

**DRAFT Analysis Plan**  
**Bear Creek Watershed Assessment**

This plan presents the approach the PSICC will use to complete the assessment for the Bear Creek watershed.

**Background**

Recent testing has revealed that the fish in Bear Creek (approximately 750 adults) are the sole remaining genetically pure population of greenback cutthroat trout. The population is currently listed as threatened under the Endangered Species Act (ESA). The U.S. Fish and Wildlife Service (USFWS) will evaluate these findings and conduct a status review to determine if the population should be listed as endangered.

**Objectives**

We plan to take an efficient yet meaningful approach to the watershed assessment for the Bear Creek watershed / greenback cutthroat trout issue. The primary objectives for this project are to:

- Synthesize existing resource and infrastructure information
- Complete the Travel Analysis Process in compliance with 36 Code of Federal Regulations (CFR) part 212, Forest Service Manual (FSM) 7710, and Forest Service Handbook (FSH) 7709.55
- Develop a proposed action for future National Environmental Policy Act (NEPA) analysis
- Finish the process no later than February 15, 2013

**Process**

Our process for this project will follow the six steps outlined in Forest Service publication FS-643 and FSH 7709.55. Although the analysis will follow these six steps in a sequential order, feedback and iteration among steps may be needed throughout the process. Each of these steps is described below.

- Step 1: Setting Up the Analysis
  - Establish an interdisciplinary team (IDT) that includes resource specialists from relevant disciplines.
  - Develop a list of data needs and a schedule for completing the analysis. Data to be used in the analysis will be from existing sources. No new field data will be collected other than those efforts already in progress. Some of the information to be used includes:
    - The PSICC Forest Plan and amendments, EIS, and the Record of Decision, including maps of relevant management areas.
    - Forest Plan monitoring reports and other documents that report the extent of work accomplished under the Forest Plan.
    - Regulatory documents - 36 CFR 212, FSM 7710 – Travel Planning, FSH 7709.55 – Travel Planning, the PSICC Forest-level Roads Analysis, Forest Service publication FS-643 (Roads Analysis), R2 supplement to FS-643

- Corporate database and GIS information, such as INFRA data for Road Management Objectives (RMO) information, travel routes, watershed and stream data, wildlife habitat, etc.
- The trails analysis (in progress) for the watershed
- The road assessment (in progress) for the watershed
- Special-use permit information
- Cultural resource sites/investigations/context discussion
- Maintenance plan and budgeting information
- Other existing data as identified by the IDT
- Identify the appropriate scope of analysis. The scope of analysis refers to the range of potential actions to be considered, for example, whether only additions to the existing forest transportation system will be considered, whether only the existing forest transportation system will be analyzed, or whether only motorized trails will be considered for changes. Consideration of non-motorized trails and winter use (over-snow vehicles) is not required but may be appropriate to include in the analysis.
- Identify the appropriate scale of analysis.
  - 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.
  - 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.
- Establish a complete and accurate inventory of National Forest System (NFS) roads and trails managed for motor vehicle use in the portion of the forest transportation system under analysis.
- 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 IDT on the issues presented. At other times, the complexity, scope, and scale of the issues or the potential severity of effects may be sufficient to justify using the latest analytical tools. IDTs should conduct travel analysis that is as simple and cost-effective as possible and still produces sufficient information for decision-making.
- Consider opportunities to integrate travel analysis with any watershed analysis or landscape assessments.
- **Step 2: Describing the Situation**
  - Summarize current land management and travel management direction.
  - For the portion of the forest transportation system under analysis, produce:
    - A map;

- An inventory of NFS roads, trails, and areas managed for motor vehicle use;
- An assessment of existing motorized and non-motorized uses;
- A description of public and administrative access needs;
- An assessment of motorized recreation opportunities;
- Information about environmental, social, and other issues;
- A summary of existing travel management decisions;
- An assessment of available resources to maintain and operate the forest transportation system; and
- A summary of available applicable accident and law enforcement data.
- Consider motor vehicle use both on the part of the forest transportation system under analysis and on adjacent or connecting authorized transportation systems.
- Consider the effects of motor vehicle use on the portion of the forest transportation system under analysis, using the general and specific criteria for designating NFS roads, trails, and areas for motor vehicle use (36 CFR 251.55; FSM 7715.5).
- **Step 3: Identifying Issues**
  - Identify key issues affecting the portion of the forest transportation system under analysis. Use appropriate public involvement to identify these issues.
  - To identify key issues, determine in the context of the analysis:
    - The primary public concerns related to travel management;
    - The primary management concerns related to travel management;
    - The primary legal constraints on travel management; and
    - The amount of resources and skills available to conduct the analysis.
  - Determine the data needed to analyze the key issues and whether the data are available or must be obtained.
- **Step 4: Assessing Benefits, Problems, and Risks**
  - Examine the major uses and environmental, social, and economic effects of the portion of the forest transportation system under analysis. Analyze the risks and benefits associated with the current situation.
  - Consider the general criteria for designating NFS roads, trails, and areas (36 CFR 212.55(a); FSM 7715.5, para. 1). Consider, with the objective of minimizing, the effects of motor vehicle use on the specific criteria for designating NFS trails and areas (36 CFR 212.55(b); FSM 7715.5, para. 2), and consider the specific criteria for designating roads (36 CFR 212.55(c); FSM 7715.5, para. 3).
  - The IDT will answer each of the 73 questions from Forest Service publication FS-643 as modified in the R2 supplement, and further modified for travel analysis and this particular project. Questions will be answered based on existing information, internal discussions, and issues identified through public input. The answers will be summarized

in the report, as well as being listed in their entirety in an appendix. Questions can be answered by the individual resource specialists or through a collaborative effort of several specialists, depending on the level of analysis needed to answer the question.

<b>Question</b>
AQ1: How and where does the transportation system modify the surface and subsurface hydrology of the area?
AQ2: How and where does the transportation system generate surface erosion?
AQ3: How and where does the transportation system affect mass wasting?
AQ4: How and where do road- or trail-stream crossings influence local stream channels and water quality?
AQ5: How and where does the transportation system create potential for pollutants, such as chemical spills, oils, de-icing salts, herbicides, or road sand to enter surface waters?
AQ6: How and where is the transportation system “hydrologically connected” to the stream system? How do the connections affect water quality and quantity (such as delivery of sediments, thermal increases, elevated peak flows)?
AQ7: What downstream beneficial uses of water exist in the area? What changes in uses and demand are expected over time? How are they affected or put at risk by road- or trail-derived pollutants? WP2: How does transportation system development and use affect water quality in municipal watersheds? Are there any streams in the area listed in the State 303(d) list or 305(b) report as impaired due to road- or trail-derived pollutants such as sediment?
AQ8: How and where does the transportation system affect wetlands?
AQ9: How does the transportation system alter physical channel dynamics, including isolation of floodplains; constraints on channel migration; and the movement of large wood, fine organic matter, and sediment?
AQ10: How and where does the transportation system restrict the migration and movement of aquatic organisms? What aquatic species are affected and to what extent?
AQ11: How does the transportation system affect shading, litterfall, and riparian plant communities?
AQ12: How and where does the transportation system contribute to fishing, poaching, or direct habitat loss for at-risk aquatic species?
AQ13: How and where does the transportation system facilitate the introduction of non-native aquatic species?
AQ14: To what extent does the transportation system overlap with areas of exceptionally high aquatic diversity or productivity or areas containing rare or unique aquatic species or species of interest?
TW1: What are the direct and indirect effects of the transportation system on terrestrial species habitat?
TW2: How does the transportation system facilitate human activities that affect habitat?
TW3: How does the transportation system affect legal and illegal human activities (including trapping, poaching, harassment, road kill, or illegal kill levels)? What are the direct and indirect effects on wildlife species?
TW4: How does the transportation system directly affect unique communities or special features in the area?
EF1: What ecological attributes, particularly those unique to the region, would be affected by introducing motorized use to currently non-motorized areas?
EF2: To what degree does the presence, type, and location of roads and trails increase the introduction and spread of exotic plant and animal species, insects, diseases, and parasites? What are the potential effects of such introductions to plant and animal species and ecosystem function in the area?
EF3: To what degree does the presence, type, and location of roads and trails contribute to the control of insects, diseases, and parasites?
EF4: How does the transportation system affect ecological disturbance regimes in the area?
EF5: What are the adverse effects of noise caused by developing, using, and maintaining roads and trails?
EC1: How does the transportation system affect the Agency’s direct costs and revenue? What, if any, changes in the transportation system will increase net revenue to the agency by reducing cost, increasing revenue, or both?

<b>Question</b>
EC2: How does the transportation system affect the priced and non-priced consequences included in economic efficiency analysis used to assess net benefits to society?
EC3: How does the transportation system affect the distribution of benefits and costs among affected people?
TM1: How does road and trail spacing and location affect logging system feasibility?
TM2: How does the transportation system affect managing the suitable timber base and other lands?
TM3: How does the transportation system affect access to timber stands needing silvicultural treatment?
MM1: How does the transportation system affect access to locatable, leasable, and salable minerals?
RM1: How does the transportation system affect access to range allotments?
WP1: How does the transportation system affect access, constructing, maintaining, monitoring, and operating water diversions, impoundments, and distribution canals or pipes?
WP3: How does the transportation system affect access to hydroelectric power generation?
SP1: How does the transportation system affect access for collecting special forest products?
SU1: How does the transportation system affect managing special-use permit sites?
GT1: How does the transportation system connect to public roads and trails and provide primary access to communities?
GT2: How does the transportation system connect large blocks of land in other ownership to public roads and trails (ad-hoc communities, subdivisions, inholdings, and so on)?
GT3: How does the transportation system affect managing roads and trails with shared ownership or with limited jurisdiction (RS 2477, cost-share, prescriptive rights, FLPMA easements, FRTA easements, Department of Transportation easements)?
GT4: How does the transportation system address the safety of users?
AU1: How does the transportation system affect access needed for research, inventory, and monitoring?
AU2: How does the transportation system affect investigative or enforcement activities?
PT1: How does the transportation system affect fuels management?
PT2: How does the transportation system affect the capacity of the Forest Service and cooperators to suppress wildfires?
PT3: How does the transportation system affect risk to firefighters and to public safety?
PT4: How does the transportation system contribute to airborne dust emissions resulting in reduced visibility and human health concerns?
UR1/RR1: What are the supply and demand relationships for motorized and non-motorized recreation opportunities?
UR2/RR2: Is developing new routes (motorized or non-motorized), decommissioning of existing roads and trails, or changing the maintenance of existing roads and trails causing substantial changes in the quantity, quality, or type of motorized and non-motorized recreation opportunities?
UR3/RR3: What are the adverse effects of noise and other disturbances caused by building, using, and maintaining roads and trails on the quantity, quality, and type of motorized and non-motorized recreation opportunities?
UR4/RR4: Who participates in motorized and non-motorized recreation in the areas affected by constructing, maintaining, and decommissioning roads and trails?
UR5/RR5: What are these participants' attachments to the area, how strong are their feelings, and are alternative opportunities and locations available?
SI10: How does road and trail management affect people's sense of place?
UR6/RR6: How does the transportation system affect the Scenic Integrity? How is developing new roads and trails, decommissioning of existing roads and trails, or changing the maintenance of existing roads and trails affecting the Scenic Integrity?
PV1: Do areas planned for road entry, closure, or decommissioning have unique physical or biological characteristics, such as unique natural features and threatened or endangered species (see TW4)

Question
PV2/PV3: What, if any, groups of people (ethnic groups, subcultures, and so on) hold cultural, symbolic, spiritual, sacred, traditional, or religious values for areas planned for road or trail construction, closure, or decommissioning?
PV4: Will road and trail construction, closure, or decommissioning substantially affect passive-use value?
SI1/SI2: What are people's perceived needs and values for access, roads, and trails? How does transportation system management affect people's dependence on, need for, and desire for access, roads, and trails?
SI3: How does the transportation system affect access to paleontological, archeological, and historic sites?
SI4/SI9: How does the transportation system affect cultural and traditional uses (such as plant gathering and access to traditional and cultural sites) and American Indian treaty rights? What are the traditional uses of animal and plant species in the analysis area?
SI5: How does transportation management affect historic roads?
SI6: How may local community social and economic health be affected positively and negatively by transportation system management?
SI7: For communities adjacent to the Forest with industries dependent upon Forest-related resources, what are the local values of currently non-motorized areas surrounding the communities?
SI8: How does transportation system management affect wilderness attributes?
CR1: How does the transportation system and its management affect certain groups of people?

- **Step 5: Describing Opportunities**

- Identify management opportunities and priorities and formulate proposals for changes to the forest transportation system that respond to the issues, risks, and benefits identified in the preceding steps.
- Compare motor vehicle use of the portion 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.
- Identify any unauthorized roads, trails, and areas that should be considered for designation.
- Re-visit the answers to each of the 73 questions, adding discussion on how the recommended transportation system would affect each resource considered, particularly in contrast with the current situation.

- **Step 6: Reporting**

- Document travel analysis in a report including:
  - A list of the key issues;
  - A prioritized list of the risks and benefits associated with changing the part of the forest transportation system under analysis;
  - A prioritized list of opportunities for addressing those risks and benefits;
  - If applicable, a prioritized list of actions or projects that would implement the minimum transportation system; and

- If applicable, a list of proposed changes to current travel management direction, including proposed additions to or deletions from the forest transportation system.
- The report provides the basis for developing proposed actions to implement the minimum transportation system or to change existing travel management decisions. These proposals are subject to appropriate public involvement and environmental analysis under NEPA before decisions are made. Site-specific environmental analysis should build on and incorporate relevant information developed during travel analysis.

## Schedule

A proposed project schedule is outlined below.

<b>Proposed Project Schedule</b>	
<b>Task</b>	<b>Completion Date</b>
Step 1 - Setting Up the Analysis	10/25/12
Step 2 - Describing the Situation	11/16/12
Step 3 - Identifying Issues	12/1/12
Step 4 - Assessing Benefits, Problems, and Risks	12/15/12
Step 5 - Describing Opportunities and Setting Priorities	2/1/13
Step 6 - Reporting	2/15/13