

Appendix 10: Segment Rating Criteria

Benefits

Transportation

- TS1** Road value for connectivity to Public roads or communities.
- 0 no connectivity
 - 1 some value of connectivity
 - 2 moderate value of connectivity
 - 3 high value of connectivity
- TS2** Road value for connectivity to another road cluster or a neighboring 6th field subwatershed.
- 0 no connectivity
 - 1 some value of connectivity
 - 2 moderate value of connectivity
 - 3 high value of connectivity
- TS3** Road value for providing recurring administrative access needs to an area.
- 0 no recurring administrative needs to access the area
 - 1 limited administrative need to access the area
 - 2 recurring administrative needs to access the area
 - 3 ultra recurring administrative needs to access the area
- TS4** Road value for access to other ownership land
- 0 does not access other ownership land
 - 1 provides one of multiple routes accessing other ownership land
 - 2 provides more than one of multiple routes accessing other ownership land
 - 3 provides primary access to other ownership land

Fire Suppression/Fuels

AU1 Values based on estimated effect on suppression methods and response times if road segment access were lost. Decreased access may result in more use of hand crews and alternative resources (rapellers, smokejumpers, retardant) rather than engines. Delayed response times may lead to increased fire size. Criteria follow:

- 0 if segment is shorter than 0.25 miles, does not connect two separate routes, walk-in time is minimal, and suppression response is not affected.
- 1 if segment length is between 0.25 and 0.50 miles, does not connect two separate routes, walk-in time is increased, and suppression response is delayed.
- 2 if segment length is between 0.50 miles and 0.75 miles, walk-in time is increased, and suppression response is delayed; or a connection of separate routes is lost, resulting in rerouting, increased drive time, and moderate delay in suppression response.
- 3 if segment length is greater than 0.75 miles, walk-in time is increased, and suppression response is delayed; or a critical connection of separate main routes is lost, resulting in rerouting, increased drive time, and great delay in suppression response.

AU2 The following was given ranges of 0-3, describing the road segment's value in providing access to areas that may require future fuels management. Consideration was given to historic occurrences dating back to 1970, and moderate to heavy fuel loading based on existing mapping fuel model 9 and 10 areas. Criteria follow:

- 0 if segment is located in an area with no record of fire occurrences and without high risk fuels.
- 1 if segment is located in an area with a record of 1 or 2 fire occurrences and without high risk fuels or; no record of fire occurrences in an area with high risk fuels.
- 2 if segment is located in an area with a record of 3 to 5 fire occurrences and without high risk fuels or; a record of 1 to 2 fire occurrences in an area with high risk fuels.
- 3 if segment is located in an area with a record of 3 or 5 fire occurrences and either in or bordering an area of high risk fuels.

Recreation

PA1 Does this road segment provide access to a developed recreation site?

- 3 high recreation value
- 2 medium recreation value
- 1 low recreation value
- 0 no recreation value

PA2 Does this road segment provide access to a dispersed recreation site?

- 3 high recreation value
- 2 medium recreation value
- 1 low recreation value
- 0 no recreation value

PA3 Does this road segment provide access to a water source?

- 3 high recreation value
- 2 medium recreation value
- 1 low recreation value
- 0 no recreation value

PA4 Does this road segment provide access to small forest products and/or hunting and fishing opportunities?

- 3 high recreation value
- 2 medium recreation value
- 1 low recreation value
- 0 no recreation value

Forest Management

FMP1 Values are based on a road segments ability to provide suitable access to silviculturally manipulate forest vegetation for forest products, restoration, or other management objectives.

- 0 road provides redundant access.
- 1 road provides needed access

Costs

Aquatic

AQ1 Modified surface and subsurface hydrology (significance in change of flow routing). Measure: presence and length of ditches, and seeps/springs/wetlands not allowed to flow naturally.

- 0 No significant modification
- 3 Significant modification

AQ2 Road generated surface erosion. Measure: presence and length of rutting, road grade.

- 0 No sediment
- 1 Minor sediment
- 2 Some sediment
- 3 Major sediment

AQ3 Road and mass wasting potential. Measure: hillslope gradient.

- 0 Less than 30% slope
- 2 30% to 45% slope
- 3 Greater than 45% slope

AQ4 Road crossings. Measure: number of crossings.

- 0 Less than one crossing per mile
- 2 One crossing per mile
- 3 Greater than one crossing per mile

AQ6,8,9 &11 Road interaction with channel, floodplain, riparian function, seeps, and springs. Measure: road distance to stream.

- 0 Greater than 300 feet distance
- 1 100 to 200 feet distance
- 2 50 to 100 feet distance
- 3 0 to 50 feet distance

CULVERTS Culverts of concern. Measure: culverts survey.

- 0 Green (good)
- 2 Grey (fair)
- 3 Red (poor)

Wildlife

TW1 What are the direct effects of the road system on terrestrial species habitat?

- Fragmentation
- Disruption of migration routes and juvenile dispersal patterns.
- Changes to the micro site (roadside snags, logs, ponds, etc.) that make the habitat unusable.

TW2 How does the road system facilitate human activities that affect habitat?

- Recreation related disturbance; (meadow damage by ATVs, micro site alteration by campers, etc.)
- Transport and spread of noxious weeds
- Loss of snags and LWD to firewood cutting

TW3 How does the road system affect legal and illegal human activities (trapping, hunting, poaching, harassment, road kill, etc.)? What are the effects on wildlife species?

- Direct killing of animals from vehicle collision, illegal or accidental harvest, etc.
- Disturbance during critical reproductive periods (elk and mushroom hunting, snowmobiles and lynx)
- Harassment during stress periods of life cycle; (reproduction, winter, etc)

TW4 How does the road system directly affect unique communities or special features in the area?

- Old growth fragmentation and disturbance
- Calving, denning, and nesting habitat

- Micro sites (aspen pockets, ponds, snags, etc.)

Ratings

- 0 No impacts; no concerns – no recommendations for closure.
- 1 Low impacts to sensitive species*; minor concerns – low priority for closure.
- 2 Probable impacts to sensitive species – medium priority for closure.
- 3 Significant impacts to sensitive or listed species – high priority for closure.

* Sensitive species can be either those listed on the Regional Forester’s Sensitive species list, species of concern as listed by USFWS, or unique species that are particularly sensitive to road-caused disturbance.

Rare Plants and Noxious Weeds

NOX- Noxious Weeds - The following was given ranges of 0-3, describing the road segment’s proximity to weed occurrence. Criteria follow:

- 0 if no portion of the segment is less than 0.75 miles from the weed occurrence boundary.
- 1 if any portion of segment is less than 0.75 miles but greater than 0.50 miles from the weed occurrence boundary.
- 2 if any portion of segment is less than 0.5 miles but greater than 0.25 miles from the weed occurrence boundary.
- 3 if any portion of segment is less than 0.25 miles from the weed occurrence boundary.

BOT - Rare plant Occurrence - Values are based on distance between road and rare plant occurrence in current GIS layer. The closer a rare plant occurrence is to a road, the higher the likelihood of being negatively affected by roads and associated off-road travel.

- 0 if no portion of the segment is less than 0.75 miles from the rare plant occurrence boundary.
- 1 if any portion of segment is less than 0.75 miles but greater than 0.50 miles from the rare plant occurrence boundary.
- 2 if any portion of segment is less than 0.5 miles but greater than 0.25 miles from the rare plant occurrence boundary.
- 3 if any portion of segment is less than 0.25 miles from the rare plant occurrence boundary.

NOXxWO - Rare Plant x Weed Occurrence - The following are given ranges of 0-3 based on the proximity of rare plants and weeds to each other. Negative effects to rare plants due to roads are more likely with close proximity to both roads and weeds due to spread of weeds by vehicles. Generally, double the Noxious Weed Rating above if a Rare Plant Occurrence is within 0.25 miles of the Weed Occurrence.

- 0 if no rare plant or weed occurrence is within 0.75 miles of the segment.
- 1 if noxious weed rating is “1” and Rare plant occurrence within 0.25 miles.
- 2 if noxious weed rating is “2” and Rare plant occurrence within 0.25 miles.
- 3 if noxious weed rating is “3” and Rare plant occurrence within 0.25 miles.