

WRAP Regional Modeling Center Work Plan for 2005-06

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2005-06 Objectives

- Completing visibility modeling studies for 308 SIP/TIPs.
Major activities include:
 - Continued evaluation for CMAQ and CAMx.
 - If/when a clear winner emerges we will select a single model for future emissions control scenarios.
 - Planned model scenarios include:
 - Final 2002 Emissions
 - New Mexican and Canadian emissions inventories.
 - improved" WRAP region 2002 EI from EDMS
 - Typical Fire 2000-04
 - Initial WRAP region 2018 base case EI
 - 2018 control strategy scenarios from EDMS: will include at least 5 cases, one of which is the BART EI
 - 2018 Updates from other RPOs
 - Natural Emissions Scenario

Air Quality Model Versions (1)

- CMAQ
 - Original TSSA implemented in version 4.2.2
 - Use CMAQ v4.4beta in 2004 modeling, major issues with mass conservation.
 - Currently implementing TSSA in version 4.4, with EPA funding. Initial testing in summer 2005?
 - CMAQ version 4.5 will be released in fall, 2005 with minor update.
 - Still need to decide when to lock-in on which version of CMAQ (or CAMx?)

Air Quality Model Versions (2)

- CAMx
 - Particulate Source Apportionment Technology (PSAT)
 - Similar approach to TSSA but better at tracking mass.
 - Relative attributions were similar in PSAT and TSSA, but we have more confidence in PSAT results.
 - New Organic aerosols options available in CAMx, gave better model performance in VISTAS/CENRAP but worse in WRAP.
 - CAMx and CMAQ are both be running for Final 2002. Will use CAMx/PSAT for additional source apportionment simulation with Final 2002 EI.
 - Should test 36-km and 12-km models for PSAT

BART Modeling

- Use CALPUFF to model visibility impact of BART-eligible sources in the WRAP region.
- Use CALPUFF to model the improvement from application of BART to sources based on criteria from the EPA BART Rule as specified by the Stationary Sources Joint Forum.
- From #2, prepare up to 3 WRAP regional BART emissions scenarios for 2018 control strategy scenario modeling analysis using CMAQ and/or CAMx models

Schedule

- Final 2002 EI CAMx and CMAQ: 7/05
- Additional Fire Sensitivity Cases: 9/05
- “Natural” Emissions case to assess model floor:
 - After completion of natural dust EI
- CAMx/PSAT Source Apportionment: 9/05
- BART Modeling Project: 12/05