

Background

Minnesota's Sustainable Forest Resources Act (SFRA, 89A) was enacted in 1995, establishing the Minnesota Forest Resources Council (MFRC) to provide recommendations and guidance to achieve sustainable forestry. The SFRA charges the MFRC with development of comprehensive timber harvesting and forest management guidelines to mitigate impacts to forest resources. First published in 1999, the guidelines are a set of forest management practices designed to mitigate impacts to soil and water quality, wetlands, wildlife habitat, historic and cultural sites, and visual quality during activities such as timber harvesting. The guidelines combine the best scientific information with flexibility considerations to provide options for managing forestland sustainably and are analogous to best management practices (BMP's). Guidelines are written to be understood by a broad audience and are primarily used by loggers, resource managers, and landowners. Since their inception the guidelines have been revised twice as required in statutes; a comprehensive assessment in 2003-05 and again in 2007 when biomass harvesting guidelines were added.

The MFRC initiated a third revision in early 2010 to address long standing issues related to riparian area guidelines. Prior to this initiation, the MFRC had convened a Riparian Science Technical Committee (RSTC) composed of technical experts in aquatic and wildlife biology, water quality, forest ecology, soils, and Silviculture to assess the current science as related to riparian area management. The purpose in convening the RSTC was to provide information and guidance to the Council when considering changes to riparian-related guidelines. A comprehensive RSTC report was completed in 2007, providing recommendations on minimum widths and residual basal area in RMZ's for maintenance of important riparian functions. Following completion of the RSTC report, MFRC staff conducted an economic analysis of potential changes to riparian guidelines so that the costs and benefits could be evaluated during revision. Both of these reports can be found on the MFRC website (see link on next page). Although the focus of the revision was on riparian guidelines, all other topical areas were also considered for revision and new areas were evaluated for inclusion.

Following a scoping process, a subset of MFRC members considered changes to the guidelines and made recommendations to the full Council after evaluating monitoring data, existing research, and other information (see website for meeting summaries and supporting information). Preliminary decisions on revisions to the forest management guidelines were completed by the MFRC in March 2012. The MFRC is statutorily required to have any changes to the guidelines peer reviewed and must consider recommendations of the reviewers prior to final adoption of any changes. Peer review is defined as "*a scientifically based review conducted by individuals with substantial knowledge and experience in the subject matter*". The MFRC has decided to expand the peer review to include practitioners, and also conduct a public comment period that will run concurrently with the peer review.

Summary of proposed changes to MN Forest Management Guidelines

The following is a summary of the proposed changes to the forest management guidelines to assist you in organizing your review and comments. More detailed information related to how recommendations were developed and supporting information is available on the MFRC website at the following address: http://www.frc.state.mn.us/initiatives_sitelevel_management_revision.html

Topic: transportation infrastructure - roads and landings

Summary – previous guideline recommend limiting infrastructure to no more than 1-3% of the harvest area to limit impacts to soil productivity. The recommended allowable amount of infrastructure was changed to a 3-tier recommendation based on harvest size.

Justification – the existing guideline was unachievable at small harvest sizes. Guidelines need to be practically achievable because certification standards require adherence to the recommendations. Proposed tiers are based on past implementation monitoring data.

Topic: Leave (green) tree retention – multiple changes

Summary – proposed changes to the leave tree guidelines include 1) allowing leave trees to be configured in a way that meets wildlife and silvicultural objectives (previously even distribution was emphasized), 2) clarifies that clumps and scattered trees can be used in concert to meet recommended retention levels, 3) explicit consideration of economic value when choosing which trees to retain (previously not identified as a consideration), and 4) allowing riparian management zone (RMZ) area to count towards the leave tree area recommendation (previously leave trees were in addition to RMZ's).

Justification – there was a general desire to word the guidelines in a manner that promoted sound forest management (e.g., use of Silviculture) rather than retaining trees just to meet a recommended level. RMZ area was previously not allowed to count as leave trees as part of a strategy to reduce windthrow in riparian areas. The potential for windthrow was addressed with changes in RMZ width and residual basal area, making it appropriate to count RMZ area as leave tree area.

Topic: Biomass guidelines (slash retention) – multiple changes

Summary – proposed changes to the biomass harvesting guidelines are related to fine woody debris(FWD)/slash retention including 1) changing the recommendation for backhauling of FWD/slash to allow for modification depending on site-specific conditions and emphasizing the desired outcome rather than the means to achieve it, 2) specific exemptions to the FWD/slash retention recommendation to meet silvicultural objectives identified in the biomass harvesting guidelines (PDF page 547-549, BHG 32-34) , and 3) new language in the

general guidelines that reconciles differences among FWD/slash retention guidelines that arose during creation of the standalone biomass guidelines in 2007.

Justification – recommended amounts of FWD/slash to backhaul are based on assumptions of incidental breakage during harvest, and it is appropriate to modify the backhaul amount if the assumed amount is different from the actual. Deviation from the FWD/slash retention is appropriate in certain situations, but it was unclear as worded that this was acceptable. Discrepancies in the guidelines that arose during development of the biomass guidelines in 2007 needed to be reconciled to avoid confusion and ensure proper application.

Topic: Riparian management zones – multiple changes

Summary – proposed changes to the RMZ guidelines include 1) changing the current recommended widths (many based on stream/lake size and fish species present) to those recommended by the Riparian Science Technical Committee (see below), and 2) retention of at least 60 ft² of residual basal area (RBA) in all RMZ areas (previously 60 ft² for all trout streams and lakes, and 25-80 ft² for all others).

Stream and lake characteristics	RMZ widths (ft)
All trout streams and lakes	165
All non-trout streams > 3 ft. wide All non-trout lakes and open water wetlands > 1 ac. in size	120
All non-trout streams < 3 ft. wide All non-trout lakes and open water wetlands < 1 ac. in size	50

Justification - The Council convened the Riparian Science Technical Committee to assess current science related to riparian areas, with the intent of using their report as a technical basis for revision of the riparian guidelines. The RSTC width recommendations are consensus, science-based views from technical experts in wildlife, water quality, soils, and silviculture that address important forest resources including water quality, terrestrial and aquatic habitat, and biological diversity. The RSTC recommended a RBA of 75 ft² because it is the *average* minimum value for fully stocked stands of common species in Minnesota. The lower value of 60 ft² was adopted because it is the *absolute* minimum value for fully stocked stands, allowing greater management flexibility. The overall goal was to make a RBA area recommendation in line with maintenance of longer-lived covertsypes which are generally recommended for riparian areas (most instances but not all – see existing guidelines for more information).