



**FOREST SERVICE HANDBOOK  
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**FSH 7709.55 – TRAVEL PLANNING HANDBOOK**

**CHAPTER 20 – TRAVEL ANALYSIS**

**Amendment No.:**

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<b>New Document</b>	7709.55, Chapter 20	10 Pages
<b>Superseded Document(s) by Issuance Number and Effective Date</b>	7709.55, Chapter 20	5 Pages

**Digest:**

20 – Removes direction on participation in land management planning in its entirety, and replaces it with direction on travel analysis, consistent with the travel management rule at 36 CFR Part 212 and FSM 7712.

20.02 – Adds as the objectives of travel analysis identification of the proposed minimum road system and identification of proposed changes to travel management direction. Adds objective to allow travel analysis to inform regulation of over-snow vehicle use per 36 CFR 212.81.

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**Digest Continued:**

20.03 – Adds policy requirements for travel analysis.

21 – Adds description of the travel analysis process. Adds cross-references to exhibits in section 21.6 on travel analysis in the context of the NEPA and the six steps of travel analysis.

21.1 – Adds a section entitled “Setting Up the Analysis (Step 1),” which requires the responsible official to establish an interdisciplinary process, develop a schedule and a list of data needs, identify the appropriate scale, complete an inventory of NFS roads and NFS trails, identify the appropriate depth of analysis, and consider integration of travel analysis with landscape assessments.

21.11 – Adds a section entitled “Conducting Travel Analysis,” which describes agency objectives and priorities, environmental issues, conflicts among uses, right-of-way acquisition needs, intergovernmental relationships, necessary transportation investments, availability of resources for maintenance and administration of roads and trails, previous administration decisions, economics, public access needs, ability to meet user needs and desires, future motor vehicle use and technologies, and law enforcement issues. Adds direction to address both the minimum road system and route and area designation. Adds direction on public involvement. Adds direction on consideration of factors that affect the timeframe for analysis.

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**Digest Continued:**

21.12 – Adds direction on considering time scales of effects, the ability to address unusual events, and demographic and economic changes.

21.13 – Adds requirements for assessing available data.

21.2 – Adds criteria for describing the situation (Step 2), including a list of what must be produced.

21.3 – Adds the requirement to identify key issues (Step 3) and the data needed for key issue analysis.

21.4 – Adds criteria for assessing benefits, problems, and risks (Step 4).

21.41 – Adds general criteria from 36 CFR 212.55(a) for designating motor vehicle use on roads, trails, and areas, including the consideration of motorized mixed use. Provides discretion for assessing the availability of resources for maintenance and administration of roads and trails.

21.42 – Adds specific criteria from 36 CFR 212.55(b) for considering designation of trails and areas with the objectives of minimizing environmental effects, user conflicts, vehicle class conflicts, and compatibility of motor vehicle use with existing conditions in populated areas.

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**Digest Continued:**

21.43 – Adds specific criteria from 36 CFR 212.55(c) for considering designation of roads considering current traffic and road geometry and surfacing.

21.5 – Adds requirements for describing opportunities and setting priorities (Step 5).

21.6 – Adds requirements for documenting travel analysis, including maps and prioritized list of proposed changes to travel management direction. Adds an exhibit on the travel analysis process.

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This chapter amplifies direction on travel analysis in FSM 7712.

## **20.02 – Objectives**

1. Conduct travel analysis to:
  - a. Identify the minimum road system needed for safe and efficient travel and for administration, utilization, and protection of National Forest System (NFS) lands (the minimum road system, 36 CFR 212.5(b)). Identify the benefits of public access to NFS lands and the costs of road-associated effects on ecosystem values, taking into account public safety, affordability, and management efficiency.
  - b. Identify proposed changes to travel management direction regarding motor vehicle use.
2. Travel analysis may be used to inform regulation of over-snow vehicle use (36 CFR 212.81) and non-motorized use of roads and trails.

## **20.03 – Policy**

1. Travel analysis should be science-based. Analysts should locate, correctly interpret, and use readily available and relevant scientific literature in the analysis. Disclose any assumptions made during the analysis, and reveal the limitations of the information on which the analysis is based.
2. Travel analysis should assess the current condition of and existing travel management direction for the part of the forest transportation system under analysis.

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- a. Assess the current condition and existing travel management direction in the context of existing uses, other public and private transportation systems, and land ownership patterns. Compare current travel management direction to the desired condition identified in the land management plan to identify the need for change.
  - b. Expand the analysis as necessary to include adjacent and connecting transportation systems.
3. Use travel analysis to inform travel management decisions. Travel analysis may be used to inform decisions to manage over-snow vehicle use and non-motorized use and to plan for maintenance of NFS roads and NFS trails.
  4. Responsible officials must choose the appropriate scale, scope, and depth for travel analysis.

**21 – TRAVEL ANALYSIS**

1. Travel analysis provides information for travel management decisions by examining key issues relating to the part of the forest transportation system under analysis, as well as management options and priorities.
2. Responsible officials shall participate in travel analysis.
3. Travel analysis neither produces decisions nor allocates NFS lands for specific purposes. Rather, responsible officials, with public participation, make travel management decisions which are informed by travel analysis (sec. 21.6, ex. 01).

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4. Travel analysis consists of six sequential steps (sec. 21.6, Ex. 02).
5. Travel analysis may be an iterative process involving feedback among steps as the analysis develops.

### **21.1 – Setting Up The Analysis (Step 1)**

The responsible official should:

1. Establish an interdisciplinary process that includes specialists from relevant fields.
2. Develop a list of data needs and a schedule for completing the analysis.
3. Identify the appropriate scale of analysis.
  - a. Scale refers to the level at which the analysis is conducted, for example, at the level of an administrative unit, Ranger District, or watershed. Determine the appropriate scale based on the issues to be addressed.
  - b. Broad-scale analysis can establish greater context; provide more comprehensive support for decisions; serve as a basis for allocation of budgets and expertise and establishing schedules and accountability; and address issues that cross administrative boundaries. Different scales of analysis may be appropriate for different issues in the same travel analysis.
4. Establish a complete and accurate inventory of NFS roads and NFS trails. A complete inventory of user-created routes is not required.

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5. Identify the appropriate depth for travel analysis based on the skills and resources available and the complexity and scope of the issues prompting the analysis. For less complex and comprehensive questions, analysis may consist of no more than a judgment by the interdisciplinary team on the issues presented. At other times, the complexity, scale, and scope of the issues or the potential severity of effects may be sufficient to justify using the latest analytical tools. Interdisciplinary teams should conduct travel analysis that is as simple and cost-effective as possible and still produces sufficient information for decision-making.

6. Consider opportunities to integrate travel analysis with any watershed analysis or landscape assessments.

### **21.11 – Conducting Travel Analysis**

1. In conducting travel analysis, consider:
  - a. Agency objectives and priorities.
  - b. Environmental issues, such as soil and water resources, invasive species, and biological communities.
  - c. Conflicts among uses, public access, user safety, and accessibility.
  - d. Right-of-way acquisition needs.

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- e. The interrelationship of State, county, tribal, and other Federal agency transportation facilities and travel management decisions on adjacent NFS administrative units.
  - f. Transportation investments necessary to meet land management plan objectives.
  - g. The criteria for designating roads, trails, and areas, including the availability of resources for maintenance and administration of designated roads, trails, and areas. Grants, agreements, and volunteers may be used to extend Forest Service resources.
  - h. Previous administrative decisions regarding travel management made under authorities other than 36 CFR 212.51, including restrictions and prohibitions on motor vehicle use (36 CFR 212.50(b)).
  - i. Economic costs and benefits.
  - j. Needs of all landowners in areas of intermingled ownership.
  - k. Ability to meet user needs and desires.
  - l. Anticipated future levels of motor vehicle use and changes in motor vehicle technology.
  - m. Existing or potential law enforcement issues.
2. Address issues pertaining to both the minimum road system (36 CFR Part 212, Subpart A) and route and area designation (36 CFR Part 212, Subpart B).

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3. As appropriate, obtain input from user groups, other members of the public, and other governmental agencies. Use public involvement to develop proposals for travel management decisions. These proposals must be evaluated through appropriate environmental analysis.

4. Consider factors that affect the timeframe for analysis, such as the need for expertise, public input, and coordination with other agencies. The time needed for travel analysis can vary widely, depending on the management situation, the issues presented, and the status of data concerning forest transportation facilities and current use in the administrative unit or Ranger District under analysis.

#### **21.12 – Time Scales**

1. Consider the time scales for implementing the decision prompting the analysis and for the effects of potential changes to the forest transportation system. For example, consider whether the potential changes to the forest transportation system affect the ability to address unusual events, such as floods and fire.

2. Consider time scales for demographic and economic changes that relate to the forest transportation system.

#### **21.13 – Available Data**

1. Determine if any relevant analyses have already been conducted and if relevant data are available. Existing data and assessments should be used whenever they are accurate and

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available. Information needed for travel analysis may differ according to the issues presented.

Prepare the travel analysis in a format that can be shared.

2. Determine whether additional information and analyses are needed. Some needed information may be acquired during the analysis; some may be too difficult or costly to obtain. Some may never be available, and the analysis must proceed without it. The travel analysis should acknowledge any deficiencies in the information and assumptions made and should describe remaining uncertainties. Uncertainties should be used to guide future data acquisition and analyses and should be considered when developing program work plans and setting budget priorities.

**21.2 – Describing the Situation (Step 2)**

1. Summarize current land management and travel management direction.
2. For the part of the forest transportation system under analysis, produce:
  - a. A map;
  - b. An inventory of NFS roads and NFS trails;
  - c. An assessment of existing motorized and non-motorized uses;
  - d. A description of access needs;
  - e. An assessment of motorized recreational opportunities;

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- f. Information about environmental, social, and other issues;
  - g. A summary of existing travel management decisions;
  - h. An assessment of available resources to maintain and operate the forest transportation system; and
  - i. A summary of available applicable accident and law enforcement data.
3. Consider motor vehicle use on the part of the forest transportation system under analysis and adjacent or connecting authorized transportation systems.
  4. Consider the effects of motor vehicle use on the part of the forest transportation system under analysis, using the general and specific criteria for designating NFS roads, NFS trails, and areas on NFS lands for motor vehicle use (36 CFR 251.55; FSM 7710.03).

**21.3 – Identifying Issues (Step 3)**

1. Identify key issues affecting the part of the forest transportation system under analysis.  
Use appropriate public involvement to identify these issues.
2. To identify key issues, determine in the context of the analysis:
  - a. The primary public concerns related to travel management;
  - b. The primary management concerns related to travel management;
  - c. The primary legal constraints on travel management; and

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- d. The amount of resources and skills available to conduct the analysis.
3. Determine the data needed to analyze the key issues and whether the data are available or must be obtained.

#### **21.4 – Assessing Benefits, Problems, and Risks (Step 4)**

1. Examine the major uses and environmental, social, and economic effects of the part of the forest transportation system under analysis. Analyze the risks and benefits associated with the current situation, the minimum road system, and designation of NFS roads, NFS trails, and areas on NFS lands for motor vehicle use.
2. Consider the general criteria for designating NFS roads, NFS trails, and areas on NFS lands (36 CFR 212.55(a)). Consider, with the objective of minimizing, the effects of motor vehicle use on the specific criteria for designating NFS trails and areas on NFS lands (36 CFR 212.55(b)), and consider the specific criteria for designating roads (36 CFR 212.55(c)).

#### **21.41 – General Criteria for Roads, Trails, and Areas**

1. In designating NFS roads, NFS trails, and areas on NFS lands for motor vehicle use, consider effects on NFS natural and cultural resources, public safety, provision of recreational opportunities, access needs, conflicts among uses of NFS lands, the need for maintenance and administration of roads, trails, and areas that would arise if the uses under consideration are designated, and the availability of resources for that maintenance and administration.

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2. Carefully consider combinations of uses (such as motorized and non-motorized, different vehicle classes, and highway-legal and non-highway-legal vehicles) on NFS roads and NFS trails. The best way to minimize conflicts among uses may be to provide separate routes for each use. A decision to allow motorized mixed use on an NFS road must be informed by engineering analysis (FSH 7709.55 ch. 30).

3. While an important consideration, the scarcity or abundance of resources should not be the only consideration in developing travel management proposals.

**21.42 – Specific Criteria for Trails and Areas**

In addition to the general criteria in FSH 7709.55, section 21.41, when analyzing motor vehicle use on NFS trails and areas on NFS lands, consider effects on the following, with the objective of minimizing:

1. Damage to soil, watershed, vegetation, and other forest resources. Consider best management practices (BMPs) established by States as a standard for considering effects on these resources;

2. Harassment of wildlife and significant disruption of wildlife habitats;

3. Conflicts between motor vehicle use and existing or proposed recreational uses on NFS lands or neighboring Federal lands; and

4. Conflicts among different classes of motor vehicle uses of NFS lands or neighboring Federal lands.

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In addition, consider:

5. Compatibility of motor vehicle use with existing conditions in populated areas, taking into account sound, emissions, and other factors, such as traffic-generated dust, open rangelands, and the presence of non-Federal public facilities, such as parks and schools.

**21.43 – Specific Criteria for Roads**

In addition to the general criteria in FSH 7709.55, section 21.41, consider the following for NFS roads:

1. Speed, volume, composition, and distribution of traffic on roads; and
2. Compatibility of vehicle class with road geometry and road surfacing.
  - a. Consider existing road management objectives for primary and existing uses before making designations that would add vehicle classes.
  - b. NFS arterial and collector roads (at Operational Maintenance Level 3, 4, or 5) may provide primary access to NFS lands for passenger cars and commercial haulers (FSM 7730.4). It may not be appropriate to make some of these roads part of an NFS road or NFS trail loop that has off-highway vehicle recreation as a primary objective (FSH 7709.55, ch. 30).

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**21.5 – Describing Opportunities and Setting Priorities (Step 5)**

1. Identify management opportunities and priorities and formulate proposals for travel management decisions that respond to the issues, risks, and benefits identified in the preceding steps.
2. Compare motor vehicle use of the part of the forest transportation system under analysis with desired conditions established in the applicable land management plan, and describe options for modifying the forest transportation system that would achieve desired conditions.
3. Identify any user-created roads and trails that should be considered for designation based on the analysis in paragraph 2.

**21.6 – Reporting (Step 6)**

Document travel analysis in a report including:

1. A map and prioritized list of the risks and benefits associated with changing the part of the forest transportation system under analysis, and a map and prioritized list of opportunities for addressing those risks;
2. A prioritized list of actions or projects that would implement the minimum road system; and

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3. A list of proposed changes to existing travel management direction, including proposed changes to the forest transportation system.

The report provides the basis for developing proposed actions to implement the minimum road system and to change existing travel management decisions. These proposals must be subject to appropriate public involvement and environmental analysis under NEPA before travel management decisions are made. Site-specific environmental analysis should build off and incorporate relevant information developed during the travel analysis process.

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**21.6 – Exhibit 01**

