

**WRAP Air Quality Modeling Forum  
Summary Work Plan for Phase 1  
July 28, 2000**

**Phase 1 Work through June 2001**

***Establish WRAP Regional Technical Center and perform initial CMAQ/Models-3 applications***

The Air Quality Modeling Forum (MF) will establish a WRAP Regional Technical Center (WRTC), administered by WESTAR, to provide emission inventory and air quality modeling services in support of member state and tribal governments carrying out their responsibilities under the Regional Haze Rule. Objective results and technical products will be delivered to states, tribes, and Regional Planning Bodies in time for policy decisions required by the Rule. This approach will assure that the technical outputs of all western states and tribes will be compatible and comparable, facilitating a coordinated and predictable response to the requirements of the Rule.

The WRTC will provide each state and tribe with emission inventories and regional haze modeling predicting the impact of national and regional control strategies, economic activities, and known state and local control strategies on best- and worst-case visibility at all Class I areas in the western U.S. These results will be provided to states and tribes in a form that will allow for further, more refined analysis of potential control strategies. It is anticipated that, once states and tribes commit to additional control strategies, the WRTC will perform additional regional-scale modeling of the impact these strategies will have on all western Class I areas.

The WRTC will be established through a collaborative network of federal, state, tribal, and local technical staff participating in a team effort to complete the tasks noted below. The WRTC will employ full-time staff through short term (e.g., two year) agreements to: 1) perform in-house technical tasks, 2) guide the work of the network of team members, and 3) coach, mentor, and train team members in the use of advanced modeling platforms, including Models-3/CMAQ.

Additional resources for the WRTC will be secured primarily through agreements with federal, state, and tribal air management agencies. Modeled after a similar approach used by the Regional Technical Center run by LADCO (the Lake Michigan Air Directors), this approach has several advantages. First, it leverages the talent currently working in air regulatory agencies. Participants will develop expertise in the use of state-of-the-art models and emission inventory development techniques. Finally, this approach ensures that participating regulatory agencies will use consistent technical tools and techniques, thus ensuring results that are compatible with those developed by others in the West.

In Phase I, the WRTC will put in place both the hardware and key personnel that will make up the core of the team. The core team will include a Technical Lead, an Emissions Modeler, Emission Inventory Specialist, Center Director, and Administrative Support. Computer and telecommunication capabilities will be established and debugged. A project plan will be completed, detailing the tasks needed to deliver regional-scale emission inventory and modeling products to states and tribes. Accordingly, the following tasks are subject to change as the more detailed work plan evolves. The detailed plan will be developed by the WRTC in consultation with the WRAP Modeling and Emission Inventory Forums, and will be completed in sufficient time for consideration by the WRAP at their September 25, 2000 meeting. The team will evaluate modeling protocol options using selected episode(s). Evaluation criteria will be

established through consultation and collaboration with the WRAP Modeling Forum. On the basis of the evaluation, a preferred modeling protocol will be recommended to the WRAP. Additional activities in Phase 1 will include emissions inventory processing and the deployment of computer hardware and software to equip 4 team members to perform WRTC tasks.

**Schedule**

Task 1	Obtain June 2000 release of CMAQ/Models-3 for NT and/or SGI	8/21/00
Task 2	Acquire MM5 data tapes from OAQPS/ORD	8/21/00
Task 3	Install software on WRTC computer	8/28/00
Task 4	Identify initial episodes	8/30/00
Task 5	Draft initial work plan, including criteria for model evaluation	9/08/00
Task 6	Submit work plan to WRAP Modeling and EI Forums for review	9/11/00
Task 7	Complete final draft work plan for WRAP	9/14/00
Task 7	Run model for selected episodes	10/30/00
Task 8	Compare model results against IMPROVE measurements	11/15/00
Task 9	Perform initial evaluation of model performance	11/30/00
Task 10	Purchase 4 computers, software, and software licenses	11/30/00
Task 11	Install, configure, network, and debug 4 computer systems	12/15/00
Task 12	Obtain initial NET emission inventory for 1996	12/15/00
Task 13	Process EI (from Task 12) using SMOKE to produce model ready EI	12/15/00
Task 14	Obtain EI information from WRAP Forums	2/31/00
Task 15	Purchase, install, configure, network, and debug 2 computer systems	3/31/01
Task 16	Complete model runs, data analysis, and comparisons to IMPROVE data using selected episodes	4/01/01
	EI Workgroup to deliver future year (2018) inventory	4/15/01
Task 17	Summarize results and draft report documenting strengths and weaknesses of meteorology, emissions data base, and model	5/01/01
Task 18	Based on initial model evaluation, choose Models-3 or alternative	5/31/01
Task 19	Present results and recommendation on model to WRAP MF & TOC	6/15/01

**Deliverables**

1. Initial episodes identified for evaluation and initial application of modeling system, and for WRAP Fire Forum to develop fire emission inventories.
2. Detailed work plan prepared for the development and integration of inventories and modeling needed by states and tribes to meet the requirements of the Regional Haze Rule, for consideration by WRAP.
3. Compiled MM5 meteorological data accessible to western states and tribes.
4. Computer hardware purchased, installed and networked at WRTC.
5. Compiled and processed preliminary emissions inventory for modeling western states.
6. Gridded emission inventory for western states using SMOKE processor for selected episodes
7. Report on initial evaluation of CMAQ (work already underway, funded by WESTAR, EPA, and Washington State)
8. Report to WRAP, with recommendation on preferred modeling protocol.
9. Computer equipment and software installed, configured, networked, and debugged at up to 6 additional state/tribal office locations in the West.

WRTC Budget Total: \$536,000 (\$180,000 FY99 funds, \$356,000 FY00 funds)