Minnesota Forest Resources Council

Riparian Science Technical Committee (RSTC)

PROCESS DEFINITION

Approved by the MN Forest Resources Council

SA-0304

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This document outlines a framework for convening and conducting a Riparian Science Technical Committee (RSTC). It is expected that this process can and will evolve as the RSTC conducts their work.

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Charge, Guiding Principles and Expectations

Charge:
The MFRC is mandated by Minnesota statute (M.S. 89A.05 Subd.1) to review and revise its voluntary site-level forest management guidelines. Minnesota's voluntary guidelines have undergone evaluation and revision, and the process will continue. It is inevitable that these guidelines will continually evolve.

To review and revise the sections of the guidelines related to riparian habitat, the MFRC seeks to better understand recent advances in scientific understanding of riparian areas related to forest management in preparation for considering changes to current riparian guidelines that better address the unique conditions and management questions in riparian habitat. Therefore, it is proposed that a Riparian Science Technical Committee (RSTC) be convened to bring forth the best applicable[*] scientific knowledge in order to assist the MFRC in resolving outstanding riparian guideline questions/topics/issues. The committee will do so by developing written output (see Nature of the Output on page 6).

Guiding Principles:

- Voluntary Site-Level Forest Management/Timber Harvesting Guidelines address sustainable management of resources, which recognizes some level of impact on that resource. The goal is not "no impact," rather sustainable management of the forest resource. Sustainable forest management is defined as the development, protection and use of forest resources for achievement of economic and social well-being without damaging the forest resource base or compromising the ability of future generations to meet their own needs.
- Information and recommendations will be based on "best applicable scientific information" as defined as "information obtained from research conducted by qualified scientists using documented and accepted methodologies that lead to verifiable results and conclusions."
- Riparian areas provide many important functions and values, many of which should be addressed in RSTC's deliberations. These include: water quality, aquatic and wildlife habitat, forest soil productivity and forest products.
- The focus of riparian questions/topics/issues will be *site-level*, but the RSTC should also provide watershed-scale considerations that could be placed in the Landscape Considerations section of the guidebook to assist landowners in sustainable forest management decisions.
- The guidelines will allow landowners/managers to manage for a broad range of plant and animal species (i.e., the guidelines will not be designed for specific plant or animal species).
- The committee's process and work will be transparent to the MFRC and the public. Minutes from all meetings of the RSTC will be made available in printed and electronic form no later than five days after the completion of each meeting (see Communication Strategy on page 9)
- Voluntary site-level guidelines cannot supercede existing statutes or regulations, including but not limited to the Coastal Zone Management Act, Shipstead Newton Nolan Act, and EPA Impaired Waters regulations.

Expectations:
As an advisory body to the MFRC, the RSTC will complete a report that presents the RSTC's judgments (see sample on page 7), based on best applicable scientific information, which address the questions posed to the team (see page 5).

[*] Consideration should be given to whether the studies have been peer reviewed, published and/or replicated.

Criteria and Size of Committee Membership

Scientists will be recruited to participate in the RSTC either through nomination by a MFRC member or staff, or in response to a public announcement to be placed in the State Register and the EQB Monitor. The MFRC shall have final approval of committee membership.

Criteria

- PhD preferred
- Has experience in one or more of the following areas:
  - Aquatic Ecology
  - Fisheries biology
  - Hydrology
  - Silviculture
  - Soils
  - Wetlands ecology
  - Wildlife biology – birds | One scientist will have game
  - Wildlife biology – mammals or reptiles/amphibians | experience, the other non-game
- Has published peer-reviewed research findings within the last 2-3 years
- Has a minimum of five years of applied experience in the Lake States (preferred)

Committee Size

7-9 committee members will provide appropriate breadth of expertise, yet be manageable.

Oversight by MFRC

Oversight will be conducted through regular interaction with a newly reconstituted Ad Hoc Committee on Guideline Revision.

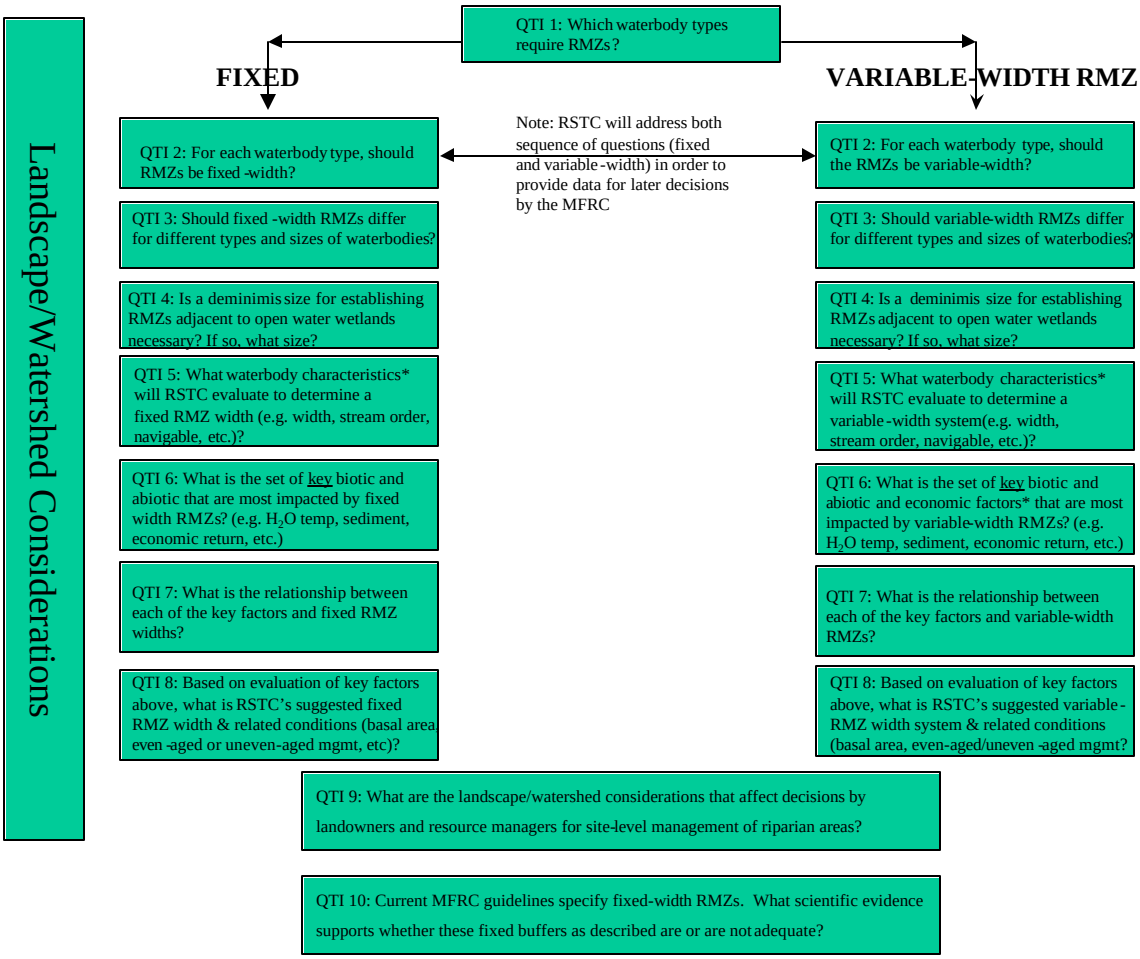
Committee Operations

MFRC staff (Site-level Program Coordinator) will serves as co-chair and leader for the RSTC. MFRC staff (Policy Analyst) will serve as facilitator of the meetings of the RSTC.

A non-staff, non-RSTC member will serve as recorder/synthesizer/output producer.

Scope and Sequence of Questions/Topics/Issues (QTIs) to be addressed

In order to help ensure adequate progress by the RSTC over the series of meetings, and to structure the committee's work, the following sequence of questions/topics/issues (QTIs) is suggested. Note that this process may require some iteration, for example to address multiple waterbody types. Relevant materials from MFRC's prior work related to riparian guidelines will be made available as needed.



* A preliminary list will be provided for the RSTC to modify.

During the first meeting of the RSTC, this sequence of QTIs will be carefully reviewed, and RSTC members will be able to add, revise and restructure the process for their work.

Nature of the Output of the Committee

The RSTC will address significant riparian questions/topics/issues (QTIs – see page 5), and will arrive at "judgments" based on the best applicable scientific knowledge available today. Those judgments will be captured and tracked in writing in a table format (see Example of RSTC's output on page 7) and will form the basis of the report from the RSTC. For all judgments, the RSTC's final report will include citations for research studies that support judgments. Additional considerations and information not included in the QTIs can and should be documented by the RSTC.

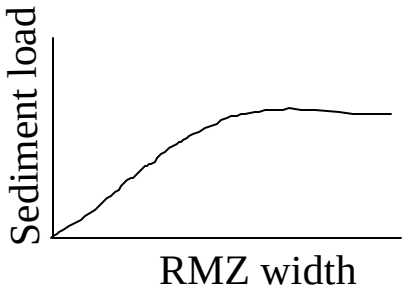
How to arrive at judgments
For each QTI, the RSTC will outline up to 4 judgments with a record of those who support each judgment.

"Confidence" of judgments
RSTC will report average and range of "confidence" assessments. The RSTC will define their preferred confidence assessment system, however it could be similar to the following: *1= high confidence, evidence is definitive from data/studies and supports the conclusion and recommendation of the respondent, 2= somewhat high confidence, good data/studies to support respondents view while recognizing the legitimacy of other respondents coming to different conclusions, 3= medium confidence, some data/studies to support respondents view while recognizing the legitimacy of other respondents coming to different conclusions, and 4= low confidence, scientific information is not conclusive and respondent's view is based on best judgment from information that exists)*

An **example** of RSTC's possible tabular output resulting from utilization of the sequence of QTIs (see page 5) appears below.

QTI	Judgment(s)	Rationale	Confidence assessment*
1	All waterbodies currently addressed in the FM/TH Guidelines should have RMZ recommendations. These include: xx, xx, xx, xx, xx	Existing FM/TH guidelines adequately address all waterbodies. Citations: xxxxxxxxxxxxx	(Average = 1.3, range = 1-2)
2	Judgment 1: RMZs for all waterbody types should be based on fixed-width RMZ widths. (scientists: xx,xxx,xxx) Judgment 2: RMZs should be based on variable width RMZ (scientists: xx,xx,xx,xx)	*Significant rationale and citations will be provided.for each judgment.*	(Average = 2.3, range = 2-3)
3	Different RMZs should be applied to three major groups of waterbodies: 1) all lakes and streams wider than xx, 2) streams less than xx in width, and 2) open water wetlands.	*Significant rationale and citations will be provided.for each judgment.*	2
4	A de minimis size for RMZs adjacent to open water wetlands should be applied, and the RSTC recommends that it be xx feet.	*Significant rationale and citations will be provided.for each judgment.*	3
5	The waterbody characteristics most impactful to determining RMZ width are: ▪ slope of shoreland ▪ stream order ▪ whether waterbody is	*Significant rationale and citations will be provided.for each judgment.*	1

* Confidence assessments will be determined by the RSTC, but could be defined as*: 1= high confidence, evidence is definitive from data/studies and supports the conclusion and recommendation of the respondent, 2= somewhat high confidence, good data/studies to support respondents view while recognizing the legitimacy of other respondents coming to different conclusion, 3= medium confidence, some data/studies to support respondents view while recognizing the legitimacy of other respondents coming to different conclusion, 4= low confidence, scientific information is not conclusive and respondent's view is based on best judgment from information that exists.*

	navigable or not ▪ perennial or intermittent		
6	Key <u>biotic</u> (living things or their materials that directly or indirectly affect the health of the waterbody) and <u>abiotic</u> (non-living physical and chemical factors which affect the health of the waterbody) that RSTC feels are most important to selecting RMZ widths are: ▪ pre-harvest coarse woody debris ▪ temperature of water ▪ degree of organic matter ▪ sediment load ▪ erosion risk ▪ pre-harvest canopy cover/ UVB exposure ▪ soil infiltration rate For each key factor, graphical depictions of the general relationships of the factor to RMZ width will be provided.	*Significant rationale and citations will be provided.for each judgment, for each biotic and abiotic factor.* <u>Example of a graphical depiction of general relationships:</u> For upland hardwood sites, as RMZ width increases, sediment load increases to a point, then reaches a plateau at approximately xx feet. 	All factors overall =2, but some factors' graphs include data points that are 3 and 4 confidence rankings.
	The landscape/watershed considerations that should be addressed are: Xxxxxx xxxxxx xxxxxxxxx	*Significant rationale and citations will be provided.for each judgment.*	2
	…and so on….		

Communication Strategy

Meeting minutes

Minutes that reflect the proceedings of RSTC meetings will be posted on MFRC's Minutes webpage, which is available to the public. The minutes will be posted no later than five business days after the completion of the RSTC meeting.

Communication to Ad Hoc Committee

There will be several feedback loops between the reconstituted Ad hoc Committee and the RSTC. During the RSTC's deliberations (after meetings three and five), the Ad hoc Committee will receive an overview of progress made during two face-to-face meetings. These meetings will help the Ad Hoc Committee ascertain sufficient progress of the RSTC and provide a preview of the potential output of the RSTC. How the science could be translated into guidelines will not be addressed since the primary purpose will be to educate the Ad hoc Committee on the state of riparian science.

After the RSTC's work is complete, MFRC staff will meet with the Ad hoc committee to develop an overview of the science to be presented to the Council.

Communication to MFRC members

A report of the progress and major milestones from the RSTC will be provided to MFRC members through the Ad hoc committee report during each MFRC meeting. At two points during the RSTC process, a more in-depth presentation will be made to MFRC members in order to provide feedback to RSTC.

At least one of RSTC's meetings will include the entire MFRC (probably Dec '05).

Stakeholder Input

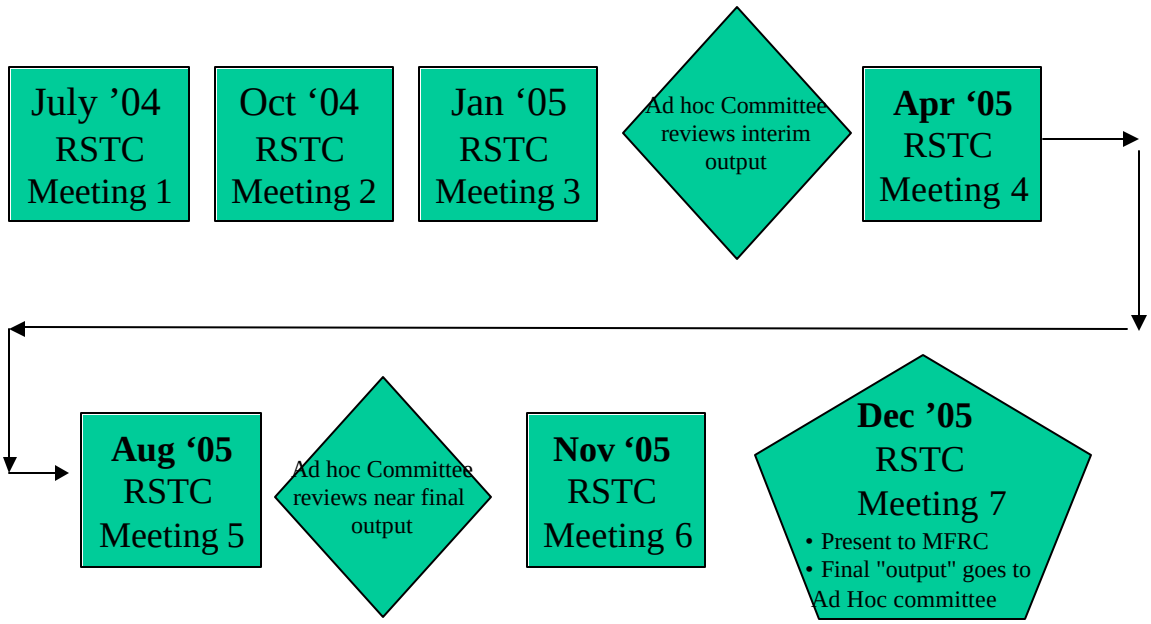
This process is intended to provide scientific grounding for riparian guideline decisions to be made at a later date (see Sequencing within Longer Guideline Revision Process for more detail). Therefore, while RSTC meetings will operate under Minnesota's Open Meeting Law (M.S. 13D.07) where time will be established at the beginning and end of RSTC meetings expressly for the purpose of obtaining info from the public. The remainder of the RSTC meeting time will be limited to discussion by RSTC members.

Stakeholder input to new riparian guidelines will be provided during the public review stage of the multi-year guideline review and revision process. Another avenue for stakeholder input is through MFRC representatives; citizens and interested parties can contact MFRC members to obtain information and provide feedback. The formal public review of riparian guidelines will likely occur in 2007, after MFRC members have received the RSTC's judgments and incorporated the output, as appropriate, into language for revised riparian guidelines.

Committee Schedule

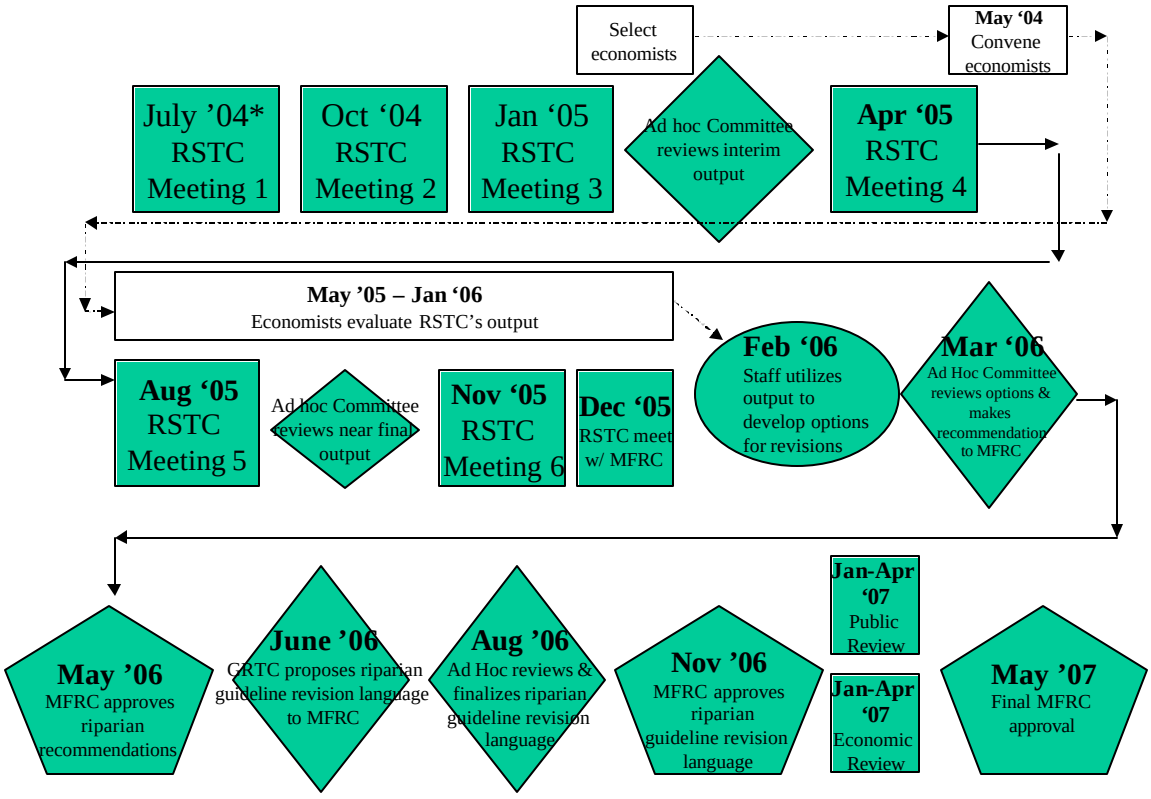
RSTC Schedule

(Approximate – Schedule may change)



Sequencing within the guideline revision process

The RSTC will provide baseline scientific information for the MFRC to use in considering revisions to riparian guidelines following the RSTC. RSTC's deliberation and output is the first in a series of steps that will lead to guideline revision. The selection and convening of economists to evaluate RSTC's output is a separate and parallel process that will be defined at a later date.



*Note: All dates are approximate.