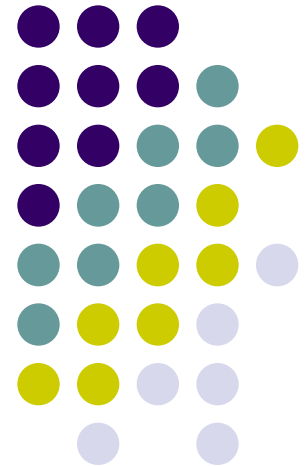
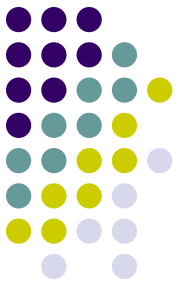


OAQPS Update

May 12, 2009

R/S/L Modelers Workshop





Overview

- OAQPS/AQMG Update
- 9th Modeling Conference
- AERMOD Modeling System
- CALPUFF Modeling System
- Use of Gridded MET

Update on OAQPS/AQMG Activities



- AERMOD Modeling System
 - AERSURFACE and AERSCREEN
 - AIWG and AERMIC
 - Update to APTI 423 Course on dispersion modeling
 - Use in NAAQS risk and exposure assessments—NO₂ & SO₂
- CALPUFF Modeling System
 - Performance evaluations (near-field & Class 1)
 - Documentation of evaluation and issues
 - Peer review (to be done by end of 2009)
- Dispersion Modeling Team
 - Lead = James Thurman
 - Reps from across OAQPS, ORD, and OTAQ
 - Focus on better communication & coordination of development work and applications
- Detroit Multi-pollutant Study
 - Hybrid approach with CMAQ and AERMOD
 - PM_{2.5} and selected toxics
 - Documentation later this spring
- 9th Modeling Conference

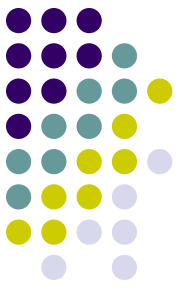
9th Conference on Air Quality Modeling



- October 9-10, 2009 in RTP, North Carolina
- ~100 participants
- Format
 - 1 & ½ days of EPA presentations and panel discussions involving modeling community
 - ½ day of public presentations
- Presentations available on SCRAM
 - <http://www.epa.gov/ttn/scram/9thmodconf.htm>

9th Modeling Conference

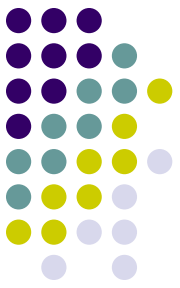
Agenda Topics (1)



- Appendix W Refresher
 - Program overview & how current process is intended to work
 - Provide clarity, understanding to stakeholders
 - Model Clearinghouse process as an example
- Non-Guideline Applications
 - 2002 NATA
 - PM2.5 SIP demos use of AERMOD
 - NEPA analysis for oil and gas wells
- Use of Gridded MET
 - Development of tools & guidance for CALPUFF, AERMOD

9th Modeling Conference

Agenda Topics (2)



- AERMOD modeling system
 - Update on status, issues, and applications
 - AERMOD implementation workgroup update
 - AERMIC update on science improvements
- CALPUFF modeling system
 - Update on status, issues, and applications
 - Science and implementation issues
 - Development, maintenance, evaluation
- Review of current and available model evaluation methods
- Review of new and emerging models/techniques
 - Long-range transport modeling (particle, puff, et al)
 - Single-source modeling for O3, PM2.5, visibility

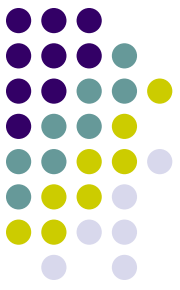
AERMOD Modeling System

- Updates to modeling system components
- AERSCREEN
- AERSURFACE
- AERMOD Implementation Workgroup
- AERMIC

Discussed in more detail in other presentations



CALPUFF Modeling System: Current Status under Appendix W



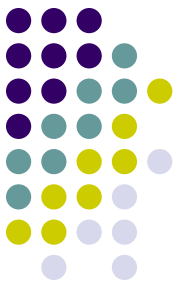
- Near-field applications
 - OAQPS “Clarification Memo” on SCRAM
 - Call to Regional offices on recent use
 - Model Clearinghouse **MUST** be consulted
- Long-Range Transport
 - Regulatory approved version = v5.8
 - Work closely with Regional Office & FLMs on protocols and resolving potential issues in specific permit or AQRV context
 - Consult Model Clearinghouse in cases where questions or concerns
- Other applications (risk assessments etc), please feel free to inquire with OAQPS & ROs
 - Work through Dispersion Modeling Team (James Thurman, lead)

Use of Gridded MET:

Activities & Plans



- MM5-AERMOD Tool
 - Evaluating use of MM5 data in AERMOD: used in Detroit MP study and upcoming 2005 NATA
- MM5-CALPUFF Tool
 - Collaborative effort with Region 7 (Bret A), FLMs, and Region 10 (Herman) to develop tool to deliver data directly to CALPUFF
 - Tool development, evaluation, documentation
 - EPA will need to develop guidance for R/S/L
 - Likely used in upcoming Alaska OCS permits along with model clearinghouse
- See presentations at 9th Modeling Conference
- Plan workshop/conference of experts?
 - Similar to that for CTDM+
 - Invited experts (science and practitioners) with charge and technical work w/ report out



Model Clearinghouse

- Not being utilized as expected—???
- Region 8: “Review of CALPUFF Modeling Protocol for BART”
 - Otter Tail Power Big Stone Unit I located in Eastern South Dakota.
 - Issues: CALMET/CALPUFF grid resolution, CALMET non-default settings
- Region 6 question on status of Plume Volume Molar Ratio Method (PVMRM)