

2002 Interagency Review of Everglades Landscape Model

Presentation to ELM Peer Review Panel
August 1, 2006

by

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Outline

Background

- MRT – Purpose and Responsibility
- MRT Review process

Key Questions

- What was reviewed ?
- What was outcome of review ?
- Consensus opinion? Minority Opinions?

More Details on MRT review process (if needed)

Purpose of Model Refinement Team

MRT was a standing interagency team of modelers, hydrologists, engineers and natural scientists with responsibility to:

- **Ensure quality of predictive hydrological, ecological and water quality models used in RECOVER**
 - Review technical modeling products for consistency
 - Coordinate Peer Review
- **Coordinate and oversee system wide model refinement or enhancement**
- **Coordinate system-wide modeling for Project Implementation Reports**
- **Coordinate incorporation of new performance measures into predictive models**
- **Maintain and develop a web page to display performance measures generated from system-wide models**
- **Document, archive and distribute model information including input, output & source code**

MRT Planned Process to Review ELM

2002

- August Model Presentation
- September Participant, agency, tribe and public comments to be submitted
- October Model Developers address comments at MRT workshop
- November Review liaison recommendation to MRT

Comments Requested Under Headings

- Questions
- Concerns
- Appropriate Use of the Model
- Critical Recommendations
- Non-Critical Recommendations

MRT Review

What was reviewed?

- ELM 2.1
- ELM 2.1a (included calibration performance report)

Who undertook review?

- 8 initial reviews (2-USFWS, NPS, Miami-Dade, USACE, USGS, EPA, Consultant to DOI)
- 5 follow up recommendations and concerns (4 initial reviewers and 1 new from NPS)

MRT Review Outcome

MRT Unable to come to consensus on

- **Appropriate Use of the Model**
- **Recommendations, either critical or non-critical (i.e. 5 follow up recommendations not adopted by MRT)**
- **ELM use while awaiting external peer review**

Varied and polarized minority opinions were expressed in individual reviews and comments

MRT Review Outcome

MRT Agreed to

- Send ELM for external peer review
- Have initial comments (received by October 18, 2002) and responses included with the external peer review
- Use SFWMD Expert Assistance Coordinator to coordinate the external peer review of ELM
- Outlined scope for external peer review
- Appoint scope coordination team to continue to pursue ELM external peer review through 2003

MRT Recommendation

February 5, 2003

“After an interagency review, MRT has recommended that ELM be externally peer reviewed. The process for external review has been agreed upon by MRT and the review could be completed by February 2004 pending RLG funding approval. MRT could not reach a consensus on the interim use of ELM during the external peer review.”

More Details on MRT Review Process

MRT Recommended Scope for External Peer Review of ELM

- Review of Conceptual Model
- Review of Algorithms
- Review of Calibration/Verification
- Applicability
- Suggested Improvements
- Review Inputs
- Review of Documentation (access to documentation)
- Review of Sensitivity Analysis
- Address Comments from MRT Internal Review
- Review of Selection Criteria for Reviewers

ELM Review Process

What Actually Happened

- Aug 7, 2002. ELM presented to MRT
- Sep 16, 2002. Comments received from 8 individuals from various agencies
- Oct 2, 2002.
 - ELM team response to comments presented
 - Further comments made and concerns raised
 - Subteam formed to review recommendations and concerns and draft recommendation report for full MRT approval

MRT Review Subteam

October 2002 – February 2003

- Reviewed recommendations & concerns (5 submissions)
- Asked ELM developers to produce calibration and verification statistics report.
- Reviewed ELM 2.1a calibration performance report (posted as ELM 2.1a Dec 21)
- Unable to come to consensus on report to present to MRT
- Presented table of options to full MRT (Feb 5, 2003)

MRT Options – Feb 5, 2003

Matrix of Options considered:

- 1.** Postpone peer review and initiate other efforts while continuing to develop ELM
- 2.** Immediate peer review, but suspend use of ELM while under peer review
- 3.** Postpone peer review of ELM and continue to develop until ready for peer review
- 4.** Use ELM as is with caveats limiting use, while proceeding with peer review
- 5.** Recommend developing new model to replace ELM

MRT Options – Feb 5, 2003

**Options 3 & 5 rejected,
No Agreement Reached on Options 1, 2 or 4**

1. Postpone peer review and initiate other efforts while continuing to develop ELM
2. Immediate peer review, but suspend use of ELM while under peer review
- ~~3. Postpone peer review of ELM and continue to develop until ready for peer review~~
4. Use ELM as is with caveats limiting use, while proceeding with peer review
- ~~5. Recommend developing new model to replace ELM~~