Appendix A

Existing System Roads

Risk and Benefit Assessment Questions

Benefit and Risk Criteria Used

Private Access Value

The road system provides access to many different types of landowners, power lines, rock sources, communication sites, and other special use permit sites. When the road provides access to other landowners, the Forest Service is obligated to provide for reasonable access if there are no other options. Because of the need to provide and manage this access, this factor is heavily weighed.

- Road Locations
- ID team knowledge of maintained sites
- Special Use Permits

Evaluation Criteria

High Value (5): Primary access to private in holding and main access roads.

Low Value (0): Not needed for private access.

Administrative Access Value

Roads with administrative value are based on the extent of Forest Service use for administrative needs which include: administrative sites, heritage sites, repeater sites, special use sites, weather stations, ecosystem management, and fire activities.

Available data used during the evaluation of this category included:

- Road Locations
- ID team knowledge of maintained sites
- Timber Layer- Roads that crossed or led to Land Suitablity Class 500 were given a value of 5.
- Recreational Layer

Evaluation Criteria

High Value (5): Road segment serves as the primary access to Forest Service administrative sites, heritage sites, repeater sites, weather stations, fire activities, special use sites, or ecosystem management.

Low Value (0): Road segment does not contribute, in any way, to access to Forest Service administrative sites, heritage sites, repeater sites, weather stations, fire activities, special uses, or ecosystem management.

Public Access Value

The Public rating is typically based on any other known activity where people use roads for motorized use. All roads that access boat landing or other recreation site were included in the administration rating, and during the review process other important public roads that the ID team had knowledge of were rated high, so public access did not have its own criteria value.

Road Related Risks

Risk to Soils

This risk is based on the propensity for transportation corridors to facilitate compaction rutting and erosion. The potential impacts are dependant on the type of soils and slope class.

Available data used during the evaluation of this category included:

- Road Locations
- ELTP soil types

Evaluation Criteria

Low Risk (1): soil drainage class – well, somewhat excessive, excessive; and soil surface texture – fine sand, sand, loamy sand, loamy fine sand, sandy loam, gravelly sandy loam, very cobbly sandy loam, loam; and equipment use rating – slight compaction; and rutting risk – slight ; and slope class – 0-1, 0-2, 0-3, 0-4, 0-5, 0-6, 1-6, 2-6, 5-10, 6-12, 1-15, 4-15, 6-15.

Moderate Risk (3): soil drainage class – moderately well or well, and soil surface texture – fine sandy loam, very fine sandy loam, or silt loam; and equipment use rating – moderate; and compaction and rutting risk – moderate; and slope class – 0-18, 6-20, 10-20, 12-20, 15-24, 0-30, 4-30, 10-30, 15-30, 10-35, 15- 35, 18-35.

High Risk (5): soil drainage class - somewhat poor, poor, or very poor; and soil surface texture – any texture; and equipment use rating – severe; and compaction and rutting risk rating – severe; and slope class – 15-45, 20-45, 4-60; and all hydric soils.

Risk to Reference Areas

Reference area risk rankings were developed based on location of roads within reference areas or proximity to those areas.

Available data used during the evaluation of this category included:

- GIS Road Locations
- Reference Area Inventory

Evaluation Criteria

No Risk (0): Beyond 1 mile from a MA 8.

Low Risk (1): Between a ½ mile and 1 mile from a MA 8 and no motorized use road is between the Reference Area and the road under review.

Moderate Risk (3): Within ½ mile of a MA 8 and no motorized use road is between the Reference Area and the road under review.

High Risk (5): Located within MA 8

Risk to Aquatic/Water Quality

The rating for aquatic is based on road stream crossings and the occurance of a road in the wetland layer. This rating was revised for this analysis because it was felt most of these roads would be shorter local road access, ML 1 and 2, and this criteria would be more critical than previous analysis, and would be easier to generate.

No Risk (0): No stream crossings or wetland intersections.

High Risk (5): One or more stream crossings or any wetland intersection.

Non-Native Invasive Species (NNIS) Risk

The rating for NNIS is based on the occurance of an NNIS within 50' of a road. This rating was revised for this analysis because it was felt most of these roads would be shorter local road access, ML 1 and 2, and this criteria would be more critical than previous analysis, and would be easier to generate

No Risk (0): No NNIS within 50' of road.

High Risk (5): NNIS within 50' of road.

Risk to Threatened, Endangered, and Sensitive (TES) Wildlife Species

Many scientific studies have documented impacts of roads on wildlife, including direct mortality, habitat loss and/or reduced available habitat due to road avoidance, habitat fragmentation, edge effects, increased competition and predation from edge-associated species, population isolation, nesting and rearing disturbances, and reduced habitat effectiveness. All of these impacts can adversely affect the viability and sustainability of wildlife populations.

Available data used during the evaluation of this category included:

- Road locations and inventory.
- Known, breeding, denning, and nesting site locations.

Evaluation Criteria

Very Low Risk (0): Road is not present within ½ mile of a nesting, denning, or breeding site for TES wildlife.

Low Risk (1): Road lies within ½ mile of a nesting, denning, or breeding site for TES wildlife or within 1320 feet but a motorized road is between the occurrence and the road under review.

Moderate Risk (3): Road lies within 1320 feet of nesting, denning, or breeding site for TES wildlife or within 660 feet but a motorized road is between the occurrence and the road under review.

High Risk (5): Road lies within 660 feet of a nesting, denning, or breeding site for TES wildlife and no motorized road lies between the road and the occurrence,

Risk to Threatened, Endangered, and Sensitive (TES) Plant Species

As with wildlife many scientific studies have documented impacts of roads on TES plant life, including habitat loss and/or reduced available habitat due to habitat fragmentation, edge effects, increased competition from edge associated species, population isolation, and reduced habitat effectiveness. All of these impacts can adversely affect the viability and sustainability of TES plant populations.

Available data used during the evaluation of this category included:

- Road locations relative to known TES plant occurrences.

Evaluation Criteria

Very Low Risk (0): Road is not present within ½ mile of a documented TES plant occurrence.

Low Risk (1): Road lies within ½ mile of a documented TES plant occurrence or within 1320 feet but a motorized road is between the occurrence and the road under review.

Moderate Risk (3): Road lies within 1320 feet of a documented TES plant occurrence or within 660 feet but a motorized road is between the occurrence and the road under review.

High Risk (5): Road lies within 660 feet of a documented TES plant occurrence and no motorized road lies between the road and the occurrence,

Heritage Risk

For purpose of this analysis, ML 1 and 2 roads are considered "areas of potential effect," and as stated in 36 CFR 800.16, "area of potential effect means the geographical area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist." Simply stated, operation of a road through a recorded cultural resource site may likely render disturbance, that is, a direct effect. Further, operation of a road near a recorded cultural resource improves access and increases the possibility of looting or vandalism, and for this reason poses an indirect effect. Consequently, a ML 1 or ML 2 road's distance from a recorded cultural resource is assumed to be the appropriate measure of risk factor.

Available data used during the evaluation of this category included:

- Road locations
- Known Heritage Sites

Evaluation Criteria

Very Low Risk (0): No cultural resource located within 400 meters of road.

Low Risk (1): Cultural resource located between 200 – 400 meters of road.

Moderate Risk (2): Cultural resource located between 100 – 200 meters of road

High Risk (3): Cultural resource located between 50 – 100 meters of road

Very High (4): Cultural resource located within 50 meters of road, bisected by a road, or road is a designated cultural resource.