Technical Status Report
July 14, 2006 (Updates/changes to sections of this report from earlier status reports are noted in ***bold italics***.)
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Background

The purpose of this ongoing series of status reports is to periodically describe what and when technical work products from WRAP Forums and Workgroups or other sources will be available for use in the regional haze planning process through 2006 and into early 2007. Progress on regional haze planning and technical work to date indicates that some WRAP technical activities to support the 2007 plan development process will need to continue into the first half of 2007, and that technical support will need to continue after mid-2007. Those activities through mid-2007 are reflected in updates to Sections A and B of this document. As planned, a major milestone encompassing regional technical work will be the delivery of the complete picture of that work in October 2006. Descriptions of the individual projects are in the WRAP workplan, and methods and details about the data (how and why the work was done) are also available from contractor reports or websites, or from the Technical Coordinator. ***This update is specific to work accomplished through June 2006.***

The status report is organized as follows:

➢ ***Section A*** - Access and content of existing data nodes;
➢ ***Section B*** - Progress updates for key existing and planned work product deliverables from Forums and Workgroups, summarized from the project descriptions in the current WRAP Workplan Update for 2005-07 http://wrapair.org/WRAP/documents/05-07Workplan_final.pdf (***a workplan update for 2006-08 is in preparation for the September 13-14 WRAP Board Meeting, and a prioritized budget has been discussed by the Planning Team in June, with review and approval planned for a July Planning Team call***);
➢ ***Section C*** - The ***Technical Support System website design and functions***; and
➢ ***Section D*** - Highlights and brief descriptions of selected specific analyses and projects related to regional haze planning accomplished in the past few months.

A)   Existing Data Nodes

Visibility Information Exchange Web System (VIEWS) - http://vista.cira.colostate.edu/views/ – this system provides ongoing access to IMPROVE and other visibility monitoring data, research results, and special studies related to the Regional Haze Rule. Downloads of the IMPROVE data, custom displays of spatial, chemical, and temporal patterns, as well as information about applying monitoring data for regional haze planning are available. This information will be used in the Phase II Attribution of Haze (AoH) project during 2005-06. This system was originally sponsored by the Ambient Monitoring & Reporting Forum, and currently has national coverage through sponsorship by all 5 RPOs through September 2006. The complete preliminary dataset from Regional Haze Rule Baseline Period (2000-04) as measured by the IMPROVE monitoring network has been posted, and Class I area-specific data are available for review, including 5-year averages of the Best and Worst 20% visibility days and glide paths from baseline period averages to EPA default natural conditions. The IMPROVE Steering Committee has approved a revised light extinction equation, and VIEWS staff are working to implement that option for calculating deciviews and other haze metrics using either the old/existing equation (circa 1988) or the revised (circa December 2005) light extinction equation. Both of those options should be available in April 2006.
An analysis project of the Inter-RPO Monitoring and Data Analysis Discussion Group continues to assess and improve the default EPA natural conditions estimates, incorporating the revised IMPROVE light

extinction equation and improved statistical analyses, to cover the greater number of IMPROVE monitoring sites and the associated increase in the available data. Discussions of the progress on this analysis project was held on an Attribution of Haze Workgroup call in June, and AoH will review and discuss applying the revised IMPROVE light extinction equation and revised natural conditions estimates at their July 26-27 meeting. The revised equation and revised natural conditions estimates are more complete, useful, and representative technical methods than the old/existing equation and default natural conditions estimates published in 2001 by EPA.

Causes of Haze Assessment project (CoHA) - http://coha.dri.edu/index.html - this ongoing project of the Ambient Monitoring & Reporting Forum project is completing detailed analyses of IMPROVE and meteorological monitoring data in the WRAP region. Work to date includes multi-year back trajectory wind plots for each monitored Class I area, trajectory regression analyses' results used in the Phase I AoH project, and extensive descriptive information about the monitoring data and each Class I area. Planned work for 2005-06 will be used include trend analyses and receptor modeling using the Positive Matrix Factorization (PMF) technique to relate source types and regions to the 2000-04 baseline period monitoring data, also to be used in AoH Phase II.

Analyses of the long-term trends in the IMPROVE visibility data for monitoring sites with 8 to 16 years of record are available at: http://coha.dri.edu/. The CoHA project team is completing the 5-year (2000-04) back trajectory analyses for each IMPROVE site for various air quality conditions (worst/best visibility days, worst sulfate days, et cetera), expanding the 3-year trajectories already complete. CoHA is also completing an analysis of "was 2002 a typical/representative meteorological year"; that analysis and the 5-year trajectories will be used in the AoH Phase II project. Also, the CoHA team is actively working on applying the PMF receptor modeling technique to 2000-04 IMPROVE data in the WRAP region, with the goal of identifying source types at the Class I areas, and specifically separating and determining the amount of smoke from fire emissions versus urban carbon emissions.

Emissions Data Management System (EDMS) - http://wrapedms.org/default_login.asp - this ongoing project of the Emissions Forum is an emission inventory data warehouse and web-based GIS application that provides a consistent, complete, and regional approach to emissions data tracking to meet the requirements for SIP and TIP development, periodic progress reviews, and data updates. The EDMS serves as a central regional emissions inventory database for all types of emissions, and uses associated software to facilitate the data collection efforts for regional modeling, emissions tracking and associated data analyses. Baseline and future years' emissions data will be stored and accessed here, with the displays and regional summaries to be used in AoH Phase II. Use of the EDMS is based on user registration and periodic listserv updates, requires a password for ad-hoc data queries, but is open to all interested users. The EDMS has been updated with 2002 point, area, mobile, and fire emissions, and EDMS will continue to have additional inventory data added over the next several months. Testing of the EDMS for functionality and operational performance was completed by the end of 2005. The EDMS is being revised by the contractor to address concerns and problems found in the testing. The 2018 emissions inventories are being loaded into EDMS. The Emissions Forum is developing and implementing a plan to operate the EDMS in a cost-efficient and effective fashion.

Regional Modeling Center (RMC) - http://pah.cert.ucr.edu/aqm/308/ - the objective of this ongoing project of the Air Quality Modeling Forum is to provide the necessary technical and policy tools needed by states and tribes for the Regional Haze Rule. The substantial effort by the RMC is intended to support State and Tribal agencies in conducting regional haze analyses in the western United States. This analysis is being performed by operating regional scale, three-dimensional regulatory air quality models that simulate the emissions, chemical transformations, and transport of criteria pollutants and fine PM and consequent effects on visibility in Class I areas in the WRAP region and across North America. Responsibilities of the RMC include: 1) Emissions processing and modeling; 2) Air quality and visibility modeling simulations; 3) Analysis, display, and reporting of modeling results, and 4) Storage/quality assurance of the modeling input and output files. The RMC offers periodic listserv updates, provides data and technology transfer support, and uses monthly conference calls to review work products. Results from the RMC work will be used extensively in the AoH Phase II project. A

complete status report on RMC activities for the March 2004 through February 2005 period was completed in August, and a report on 2002 base year "model performance evaluation" simulation work performed by the RMC during 2005 is also complete, see: http://pah.cert.ucr.edu/aqm/308/reports/final/2002_MPE_report_main_body_FINAL.pdf.

The RMC has developed a detailed workplan outline and budget for 2006 to largely complete regional modeling work as well as supporting the BART modeling needs of the states, see additional information in Section C, below.   The RMC completed 3 regional modeling runs in late 2005, 1) base02a – modeling actual 2002 emissions data as of August 2005; 2) plan02a – modeling typical emission for the 2000-04 time period, that included 2002 updated final actual emissions as of November 2005 for most source categories, but used 2000-04 fire emissions estimates and average operation factors for power plants; and 3) base18a – modeling 2018 base case emissions projections (rules/permits on the books as of 12/04) for anthropogenic sources, with fire and other "quasi-natural" sources held constant. These modeling results were presented at the January 10-11 WRAP workshop in Tucson – see: http://wrapair.org/forums/ioc/meetings/060110m/index.html.

The "b" versions of the plan02 and base18 series of modeling simulations were completed and presented in the context of model performance at the WRAP Workshop on Fire, Carbon, and Dust, held May 23-24. See: http://www.wrapair.org/forums/ioc/meetings/060523m/Day1/Vimont-Modeling.pdf and http://www.wrapair.org/forums/ioc/meetings/060523m/Day2/Vimont-Modeling.pdf.

In addition, the RMC website at: http://pah.cert.ucr.edu/aqm/308/index.shtml has been reorganized for easier use. The regional visibility modeling results are available under the "Visibility Modeling" tab, addressing CMAQ and CAMx results from various modeling scenarios, source apportionment analyses, and sensitivity studies. The table at the top of this page under this tab allows the user access to a specifications sheet for each modeling run, the emissions associated with that run, and the analysis and findings. The RMC has added a "BART CalPuff Modeling" tab at: http://pah.cert.ucr.edu/aqm/308/bart.shtml. The RMC is supporting and tracking technology transfer of data and modeling tools through the "Data Transfer" tab at: http://pah.cert.ucr.edu/aqm/308/data_transfer.shtml.

Technical Support System (TSS) - http://vista.cira.colostate.edu/wraptss/ - the TSS is being developed as a project of the Attribution of Haze Workgroup (http://wrapair.org/forums/aoh/TSS/index.html) to provide a single portal to support regional haze planning using the regional technical data, analytical results, and tools prepared by the WRAP's Forums and Workgroups. The key data and summary results displayed on the TSS are intended to support the air quality planning needs of western state and tribes, and will be maintained and updated to support both the implementation of regional haze plans and other Western air quality analysis and management needs. The primary initial and ongoing purpose of the TSS is to be the one-stop shop for access, visualization, analysis, and retrieval of the technical data and regional analytical results prepared by WRAP Forums and Workgroups in support of regional haze planning in the West. The TSS specifically summarizes results and consolidates information about air quality monitoring, meteorological and receptor modeling data analyses, emissions inventories and models, and gridded air quality/visibility regional modeling simulations. These copious and diverse data are integrated for application to air quality planning purposes by prioritizing and refining key information and results into explanatory tools. Finally, a major goal of the TSS is to make the standard and user-specified maps, charts, tables, and graphs easily available for export, while maintaining the original source data available for verification and subsequent analysis through the TSS.

There is active collaboration with the Implementation Workgroup and all the WRAP Forums and Workgroups as to the content, format, and level of information detail on the TSS. The first TSS Training/Orientation session was held on April 27th. The TSS is built upon the foundation and uses tools and techniques developed for the VIEWS system described above; the WRAP plans to fund the TSS on an ongoing basis and maintain support of VIEWS functions through the TSS. ***Please see Section C, below for a more detailed description of the TSS.***

B) Overview of WRAP 2005-07 Key Technical Deliverables (July 2006 update, gray cells complete)

Time Frame	Responsible Group/Subject	Deliverable (completion target month)
2005 Q2	Emissions Forum	▪ Operational version of Emissions Data Management System (EDMS) with actual 2002 EI for WRAP region. (done in September)
	Fire Forum (Phase 2 EI project)	Final 2002 complete fire EI – actual 2002 emissions, stored in EDMS. (completed July)
	Monitoring Forum (CoHA project)	▪ Source apportionment of each state's major emissions source category impacts at Class I areas in AoH report. (done) ▪ Descriptive analyses of 2002 monitored impact at Class I areas in AoH report. (done)
	Modeling Forum (source apportionment project)	▪ Source apportionment of each state's major emissions source category impacts at Class I areas in AoH report. (done) ▪ Initial source apportionment of each state's natural and manmade emissions at Class I areas in AoH report. (done)
	Attribution of Haze WG	▪ AoH Phase I Report complete – Integrated "weight of evidence" source attribution for each state's emissions source category impacts at Class I areas, from TSSA and CoHA projects, based on 2002 "interim" (not EDMS) EIs. (done)
	Tribal Data Development WG	▪ Tribal monitoring data analysis from CoHA project for tribal Class I areas in AoH report. (done)
	Stationary Sources Forum	▪ List of BART-eligible sources (done) ▪ Emission Inventory and Control Technology Technical Support project underway (scheduled work completed)
	Dust Emissions Forum	▪ Phase 2 windblown dust emissions inventory model completed, evaluated, and EI included in subsequent modeling analyses. (done) ▪ Host dust control measures workshop (done)

2005 Q3	Emissions Forum	▪ Onroad, off-road, and road dust 2002, 08, 13, and 18 EI updates complete (completed October). ▪ 2002 and 2018 offshore shipping, locomotives, and planes' EIs complete (complete in early November) ▪ Complete second round of testing on EDMS performance (to be completed in December)
	Fire Forum (Phase 3 EI project)	▪ 2000-04 baseline period fire EI based on modifying 2002 actual emissions developed for haze planning purposes. (modeling files and summary data delivered mid-October, final report Spring 2006)
	Monitoring Forum (CoHA project)	▪ Continuing development of conceptual models and processing of additional IMPROVE data as inputs for the AoH Phase II project. (ongoing)
	Modeling Forum (2002 base case and source apportionment modeling projects)	▪ Modeling performance evaluation using final actual 2002 emissions from SSJF/EF projects, and compared to monitoring data, as inputs to AoH Phase II. (completed November) ▪ Boundary conditions and new emissions estimates from WRAP Fire Forum, other RPOs, Canada, and Mexico updated. (completed September) ▪ Source apportionment underway, will not be complete until 2006, when a "final" 2002 actual emissions are run for Regional Haze Plans (mid-2006)
	Attribution of Haze WG	● AoH Phase II/Technical Support System = process 2002 source attribution report. (to be completed October 2006)
	Tribal Data Development WG	● Tribal monitoring needs draft report from CoHA project for tribal Class I areas. (done) ▪ Review, improve, project emissions inventories of point and oil/gas sources on tribal lands. (done)
	Stationary Sources Forum	▪ Complete review and QA of the 2002 point and area source inventory. (done)
	Mobile Sources Forum	▪ Continuing work on off-road retrofit program.
	Dust Emissions Forum	▪ Establish a preliminary definition of dust and release for public review. ▪ Recommendations on appropriate size distribution of fine versus coarse dust emissions.
	In and Near Forum	● Summarize PM_{10} SIPs for local sources and their transferability to Class I areas. (done)
2005 Q4	Emissions Forum	▪ Evaluate EDMS testing results and develop action plan for ongoing management. ▪ Supervise contractor operation and needed improvements to EDMS.
	Fire Emissions Forum (Phase 4 EI project)	▪ Identify inputs and scope out 2018 fire EI scenarios for haze planning purposes - 2018 fire EIs will consist of 3 scenarios, using as inputs: ag burning rules on the books, applying Emissions Reduction Techniques for prescribed fire, and forecasts for wildfire/wildland fire use/prescribed fire from Federal Land Managers. (to be completed Spring 2006)
	Monitoring Forum (CoHA)	▪ PMF analyses and processing of additional data as inputs to AoH Phase II. (to be complete mid-2006)
	Modeling Forum (2018 base case modeling project)	▪ Modeling evaluations (version A) using 2004-04 baseline period emissions as input to AoH Phase II (December) ▪ Modeling evaluations (version A) using 2018 base case emissions as inputs to AoH Phase II (January)

	Attribution of Haze WG	▪ Publish preliminary IMPROVE monitoring data from 2000-04 for glide path. (November) ▪ Publish proposed Weight of Evidence source attribution method for assessing Reasonable Progress, using technical monitoring, emissions, and modeling data
	Stationary Sources Forum	▪ Complete work on first version of oil/gas and point/area source 2018 base case EI projection scenarios. (October/November)
2006 Q1	Emissions Forum	▪ Complete continuing needed improvements to EDMS. ▪ Supervise contractor operation and needed improvements to EDMS.
	Fire Emissions Forum	▪ Phase 4 EI project - 2018 fire EI scenarios for haze planning purposes - 2018 fire EIs will consist of 3 scenarios, using as inputs: ag burning rules on the books, applying Emissions Reduction Techniques for prescribed fire, & forecasts for wildfire/wildland fire use/prescribed fire from Federal Land Managers. ▪ Fire Tracking System development – scoping study to determine best existing system in use now, and needed modifications.
	Monitoring Forum (CoHA project)	▪ Continue work on products for AoH Phase II report. ▪ Work on analyzing final regulatory dataset from IMPROVE 2000-04 monitoring data.
	Modeling Forum	▪ Modeling evaluations (version B) using 2004-04 baseline period emissions as input to AoH Phase II (April) ▪ Source apportionment (PSAT modeling) of each state's 2000-04 major emissions source category impacts at Class I areas for AoH Phase II report. (to be complete in July) ▪ Modeling evaluations (version B) using 2018 base case emissions as inputs to AoH Phase II (May) ▪ Source apportionment (PSAT modeling) of each state's 2018 base case B major emissions source category impacts at Class I areas for AoH Phase II report. (to be complete in July) ▪ Develop 2006-07 work plan. ▪ Begin preparation of documentation for BART CalPuff modeling support. ▪ Continue emissions processing to correct 2018 base case and develop 2018 control strategy EIs.
	Attribution of Haze WG	▪ AoH Phase II – continue development of integrated Weight of Evidence source attribution method example graphics. (March) ▪ TSS alpha version roll-out. (January)
	Stationary Sources Forum	▪ Determine interest in evaluating regional backstop or active cap and trade program for point sources. ▪ Continue work on BART analysis coordination, control strategy development and evaluation.
	Dust Emissions Forum	▪ Complete definition of dust ▪ Begin PM10 Dust Regional Haze Pilot SIP project for Salt Creek Wilderness in SE New Mexico.
2006 Q2	Emissions Forum	▪ Complete continuing needed improvements to EDMS. ▪ Supervise contractor operation and needed improvements to EDMS.
	Fire Emissions Forum	▪ Complete Phase 4 EI project. ▪ Fire Tracking System development ongoing.

	Monitoring Forum (CoHA)	▪ PMF results and other work products to support AoH report.
	Modeling Forum	▪ Continuing source apportionment of each state's 2018 major emissions source category impacts at Class I areas, associated with control strategy scenarios. ▪ Source apportionment of each state's natural and manmade emissions at Class I areas.
	Attribution of Haze WG	▪ Continue work on AoH Phase II/TSS projects. ▪ TSS training/orientation session. (April 27th)
	Stationary Sources Forum	▪ Determine interest in evaluating regional backstop or active cap and trade program for point sources. ▪ Begin work on refining Oil & Gas emissions inventories. ▪ Continuing emissions analyses for 2018 control strategy scenarios.
	Dust Emissions Forum	▪ Continue work on PM10 Dust Regional Haze Pilot SIP project for Salt Creek Wilderness in SE New Mexico, incorporating Dust Definition project methodology.
2006 Q3	Emissions Forum	▪ Supervise contractor operation and needed improvements to EDMS. ▪ EDMS updated with 2018 base case EI data.
	Fire Emissions Forum	▪ Fire Tracking System development ongoing.
	Monitoring Forum (CoHA)	▪ Complete work products to support AoH report.
	Modeling Forum (2018 control strategy modeling project)	▪ Continue control strategy modeling analyses of sources' and each state's 2018 major emissions source category at Class I areas, associated with control strategy scenarios. ▪ Complete source apportionment of each state's natural and manmade emissions at Class I areas.
	Attribution of Haze WG	▪ Complete work on AoH Phase II projects, integrating work products from EF, MF, AMRF, SSJF, FEJF, TDDWG, and DEJF for IWG use through the TSS. (September-October)
	Stationary Sources Forum	▪ Continuing emissions analyses for 2018 control strategy scenarios.
	Dust Emissions Forum	▪ Complete work on PM10 Dust Regional Haze Pilot SIP project for Salt Creek Wilderness in SE New Mexico, incorporating Dust Definition methodology, incorporate results on TSS.
2006 Q4	Emissions Forum	▪ Supervise contractor operation and needed improvements to EDMS.
	Fire Emissions Forum	▪ Fire Tracking System development ongoing.
	Monitoring Forum (CoHA)	▪ CoHA operating at maintenance level.
	Modeling Forum (2018 control strategy modeling)	▪ Continue control strategy modeling analyses of sources' and each state's 2018 major emissions source category at Class I areas, associated with control strategy scenarios.
	Attribution of Haze WG	▪ Release version 1 of fully operational TSS and data results (October) ▪ Routine operation of TSS (ongoing, with periodic data and version updates).

	Stationary Sources Forum	▪ Continuing work on control program development.
	Dust Emissions Forum	
2007 Q1	Emissions Forum	▪ Supervise contractor operation and needed improvements to EDMS.
	Fire Emissions Forum	▪ Routine operation of Fire Tracking System.
	Monitoring Forum (CoHA)	▪ CoHA operating at maintenance level.
	Modeling Forum (2018 control strategy modeling)	▪ Regional modeling simulation of visibility improvement from BART engineering analyses. ▪ Complete regional modeling for final haze control strategies, final report, end RMC project as presently constituted.
	Attribution of Haze WG	▪ Routine operation of TSS (ongoing, with periodic data and version updates).
	Stationary Sources Forum	▪ Complete work on control program development
	Dust Emissions Forum	

C)   Technical Support System website design and functions

The TSS is located at: http://vista.cira.colostate.edu/wraptss/ and development of the TSS has been guided by the Attribution of Haze Workgroup (http://wrapair.org/forums/aoh/TSS/index.html), with active collaboration with the Implementation Workgroup and representatives of all the WRAP Forums and Workgroups as to the content, format, and level of information detail on the TSS. The TSS is built upon the foundation and uses the next generation of tools and techniques developed for the VIEWS system (http://vista.cira.colostate.edu/views/) developed by the Ambient Monitoring & Reporting Forum and managed by the 5 RPOs. The WRAP plans to fund the TSS on an ongoing basis and maintain support of VIEWS functions through the TSS project. Sections 1 through 4 of the website are scheduled for completion by October 2006. Additional functionality for these sections and implementation of Section 5 capabilities is planned for 2007.

The purpose of the TSS is to provide a single portal to support regional haze planning using the regional technical data, analytical results, and tools prepared by the WRAP's Forums and Workgroups. The key data and summary results displayed on the TSS are intended to support the air quality planning needs of western state and tribes, and will be maintained and updated to support both the implementation of regional haze plans and other Western air quality analysis and management needs. The primary initial and ongoing purpose of the TSS is to be the one-stop shop for access, visualization, analysis, and retrieval of the technical data and regional analytical results prepared by WRAP Forums and Workgroups in support of regional haze planning in the West. The TSS specifically summarizes results and consolidates information about air quality monitoring, meteorological and receptor modeling data analyses, emissions inventories and models, and gridded air quality/visibility regional modeling simulations. These data are integrated for application to air quality planning purposes by prioritizing and refining key information and results into explanatory tools. Finally, a major goal of the TSS is to make the standard and user-specified maps, charts, tables, and graphs easily available for export, while maintaining the original source data available for verification and subsequent analysis through the TSS.

TSS Website Layout and Functions – as of June 30, 2006

Getting Started with the TSS

➤   Welcome

- Home
- About
- Getting Started
- Feedback
- Forums
- Tasks
- Help
- Login

Attribution of Haze Results

➤   Results

- Monitoring Results
- Emissions Results
- Modeling Results
- Source Apportionment
- Weight of Evidence

Regional Haze Planning Support

This section of the TSS will directly integrate and link regional haze planning outlines, templates, and state rulemaking needs to the TSS Results section to support planning efforts for the December 2007 plans. This section will begin by referencing the Implementation Workgroup's generic regional haze SIP documentation materials, the Haze Planning Background document below, and the Weight of

Evidence Checklist for use by haze planners; continuing preparation and additions to this section will be coordinated by WRAP staff with the Implementation Workgroup.

[Haze Planning Background Document](#)
[Weight of Evidence Checklist](#)

Weight of Evidence Checklist

The Attribution of Haze Work Group's weight of evidence (WoE) approach is explained and clarified in this section, to allow technical staff to use the tools and methods (below) to address questions and conclusions about the scientific aspect of "reasonable progress." Conceptually, this approach incorporates all available regional and local data analyses which bear on specific Class I areas. The WoE approach takes the form of a check list of available analyses and other resources which states and tribes are encouraged to use to understand visibility in their Class I areas.

The WOE approach currently includes the following analyses/resources:

Review of all available analyses that bear on Class I area visibility
> Monitoring data
> Emissions data
> Model results
> Attribution results (combination of multiple methods)
> Review of trends (monitoring and emissions)
> Review of episodic ("natural"?) events
> Back trajectory and other analyses

Review of how well the model handles major species causing visibility impairment

Application of the variability in the 5-year baseline to bound the projected 2018 visibility

> Which species most affect variability?
> Meteorological dependencies?
> Monitoring uncertainties?

Identification and explanation of episodic events that affect the data set (e.g., large fire episodes during the baseline period)

Review attribution source regions and their emissions:

> How well do attribution methods agree?
> If source regions can be identified with confidence, do the projected emissions reductions for 2018 support the model's visibility reductions?

[Tools](#)

- [Trends Tool](#)
- [Composition Tool](#)
- [Data Query Wizard](#)
- [Analysis Browser](#)
- [Excel Template Tool](#)
- [Data Browser](#)
- [Metadata Browser](#)

User Defined Queries & Analyses

This section of the TSS will specify a procedure to allow a "logged on" user to add, process, analyze, store, and display results from more localized analyses of regional technical data and/or additional data of greater detail, e.g., in and near Class I areas, and/or based on finer monitoring, emissions, or modeling results. Additional localized analyses and/or the addition and analysis of finer scale data would be stored and "written" to the TSS database, such that an analysis by a user from one state or tribe could be viewed and understood by other jurisdictions, by displaying these results in the Attribution of Haze section above, as well as in the TSS Results section. These analyses and the associated results would be separate and beyond the scope of the final regional technical analysis results in October 2006 (the Attribution of Haze Phase II project report), but would appear in the TSS Results section for reference in one or more of the December 2007 haze plans, or to support future air quality planning efforts. This section would also describe how the user can integrate results of external analyses, as long as the external data are compatible in format with the TSS Tools and Methods sections. Preparation of this section will be led by ARS and involve the TSS project team and the AoH Workgroup.

D)

<u>Highlights of selected specific analyses and projects related to regional haze planning (July 2006)</u>

The Emissions Forum completed the final report on the WRAP Mobile Source Emission Inventories Update project. This report describes the methods used to estimate all on-road and off-road mobile source emissions for the WRAP region for the 2002 base year, and projections to 2008, 2013, and 2018. Emissions from marine shipping and road dust are also included. To construct these inventories, ENVIRON surveyed state and local air quality planning agencies to obtain the most up-to-date mobile source activity data and control program information. The inventories include the effects of all "on the books" federal, state, and local mobile source control programs. The report provides a series of graphs and tables of the emissions estimated; more detailed emission inventory information is available in spreadsheets on the <u>project web page</u>.

The Dust Emissions Joint Forum completed their Assessment of the Principal Causes of Dust-Resultant Haze at IMPROVE Sites in the Western United States. This work by DRI as part of the Causes of Haze Assessment project Using 2001-2003 data from IMPROVE (and some protocol) monitors in the WRAP regions, each worst dust day was associated with one of these events:

- Transcontinental transport of large scale events from Asia
- Windblown dust events
- Transport of windblown dust from sources upwind (i.e. not from immediate vicinity of site)
- Undetermined Events

The Dust Emissions Joint Forum completed their Final Report on Phase II of the Fugitive Wind Blown Dust Emissions and Model Performance Evaluation.

- Final Report <u>PDF</u> (5.1 MB)
- Appendix A: Results of Model Sensitivity Simulations <u>PDF</u> (0.2 MB)
- Appendix B: Scatter Plots of Predicted Dust Emissions and Ambient Data <u>PDF</u> (7.8 MB)
- Project Summary <u>PDF</u> (1.7 MB) or <u>PPT</u> (1.5 MB)

Presentation materials from the <u>WRAP Workshop on Fire, Carbon, and Dust</u> held May 23-24 in Sacramento, CA have been posted.