FOREST SERVICE MANUAL
NATIONAL HEADQUARTERS (WO)
WASHINGTON, DC

FSM 7700 - TRANSPORTATION SYSTEM

CHAPTER 7710 - TRANSPORTATION ATLAS, RECORDS, AND ANALYSIS

Interim Directive No.: 7710-2003-1

Effective Date: June 12, 2003

Duration: This interim directive expires on December 12, 2004.

Approved: GLORIA MANNING
Associate Deputy Chief

Date Approved: 06/09/2003

Posting Instructions: Interim directives are numbered consecutively by title and calendar year. Post by document at the end of the chapter. Retain this transmittal as the first page(s) of this document. The last interim directive was 7710-2001-2 to FSM 7710.

New Document	id_7710-2003-1	22 Pages
Superseded Document(s) (Interim Directive Number and Effective Date)	id_7710-2001-3, 12/14/2001	22 Pages

Digest:

7710 - Reissues without substantive change, the direction previously issued in interim directive (ID) 7710-2001-3. This ID consists of the entire FSM chapter 7710. This ID reissues the direction from ID 7710-2001-3 that revises FSM chapter 7710 by removing the interim requirements of FSM 7712.16, previously issued in ID 7710-2001-2, which addressed road management activities in inventoried roadless and contiguous unroaded areas, and by reserving to the Chief decision authority over some road construction and reconstruction in roadless and unroaded areas. While removed from FSM chapter 7710, the direction in ID 7710-2001-2 was reissued in 2001 as an ID to FSM chapter 1920 (ID 1920-2001-1). Notice of the issuance of ID 7710-2001-3 and ID 1920-2001-1 was published in the Federal Register on December 20, 2001 (67 FR 65796).

Digest--Continued:

7710.42 - Revises direction to remove responsibilities of the Regional Forester regarding the interim requirements (FSM 7712.16). Adds a monitoring requirement for Regional Foresters to oversee and evaluate implementation of roads analysis in the Region and delegates to the Regional Forester the responsibility to approve a Forest Supervisor request for additional time to complete forest-scale roads analysis (para. 5); this direction was previously issued in ID 7710-2001-1 and ID 7710-2001-3 and is incorporated into this ID. Notice of the issuance of ID 7710-2001-1 was previously published on August 24, 2001 (66 FR 44590).

7712.13 - Removes all references to interim requirements (FSM 7712.16) in exhibit 01.

7712.13c - Revises and moves the second paragraph of FSM 7712.13c to FSM 7712.13 (Scope and Scale of Roads analysis) to emphasize and clarify local managers' discretion and flexibility when implementing roads analysis.

7712.15 - Incorporates direction from ID 7710-2001-1 issued May 31, 2001, which extended the deadlines for requiring roads analysis for road management decisions (para. 1a and 1b) and forest plan revisions or amendments (para. 2a) from July 12, 2001, to January 12, 2002. For clarity, subdivides paragraph 2a (as it appeared in Amendment No. 7700-2001-1) into two paragraphs to distinguish deadlines applicable to those units that complete a plan revision or amendments by January 12, 2002 (para. 2a) from those that have begun but did not complete such amendments or revisions by January 12, 2002 (para. 2b).

In new paragraph 2c (formerly para. 2b), permits Forest Supervisors to request that the Regional Forester grant an extension for completion of forest-scale roads analysis.

Table of Contents

This chapter contains objectives, policies, responsibilities, and requirements for analyzing transportation needs and issues and for documenting the transportation system. Direction for forest trails is in FSM 2350 and FSH 2309.18, Trails Management Handbook.

7710.2 - Objectives

The objectives of transportation analysis are:

1. To determine, within the context of current and likely funding levels, the minimum transportation facilities needed for public and agency access to achieve forest land and resource management goals and to safeguard ecosystem health within the context of current and likely funding levels.

2. To incorporate transportation system needs into the forest land and resource management planning process.

3. To direct the orderly improvement and management of the transportation system and to ensure the documentation of decisions affecting the system.

4. To interact with and involve the public, State, local, and Tribal governments, and other Federal agencies in transportation analysis.

7710.3 - Policy

1. Conduct transportation system planning and analysis using the best available science at the appropriate scale and in conjunction with other analyses to inform transportation management decisions. Specifically, transportation analysis can assist transportation planners in:

   a. Determining the need for access to National Forest System lands;

   b. Identifying the infrastructure required to provide that access; and

   c. Considering and minimizing effects of transportation facility construction, reconstruction, maintenance, and decommissioning on ecological processes and ecosystem health, diversity, and productivity.

2. Involve, interact, and coordinate with adjacent landowners, citizens groups, State, local, and Tribal governments, and other Federal agencies. This collaboration is fundamental to effective transportation analysis and planning.

3. Identify and determine the priority areas where detailed transportation analysis, including roads analysis (FSM 7712.1), is essential for achieving land and resource management direction.

4. Ensure that road construction, reconstruction, and maintenance standards or criteria are guided by roads analysis (FSM 7712.1) and documented through the use of road management objectives (FSM 7712.5).

7710.4 - Responsibility

7710.41 - Deputy Chief, National Forest System

The Deputy Chief, National Forest System, has the authority to approve or rescind roads analysis processes for field use.

7710.42 - Regional Forester

It is the responsibility of the Regional Forester to:

1. Ensure that roads analysis is a component of sub-basin, multi-Forest, and sub-regional scale assessments.

2. Develop multi-year regional schedules of proposed transportation facility projects (FSM 1920).

3. Establish policy for traffic surveillance and classification to be used in transportation analysis (FSM 7731.5).

4. Coordinate State and Federal transportation involvement in land and resource management planning to ensure that their plans are included in land management policy development and that their policy development has the benefit of Forest plans.

5. To determine, on a case-by-case basis, whether or not to approve a Forest Supervisor request for additional time to complete a forest-scale roads analysis.

6. Oversee and evaluate the use of roads analysis process within the Region (FSM 7712.1).

7710.43 - Forest Supervisor

The Forest Supervisor is delegated the authority and assigned the responsibility to:

1. Consult and involve Federal, State, local, and Tribal transportation agencies in land and resource management planning to ensure coordination of the overall transportation system.

2. Develop and maintain a forest transportation atlas in compliance with FSM 7711 and Title 36 of the Code of Federal Regulations (36 CFR part 212).

3. Complete and maintain an inventory of classified and unclassified roads.

4. Assign transportation analysis to personnel with skills in engineering, hydrology, biology, and other related knowledge and skills.

5. Accomplish roads analysis at the appropriate scale as directed in FSM 7712.1 and FSM 7712.15, and document the results.

6. Develop and recommend to the Regional Forester annual and multi-year schedules of proposed road construction, reconstruction, and decommissioning projects.

7710.44 - District Rangers

Unless reserved by the Forest Supervisor, the District Ranger has authority to approve road management objectives (FSM 7712.5).

7710.5 - Definitions

For other definitions relevant to Transportation Atlas, Records, and Analysis, see FSM 7705.

Network Analysis. A technique in the planning, scheduling, and solution of problems involving a large number of interrelated decision points, events, or parts.

7711 - FOREST TRANSPORTATION ATLAS AND RECORDS

7711.01 - Authority

The regulations at Part 212 of Title 36 of the Code of Federal Regulations (36 CFR part 212) address how the Forest Service is to administer the Forest Transportation System. Section 212.2 requires an atlas as a component of the forest transportation program, as follows:

> **§ 212.2 – Forest Transportation System.**
>
> **(a) For each national forest, national grassland, experimental forest, and any other unit of the National Forest System as defined in § 212.1 and listed in 36 CFR Part 200, Subpart A, the Forest Supervisor or other responsible official must develop and maintain a forest transportation atlas which is to be available to the public at administrative headquarters units. The purpose of the atlas is to display the system of roads, trails, and airfields of the unit. The atlas consists of the geo-spatial, tabular, and other data to support analysis needs and resource management objectives identified in land management plans. The atlas is a dynamic document that changes in response to new information on the existence and condition of roads,**

trails, and airfields of the unit. The atlas does not contain inventories of temporary roads, which are tracked by the project or activity authorizing the temporary road. The content and maintenance requirements for the atlas are identified in the Forest Service directive system (36 CFR part 200).

7711.03 - Policy

The transportation atlas is the official repository of transportation facility decisions for each National Forest and National Grassland.

1. Building the Forest Transportation Atlas. The initial transportation atlas for each national forest and grassland consists of those maps, inventories, plans, and associated information available as of January 12, 2001. Units are to add to this initial information in accordance with direction in this chapter and other chapters of FSM Title 7700.

2. Maintaining the Transportation Atlas. Maintain a current record of forest transportation facilities in the atlas. Use the ongoing real property and condition survey updates (FSM 6446) as appropriate. Use the Forest Service Infrastructure (Infra) database for the storage and analysis of information in the transportation atlas.

7711.1 - Forest Road Atlas

1. The forest road atlas is a key component of the forest transportation atlas and, consistent with the road inventory, includes all classified and unclassified roads on National Forest System lands.

2. The road atlas includes, at a minimum, the location, jurisdiction, and road management objectives for classified roads and bridges and the location of unclassified roads and any management actions taken to change the status of unclassified roads.

3. Data and other information contained in the road atlas should be used to support roads analysis.

4. Unit transportation managers shall document changes in road management status, including changes such as accomplishment of decommissioning objectives or the addition of an unclassified road to the forest road system.

5. Temporary roads are not intended to be included as part of the forest road atlas, as they are managed by the projects or activities under which they are authorized and decommissioned at the conclusion of the authorized activity.

7712 - TRANSPORTATION ANALYSIS

Conduct transportation analysis at appropriate scales using the best available science that considers access needs and concerns. Coordinate the analysis with other ecosystem assessments and analyses.

7712.01 - Authority

The regulations at Title 36 of the Code of Federal Regulations in section 212.5 establish the minimum requirements for the road system, using a science-based roads analysis, and identifying unneeded roads as follows:

> **(b) *Road System*-- (1) *Identification of road system*. For each national forest, national grassland, experimental forest, and any other units of the National Forest System (§212.1), the responsible official must identify the minimum road system needed for safe and efficient travel and for administration, utilization, and protection of National Forest System lands. In determining the minimum road system, the responsible official must incorporate a science-based roads analysis at the appropriate scale and, to the degree practicable, involve a broad spectrum of interested and affected citizens, other state and federal agencies, and tribal governments. The minimum system is the road system determined to be needed to meet resource and other management objectives adopted in the relevant land and resource management plan (36 CFR part 219), to meet applicable statutory and regulatory requirements, to reflect long-term funding expectations, to ensure that the identified system minimizes adverse environmental impacts associated with road construction, reconstruction, decommissioning, and maintenance.**
>
> **(2) *Identification of unneeded roads*. Responsible officials must review the road system on each National Forest and Grassland and identify the roads on lands under Forest Service jurisdiction that are no longer needed to meet forest resource management objectives and that, therefore, should be decommissioned or considered for other uses, such as for trails. Decommissioning roads involves restoring roads to a more natural state. Activities used to decommission a road include, but are not limited to, the following: reestablishing former drainage patterns, stabilizing slopes, restoring vegetation, blocking the entrance to the road, installing water bars, removing culverts, reestablishing drainage-ways, removing unstable fills, pulling back road shoulders, scattering slash on the roadbed, completely**

eliminating the roadbed by restoring natural contours and slopes, or other methods designed to meet the specific conditions associated with the unneeded road. Forest officials should give priority to decommissioning those unneeded roads that pose the greatest risk to public safety or to environmental degradation.

7712.02 - Objectives

The objectives of transportation analysis are as follows:

1. To identify transportation management opportunities and priorities.

2. To assess transportation management needs, long-term funding, and expected ecosystem, social, and economic effects, including effects on the values of roadless and unroaded areas.

3. To establish transportation management objectives and priorities.

7712.03 - Policy

Forest Service regulations implementing the Forest and Rangeland Renewable Resources Planning Act, as amended by the National Forest Management Act, require integration of transportation planning into an interdisciplinary effort that produces Regional, forest, and site-specific project plans. In planning for and analyzing the transportation system, perform the following:

1. Assess economic costs and benefits along with social, physical, and biological factors when identifying transportation facility options.

2. Assess effects of transportation facility options on ecological processes and ecosystem health, diversity, and productivity.

3. Consider the needs of all parties when developing transportation system opportunities in areas of intermingled ownership.

4. Consider long- and short-term uses, including possible mechanized, non-mechanized, and off-highway vehicle uses, when analyzing transportation facilities.

5. Actively engage the public in transportation analysis.

6. Use the forest transportation atlas as a record of transportation facility decisions, including:

a. Documenting road management objectives,

b. Identifying all classified and unclassified roads,

c. Documenting the results of transportation analysis, and

d. Documenting road management project priorities.

7712.1 - Roads Analysis

The Responsible Official shall incorporate an interdisciplinary science-based roads analysis into multi-Forest, Forest-, watershed-, or area-scale analyses and assessments to inform planners and decisionmakers of road system opportunities, needs, and priorities that support land and resource management objectives. Conducted by an interdisciplinary team, the science-based roads analysis process provides Responsible Officials with critical information needed to identify and manage a minimum road system that is safe and responsive to public needs and desires, is affordable and efficient, has minimal adverse effects on ecological processes and ecosystem health, diversity, and productivity of the land, and is in balance with available funding for needed management actions.

Units are to use an authorized science-based roads analysis process, such as that described in the report Roads Analysis: Informing Decisions About Managing the National Forest Transportation System (USDA Forest Service, 1999, Misc. Report FS-643). Pursuant to FSM 7710.41, the Deputy Chief, National Forest System, may approve other science-based analysis methods for field use through amendments to this chapter. Although concluding an initial roads analysis is important, conduct additional iterations of analysis as needed to address changes in conditions, such as available funding, inventory and monitoring results, severe disturbance events, or new regulatory requirements.

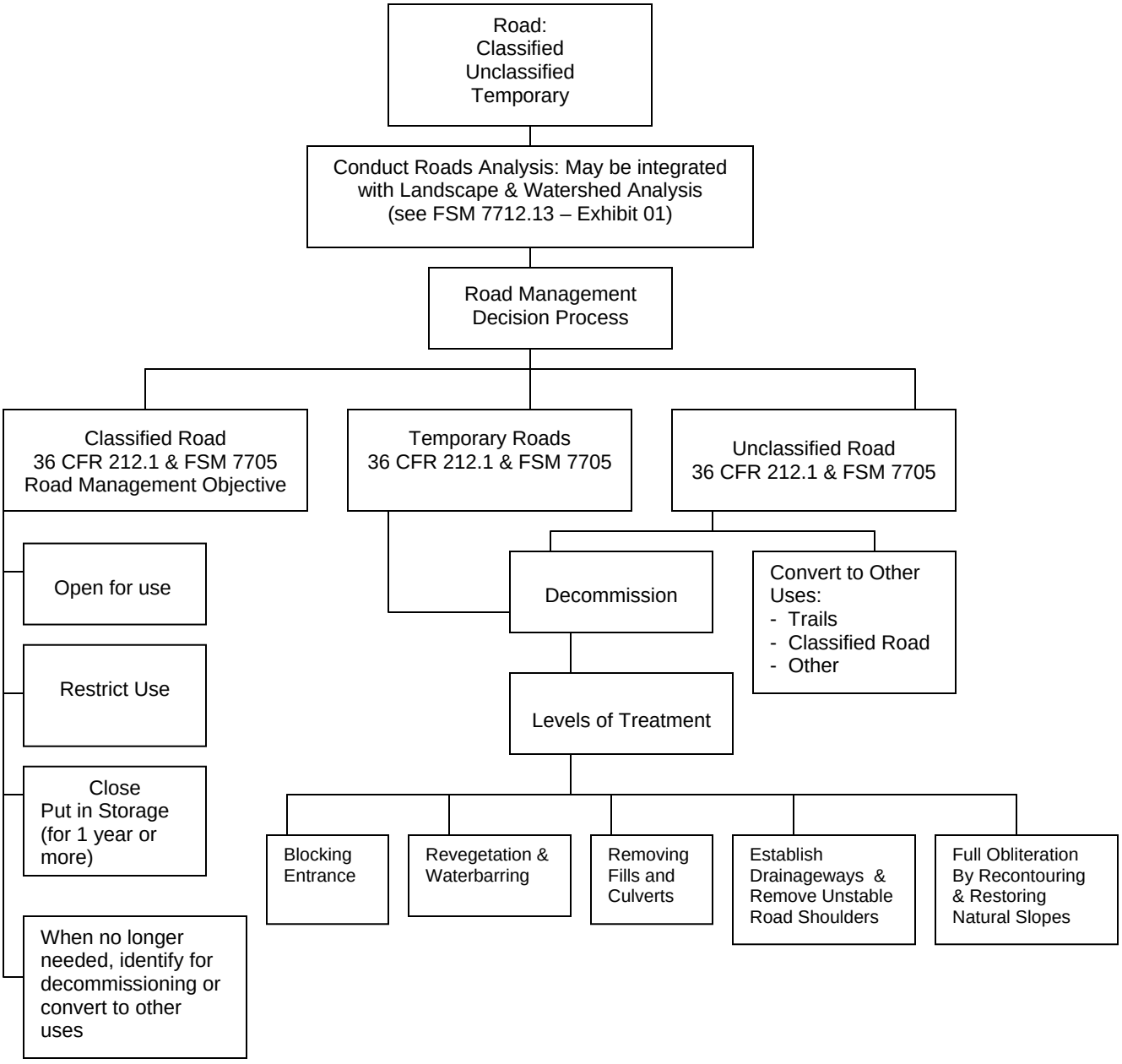
7712.11 - Outcomes

The roads analysis results in a report and accompanying maps that document the information and analysis methods used to identify social and environmental opportunities, problems, risks, and priorities for future road management. The report documents the key findings of the analysis and contains graphical, tabular, and geo-spatial displays of the transportation system options, including a minimum road system. It is important that the roads analysis identify access needs and opportunities that are based on current budget levels and realistic projections of future funding. Analysts should locate, interpret, and use relevant scientific literature in the analysis and disclose assumptions on which the analysis is based. See FSM 7712.12 for detailed guidance on the various scales of analyses and their findings.

While the report contains factual information concerning the transportation system, road management decisions are not a product of roads analysis. Rather, road management decisions must be informed by roads analysis and disclosed in an appropriate NEPA document (FSM 1950 and FSH 1909.15). FSM 7712.11, exhibit 01, illustrates road management options. Update the transportation atlas (FSM 7711.03), as appropriate, based upon decisions reached after the environmental analysis process (NEPA). Also, update the atlas if a decision changes road management objectives (FSM 7712.5).

7712.11 - Exhibit 01

Road Management Options



7712.12 - Integration with Land and Resource Management Plans

The roads analysis evaluates road system opportunities and needs within the context of land and resource management direction. Roads analysis includes opportunities for public participation and emphasizes interdisciplinary team identification and evaluation of road issues and opportunities.

7712.12a - Roads Analysis as Part of Forest Plan Revision or Amendment

The Responsible Official must use the results and findings of the roads analysis process with other ecological assessments when addressing issues raised in forest planning. Conducting a forest-scale analysis does not compel a forest plan amendment or revision.

7712.12b - Road Management Project Planning

1. New Road Construction. Consistent with the direction in FSM 7703.1, ensure that the addition of new roads serves a documented need and that the decision is informed by a roads analysis (FSM 7712.1).

2. Maintenance, Reconstruction, and Decommissioning. Use roads analysis (FSM 7712.1) to evaluate opportunities and priorities for reconstruction and decommissioning of roads and to provide the context at a scale and intensity commensurate with the scope of the road management issue or concern. Implementation of road maintenance activities does not require a roads analysis before proceeding; however, roads analysis is a useful management tool to help set maintenance priorities.

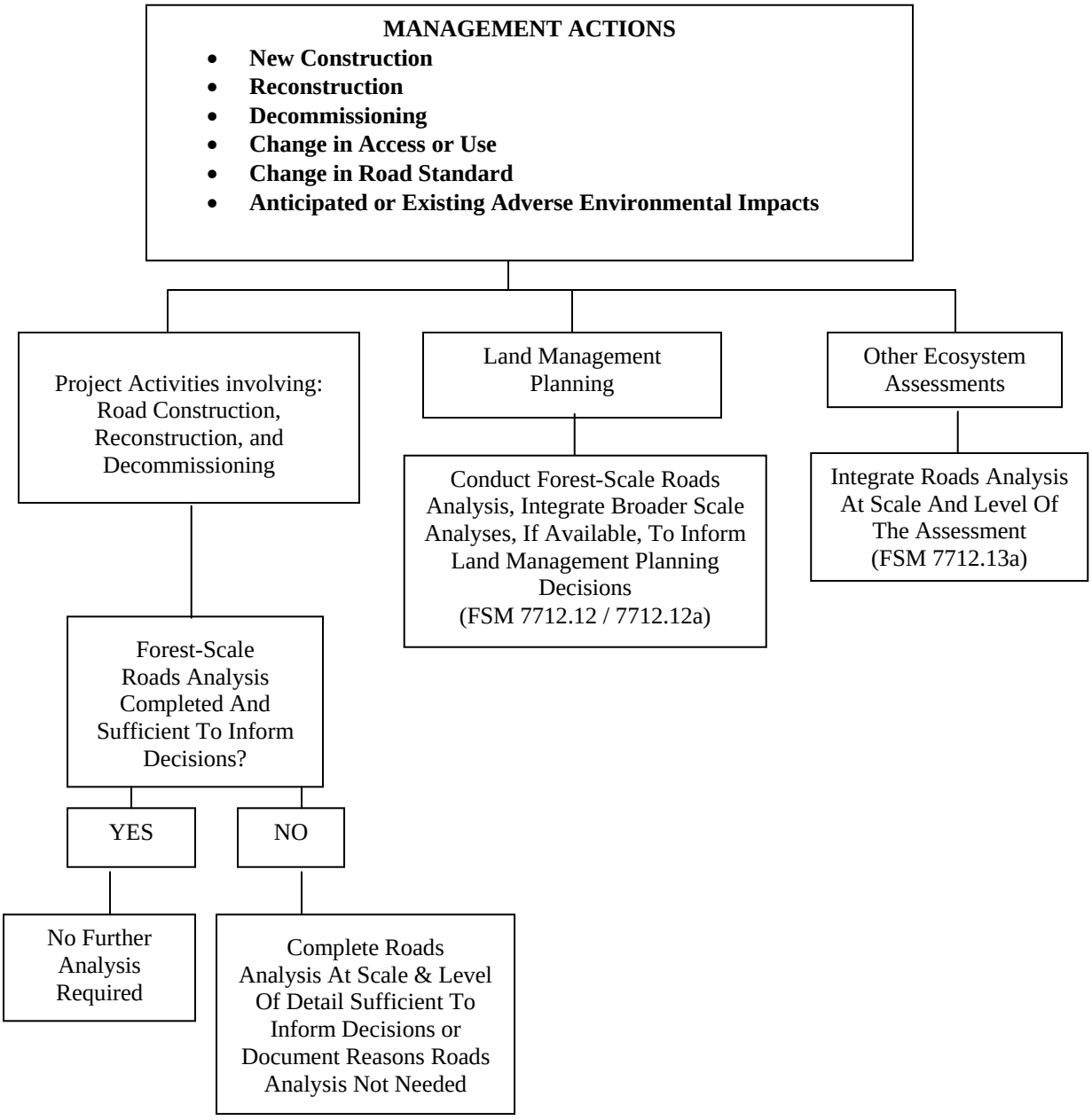
7712.13 - Scope and Scale of Roads Analysis

There are multiple scales at which roads analysis may be conducted to inform road management decisions. Generally, road management decisions should be informed by roads analysis at a broad scale. Accordingly, all units of the National Forest System must conduct a forest-scale roads analysis (FSM 7712.13b and FSM 7712.15).

The Responsible Official has the discretion and duty to determine whether or not a roads analysis below the forest-scale is needed and the degree of detail that is appropriate and practicable. Guidance on selecting the appropriate scale and those proposed actions which may trigger a need for a roads analysis is set forth in FSM 7712.13a, FSM 7712.13b, and FSM 7712.13c.

7712.13 - Exhibit 01

Scope and Scale of Roads Analysis



7712.13a - Roads Analysis for Large-Scale Assessment

1. Roads analysis is an integral part of multi-Forest or eco-region assessments. At this scale, consider the following:

a. Broad scale issues, such as habitat connectivity, strongholds for aquatic and terrestrial species, sources of clean water, cumulative effects, and other ecosystem values.

b. Integration of other Federal agency, State, county, local, and Tribal transportation systems, and their multi-year transportation plans with the forest transportation system.

c. Potential program opportunities for new or revised forest highways, public lands highways, and public Forest Service roads.

d. Current and likely funding levels available to support road construction, reconstruction, maintenance, and decommissioning.

7712.13b - Roads Analysis at the Forest or Area Scale

Roads analysis at the Forest scale is critically important, as it provides a context for road management in the broader framework of managing all forest resources. Close coordination with broader scale ecosystem assessments and analyses is essential. Area-scale assessments may be appropriate on Forests with assessment areas composed of islands or groups of islands, on Forests with widely separated units, or in areas where watershed boundaries do not make logical or effective assessment boundaries. Examples include Forests with large physically or ecologically discrete subdivisions such as the large islands in southeast Alaska, or widely separated units of National Forests such as: National Forests in Texas, Mississippi, Florida, Missouri, and Louisiana, or on Forests where watershed boundaries do not make logical or effective assessment boundaries, such as the coastal plains of the eastern United States.

1. Consider the following at this scale:

a. Environmental issues potentially affected by road management proposals, such as soil and water resources, ecological processes, invasive species spread, and biological communities.

b. Social issues potentially affected by road management proposals such as socio-economic impacts, public access, and accessibility for handicapped persons.

c. An evaluation of the transportation rights-of-way acquisition needs.

d. The interrelationship of State, county, Tribal, and other Federal agency transportation facility effects on land and resource management plans and resource management programs.

e. Transportation investments necessary for meeting resource management plans and programs.

f. Current and likely funding levels available to support road construction, reconstruction, maintenance, and decommissioning.

2. Prepare a report with accompanying map(s) that documents the information and analysis methods used to identify access and environmental priorities, issues, and guidelines for future road management and the key findings. At a minimum, the report will:

a. Inventory and map all classified roads, and display how these roads are intended to be managed.

b. Provide guidelines for addressing road management issues and priorities related to construction, reconstruction, maintenance, and decommissioning.

c. Identify significant social and environmental issues, concerns, and opportunities to be addressed in project level decisions.

d. Document coordination efforts with other government agencies and jurisdictions.

7712.13c - Roads Analysis at the Watershed and Project Scale

Roads analysis at the Forest scale will generally provide the context for informing road management decisions and activities at the watershed, area, and project level. Where a Forest scale roads analysis has been conducted, the Responsible Official must consider the decision(s) to be made and determine how to apply the results of the Forest-scale roads analysis to best inform management decisions. However, it is generally expected that road inventories and road condition assessments as identified in FSM 7712.14 would be completed at the watershed or project scale, not the Forest scale.

When higher scale analyses are not available to inform a project decision, the Responsible Official must consider the decisions to be made (FSM 7712.13) and the potential environmental and access effects and determine whether or not additional analysis is needed at the watershed or project scale. Roads analysis below the Forest scale is not automatically required, but may be undertaken at the discretion of the Responsible Official. When the Responsible Official determines that additional analysis is not needed for a project, the Responsible Official must document the basis for that conclusion. Examples where roads analysis may not be necessary include: temporary roads for short-term access; or a minor extension of a campground road.

When proposed road management activities (road construction, reconstruction, and decommissioning) would result in changes in access, such as changes in current use, traffic patterns, and road standards, or where there may be adverse effects on soil and water resources, ecological processes, or biological communities, those decisions must be informed by roads analysis (FSM 7712.1). Site-specific projects may be informed by a watershed roads analysis, if the Responsible Official determines that the scope and scale of issues under consideration warrants such use. FSM 7712.13, exhibit 01, provides a snapshot of the scope and scale of roads analysis and its integration into planning and decisionmaking.

When needed, the outcomes of roads analysis at the watershed and area-scale would result, at a minimum, in the following:

1. Identification of needed and unneeded roads.

2. Identification of road associated environmental and public safety risks.

3. Identification of site-specific priorities and opportunities for road improvements and decommissioning.

4. Identification of areas of special sensitivity, unique resource values, or both.

5. Any other specific information that may be needed to support project-level decisions.

7712.13d - Special Implementation Considerations

Ongoing, large-scale ecosystem planning efforts of the Columbia River Basin and the Sierra Nevada Framework assessment are exempt from the requirements of FSM 7712.1 to conduct a roads analysis.

7712.14 - Road Inventory

Road inventories support roads analysis and road decisions at various scales and consist of geo-spatial data (maps, aerial photos, and so forth), physical attribute data, and an assessment of road condition to determine if a road is meeting resource management objectives and access needs. The inventory information to be gathered varies by the scale of assessment.

1. Inventories at Multi-Forest and Forest-scale. Inventories at these scales provide information needed to conduct broader assessments of road management needs and, therefore, require less site-specific information.

   a. Classified Road Inventory. Geo-spatial and physical attribute information is needed for all classified roads, whereas the assessment of individual road conditions would be most important for the major transportation routes (arterials and collectors) or those determined to be of key importance by the forest.

b. Unclassified Road Inventory. Information needed for unclassified roads is usually that obtained from existing data and other readily available sources of information, such as aerial photographs.

2. Inventories at Watershed and Area Scale. At these scales, a comprehensive and complete inventory of all classified, unclassified, and temporary roads is required in order to conduct analyses that inform site-specific decisions, to set priorities for road management actions, and to identify special situations.

Use the Infra database to store the physical attributes on all classified and unclassified roads. FSM 7712.14, exhibit 01, entitled Road Inventory Necessary at Various Scales of Road Analysis, illustrates the roads analysis objectives and the inventory data to be collected at various scales.

7712.14 - Exhibit 01

Road Inventory Necessary at Various Scales of Roads Analysis

Analysis and Inventory Scale	**Selected Roads Analysis objectives supported by road inventories**	**Inventory Information Needed**								
		Geospatial data (maps, aerial photos, etc.) ①			**Physical attributes** ①			**Assessment of road condition** ②		
		classified	unclassified	temporary	classified	unclassified	temporary	classified	unclassified	temporary
Forest & Multi-Forest Scale	• Identification of key routes for accessing NFS lands (including public roads) • Identification of strategic road management issues & priorities • Identification of key issues to be addressed at lower scales • Coordination with other government agencies and jurisdictions	Y	Y ③	N	Y	N ③	N	Y ④	N ③	N
Watershed & Lower Scales	• Identification of needed & unneeded existing roads and identification of environmental and public safety risks for all roads • Identification of site-specific priorities for road improvement and decommissioning • Identification of areas of special sensitivity, resource values, or both • Providing information needed to inform decisions at the project level	Y	Y	Y	Y	Y ⑤	Y ⑥	Y	Y	Y

7712.14 - Exhibit 01--Continued

① This category includes inventory information from other road jurisdictions as appropriate.

② **Condition assessments**: This category includes information needed to determine if the road is meeting resource management objectives and access needs.

③ **Forest-scale – unclassified roads:** This category relies on existing data and/or readily available tools to identify unclassified roads if necessary to inform forest-scale-level decisions.

④ **Forest-scale – classified roads – condition assessments:** This only includes major transportation routes determined to be of key importance by the forest (generally maintenance level 3, 4, and 5 roads).

⑤ **Watershed scale – unclassified roads** – **physical attributes**: The minimum inventory information is location, length, condition, and any associated environmental or public safety risks or impacts.

⑥ **Watershed scale – temporary roads** – **physical attributes:** This category consists of the same data required as for unclassified except condition information is not necessary.

7712.15 - Deadlines for Completing Roads Analyses

1. Analysis Needed to Inform Road Management Decisions. FSM 7712.13 identifies proposed road management decisions other than forest plan revisions or amendments that require roads analysis and provides guidance on the scope and scale of various levels of analysis that might inform those decisions. The following deadlines govern the application of roads analysis to the proposed road management decisions identified in FSM 7712.13 through 7712.13c:

a. Decisions made before January 12, 2002, do not require a roads analysis.

b. Decisions made after January 12, 2002, must be informed by a roads analysis, except as provided in FSM 7712.13c.

2. Forest-Scale Roads Analyses. Every National Forest System administrative unit must have a forest-scale roads analysis completed by January 13, 2003, except as follows:

a. Those units that complete a forest plan revision or amendment by January 12, 2002, do not need to complete a Forest-scale roads analysis (FSM 7712.1) prior to adopting the plan revision or amendment. However, these units are still required to complete a forest-scale roads analysis by January 13, 2003.

b. Those units that have begun revision or amendment of their forest plans but didnot adopt a final revision or final amendment by January 12, 2002, must complete a roads analysis prior to adoption of the final plan revision or amendment.

c. Where additional time is needed for completion of Forest-scale roads analysis, a Forest Supervisor may request approval from the Regional Forester for an extension. In making such a request, the Forest Supervisor must provide a statement of the reason(s) the extension is needed.

7712.3 - Network Analysis

Network analysis may be conducted as part of the roads analysis to identify access alternatives. The network analysis shall establish four important types of transportation cost data:

1. Environmental effects and possible ecosystem restoration opportunities.

2. Construction, reconstruction, decommissioning, and maintenance costs of a road system to a specific area.

3. Variable user- and travel-related costs over a road system for a resource activity on a unit or output basis.

4. Life-cycle costs of operating and maintaining the road network.

Re-analyze networks and cost estimates when management practices or management area direction change.

7712.4 - Economic Analysis [Reserved]

7712.5 - Road Management Objectives

Validate, revise, or establish road management objectives for all classified National Forest System roads to be consistent with land management plan direction, project decisions, and the results and findings of roads analysis. Road management objectives establish the design criteria (FSM 7720) and operation and maintenance criteria (FSM 7730.3) for each road. The road management objectives require approval by the Responsible Official (usually the District Ranger) and are included in the forest road atlas (FSM 7711.1).

7712.6 - Scheduling Projects

Integrate the scheduling of decommissioning, reconstruction, and construction project activities with other resource activities in a timely manner (FSM 1920).

7713 - AIRFIELDS [RESERVED]