

## Scientific Review

The scientific review included 13 individuals from the following disciplines: wildlife biology (3), aquatic biology (3), silviculture (2), soils (2), and forest ecology (3). Reviewers were asked to rank the proposed changes relative to the existing guidelines for each of the 4 revision categories (Infrastructure, biomass guidelines, leave trees, and RMZ guidelines) with the following questions:

**Practicality** -Do the proposed changes describe practices that can be more easily applied on the ground?

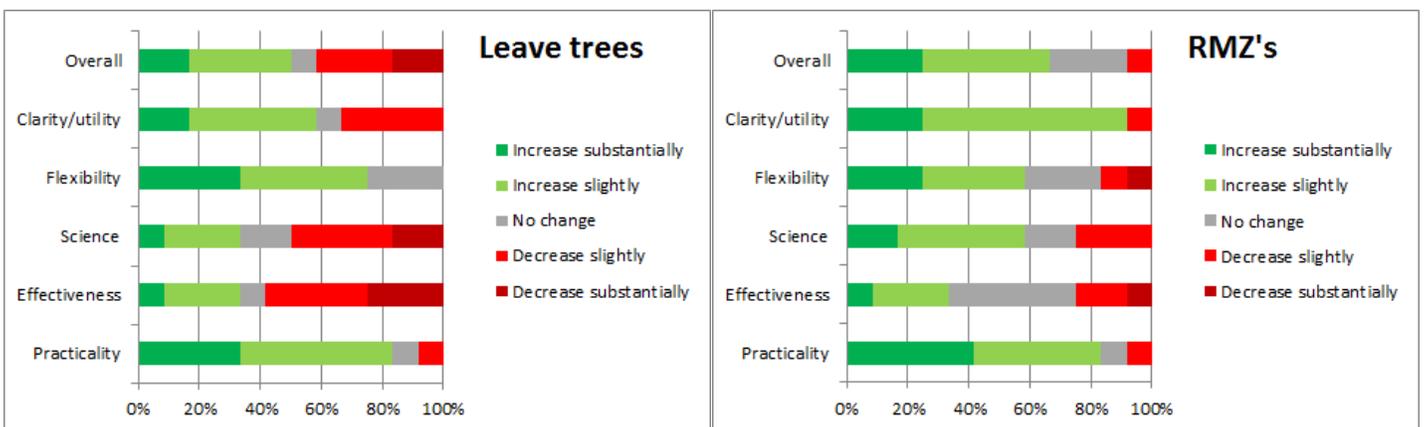
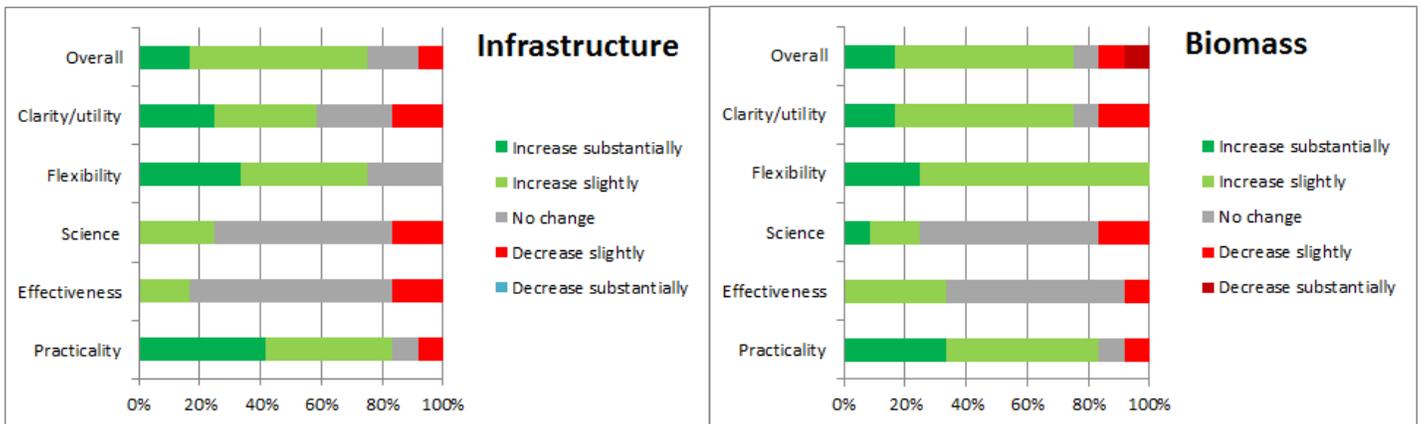
**Effectiveness** - Will the proposed changes protect the resource compared to the existing standards?

**Science-based** - Are the proposed changes consistent with current scientific principles and understanding?

**Flexibility** - Can the proposed changes be applied to variable forest conditions and landowner objectives?

**Clarity and ease of use** - Will the proposed changes improve understanding and application by user groups?

The following figures show the scientific reviewer responses to these questions with each change ranking displayed as a percentage of the total response. Categories with predominantly green colors indicate increases, while those in red indicate decreases (e.g., decreased scientific basis relative to the current guideline)



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### **Main themes and issues from the scientific reviewer general comments**

Reviewers were also asked to provide additional narrative comments in support of their rankings, or to expand on issues not addressed with the standardized questions. Some of the general themes and specific points are outlined below.

#### **Infrastructure**

Uniform support for the change, or at least the underlying objective

Criticism from several reviewers that the recommendations were not logical (e.g., allowing less area on a 30.1 acre cut compared to a 29.9 acre cut)

Recommendations to clarify what constitutes a landing and to emphasize rehabilitation for mitigation of impact

#### **Biomass guidelines**

General support for the recommended changes

Number of reviewers noted that there will be problems with estimating the recommended retention amounts

One reviewer questioned whether or not slash is equivalent to FWD

One reviewer had concern on slash recommendations for sandy soils with aspen/hardwood covertypes that was supported with ongoing research in the Lake States

One reviewer recommended changing reconciliation slash language to recommend “most” retention, not all

#### **Leave trees**

There was a divergence of views on the leave tree recommendation (reflected in the chart above)

Those in support generally indicated that the recommendations would make it easier for sale layout and that economics should be a formal consideration when choosing which trees to leave.

Those against consideration of economic value argued that it is already a prime consideration in practice and included in the existing considerations (e.g., retain a range of species and conditions), and that without additional clarification on how to assess a range of economic values then the recommendation could have detrimental effects on wildlife and future stand growth.

Those against counting RMZ area as leave tree area argued that the recommendation was flawed in not providing habitat/lifeboating for species interior to the harvest area, and that the recommendation would not provide protection on upland areas with different forest structures and species than which occur in riparian

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areas. One reviewer also stated that the RSTC assumed that leave trees would be located next to RMZ's, presumably influencing the recommended widths that the RSTC made.

The recommendation to allow configurations that achieve wildlife and management objectives was criticized by 2 reviewers who thought that operability alone would drive the decision, and that it would be difficult to articulate specific wildlife objectives for documentation in sale records (i.e., justify the configuration).

### **RMZ's**

A majority of reviewers supported the recommended changes to RMZ guidelines

The minority that were against (or had concern) included 2 that argued for the RSTC recommendation of 75 ft<sup>2</sup> RBA because the RSTC recommendations were interdependent on each other.

The minority also included 2 reviewers which argued the RBA recommendations were not flexible enough to achieve other management objectives related to maintenance of certain wildlife species dependent on early successional forests in and around riparian areas.

A few reviewers noted that there might be useful information in the deleted pages of the RMZ guidelines, and suggested a careful review to identify any info that should be retained.

A few reviewers also noted issues with trout-bearing waters; i.e., that we need to use language that only includes those waters with trout (not all tributaries as currently recommended)