

Multiple Models for Management in the Chesapeake Bay

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to the Chesapeake Bay Program*

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The bottom line

- The report is overdue
- Blame me
- We are progressing

Workshop plan

- Introduction
- Case studies
- Perceptions of modeling & MM by public and decision makers
- Legal issues
- Discussion, discussion, discussion

SM surprise

- CMAQ model is a modular community air quality model
- Modelers and modules “compete” to provide the best representation of a process
- There is no sharp line between MM (multiple modeling) and MM (modular modeling)

Legal surprise

- No legal reason to reject regulatory MM
- MM are a legal asset, not a liability
- MM facilitates explanation of assumptions, data, & fit
- MM highlights policy choices, important uncertainties, and the limits of science
- MM can increase rationality and WOE
- SM tightrope vs. MM tripod

Consensus findings

- MM is good science
- MM would help quantify model skill and uncertainty
- MM would improve knowledge, support adaptive management
- MM need not cause legal problems & can help with legal defense
- Need to educate public & decision makers about modeling, uncertainty, & MM

Consensus findings

- MM costs more, often not a lot more
- Little consensus on how to pay for MM (use Modeling Lab)
- Modeling \$ \ll Implementation \$
- Part of the education is about modeling value (small modeling \$ could avoid big \$ wrong decisions)

Recommendations

- Should use MM (or mm)
- MM already exists, should be integrated
- MM not just full ensemble modeling
- Compare CBP models to other models for testbeds, smaller areas, shorter times
- Implement shallow water pilot
- Consider costs of modeling vs. costs of wrong decisions

Less Consensus

- MM is good policy
- Need more participatory modeling
- Need to run ensembles of full models

Report in progress. . .



