffic rule in effect on the road, including:

1. Use of a closed road to access non-Federal property (36 CFR 212.6(b));
2. Commercial hauling on a road where that use is otherwise restricted (36 CFR 212.9(d) and 261.54); and
3. Motor vehicle use on an NFS road that is not designated for that purpose (36 CFR 212.51(a)(8)).

Traffic Rule. A restriction placed on the operation of a vehicle on a road.

## **7731 - ROAD OPERATION**

The Forest Service may restrict use of administrative NFS roads and public NFS roads consistent with the foregoing requirements to meet RMOs and to comply with applicable regulations (36 CFR 212.5). Commercial haulers are subject to cost recovery and are also subject to investment sharing if they are hauling non-federal forest products from land tributary to roads authorized under a road use permit.

The Forest Service may participate in cooperatively developed and maintained road systems accessing both NFS and non-NFS lands, as these road systems typically result in lower transportation costs and fewer resource impacts than separate road systems for NFS and non-NFS lands that are independently developed and maintained.

### **7731.03 - Policy**

1. Establish road use orders pursuant to Title 36, Code of Federal Regulations, sections 212.5(a), 261.50, and 261.51 and FSM 5330.13.
2. Display NFS roads at maintenance levels 2 through 5, which are designated for motor vehicle use, on a motor vehicle use map (FSM 7711.3).
3. Actively seek the cooperation of State and local law enforcement officials in enforcing State traffic law on NFS roads.
4. Actively cooperate to the extent practicable with State and local law enforcement agencies in enforcing State traffic law, investigating traffic accidents, and prosecuting criminal offenses committed on NFS roads.

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5. Require cost recovery from commercial haulers. Further direction on cost recovery is found in FSM 5460.3 and 7731.3.

6. Ensure all motor vehicle use maps have language in the map legend stating that prohibitions in Title 36, Code of Federal Regulations, section 261.12 (including those incorporating State motor vehicle size and weight limits, unless off-highway haul is allowed) apply to NFS roads, including those designated as open to all motor vehicles (FSM 7717.10, para. 2).

### **7731.04 - Responsibility**

#### **7731.04a - Regional Foresters**

Regional Foresters are responsible for:

1. Coordinating closely with Regional Special Agents in Charge and with State and local law enforcement officials to ensure adequate enforcement of State traffic law on NFS roads.
2. Providing Regional direction regarding investment sharing and cost recovery.
3. Providing Regional direction for implementing road closures, road use restrictions, and designations of NFS roads for motor vehicle use.

#### **7731.04b - Forest Supervisors**

Forest Supervisors are responsible for:

1. Establishing an RMO for each NFS road or group of NFS roads under the Forest Supervisor's jurisdiction (FSM 7714).
2. Operating and maintaining NFS roads to meet RMOs.
3. Implementing needed traffic management measures to control and regulate road use.
4. Cooperating with State and local public road authorities to ensure coordination of State, local, and NFS transportation needs.
5. Determining which NFS roads are subject to investment sharing and cost recovery (FSM 5467).
6. Designating those NFS roads open to motor vehicle use by vehicle class and, if appropriate, by time of year and identifying designated roads on a motor vehicle use map (36 CFR 212.51 and 212.56). District Rangers also have this responsibility.

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7. Annually updating the motor vehicle use map to the extent necessary to reflect revisions to travel management decisions (36 CFR 212.54 and 212.56). District Rangers also have this responsibility.

### **7731.1 - Traffic Management**

Manage the use of NFS roads to:

1. Prevent damage to roadways,
2. Abate unsafe traffic conditions,
3. Control the use of vehicles that exceed the design capacity of a road (FSH 7709.56, ch. 40, sec. 41),
4. Require cost recovery from commercial haulers to reduce maintenance costs, and
5. Meet any other RMOs, such as protecting wildlife habitat or achieving recreation opportunity spectrum (ROS) objectives.

### **7731.11 - Traffic Management Strategies**

1. Employ traffic management strategies on NFS roads where appropriate to control traffic.
2. Clearly distinguish between roads managed as administrative NFS roads and NFS roads that are managed as public roads.
3. Use one or more of the following options for managing traffic:
  - a. Encourage use. Encourage use consistent with the condition of the road and its RMOs.
  - b. Accept use. Accept, but do not encourage, use by vehicles that are suitable for the road.
  - c. Discourage use. Discourage some or all types of motor vehicle use.
  - d. Eliminate use. Eliminate use by blocking access to the road by motor vehicles.
  - e. Prohibit use. Prohibit motor vehicle use.
4. Designate NFS roads for motor vehicle use by vehicle class and, if appropriate, by time of year (36 CFR 212.51). Identify NFS roads designated for motor vehicle use on a motor vehicle use map (36 CFR 212.56). Once designations are complete and reflected

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on a motor vehicle use map, motor vehicle use inconsistent with those designations is prohibited (36 CFR 261.13). See FSH 7709.59, section 23, for further direction on prohibitions.

5. Use travel management decisions, access management techniques, restrictive devices, and road use orders to manage traffic on NFS roads exempt from the Highway Safety Act.

6. When travel planning indicates a route must provide intermittent service for highway-legal vehicles (maintenance level 1; see FSH 7709.59, sec. 62.32) and continuous service for non-highway-legal vehicles, designate the route as an NFS road and an NFS trail. Identify the route as a designated road or trail on the applicable motor vehicle use map. During periods of use by commercial highway-legal vehicle traffic, the responsibility is generally borne by commercial users. When the route is only open to non-highway legal vehicles as a trail, maintenance for needs resulting from user traffic is the responsibility of the trails program. Responsibility for custodial non-traffic generated maintenance should be determined and coordinated at the local level. See FSH 7709.59, section 63.41, for direction on assigning financial responsibility for road maintenance.

7. See FSH 7709.59, chapter 20, section 25.2, for further direction on implementation of traffic management strategies.

### **7731.12 - Traffic Rules**

1. Use traffic rules to control or restrict traffic on NFS roads.
2. Regulations regarding traffic rules are found in Title 36, Code of Federal Regulations, section 212.5(a), subject to designations established under Title 36, Code of Federal Regulations, section 212.51.
3. Traffic rules are enforceable through issuance of a road use order (36 CFR 261.54).
4. Prohibitions applicable to all roads are found in Title 36, Code of Federal Regulations, sections 261.12 and 261.13. A prohibition on over-snow vehicle use is found in Title 36, Code of Federal Regulations, section 261.14. These prohibitions are subject to valid existing rights.
5. Traffic rules may also be implemented through issuance of a road use permit.

### **7731.13 - Traffic Control on Roads Subject to a Written Authorization**

Road use may be authorized by an easement, a cooperative agreement, an investment sharing agreement or easement, a special use authorization, a contract, or another written authorization. Include necessary traffic rules in these documents.

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1. Road Use Authorized by a Federal Land Policy and Management Act (FLPMA) Right-of-Way. Include traffic rules needed to meet RMOs in FLPMA rights-of-way issued for road construction and use or for use and occupancy of NFS lands (FSM 2733).
2. Roads Under a Forest Road Agreement with a Public Road Authority. Designate in the agreement the party who has authority to regulate use. Public road authorities retain regulatory authority over roads under their jurisdiction (FSH 1509.11, ch. 20, sec. 23).
3. Roads Covered by an Investment Sharing Agreement or Easement. Retain jurisdiction over NFS roads covered by an investment sharing agreement or easement and the authority to control traffic on those roads in accordance with the terms and conditions of the agreement or easement. Inform cooperators and grantees of any proposed traffic restrictions that would affect their use of the roads. Traffic restrictions may not preclude or unduly interfere with the exercise of rights reserved or granted under the agreement or easement (FSM 5467.4).
4. National Forest Timber Sale Traffic. Control timber sale traffic on NFS roads in accordance with direction in FSM 2451.51b and clause B5.12 of the standard timber sale contract.
5. Roads Covered by a License Agreement or Memorandum of Understanding. Include traffic control requirements in these documents, and designate the party responsible for implementation.
6. Roads Covered by a Minerals Permit or an Oil and Gas Lease. Include traffic control requirements in these documents and designate the party responsible for implementation.

#### **7731.14 - Access for Owners of Non-Federal Property**

1. Section 1323(a) of the Alaska National Interest Lands Conservation Act provides owners of non-Federal property within the boundaries of the NFS certain rights of access across NFS lands. The Responsible Official may prescribe such terms and conditions as the Official deems adequate to secure to non-Federal property owners the reasonable use and enjoyment of their property (16 U.S.C. 3210(a); 36 CFR 212.6(b) and 251.110(c)).
2. When roads accessing non-Federal property within National Forest boundaries are closed to public use, consider exempting owners of the property from the closure order so that they can have access to their property by issuing a road use permit or a special use authorization (36 CFR 251.113; FSM 2730), as appropriate. Ensure that the property owners have access that is adequate to secure the reasonable use and enjoyment of their property. Where an investment sharing agreement is in effect, an easement may be granted in accordance with Title 36, Code of Federal Regulations, section 251.113.

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3. Non-Federal property owners are liable for any damage to closed roads and maintenance required as a result of use authorized under FSM 7731.14, paragraph 2.
4. Reconstruction of NFS roads to meet the needs of traffic originating in residential subdivisions or on land owned by multiple private parties should conform to applicable county or local public road authority standards. Approve reconstruction only after agreement is reached to transfer jurisdiction over the NFS roads to the appropriate local public road authority or to issue an easement to the affected landowners.

### **7731.15 - Road Use Orders**

1. Road use orders are subject to the requirements in Title 36, Code of Federal Regulations, sections 261.50 and 261.51 and FSH 5309.11, section 32.
2. Issue road use orders to impose any of the prohibitions enumerated in Title 36, Code of Federal Regulations, section 261.54.
3. Avoid using road use orders when designations under Title 36, Code of Federal Regulations, section 212.51 will achieve the same purpose. Do not issue road use orders that duplicate the prohibitions in Title 36, Code of Federal Regulations, sections 261.13 and 261.14.
4. Issue road use orders to impose temporary, emergency restrictions based on a finding of considerable adverse effects (36 CFR 212.52(b)(2)).
5. Consider the following when issuing road use orders:
  - a. Whether traffic rules are needed to achieve RMOs, to meet safety requirements, or to prevent motor vehicle use exceeding the structural capacity of the road;
  - b. Whether State traffic law is inadequate or inapplicable; and
  - c. Whether road use orders are needed to ensure cost recovery from commercial haulers.
  - d. Enforcement of road use orders must be feasible and intended to be actively conducted. Employ the “eliminate use” traffic management strategy (FSM 7731.3) when enforcement is not feasible or intended to be actively conducted.
6. Terminate road use orders when they are no longer needed.

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### **7731.16 - Signing and Traffic Control Devices**

1. Use the standards and guidance contained in the Manual on Uniform Traffic Control Devices (MUTCD) (FSM 7108.21) for all signs and traffic control devices on NFS roads, unless a Federal Highway Administration (FHWA)-approved State supplement to the MUTCD applies. In that situation, follow the State supplement to avoid confusing motorists.
2. Use the MUTCD standards and guidance for signs and markings on all traffic control devices, such as gates and barricades.
3. Neither use nor allow others to use chain, cable, rope, or wire as a traffic control device.
4. Refer to Engineering Manual (EM) 7100-15 (FSM 7160.31) for additional direction on road signing.

### **7731.17 - Road Use Permits**

Road use permits authorize the use of NFS roads, NFS road segments, and associated transportation facilities for purposes of commercial hauling or as an exception to traffic rules and use restrictions. Road use permits may authorize use of a road that is otherwise closed to access non-Federal property; road use that is otherwise restricted by a road use order or a regulation; or motor vehicle use on NFS roads that are not designated for that use on a motor vehicle use map. Issue a road use permit using Forest Service form FS-7700-41. When commercial hauling is authorized under a special use authorization (36 CFR Part 251, Subpart B; FSM 2730; FSH 2709.11), include the applicable provisions of FS-7700-41 in the authorization. When applicable, consider the need for overload permits on roadway structures in accordance with FSM 7736.43 as part of the road use permit.

1. Commercial Hauling. When commercial hauling on roads is restricted by a Forest Supervisor's order, authorize commercial hauling by issuing a road use permit, provided that a letter signed by the Responsible Official may be issued to authorize the commercial hauling when the Responsible Official determines that the commercial haul:
  - a. Involves a small number of trips;
  - b. The costs of issuing a form FS-7700-41 to authorize the commercial haul exceed the value of potential cost recovery and investment sharing; and
  - c. The risks of road or resource damage involved in authorizing the commercial hauling by issuance of a letter are minimal.



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(1) Cost Recovery.

(a) Reconstruction Required to Accommodate Use. The standard road use permit, form FS-7700-41, requires the holder to perform any road reconstruction necessary to accommodate the holder's use under the permit or to deposit funds sufficient to cover the cost of the reconstruction before the holder's use commences.

(b) Commensurate Share. Form FS-7700-41 requires the holder to perform maintenance or deposit funds sufficient to cover the cost of maintenance made necessary by the holder's use under the permit.

(2) Investment Sharing. Form FS-7700-41 provides for investment sharing if the holder is hauling non-Federal forest products from land tributary to roads authorized under the road use permit. For purposes of determining the holder's investment share, limit the total costs of a road to its value at the time of purchase, original construction, or latest substantial reconstruction. The total costs may not exceed the replacement value of the road.

(a) Where the Holder Has Entered Into a Cooperative Agreement. If the holder has entered into a cooperative agreement with the Forest Service under Title 16, United States Code, section 572, for the Agency to recoup the holder's investment share that has been borne by the Agency, the cooperative agreement must be attached to the road use permit. The holder may contribute funds or may perform maintenance or reconstruction required to accommodate the holder's use to satisfy the holder's investment sharing obligation.

(b) Where the Holder Has Not Entered Into a Cooperative Agreement. If the holder has not entered into a cooperative agreement with the Forest Service for the Agency to recoup the holder's investment share that has been borne by the Agency, form FS-7700-41 requires the holder to reimburse the Forest Service or perform maintenance or reconstruction required to accommodate the holder's use for the holder's investment share. If reconstruction to accommodate the holder's use is required, it must be completed before the holder's use commences.

2. Use Otherwise Prohibited by Traffic Rules. Issue a road use permit to authorize an act or omission that would otherwise be in violation of a traffic rule in effect on a road. To protect the safety of road users and the public investment in roads and bridges, issue a road use permit to authorize the use of oversized vehicles and off-highway haul (FSM 7731.18) when they are not authorized by an agreement or easement.

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3. Compliance With Environmental Laws.

a. Road Use Permits to Authorize Use of Roads When Use is Normally Restricted. Proposed road use permits to authorize use of a road when public use is normally restricted by regulation; a designation for motor vehicle use; a gate, barrier, or road use order; or seasonal snow accumulation are subject to environmental analysis and disclosure of effects as required by the National Environmental Policy Act (NEPA), in accordance with FSH 1909.15. These proposals are also subject to compliance with the Endangered Species Act (ESA) in accordance with FSM 2670 and other applicable environmental law and policy.

b. Road Use Permits Relating to Operation and Maintenance of Designated Roads. Designation of NFS roads for motor vehicle use does not preclude or obviate the need for issuance of road use permits to manage certain types of uses to protect public safety and the public investment in roads. Examples include:

(1) Road use permits issued to authorize use of motor vehicles exceeding size and weight restrictions imposed under State traffic law; and

(2) Road use permits issued to require cost recovery from commercial haulers (36 CFR 212.5(c) and (d) and 36 CFR 212.9(d)).

Road use permits issued for use of NFS roads designated for motor vehicle use (other than when public use is restricted by a designation for motor vehicle use by time of year) are not subject to NEPA or ESA analysis because these roads are available for public use under Title 36, Code of Federal Regulations, section 212.6(b) and (c).

4. Terms. Road use permits include conditions on road use, terms requiring compliance with road operation and maintenance criteria, and provisions addressing protection and management of NFS lands. See FSH 7709.59, section 24, for direction on issuing road use permits.

5. Revocation and Suspension.

a. Grounds. A road use permit may be revoked or suspended for:

(1) Noncompliance with federal, State, or local law;

(2) Noncompliance with the terms of the permit; or

(3) Abandonment or other failure of the holder to exercise the privileges granted.

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- b. Notice and Opportunity to Comply. Except for immediate suspension pursuant to paragraph 5c, the Responsible Official shall give the permit holder written notice of the grounds for suspension or revocation and a reasonable opportunity to correct any noncompliance prior to revocation or suspension.
  - c. Immediate Suspension. The Responsible Official may immediately suspend a road use permit in whole or in part when the Responsible Official deems it necessary to protect public health, safety, or the environment.
  - d. Lack of Administrative Appeal. Revocation or suspension of a road use permit is not subject to an administrative appeal.
6. Termination. A road use permit terminates when by its terms a fixed or agreed upon condition, event, or time occurs without any action by the Responsible Official, such as expiration of the permit by its terms on a specified date or with the consent of the holder. Termination of a road use permit is not subject to administrative appeal.

### **7731.18 - Off-Highway Haul**

Authorize off-highway haul (OHH) (FSM 7730.5) in easements exchanged or acquired under an investment sharing agreement, in road use permits, or in road use orders.

- 1. Easements. Limit use of easements (FSM 2730 and 5460) to authorize OHH to those exchanged or acquired under an investment sharing agreement.
  - a. Off-highway haul rights may be reserved by a cooperator in easements granted to the Forest Service under the following conditions:
    - (1) Where the Forest Service is acquiring part of a road system that has an established history of and is currently being used for OHH.
    - (2) In areas subject to an investment sharing agreement, where roads being used for OHH are being extended, unless there is a foreseeable need to preclude OHH.
  - b. Authorize OHH in easements granted to a cooperator across NFS lands only under the following conditions:
    - (1) In areas subject to an investment sharing agreement, where roads being used for OHH are being extended, unless there is a foreseeable need to preclude OHH.
    - (2) In areas subject to an investment sharing agreement, where the cooperator owns more than 50 percent of the land tributary to the road, where there is an established history of OHH, and where OHH is reasonably anticipated in the near future.

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See FSM 2730 and 5467 and FSH 2709.12 and 5409.17 for appropriate language to use in reserving or authorizing OHH rights in easements.

2. Road Use Permits and Road Use Orders. In situations other than those described in FSM 7731.18, paragraph 1, issue a road use permit to authorize OHH otherwise restricted by a road use order where the OHH:

- a. Is consistent with the applicable land management plan,
- b. Would contribute to transportation efficiency and fuel savings,
- c. Could occur without exceeding the safe operating limits of the road and its associated features, and
- d. Would not endanger public safety.

Issue a road use permit only for the period during which the commercial hauler plans to conduct OHH on a regular basis. Do not use a long-term permit to preserve or guarantee OHH rights for future use.

3. Cost Recovery. Require cost recovery from commercial haulers that is attributable to OHH, unless OHH is commonly used to remove products from NFS lands, OHH is expected to continue throughout the period of cost recovery, and contractual appraisals for the forest products being hauled take into account OHH.

## **7731.2 - Enforcement**

1. The use of motor vehicles on NFS roads is subject to State traffic law where applicable, except when in conflict with motor vehicle designations (36 CFR 212.51) or with the rules at Title 36, Code of Federal Regulations, Part 261 (36 CFR 212.5(a)(1)). State traffic law includes State laws pertaining to motor vehicle operation, as well as insurance and license requirements; motor vehicle registration; and motor vehicle length, height, width, and weight.
2. Forest Service law enforcement personnel may enforce State restrictions on motor vehicle length, height, width, and weight pursuant to Title 36, Code of Federal Regulations, section 261.12, and may enforce other State traffic laws through issuance of a road use order (36 CFR 261.54).
3. On NFS roads, designations for motor vehicle use take precedence over conflicting State traffic laws. The Forest Service may designate some NFS roads under Title 36, Code of Federal Regulations, section 212.51, as open to a vehicle class that would normally be precluded from public roads under State law (for example, NFS roads could be designated for all motor vehicles, where State law allows only highway-legal

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vehicles). In other cases, Forest Service designations may limit the use of motor vehicles that would otherwise be allowed under State law (for example, NFS roads could be designated only for highway-legal vehicles, where State law allows use of all-terrain vehicles and other non-highway-legal vehicles). Forest Service law enforcement personnel shall take responsibility for enforcement of agency designations for motor vehicle use in these cases and should coordinate enforcement activities with State and local law enforcement agencies.

4. Regional Foresters should coordinate closely with Regional Special Agents in Charge and work with State and local law enforcement agencies to enforce State traffic law on NFS roads (FSM 7731.04a). Enter into cooperative law enforcement agreements with State and local agencies when necessary to provide a higher level of enforcement than presently in effect (FSM 5360 and FSH 1509.11, ch. 30). Enforce State traffic law through issuance of a road use order (36 CFR 261.54) where enforcement by State or local agencies is not sufficient. Forest Service law enforcement personnel shall enforce Federal regulations and road use orders that adopt, conflict with, or supplement State laws. Properly trained personnel shall enforce traffic regulations and road use orders (FSM 5370).

5. State requirements for operators of motor vehicles (such as the requirement to have a valid driver's license) apply on NFS roads. Do not modify or supplement these State requirements.

### **7731.3 - Investment Sharing and Cost Recovery**

Provide for investment sharing and cost recovery using one or more of the following:

1. Road Right-of-Way Construction and Use Agreement (FSM 5467). Determine cooperators' investment and commensurate shares associated with a road right-of-way construction and use agreement based on anticipated use. Schedule work for commercial haulers' investment shares that are assumed by the Forest Service for roads in the area subject to the investment sharing agreement.
2. Road Use Permit. Determine the holder's commensurate share and, where applicable, investment share, in accordance with the cost recovery and investment sharing provisions from form FS-7700-41.
3. Easement Granted Under Forest Roads and Trail Act (FRTA). Determine cooperators' investment and commensurate shares associated with an easement granted under FRTA based on anticipated use. Schedule work for commercial haulers' investment shares that are assumed by the Forest Service for roads in the area subject to the easement.

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4. Right-of-Way Granted Under Federal Land Policy and Management Act (FLPMA) (FSM 2730). Determine investment and commensurate shares based on anticipated use.
  - a. FLPMA Easement for Road Construction. Share costs for a road constructed under a FLPMA easement where the road coincides with a planned NFS road.
  - b. FLPMA Easement for Use of an Existing NFS Road. Include the cost recovery provisions from form FS-7700-41 in the easement when commercial hauling is authorized.
5. Forest Road Agreement (FSH 1509.11, sec. 23). Where appropriate, share transportation project development costs with public road authorities.

### **7731.31 - Restrictions on Investment Sharing**

Do not require investment sharing for:

1. Use of NFS roads in which the Forest Service does not have an investment, such as when the Agency acquires a right-of-way for an existing road pursuant to a donation; or
2. Road use reserved in an easement granted by the user to the Forest Service, unless the easement specifically precludes use without cost.

## **7732 - ROAD MAINTENANCE**

### **7732.01 - Authority**

See FSM 7701 for the authorities that apply to road maintenance on NFS roads.

### **7732.02 - Objectives**

See FSM 7730.2 for direction on road management objectives.

### **7732.03 - Policy**

1. Maintain NFS roads to accommodate their intended use safely and in accordance with maintenance criteria documented in their RMOs (FSM 7714).
2. Require commercial haulers to perform maintenance of NFS roads in accordance with their commensurate share.
3. Schedule and coordinate road maintenance conducted by the Forest Service, contractors, commercial haulers, and cooperators to accomplish work in the most efficient and cost-effective manner.

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4. For public road authorities, use Forest road agreements to establish maintenance responsibilities and to accomplish maintenance in the most efficient manner.
5. Use the interagency road maintenance agreement to conduct maintenance with other Federal agencies (FSM 1531.07g).

#### **7732.04 - Responsibility**

##### **7732.04a - Washington Office, Director of Engineering**

The Washington Office, Director of Engineering is responsible for requesting the authority to obligate and transfer emergency relief federally owned funds from the Federal Highway Administration (FSM 7732.26).

##### **7732.04b - Regional Foresters**

Regional Foresters are responsible for:

1. Ensuring that a road maintenance system is implemented for each National Forest in their Region.
2. Approving alternative procedures for determining a commercial hauler's commensurate share for road maintenance (FSM 7732.22).

##### **7732.04c - Forest Supervisors**

Forest Supervisors are responsible for:

1. Maintaining NFS roads under their jurisdiction.
2. Implementing a road maintenance system for NFS roads under their jurisdiction (FSM 7732.1).
3. When appropriate, entering into cooperative Forest road agreements with public road authorities for maintaining NFS roads under their jurisdiction.
4. Approving annual road maintenance plans for NFS roads under their jurisdiction. This responsibility may be redelegated only to District Rangers.

#### **7732.1 - Road Maintenance Management System**

Implement a road maintenance management system (FSH 7709.59, sec. 62) for each Forest Service Administrative Unit. At a minimum, this system must include:

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1. Maintenance criteria based on RMOs (FSM 7714);
2. Travel analysis (FSM 7712) to advise establishment of operational maintenance levels and prioritize expenditure of limited road maintenance funds; and
3. A plan for budgeting, scheduling, accomplishing, reporting, and evaluating road maintenance.

### **7732.11 - Road Maintenance Plans**

1. Develop annual road maintenance plans for all NFS roads based on RMOs, travel analysis, and expected traffic. The road maintenance plans should:
  - a. Encompass both short-term and long-term needs;
  - b. Develop and include bridge maintenance plans in the road maintenance plan (FSM 7736.44);
  - c. Consider all sources of maintenance funding available during the fiscal year, including appropriated funds and deposits made by cooperators;
  - d. Consider maintenance performance by commercial haulers, Forest Service contractors (including timber purchasers), and cooperators; and
  - e. Consider the need to expend appropriated road maintenance funds for road decommissioning, if such expenditures are authorized in annual appropriations bills (FSM 7734.01, para. 2).
2. In case of funding shortfalls, allocate available funds in order of priority established in road maintenance plans.
3. Revise road maintenance plans as necessary to respond to emergencies and meet changing resource and traffic needs.

### **7732.12 - Basic Maintenance**

Subject to availability of funding and obligations under agreements, maintain all NFS roads to a standard that protects the Forest Service's investment, unless an economic analysis determines that postponing reconstruction is more cost-effective.

### **7732.2 - Commensurate Share for Maintenance**

Assign commercial haulers their commensurate share of maintenance for use of NFS roads.



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### **7732.21- Maintenance Conducted by the Forest Service**

1. The Forest Service is responsible for maintenance of NFS roads resulting from traffic associated with:
  - a. Administration of NFS lands,
  - b. Noncommercial uses and activities,
  - c. Incidental noncommercial use related to ownership or occupancy of isolated parcels of private land served by an NFS road,
  - d. Commercial road use that is not subject to cost recovery, and
  - e. Incidental public use.
2. Where an NFS road is being used for commercial hauling, limit the Forest Service's commensurate share to maintenance required for the maintenance level assigned to the road before commercial hauling began.
3. Use appropriate traffic controls, including use restrictions, to manage the Forest Service's commensurate share obligations within available funding.

### **7732.22 - Maintenance Conducted by Commercial Haulers**

Require commercial haulers to perform maintenance commensurate with their use in accordance with FSH 7709.59, chapter 60, section 63, and the cost recovery provisions of form FS-7700-41. Commercial haulers may deposit sufficient funds with the Forest Service to cover their commensurate share in lieu of performing maintenance.

### **7732.23 - Maintenance Conducted by Local Public Road Authorities**

1. Encourage local public road authorities to perform maintenance needed as a result of use of NFS roads for purposes unrelated to the protection, administration, and use of NFS lands.
2. Negotiate transfer of jurisdiction and maintenance responsibility for an NFS road where operation of the road by the Forest Service is not in the public interest, such as when an NFS road meets any of the criteria listed in FSM 7703.3, paragraph 1.
3. Inform State and local authorities, as appropriate, about the condition of NFS roads.

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4. When transferring jurisdiction and maintenance responsibility for an NFS road to a local public road authority, specifically enumerate the authority and responsibility of the local public road authority for controlling traffic and managing public safety in the easement or cooperative Forest road agreement which transfers jurisdiction.

#### **7732.24 - Maintenance Conducted by Cooperators**

1. Ensure equity among cooperators through consistent application of road maintenance requirements.
2. To ensure consistency, use the standard cooperative road maintenance agreement with an investment sharing agreement (FSH 1509.11, sec. 24).
3. Cooperative road maintenance agreements signed prior to March 23, 1992, that contain essentially the same terms as the standard cooperative road maintenance agreement, or that require only minor modification to make them consistent and are so modified, may remain in effect. Terminate cooperative road maintenance agreements signed prior to March 23, 1992, that do not meet these criteria, and replace them with the standard cooperative road maintenance agreement.
4. The standard cooperative road maintenance agreement should be used for maintenance conducted on NFS roads under FRTA easements that were granted in connection with an investment sharing agreement that has been terminated.

#### **7732.25 - Maintenance Conducted by Associations**

Local public road authorities may not be willing to accept responsibility for maintenance of NFS roads (including snow removal) needed as a result of local residential traffic. In those situations, local residents desiring higher road maintenance levels than required for management of NFS lands may be willing to perform that maintenance at their own expense. In that event:

1. Encourage the formation of homeowners or road users associations, and
2. Authorize those associations to perform maintenance either by issuing a road use permit, if residential use of the road is minimal compared to public or administrative use, or a FLPMA easement, if use of the road for NFS management purposes is minimal compared to the residential use (FSM 7731.17).

#### **7732.26 - Repairs Performed with Emergency Relief Federally Owned Funds**

1. The repair of severely damaged NFS roads may qualify for emergency relief federally owned (ERFO) funding (FSM 7730.5) administered by the Federal Highway Administration (FHWA).

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2. Follow the procedures in the interagency agreement between the Forest Service and the FHWA (FSM 1535.12) and in the Emergency Relief for Federally Owned Roads Disaster Assistance Manual issued by the FHWA (FHWA-FLH-04-007 or the latest revision of it) for administration and use of ERFO funds.
3. Before making permanent repairs of damaged roads:
  - a. Review the RMOs (FSM 7714) and provide them to FHWA.
  - b. Review applicable travel analysis (FSM 7712) and annual road maintenance plans (FSM 7732.11) to identify current priorities for limited road maintenance budgets. Furnish the most recent applicable annual road maintenance plan to FHWA.
4. Do not make permanent repairs of damaged roads to standards that are higher than justified by the applicable RMOs or that require ongoing maintenance that is not a priority at current levels of funding. Non-priority repair of roads should result in a classification at operational maintenance level 1 or 2, rather than 3, 4, or 5.
5. Seek cooperators' assistance in financing repair and restoration of roads under joint ownership (FSM 5467).
6. Repair of a road in its original location with no change in its design or RMOs will typically qualify for a categorical exclusion from documentation in an environmental assessment or environmental impact statement under FSH 1909.15, section 31.12, paragraph 4 (repair and maintenance of roads, trails, and landline boundaries).

## **7733 - SAFETY MEASURES ON NFS ROADS**

### **7733.01 - Authority**

See FSM 7701.3 for authorities related to safety on NFS roads.

### **7733.02 - Objectives**

1. Reduce the number and severity of accidents on NFS roads, and
2. Decrease the potential for accidents on NFS roads.

### **7733.03 - Policy**

1. Operate and maintain NFS roads that are managed as public roads to provide for safe passage by prudent drivers in standard passenger cars.

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2. Utilize a safety management system (FSM 7733.2) to address user safety on all NFS roads managed as public roads. Managers are encouraged to utilize a safety management system on other NFS roads as well.
3. Implement requirements regarding operation and maintenance of bridges on NFS roads to assure road user safety as found in FSM 7736.
4. Maintain bridge barrier and bridge approach rail systems as specified in FSM 7736.

#### **7733.04 - Responsibility**

##### **7733.04a - Washington Office, Director of Engineering**

The Washington Office, Director of Engineering is responsible for:

1. Implementation of the Forest Service's Highway Safety Program in accordance with Federal Highway Administration (FHWA) regulations and guidance.
2. Maintaining contact with h FHWA and the National Highway Traffic Safety Administration to keep abreast of the latest developments in the National Highway Safety Program.

##### **7733.04b - Regional Foresters**

Regional Foresters are responsible for:

1. Ensuring that training guidelines are developed for personnel to acquire and maintain the necessary skills to implement Forest Service safety measures on NFS roads.
2. Providing traffic engineering assistance to National Forest staffs.

##### **7733.04c - Forest Supervisors**

Forest Supervisors are responsible for:

1. Ensuring that RMOs for NFS roads identify whether or not the roads are to be managed as public roads.
2. Providing for identification of design and operational aspects of NFS roads that are potential high hazards, including railroad crossings, bridges with limited load carrying capacity, and cattle guards with restricted width.
3. Providing for development of an action plan that establishes priorities for corrective measures based on traffic volume, traffic mix, and severity of the hazard.

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4. Providing systematically for elimination of identified hazards to the extent practicable.
5. Using Forest Service, State, and local traffic accident reports to identify and record the location of all known traffic accidents and coordinating closely with Law Enforcement and Investigations personnel and law enforcement cooperators to ensure that accident investigation and reporting systems are clear and are adequately staffed and funded.
6. Ensuring that an inventory of traffic control devices is developed, identifying those that are inconsistent with the standards and guidance in the Manual on Uniform Traffic Control Devices (MUTCD) (FSM 7103.3 and 7731.16), unless they are consistent with an FHWA-approved State supplement to the MUTCD, and providing for development of an action plan to bring non-conforming devices up to the applicable standard (FSM 7731.15).
7. Providing for trained personnel to make periodic road safety inspections and reports.
8. Providing for inclusion of appropriate permanent signs and traffic control devices in road design.
9. Ensuring that appropriate measures for temporary traffic control that meet the requirements of Part VI of the MUTCD are included in road construction and maintenance contracts, used by Forest Service personnel working on roads, and are implemented in management activities impacting traffic on NFS roads.
10. Addressing maintenance of roadways, roadsides, and traffic control devices consistent with road use requirements and current direction (FSM 7103.3 and 7721.21, FSH 7709.59, and EM 7100-15 (FSM 7108.11 and 7160.31)).

### **7733.1 - NFS Roads That Are Not Managed as Public Roads**

Manage NFS roads that are not managed as public roads to ensure safety for their intended uses, as specified in their RMOs. See FSH 7709.59, chapter 25 for guidance on appropriate use of traffic management strategies for these roads.

### **7733.2 - Highway Safety Program and Safety Management System**

1. Highway Safety Program. Highway Safety Program requirements are found in FSH 7709.59, chapter 40.
2. Safety Management System. A safety management system must comply with applicable FHWA requirements (23 CFR 500.108) and must provide for:

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- a. Maintenance of records of traffic accidents on NFS roads. In addition to Forest Service records, to the extent possible, obtain copies of accident reports from State and local agencies that investigate and maintain records of traffic accidents on NFS roads,
- b. Collection of data about the volume and types of traffic on NFS roads subject to the Highway Safety Act (FSM 7705),
- c. A complete inventory of safety features on NFS roads, and
- d. Maintenance of inventoried safety features in annual road maintenance plans.

## **7734 - ROAD DECOMMISSIONING**

### **7734.01 - Authority**

1. Forest and Rangeland Renewable Resources Planning Act (16 U.S.C. 1608). Requires that within 10 years after it is determined that a road is no longer needed, vegetative cover be reestablished on the road by either artificial or natural means.
2. Forest Highway Act of August 27, 1958 (23 U.S.C. 205a). Requires that appropriations for NFS roads and NFS trails be used for their construction and maintenance as those terms are defined in the Federal Highway Act (23 U.S.C. 101). Thus, without specific legislative authorization, appropriated funds for road construction and maintenance (fund code CMRD) may not be used for decommissioning. Congress has provided annual authorization for limited expenditure of CMRD funds for decommissioning through language in annual Forest Service appropriations statutes since fiscal year 1991. Expenditure of CMRD funds for decommissioning must be authorized by and in accordance with the current annual authorization.

### **7734.02 - Objectives**

Stabilize, restore, and revegetate unneeded roads to a more natural state to protect and enhance NFS lands.

### **7734.03 - Policy**

1. Consider all designated motor vehicle use and all over-snow vehicle use in planning road decommissioning projects.
2. Do not create hazards to motor vehicle and over-snow vehicle use from road decommissioning activities. Do not use signing or other measures requiring maintenance to mitigate potential hazards resulting from road decommissioning activities.

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3. When Congress has included language in annual Forest Service appropriations authorizing use of road construction and maintenance funds (CMRD) for road decommissioning, prioritize use of CMRD funds for decommissioning projects over needed annual road maintenance, and include decommissioning projects in the applicable annual road maintenance plan (FSM 7732.04c, para. 4).

### **7734.1 - Decommissioning Treatments**

Decommission a road by reestablishing vegetation and, if necessary, initiating restoration of ecological processes interrupted or adversely impacted by the unneeded road. Decommissioning includes applying various treatments, including one or more of the following:

1. Reestablishing former drainage patterns, stabilizing slopes, and restoring vegetation;
2. Blocking the entrance to a road or installing water bars;
3. Removing culverts, reestablishing drainages, removing unstable fills, pulling back road shoulders, and scattering slash on the roadbed;
4. Completely eliminating the roadbed by restoring natural contours and slopes; and
5. Other methods designed to meet the specific conditions associated with the unneeded road.

## **7735 - OPERATION AND MAINTENANCE OF FOREST TRANSPORTATION FACILITIES OTHER THAN NFS ROADS**

### **7735.1 - NFS Trails**

See FSM 2350 for direction on the operation and maintenance of NFS trails.

### **7735.2 - Airfields**

#### **7735.21 - Airfield Operations**

1. Operate all airfields in the Forest transportation system in accordance with applicable Federal Aviation Administration (FAA) regulations and State requirements.
2. Close airfields in the Forest transportation system when a hazard to aircraft exists, unless the hazard is corrected immediately.
3. Report to the FAA for inclusion in the Airport Directory any unusual operating conditions, such as obstructed approaches, abnormally short, narrow, sloping, or soft runways, or the presence of animals, at airfields in the Forest transportation system.

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4. Report observation or evidence of airfield use that is unusual, occurs at night, or is otherwise unauthorized to Law Enforcement and Investigations personnel.

#### **7735.22 - Airfield Maintenance**

1. Maintain safety features at airfields in the Forest transportation system in operating condition.
2. Develop minimum maintenance standards for airfields in the Forest transportation system, and maintain them to at least those standards.
3. Coordinate the closure of airfields in the Forest transportation system with the FAA and the appropriate State agency.

### **7736 - OPERATION AND MAINTENANCE OF ROAD BRIDGES AND STRUCTURES**

#### **7736.01 - Authority**

In addition to the authorities listed in FSM 7722.01 and 7730.1, the National Bridge Inspection Standards (NBIS), codified at Title 23, Code of Federal Regulations, Part 650, require inspection of road bridges on NFS lands.

#### **7736.02 - Objectives**

See FSM 7730.2.

#### **7736.03 - Policy**

Road bridges under Forest Service jurisdiction that are open to traffic are subject to the following requirements:

1. Inspect all bridges in compliance with the NBIS (FSM 7700.2, para. 5).
2. Inspect all culverts with a clear span greater than 20 feet, as measured on the centerline of the roadway, including culvert installations with multiple openings, in conformance with the NBIS.
3. Assess inspection findings and determine operation and maintenance needs for bridges based on their structural and functional condition.
4. Maintain an inventory and a permanent bridge file (FSM 7736.05) for each bridge.
5. Load rate all bridges.



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6. Post weight restrictions on bridges or close them to traffic when they are determined to have inadequate capacity to carry legal loads.
7. Develop and maintain a quality control/quality assurance (QC/QA) plan for management of bridges.

#### **7736.04 - Responsibility**

The Washington Office will designate one Bridge Inspection Program Manager (FSM 7736.21 and 23CFR 650.307(e)) who is responsible for NBIS related coordination with, and scheduled reporting, to Federal Highway Administration. The Washington Office Bridge Inspection Program Manager is also responsible for policy, quality assurance and quality control and bridge inspection program direction to all Regions.

Each Region must also designate one NBIS qualified Bridge Inspection Program Manager (FSM 7736.21 and 23CFR 650.307(e)) who is fully responsible for implementing all aspect of the NBIS in that Region.

#### **7736.04a - Washington Office, Director of Engineering**

The Washington Office, Director of Engineering is responsible for reviewing and approving requests to increase the inspection interval for road bridges and culverts with a clear span greater than 20 feet that are under the jurisdiction of the Forest Service or that are covered by a special use authorization (FSH 7709.56b, sec. 91.2).

#### **7736.04b - Regional Foresters**

Regional Foresters are responsible for:

1. Ensuring that applicable NBIS requirements are met.
2. Ensuring that one Certified Bridge Inspection Program Manager (FSM 7736.05) is assigned to implement all activities required by the NBIS.
3. Ensuring that inspections are completed and assessing findings for operation and maintenance needs for bridges under the jurisdiction of the Forest Service.
4. Ensuring that bridge inventories and permanent bridge records are maintained in accordance with FSM 7736.03 and FSM 7736.3, including documentation of bridge condition for bridges under the jurisdiction of the Forest Service.

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5. Ensuring that structural load ratings and posting analyses are completed for all bridges under the jurisdiction of the Forest Service (FSH 7709.56b, sec. 92.1 and sec. 92.3).
6. Ensuring the implementation of a quality control/quality assurance (QC/QA) plan for the management of bridges.

**7736.04c - Regional Directors of Engineering**

Regional Directors of Engineering are responsible for:

1. Reviewing requests to increase the inspection interval for road bridges and culverts with a clear span greater than 20 feet and submitting them to the Washington Office, Director of Engineering for approval.
2. Certifying in writing that Forest Service employees who are qualified to be a:
  - a. Bridge Inspection Program Manager,
  - b. Bridge Inspection Team Leader, or
  - c. Bridge Load Rating Engineer.

**7736.04d - Forest Supervisors**

Forest Supervisors are responsible for:

1. Ensuring that all weight-restricted bridges under the jurisdiction of the Forest Service are posted for their safe load carrying capacity as recommended by the Bridge Inspection Program Manager (FSH 7709.56b, sec. 92.1 and sec. 92.3).
2. Ensuring that bridges under the jurisdiction of the Forest Service that have a safe load carrying capacity of less than 3 tons are closed to motor vehicle traffic or when a bridge is determined to be unsafe for other reasons by the Bridge Inspection Program Manager.
3. With the concurrence of the Bridge Inspection Program Manager, issuing overload permits in accordance with FSM 7731.17 up to the safe load carrying capacity for the bridge and vehicle in question.
4. Ensuring bridge operation and maintenance needs, rehabilitation or replacement plans for work identified on the inspection reports is included in the Forest road maintenance and management plans for bridges under the jurisdiction of the Forest Service (FSM 7732.1).
5. Assisting the Regional Forester with implementation of the requirements of the NBIS.

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### **7736.05 - Definitions**

In addition to the definitions in FSM 7705 and 7730.5, the following definitions apply to FSM 7736.

Bridge. A structure including supports that is erected over a depression or an obstruction, such as water, a highway, or a railway and that has a track or passageway for carrying traffic or other moving loads. The Forest Service definition of a bridge differs from the NBIS definition in that the Forest Service definition includes structures less than 20 feet in length.

Bridge Inspection Team Leader. The individual in charge of a team that is responsible for planning, preparing, and performing bridge field inspections (FSM 7736.21 and 23 CFR 650.309(b)).

Bridge Load Rating Engineer. A registered professional engineer who is responsible for performing load rating calculations for road bridges and reviewing and approving bridge overload permits.

Bridge Inspection Program Manager. The individual in charge of the bridge operation and maintenance program (FSM 7736.21 and 23CFR 650.309(a)).

Critical Finding. A structural or safety related deficiency that requires immediate follow-up inspection or action.

Culvert. Any structure with a bottom, regardless of the fill depth, the depth of invert, or the presence of a horizontal driving surface, or any bottomless (natural channel) structure with footings that does not have wheel loads in direct contact with the top of the structure (FSH 7709.56, sec. 44.4).

CRAB. Culvert Reported as a Bridge (CRAB) in accordance with the NBIS.

Inspection. Observations and measurements needed to determine the physical and functional condition of a bridge, to identify any changes from initial or previously recorded conditions, and to ascertain whether the bridge continues to satisfy present service requirements (23 CFR 650.305).

Inventory Rating. The maximum repeated and permissible live load to which a structure may be subjected for the load configuration used in pre-LRFR load ratings.

Load Rating. The determination of the safe load carrying capacity of a bridge using bridge plans and supplemented by information gathered from a field inspection.

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Operating Rating. The maximum permissible live load to which a structure may be subjected for the load configuration used in pre-LRFR load ratings.

Permanent Bridge File. The official file for a bridge which contains pertinent design, construction, operation, and maintenance information and that must be readily available to the Washington Office and Regional Bridge Inspection Program Managers and anyone issuing overload permits or completing load ratings.

### **7736.1 - Inspections**

Perform inspections of bridges under the jurisdiction of the Forest Service that are open to vehicular traffic in accordance with the following requirements:

1. Follow inspection procedures in FSH 7709.56b, section 91, and the NBIS (23 CFR 650.313). Record all data into the Forest Service bridge inspection and bridge management system database(s) as soon as possible and no later than 90 days from the date: of the inspection; of completed or revised load rating; of a change in bridge condition; or of a change in operational status.
2. Bridge inspections must be performed by Bridge Inspectors who meet Bridge Inspection Team Leader qualifications in the NBIS (23 CFR 650.309). Bridge Inspection Team Leaders must be on site during bridge inspections.
3. Include load ratings, overload permits, inspection records, and inventories for road bridges in the permanent bridge file.

Maintain reports on the results of bridge inspections, including documentation of any actions taken to address the findings of inspections. Record the findings and results of bridge inspections on standard forms. Maintain sufficient maintenance and inspection data to allow assessment of current bridge condition.

### **7736.11 - Inspection Intervals**

Frequency of inspections must be in conformance with the NBIS (23 CFR 650.311).

Inspection intervals of more than 2 years for bridges under the jurisdiction of the Forest Service must have prior written concurrence from the Regional Director of Engineering (FSM 7736.04; FSH 7709.56b, sec. 91.2) and prior written approval from the Washington Office, Director of Engineering.

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## **7736.2 - Certification of Qualified Bridge Personnel**

The Regional Director of Engineering shall certify one Bridge Inspection Program Manager, Bridge Inspection Team Leaders, and Bridge Load Rating Engineers for 4-year periods.

Personnel eligible for recertification shall demonstrate active experience in bridge inspection in 2 of the 4 years of the certification period and, at least once every 8 years, shall attend the National Highway Institute's "Bridge Inspection Refresher Training Course" or other Federal, State, or locally developed course approved by the Regional Director of Engineering.

Secure assistance from the Regional Bridge Inspection Program Manager to review qualifications of consultants and other non-Forest Service engineers performing bridge inspections.

### **7736.21 - Bridge Inspection Program Managers**

Bridge Inspection Program Managers shall meet the experience and training requirements listed in the NBIS (23 CFR 650.309(a)).

### **7736.22 - Bridge Inspection Team Leaders**

Bridge Inspection Team Leaders shall meet the experience and training requirements listed in the NBIS (23 CFR 650.309(b)).

### **7736.23 - Bridge Load Rating Engineers**

Bridge Load Rating Engineers shall meet the requirements of a Bridge Design Engineer listed in FSM 7722.2 and shall be currently certified as a Bridge Inspection Team Leader.

## **7736.3 - Bridge Inventory**

Develop and maintain an inventory for all bridges. Decommissioned bridge data may be retained for historical purposes or removed from the inventory.

## **7736.4 - Bridge Management**

### **7736.41 - Load Rating of Bridges**

Certified Bridge Load Rating Engineers shall determine the safe load carrying capacity for all bridges and shall base that determination on the standard load rating vehicles specified in AASHTO's "Manual for Bridge Evaluation" (FSH 7709.56b, ch. 90, sec. 90.6).

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Regardless of bridge material, new load ratings for bridges must be done using the Load and Resistance Factor Rating (LRFR) methodology. Existing load ratings that were completed using other methodologies, do not need to be redone with LRFR unless a new rating is required due to changed conditions.

#### **7736.42 - Overload Permits**

The Forest Supervisor, with the concurrence of the Bridge Inspection Program Manager, is responsible for issuing overload permits as follows:

1. Limit the size and weight of vehicles crossing bridges on NFS roads to the legal loads specified by the Federal Bridge Gross Weight Formula (FSH 7709.56b, sec. 92) or the posted bridge limit determined per FSH 7709.56b, sections 92.1 and 92.2, with the following exceptions:
  - a. Authorize by issuance of an overload permit occasional use of a bridge by a vehicle that exceeds the legal loads specified by the Federal Bridge Gross Weight Formula or the posted bridge limit, up to the maximum safe load carrying capacity of the bridge for that vehicle (FSM 7731.1 and 7736.41). Issue overload permits for a single trip or for a specific number of trips for the analyzed load size.
  - b. When use of NFS roads by vehicles exceeding highway legal size and weight limits is authorized by easements or other valid outstanding rights, follow procedures for off-highway haul in FSM 7731.18.
2. Monitor overload permits to ensure that the size and number of the loads do not exceed the requirements of the permit.
3. Maintain a record of overload permits in the permanent bridge file.

#### **7736.43 - Weight Limit Posting, Closing, and Signing of Bridges**

The Forest Supervisor, in consultation with the Bridge Inspection Program Manager, is responsible for posting or closing bridges that have been determined to have inadequate capacity to carry highway legal loads. Post, close, or sign bridges as follows:

1. Post weight restrictions on bridges in accordance with FSM 7731.15 and 7731.16 and AASHTO's "Manual for Bridge Evaluation" (FSH 7709.56b, sec. 90.6).
2. Close all bridges with less than a 3-ton safe load carrying capacity. Close bridges by blocking them to all traffic with a substantial traffic barrier, as signs and barricades can be vandalized or stolen.

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3. In accordance with FSH 5309.11, chapter 32, issue orders pursuant to 36 CFR 261.54 when Forest Service enforcement of restrictions or closures is necessary.
4. Signing of load restrictions and closure must comply with the MUTCD (FSM 7103.3). See FSM 7731.11, 7731.15, and 7731.16 for direction on the use of signs and traffic control devices to restrict or eliminate bridge uses.

#### **7736.44 - Bridge Maintenance Plans And Critical Findings**

Assess inspection findings and determine operation and maintenance needs based on the structural and functional condition of the bridge and develop bridge maintenance plans to be included in the annual road maintenance plans (FSM 7732.11).

Critical findings identified by bridge inspectors shall be brought to the immediate attention of the Regional Program Manager and Forest Engineer for appropriate action. All critical findings shall be addressed as determined by the program manager and forest engineer, but in no instance more than 12 months from date of identification. All critical findings and all actions taken shall be documented in the bridge file.

#### **7736.5 - Privately Owned Road Bridges**

Special-use authorizations for privately owned road bridges on NFS lands authorized by permit, term permit, lease, or easement (special-use authorizations) should include clauses for the inspection, operation, and maintenance of these bridges to adequately protect the public and National Forest System Lands and resources. The inspection, operation, and maintenance requirements within FSM 7723 and FSH 7709.56b, section 93 are recommended for all road bridges designed and installed on NFS roads or NFS lands, regardless of bridge ownership or road jurisdiction.

### **7737 - OPERATION AND MAINTENANCE OF TRAIL BRIDGES AND OTHER ENGINEERED TRAIL STRUCTURES**

#### **7737.01 - Authority**

See FSM 2353.01, 7724.01, and 7730.1.

#### **7737.02 - Objectives**

See FSM 2353.02 and 7730.2.

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### **7737.03 - Policy**

1. Inspect all trail bridges and other engineered trail structures that are under the jurisdiction of the Forest Service per FSM 7737.1.
2. Assess inspection findings, and determine operation and maintenance needs based on the structural and functional condition of the trail bridges and other engineered trail structures.
3. Maintain a permanent bridge file for each complex and major trail bridge (FSM 7737.05). These files should be maintained at a single location as determined by Regional guidance.
4. Close or post restrictions on bridges and other engineered trail structures that have been determined to have inadequate capacity to carry their intended loads for the managed use.
5. For additional direction, see FSM 2353.03.

### **7737.04 - Responsibility**

See FSM 2353.04. Each Region must designate a Trail Bridge Inspection Program Manager who is responsible for the operation and maintenance of complex and major trail bridges and other engineered trail structures in that Region. This individual may, or may not be, the Road Bridge Inspection Program Manager.

#### **7737.04a - Washington Office, Director of Engineering**

The Washington Office, Director of Engineering is responsible for developing and issuing direction on trail bridge inspection.

#### **7737.04b - Regional Directors of Engineering**

Regional Directors of Engineering are responsible for:

1. Certifying, in writing, the Forest Service employees qualified to inspect complex trail bridges (FSM 7736.04b, sec. 2b, and 7737.2.1), major trail bridges (FSM 7737.2.2), and other engineered trail structures.
2. Certifying, in writing, those engineers qualified to perform load rating calculations for trail structures (FSM 7736.2.3), including other engineered trail structures.
3. Certifying, in writing, the Trail Bridge Inspection Program Manager who is responsible for complex and major trail bridge, and other engineered trail structures inspection, reporting, and inventory.



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### **7737.04c - Forest Supervisors**

Forest Supervisors are responsible for:

1. Ensuring that inspections are performed on complex and major trail bridges and other engineered trail structures (FSM 7737.05), and condition assessments are performed on minor trail bridges under the jurisdiction of the Forest Service.
2. In coordination with the Bridge Inspection Program Manager, categorizing trail bridges under the jurisdiction of the Forest Service as complex, major, or minor.
3. In coordination with the Bridge Inspection Program Manager, identifying all other engineered trail structures and determining the level of inspection and qualifications of inspectors that are required.
4. Ensuring that inventories and permanent records are maintained for complex and major trail bridges and other engineered trail structures, in accordance with FSH 7709.56b, section 103.3.
5. Ensuring that inventories and other data are current and maintained in Infra for complex, major, and minor trail bridges and other engineered trail structures.
6. Ensuring that trail bridges and other engineered trail structures that are determined to be unsafe are closed or posted for weight restrictions in accordance with FSH 7709.56b, section 103.2.
7. Ensuring that the operation and maintenance needs, and rehabilitation or replacement plans for work identified on the inspection reports is included in the annual forest trail maintenance and management plans for trail bridges and other engineered trail structures under the jurisdiction of the Forest Service (FSH 2309.18, sec. 4.26).

### **7737.05 - Definitions**

In addition to the definitions in FSM 2353.05, 7705, 7720.5, and 7736.05, the following definitions apply to FSM 7737:

**Complex Trail Bridge.** Any truss, suspension, or multi-span trail bridge; any trail bridge whose major load carrying elements are not constructed of wood, regardless of width, span, or height; or any major trail bridge determined by the bridge inspection program manager to have increased design complexity, user or inspector risk, decay, or damage.

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Major Trail Bridge. Any trail bridge whose main load carrying elements are constructed of wood, that has a clear span greater than 20 feet, and that is not a complex trail bridge, or any minor trail bridge determined by the Bridge Inspection Program Manager to have increased design complexity, user or inspector risk, decay, or damage.

Minor Trail Bridge. Any trail bridge not a complex or major trail bridge.

Other Engineered Trail Structure. A structure such as a fishing dock, elevated viewing platform, elevated boardwalk greater than 4 feet high, retaining wall greater than 6 feet high, or other engineered structure located on or adjacent to an NFS trail and that requires a certain level of technical expertise for design and inspection based on design complexity and potential user or inspector risk.

Trail Bridge Inspection Program Manager. The individual in charge of the complex and major trail bridge's and other engineered trail structure's operation and maintenance program for the region. This individual may, or may not be, the Bridge Inspection Program Manager.

### **7737.1 - Inspections**

Perform inspections of complex and major trail bridges and other engineered trail structures to identify conditions that may lead to structural or functional restrictions (FSH 7709.56b, sec. 101).

Perform condition assessments of minor trail bridges.

Fracture critical and scour critical determinations and inspections are not required for trail bridges.

Include load ratings, inspection records and inventories for complex and major trail bridges in the permanent bridge file.

### **7737.11 - Inspection of Complex Trail Bridges**

1. Follow the procedures in FSH 7709.56b, section 101.
2. Bridge Inspectors shall be Certified Bridge Inspection Team Leaders meeting the qualifications listed in FSM 7737.22.
3. Inspect complex trail bridges at a maximum interval of 5 years. Consider more frequent inspection intervals where potentially warranted by structure condition, high use, or significant risk.

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### **7737.12 - Inspection of Major Trail Bridges**

1. Follow the procedures in FSH 7709.56b, section 101.
2. Bridge Inspectors must have satisfactorily completed the National Trail Bridge Inspection Training Course or be a Certified Bridge Inspection Team Leader.
3. Inspect major trail bridges at a maximum interval of 5 years. Consider more frequent inspection intervals where potentially warranted by structure condition, high use or significant risk.

### **7737.13 - Condition Assessment of Minor Trail Bridges**

1. Follow TRACS procedures to conduct condition assessments on minor trail bridges.
2. Persons conducting the condition assessments must be trained and qualified to perform TRACS.
3. Perform condition assessments at a maximum interval of 5 years.

### **7737.14 - Inspection of Other Engineered Trail Structures**

1. Follow the procedures in FSH 7709.56b, section 101, when inspecting other engineered trail structures.
2. Qualifications for Inspectors of other engineered trail structures depend on the design complexity, material, user, or inspector risk, and the decay or damage associated with the structures to be inspected. The Forest Supervisor, in consultation with the Bridge Inspection Program Manager, should determine the requisite level of expertise for inspection of other engineered trail structures. Depending on the circumstances, these structures may require inspection by a Bridge Inspection Team Leader, a major Bridge Inspector, or a minor Bridge Assessor.
3. Inspect other engineered trail structures at a maximum interval of 5 years. Consider more frequent inspection intervals where potentially warranted by structure condition, high use or significant risk.

### **7737.2 - Certification of Qualified Bridge Personnel**

The Regional Director of Engineering shall certify Trail Bridge Inspection Program Managers, Inspectors for complex and major trail bridges (Bridge Inspection Team Leaders), Inspectors for other engineered trail structures, and Bridge Load Rating Engineers for 4-year periods.

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Employees eligible for recertification must demonstrate active experience in bridge inspection in 2 of the 4 years of the certification period, attend training or workshops as needed to maintain appropriate expertise in trail bridge inspection, and submit required information to the regional bridge engineer as part of the Regional Quality Assurance Quality Control (QA/QC) program.

Secure assistance from the Bridge Inspection Program Manager to review qualifications of consulting and other non-Forest Service Engineers performing complex trail bridge inspections.

### **7737.21 - Bridge Inspection Program Managers**

Bridge Inspection Program Managers shall be certified as specified in FSM 7736.21. Bridge Inspection Program Managers shall meet the experience and training requirements in the NBIS (23 CFR 650.309(a)).

### **7737.22 - Bridge Inspection Team Leaders**

Bridge Inspection Team Leaders shall be certified as specified in FSM 7736.2. Bridge Inspection Team Leaders shall meet the experience and training requirements in the NBIS (23 CFR 650.309(b)).

### **7737.23 - Major Trail Bridge Inspectors**

Major Trail Bridge Inspectors shall pass the National Trail Bridge Inspection Training Course and shall meet the experience and training requirements in FSH 7709.56b, section 102.

### **7737.24 - Bridge Load Rating Engineers**

Bridge Load Rating Engineers shall be certified per FSM 7736.23.

### **7737.3 - Bridge Inventory**

Develop and maintain in the corporate database (Infra) an inventory of all trail bridges and other engineered trail structures located on NFS trails (FSM 2353.21). 7737.4 – Bridge Management

### **7737.4 - Bridge Management**

#### **7737.41 - Load Rating of Bridges**

Load rate bridges to determine their safe load carrying capacity when:

1. Deterioration or damage may have reduced their structural capacity, or
2. The bridge may be required to carry heavier loads than the loads for which it was designed due to changes in trail use.

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Load rating must be performed by a Certified Bridge Load Rating Engineer (FSM 7736.23).

Regardless of bridge material, load rate trail bridges using LRFR. Existing load ratings that were completed using other methodologies do not need to be redone using LRFR unless a new rating is required due to changed conditions.

**7737.42 - Weight Limit Posting, Closing, and Signing of Bridges and Other Engineered Trail Structures**

The Forest Supervisor, in consultation with the Bridge Inspection Program Manager, is responsible for posting or closing trail bridges or other engineered trail structures that have been determined to be inadequate to carry their intended loads.

Post, close, and sign bridges or other engineered trail structures as follows:

1. Post weight restrictions in accordance with AASHTO's "Manual for Bridge Evaluation" (FSH 7709.56b, sec. 100.6) and the "Sign and Poster Guidelines for the Forest Service" (EM 7700-15). Motor vehicle use may be limited by reducing the usable traveled way of a trail or bridge with devices such as bollards, boulders, stiles, and gates.
2. As soon as practicable, close any bridge or other engineered trail structure when it is determined to be unsafe for current traffic and current traffic cannot be eliminated by posting weight restrictions or adding devices constraining the traveled way.
3. Use the following procedures to close a bridge or other engineered trail structure:
  - a. Install appropriate signs or barricades at the bridge or other engineered trail structure. The signs or barricades must meet the requirements of EM-7100-15.
  - b. Maintain signs or barricades until they are no longer needed.
  - c. Consider the possibility of vandalism of signs and devices when deciding on methods to implement a closure. To the extent practicable, use a method less likely to be affected by vandalism in areas with known vandalism problems.
  - d. To the extent practicable, use a physical barrier to prevent access to the bridge or other engineered trail structure.
  - e. A sign providing notice of the closure should be posted at trailheads and trail junctions in advance of the closure.
  - f. Issue an order under 36 CFR 261.55 when Forest Service enforcement of the closure is necessary (FSH 5309.11, ch. 32).

WO AMENDMENT 7700-2014-1  
EFFECTIVE DATE: 11/20/2014  
DURATION: This amendment is effective until superseded or removed.

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4. Trails with bridges or other engineered trail structures that are not safe for motor vehicle use should not be designated on a motor vehicle use map. Do not rely solely on the prohibition on undesignated motor vehicle use (36 CFR 261.13) to prevent motor vehicle use on bridges and other engineered trail structures. As applicable and appropriate, follow the procedures in FSM 7737.42, paragraphs 1 through 3.

#### **7737.43 - Trail Bridge Maintenance Plans**

Assess inspection findings and determine operation and maintenance needs based on the structural and functional condition of the structure and develop maintenance plans for trail bridges and other engineered trail structured to be included in annual trail maintenance plans (FSH 2309.18, sec. 4.26).

#### **7737.5 - Privately Owned Trail Bridges and Other Engineered Trail Structures**

Special-use authorizations for privately owned trail bridges and other engineered trail structures on NFS lands authorized by permit, term permit, lease, or easement (special-use authorizations) should include clauses for the inspection, operation, and maintenance to adequately protect the public and National Forest System Lands and resources. The inspection, operation, and maintenance requirements within FSM 7723 and FSH 7709.56b, section 104 are recommended for all trail bridges or other engineered trail structures designed and installed on NFS roads or NFS lands, regardless of ownership or jurisdiction. See FSH 7709.56b, section 104, for detailed inspection, operation, and maintenance recommendations.