

Documentation of Rating System Used for Benefits and Risks Assessment

Each road segment was initially evaluated for associated benefits and risks, relative to specific management categories. Based on the evaluation criteria, they were given a rating of Very Low, Low, Medium, or High. Documentation of the evaluation criteria, and personnel responsible for their development, are contained in the Transportation Analysis Report (TAR) appendices.

Following is a detailed description of the how the individual road segment ratings were synthesized:

NOTE: High (3) takes precedence over Medium (2). Medium (2) takes precedence over Low (1). Low (1) takes precedence over Very Low (0).

- Recreation and Administrative Benefit
 - One evaluation criterion (Recreation and Administrative Uses), with a possible score of 1-3
 - Ratings from the individual worksheet directly transferred to the summary sheet
- Range Benefit
 - One evaluation criterion (Access to Range Improvements), with a possible score of 1-3
 - Ratings from the individual worksheet directly transferred to the summary sheet
- Engineering Risk
 - One evaluation criterion (Engineering Concerns), with a possible score of 1-3
 - Ratings from the individual worksheet directly transferred to the summary sheet

For categories with multiple evaluation criteria, the summary rating was determined as follows:

- Resource Management Benefit
 - Two evaluation criteria, each with possible scores of 1-3 (Stand Density & Fire/Fuels)
 - Minimum score = 2 (1+1)
 - Maximum score = 6 (3+3)
 - Primary median = 4.0
 - Secondary medians = 3.0 and 5.0
 - 0 – 2.9 = Summary rating of 1
 - 3.0 – 4.9 = Summary rating of 2
 - > 4.9 = Summary rating of 3
- Noxious Weeds Risk
 - Three evaluation criteria, each with possible scores of 1-3 (Proximity to Current Infestation, Invasive Spread Potential, and Invasive Habitat Potential)
 - Minimum score = 3 (1+1+1)
 - Maximum score = 9 (3+3+3)
 - Primary median = 6.0
 - Secondary medians = 4.5 and 7.5
 - 0 – 4.4 = Summary rating of 1
 - 4.5 – 7.4 = Summary rating of 2
 - > 7.4 = Summary rating of 3

- Aquatics Risk
 - Four evaluation criteria, each with possible scores of 1-3 (Listed Aquatic Species Count, Fish Passage Barrier, Highest Quality Habitat, & Riparian Proximity)
 - Minimum score = 4 (1+1+1+1)
 - Maximum score = 12 (3+3+3+3)
 - Primary median = 8.0
 - Secondary medians = 6.0 and 10.0
 - 0 – 5.9 = Summary rating of 1
 - 6.0 – 9.9 = Summary rating of 2
 - > 9.9 = Summary rating of 3

- Wildlife Risk
 - Five evaluation criteria, three with possible scores of 1-3 (Wildlife Composite, Open Road Density, & Summer Range), and two with possible scores of 0-3 (Meadow Habitat & RHCA)
 - Minimum score = 3 (1+0+0+1+1)
 - Maximum score = 15 (3+3+3+3+3)
 - Primary median = 9.0
 - Secondary medians = 6.0 and 12.0
 - 0 – 5.9 = Summary rating of 1
 - 6.0 – 11.9 = Summary rating of 2
 - > 11.9 = Summary rating of 3

- Watershed Risk
 - Five evaluation criteria, three with possible scores of 1-3 (Surface Erosion Potential, Mass Erosion Potential, & Watershed Condition), and two with possible scores of 0-3 (Riparian Proximity & Road Stream Crossings)
 - Minimum score = 3 (1+1+0+0+1)
 - Maximum score = 15 (3+3+3+3+3)
 - Primary median = 9.0
 - Secondary medians = 6.0 and 12.0
 - 0 – 5.9 = Summary rating of 1
 - 6.0 – 11.9 = Summary rating of 2
 - > 11.9 = Summary rating of 3

Two management categories were missing data. Four road segments had missing data for Watershed (Mass Erosion Potential Risk), and thirteen road segments had missing data for Noxious Weeds (Invasive Habitat Potential Risk). The scoring was adjusted for these individual road segments accordingly, based on the same scoring system.

- Noxious Weeds Risk with Missing Data
 - Two evaluation criteria, each with possible scores of 1-3 (Proximity to Current Infestation & Invasive Habitat Potential)
 - Minimum score = 2 (1+1)
 - Maximum score = 6 (3+3)
 - Primary median = 4.0
 - Secondary medians = 3.0 and 5.0
 - 0 – 2.9 = Summary rating of 1
 - 3.0 – 4.9 = Summary rating of 2
 - > 4.9 = Summary rating of 3

- Watershed Risk with Missing Data
 - Four evaluation criteria, two with possible scores of 1-3 (Surface Erosion Potential & Watershed Condition), and two with possible scores of 0-3 (Riparian Proximity & Road Stream Crossings)
 - Minimum score = 2 (1+0+0+1)
 - Maximum score = 12 (3+3+3+3)
 - Primary median = 7.0
 - Secondary medians = 4.5 and 9.5
 - 0 – 4.4 = Summary rating of 1
 - 4.5 – 9.4 = Summary rating of 2
 - > 9.4 = Summary rating of 3

The sum of each road segment's summary ratings was then categorized as a "High" or "Low" benefit or risk, using the following method:

- There were a total of 3 "Benefit" summary ratings for each road segment.
 - Minimum score = 3 (1+1+1)
 - Maximum score = 9 (3+3+3)
 - Median = 6.0
 - 0 – 5.9 = Low Benefit
 - > 5.9 = High Benefit

- There were a total of 5 "Risk" summary ratings for each road segment.
 - Minimum score = 5 (1+1+1+1+1)
 - Maximum score = 15 (3+3+3+3+3)
 - Median = 10.0
 - 0 – 9.9 = Low Risk
 - > 9.9 = High Risk

The resulting benefit and risk categorizations were then used to place each road segment into a “Road Management Category”, to identify potential management opportunities and inform future decisions. The Road Management Category does not reflect an order or prioritization. These categories are consistent with the Umatilla National Forest Roads Analysis conducted in 2004.

Benefit/Risk	Road Management Category
High Benefit – Low Risk	1
High Benefit – High Risk	2
Low Benefit – High Risk	3
Low Benefit – Low Risk	4