



# **Western Regional Air Partnership 2008-12 Strategic Plan**

**Board Review Draft  
February 2008**

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## **Introduction**

In July 2007, the WRAP reached its 10<sup>th</sup> anniversary. Over the last 10 years, the WRAP has received substantial financial support from the U.S. Environmental Protection Agency (EPA) and has used these resources to build state-of-the-art technical data and decision support systems to facilitate regional haze planning in the West where 75% of our nation's Class I airsheds are located. The WRAP's technical tools have also proven to be valuable for evaluating other air quality issues and have been utilized by numerous state, tribal, and federal agencies. Western tribes' participation in the WRAP has greatly improved the availability of tribal data and understanding of air quality issues from a tribal perspective.

Through the WRAP, states, tribes, EPA, and Federal Land Managers (FLMs), working with industry and environmental organizations, have developed and implemented numerous air quality policies that have improved the environment in the Western United States.

- §309 Annex – Established SO<sub>2</sub> emission reduction milestones across the region
- Low Sulfur Gasoline – WRAP supported series of EPA mobile source sector emissions reductions
- Smoke Management – Developed enhanced smoke management plans, emissions tracking
- Diesel Retrofits – Promoted & facilitated development of retrofit programs in several states
- Renewable Energy and Energy Efficiency – linked programs/standards to haze reduction
- BART – WRAP supported impact analyses and coordinated development of controls for these grandfathered point sources
- Oil and Gas – Developed new emissions inventories and control technology assessments

All Western states are currently completing their Regional Haze state implementation plans (SIPs) to demonstrate reasonable progress at the 118 Class I areas located in WRAP states, including the resubmittal of the §309 plans originally submitted in 2003. Completion and approval of these Regional Haze plans is a major milestone for the WRAP. This plan describes the efforts Western states, tribes, and FLMs envision for the WRAP over the next five years (2008 through 2012) to build on the success of the last 10 years, providing for:

- Ongoing implementation of the regional haze program;
- Technical and policy support related to other regional air quality issues, such as the Ozone and PM NAAQS, mercury and nitrogen deposition impact on ecosystems, regionally-appropriate emissions management strategies; and
- Technical and policy support on issues related to climate change and energy.

At the direction of the WRAP Board of Directors, the plan included here was developed through the WRAP's Air Managers Committee, which includes state, tribal, and federal officials and reflects their individual and collective priorities for the 2008-12 time period. Summaries of inputs to this plan are presented in Appendix A.

While much of the plan addresses specific planning requirements under the regional haze rule, additional and related priorities of states, tribes, EPA, and FLMs are addressed. Priority activities discussed here are not likely to occur at a constant level throughout the plan period, but vary and will be adjusted to accommodate changing needs.

### **Strategic Goals for 2008-12**

There are three interrelated goals for simultaneous concurrent action between 2008 and 2012.

1. In 2008-09, coordinate and support the submittal, review, and approval of regional haze implementation plans.
2. In 2009, begin refinement of regional data and development of analysis tools for strategic evaluation of ongoing and future control programs for air quality planning focusing on:
  - a) Tracking, reporting, and analyzing progress for regional haze;
  - b) Regional contributions to Ozone and PM health and welfare standards' nonattainment issues at various scales;
  - c) Understanding and analyzing the nature and causes of mercury, acid deposition, and critical loads in the West; and
  - d) Regionally-appropriate and effective emissions management strategies and programs.
3. In concert with emerging efforts to manage and adapt to climate change, fully integrate data for both energy supply and use as well as activity changes for sources of greenhouse gas emissions into air quality analyses.

Further description of the objectives, activities, and actions to meet these goals is discussed at a strategic level in this plan. These require active participation by WRAP member agency staff and management, as well as financial support; both are needed to assure continued success in the operation and activities of the organization in alignment with technical analysis and control strategy development projects.

## I. Background and Status

The WRAP has been supporting state and tribal work on regional haze since 1997. The WRAP work products are the result of direction and priorities from the Grand Canyon Visibility Transport Commission and the WRAP Board are carried out through Committees, Forums, and Workgroups addressing state, tribal, FLM, EPA, industry, and environmental groups' collective needs and air management concerns for regional haze planning. The WRAP Charter states: *“The purpose of the WRAP is to identify regional or common air management issues, develop and implement strategies to address these issues, and formulate and advance western regional policy positions on air quality. Included in this purpose is the implementation of the Grand Canyon Visibility Transport Commission's recommendations.”*

Work by WRAP Committees, Forums, and Workgroups is accomplished by the staff time contributed by state, tribal, FLM, EPA, and environmental, industry, and public representatives, with the support of WRAP staffing through WGA and NTEC. WRAP work is also handled through contracts to environmental consulting firms, to analyze air pollution data collected by states and tribes in their regulatory programs as well as to prepare data and analyses for natural and/or uncontrollable air pollution sources. The past 10 years of WRAP work has shown participating state and tribal WRAP members and stakeholders the benefits of working together regionally. Efficiencies have been gained in leveraging resources, developing technical tools, and problem-solving that better addresses air quality issues of regional concern. While the WRAP is meeting its GCVTC-directed objectives, other air quality issues have emerged that the WRAP's collective resources framework is better equipped to address than if states and tribes were to work on the issues individually.

The WRAP has developed a regionally-consistent and comparable body of technical data and analysis tools that will be essential to the ongoing work to reduce visibility impairment in the 118 Class I areas throughout the West and to address other regional air quality issues. The Regional Haze Rule has a nominal 60-year implementation period to reach natural visibility conditions, and requires tracking of visibility monitoring and emissions data, and ongoing analyses of source apportionment, projection of future visibility conditions, and verification/adjustment of reasonable progress goals to improving visibility for each Class I area.

Most of the technical work needed to support the current regional haze SIPs is complete. These data and tools supporting plan development and implementation tracking are provided for use and evaluation through a transparent and open network of interrelated data support web systems and a technical decision support system (see Appendix B). Considerable advances have been made by a number of tribes on emissions inventories, data gathering, and analysis. The related goal of sharing analyses of these data in support of coordination between WRAP region states, tribes, FLMs, and EPA has seen a great deal of progress through the WRAP systems, and these tools form the basis for even closer collaboration moving forward.

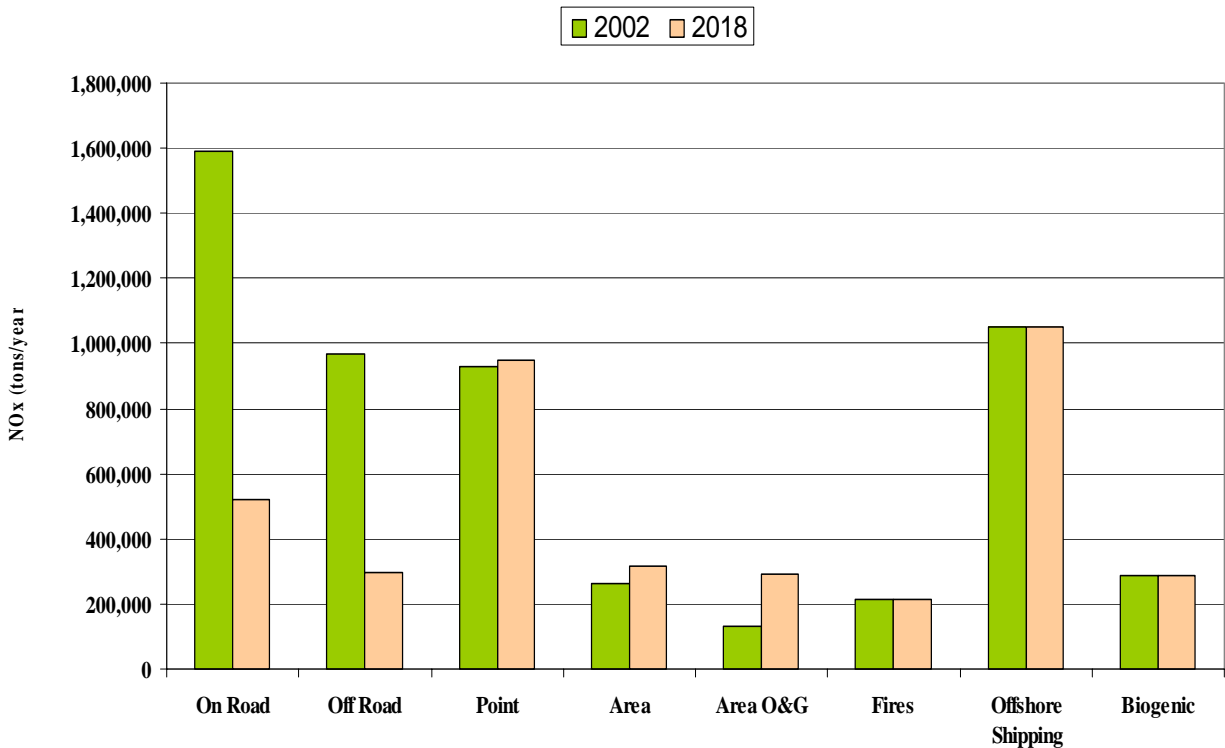
EPA funding for WRAP regional haze analysis and planning has decreased sharply and future EPA funding for haze and other regional air quality work is uncertain. Based on the cooperative collaborative model for the regional planning effort of the last 10 years, and given the scope of the effort required for implementation of the Regional Haze Rule over the next 5 years, a minimum consistent maintenance level of EPA funding for WRAP regional efforts is needed (preliminary budget - Appendix C).

The next phase of the WRAP’s technical work for regional haze will focus on: 1) issue resolution and analyses needed as EPA conducts SIP review and approval; 2) assistance for states in implementing regional haze SIP strategies; 3) assistance for tribes preparing TIPs and/or working with EPA on FIPs; 4) tracking reasonable progress; and 5) preparing for the 5-year regional haze implementation plans’ review and required revision.

**Status of Regional Haze Emissions Analysis and Controls**

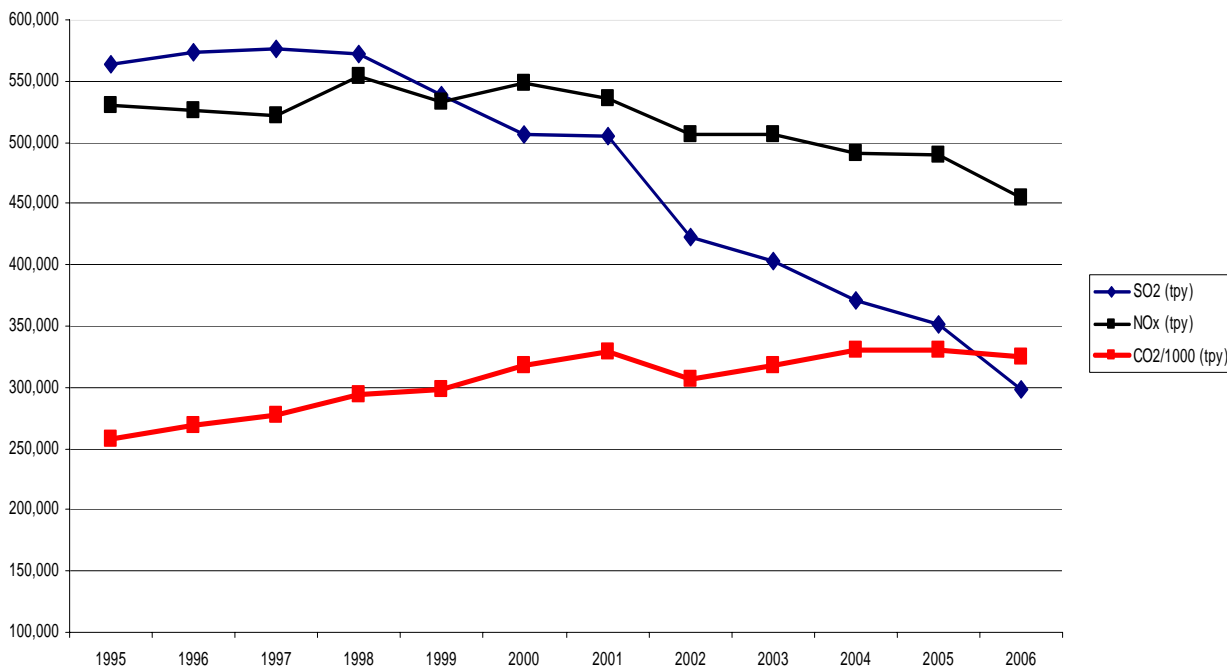
- **Mobile Sources** – New EPA standards for land-based engines and fuel will greatly reduce emissions from mobile sources. Mobile sources are the largest source of nitrogen oxide emissions in the West. These new standards will reduce mobile source emissions of nitrogen oxides by 70% over the next 15 years, even as the West continues to grow.
  - In contrast to other mobile engines, offshore marine shipping emissions are increasing, perhaps doubling by 2018 across the eastern Pacific Ocean. While held constant to date for modeling as the uncertainty of 2018 estimates was not known, the 2018 shipping emissions projections now appear to be generally accepted and will be applied in future analyses. Potential emission controls may dampen growth, but analysis and implementation of sufficient controls to assure reasonable progress will require concerted and coordinated state and federal efforts and resources.

WRAP Region NO<sub>x</sub> emissions by source category

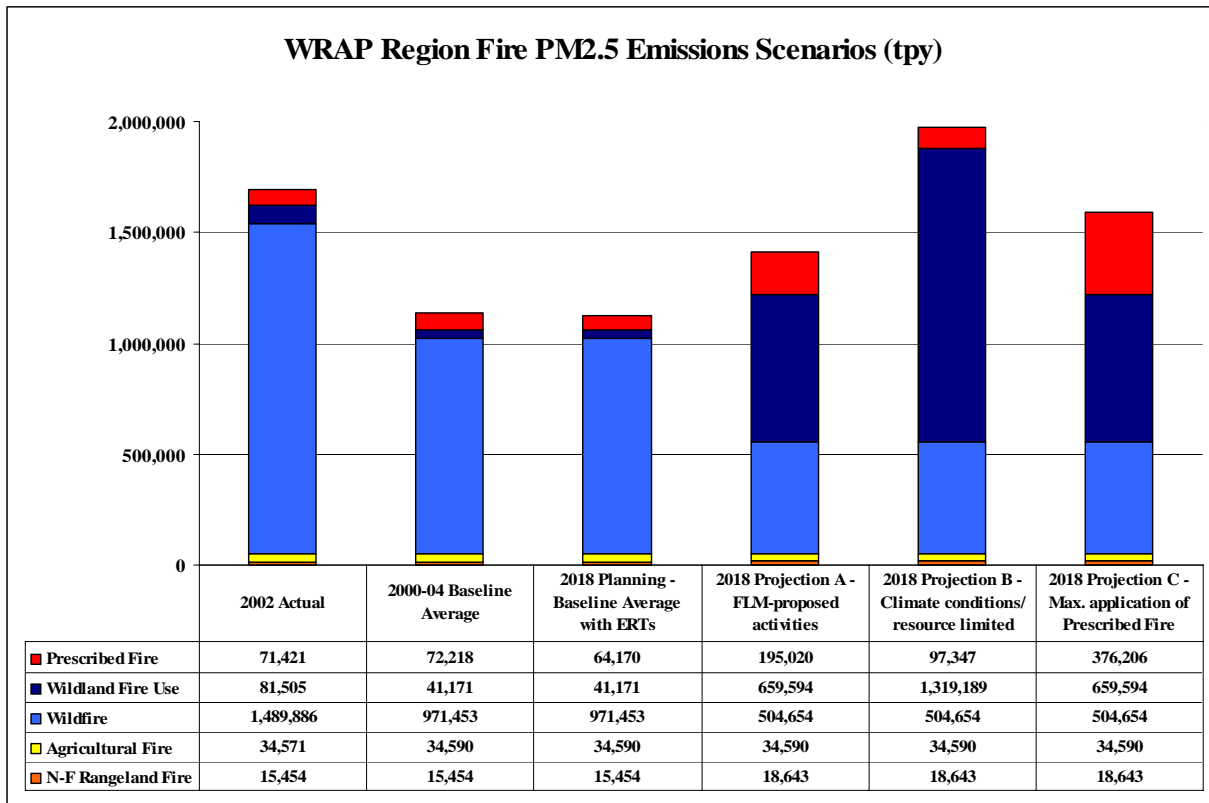


- **EGUs and BART** – Through BART implementation and other efforts to reduce stationary source emissions of SO<sub>2</sub> and NO<sub>x</sub> beyond those completed by 2006, the Regional Haze Plans will address the long-standing issue of emissions from grandfathered sources, including coal-fired power plants.

Western State Power Plant Emissions (1995-2006)



- **Prescribed Burning and Smoke Management** – Western states/tribes/FLMs are improving their smoke management programs to ensure that air quality impacts are minimized when prescribed burns are necessary on public and private land.
  - The WRAP is implementing a fire tracking system to help land managers and air quality planners manage controllable smoke impacts on a regional basis.
  - While smoke management programs for prescribed fire and fire emissions tracking are in place, substantial additional study and resources are needed to quantify the chemical signature and deposition of haze pollutants generated by fire emissions and to develop a method to routinely evaluate the contribution of wildfire to natural haze conditions. Fire emissions in general and wildfire in particular are the primary drivers of the temporal occurrence of measured worst visibility days at many sites in the West, while varying significantly by Class I area from year to year. Emission controls are not possible for wildfire, but analysis to provide source apportionment for biogenic burning will improve understanding of haze caused by natural fire.



- **Other Source Categories – Ongoing Support:**
  - Phases I and II of a regional inventory of haze-causing emissions from oil and gas sources have been completed, including a preliminary analysis of potential control options. The Phase III study is now underway.
  - The WRAP is providing direct assistance to state and local governments and fleet owners in an effort to reduce diesel emissions through retrofit programs.
  - The WRAP has assisted several sub-regional air quality studies and air management efforts with data and technical support (see Appendix D).

## **II. WRAP Organization and Structure**

For the continued successful operations of the WRAP organization, three objectives are identified to support the strategic goals for WRAP:

1. Maintain the WRAP process (organization, staffing, and operations) at a level sufficient for continued support of successful regional planning.
2. Continue support for tribal capacity, including:
  - a) Improving the ability of Tribes to assess their air quality conditions and to develop strategies to address air quality issues as part of the larger regional planning process; and
  - b) Increasing the ability of Tribes to protect and manage their natural resources and communities.
3. Maximize coordination within WRAP and with other related partner organizations (the FLMs, EPA, multi-jurisdictional organizations such as RPOs and WESTAR, NTEC, NTAA, NOAA, as well as other federal agencies).

The overall WRAP organization and structure is proposed to remain as is for the purposes of preparing this workplan. Needed changes to Committees, Forums, and Workgroups will be identified in 2008. The general approach to revising the missions, responsibilities, and operations of the WRAP organization will address the following:

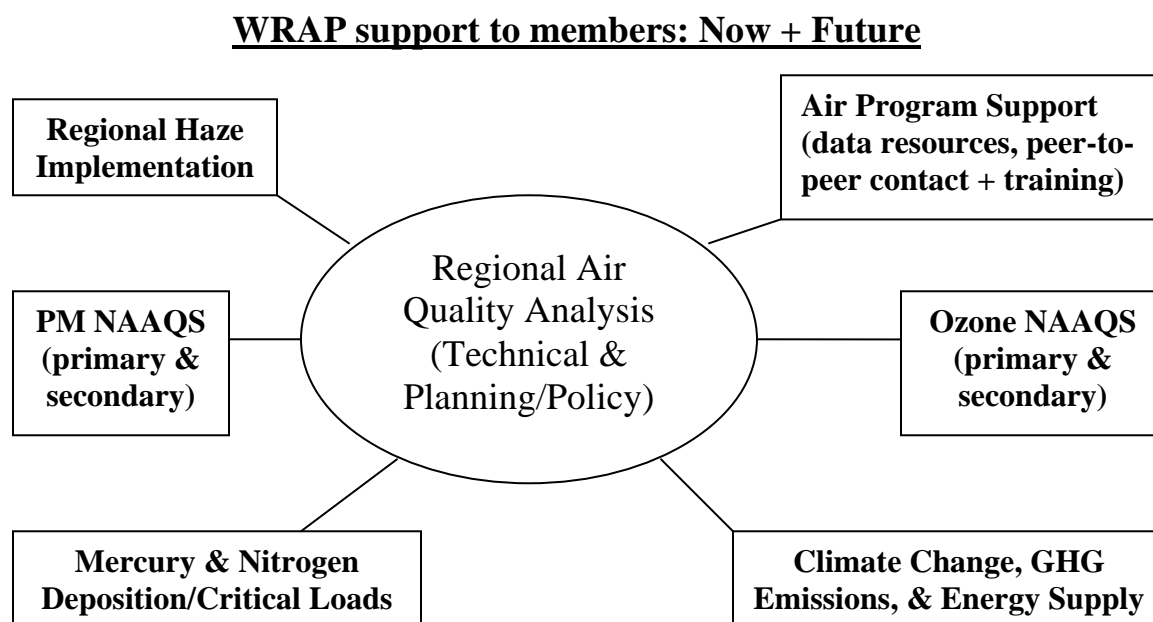
- Improving economies of WRAP operations throughout, and enhancing effectiveness of technical capabilities in place;
- When efficiencies can be gained, continuing the effort to combine existing Forums and Workgroups to cover a broader range of subjects within a lesser number of groups, such as combining emissions inventory work rather than separating into Fire, Dust, and Point sources – while still maintaining technical expertise in these varieties of emissions categories;
- Evolving the focus of periodic technical meetings to address broader interrelated topics, such as regional modeling analysis of PM, haze, and ozone simultaneously;
- Continuing the trend of less frequent but highly coordinated meetings supported by conference calls and web-based meetings to provide maximum benefit to attendees;
- Focusing on resetting the missions of the Committees, Forums, and Workgroups to address these broader topics, such as emphasizing partnership and providing technical and planning support to sub-regional air quality management initiatives between states, tribes, and FLMs; and
- Building closer working relationships with partner organizations, the FLMs, EPA, multi-jurisdictional organizations such as RPOs and WESTAR, NTEC, NTAA, NOAA, as well as other federal agencies.

The approach to the ongoing effort to evolve the WRAP organization is and will be based on tribal, state, FLM, and WRAP Board priorities, and on the use and benefit of the successful regional analysis and planning efforts. As noted in Appendix B, proposed funding for the WRAP project through WGA is a level of effort consistent with the average grant amount for regional haze of the last 3 grant years (FFYs 2004, 05, 06), which are then used in calendar years 2005, 06, and 07. WRAP staff work for the entire organization, by supporting activities of Committees, Forums, and Workgroups, as well as managing contracts and operations of data support centers and the technical decision support system. Proposed additional staffing and projects to assist tribes are also to be provided through NTEC (see Appendix E). The entire WRAP staff effort is also focused on ensuring the maximum opportunity for coordination and communication between the WRAP members as well as their umbrella organizations.

### III. Technical and Planning Work Activities

The technical and planning work activities by WRAP will address the areas shown in Figure 1. Regional Haze implementation and air program support activities are well-developed and mature, based on the work of the past 10 years, and the web-based systems already in operation. Ozone and PM NAAQS analysis activities are to focus on defining the regional source contributions to violations and degrading trends in ozone and PM air quality in the West. The studies of ozone and PM issues benefit from the comprehensive and consistent regional databases and tools already developed for haze, which will be adapted with minor effort, and improved to evaluate regionally-consistent control measures and strategies to improve ozone, PM and haze simultaneously. Finally, the WRAP will develop and analyze the information about deposition, critical loads, greenhouse gas emissions, and energy supply to assist WRAP members in crafting appropriate air quality management responses for these interconnected issues.

**Figure 1. WRAP 2008-12 Technical and Planning Work Activities related to regional air quality**



For the technical work activities of the WRAP organization, five objectives are identified to support the strategic goals for WRAP:

1. Support and provide coordination for WRAP members (States, Tribes, FLMs, EPA) during EPA's review and approval process for regional haze implementation plans (2008-09).
2. Provide support and coordination in implementing emissions reductions in the haze plans, and track Class I visibility improvement resulting from regional haze strategies (2008 and onward).
3. Maintain and update technical capabilities for haze, including databases, regional analysis functions, data and decision support systems (2008 and onward).
4. Provide analysis and data needed for 2012 progress report and SIPs/TIPs/FIPs (2009-12).
5. Provide technical and policy support to address other priority issues for air quality and climate change (2009-12).

Specific work activities for haze implementation and effort to provide regional technical and policy support to address other priority air quality issues are discussed in Sections A, B, and C, respectively.

**A. Post-2007 SIP submittal Regional Haze Analysis and Implementation Support**

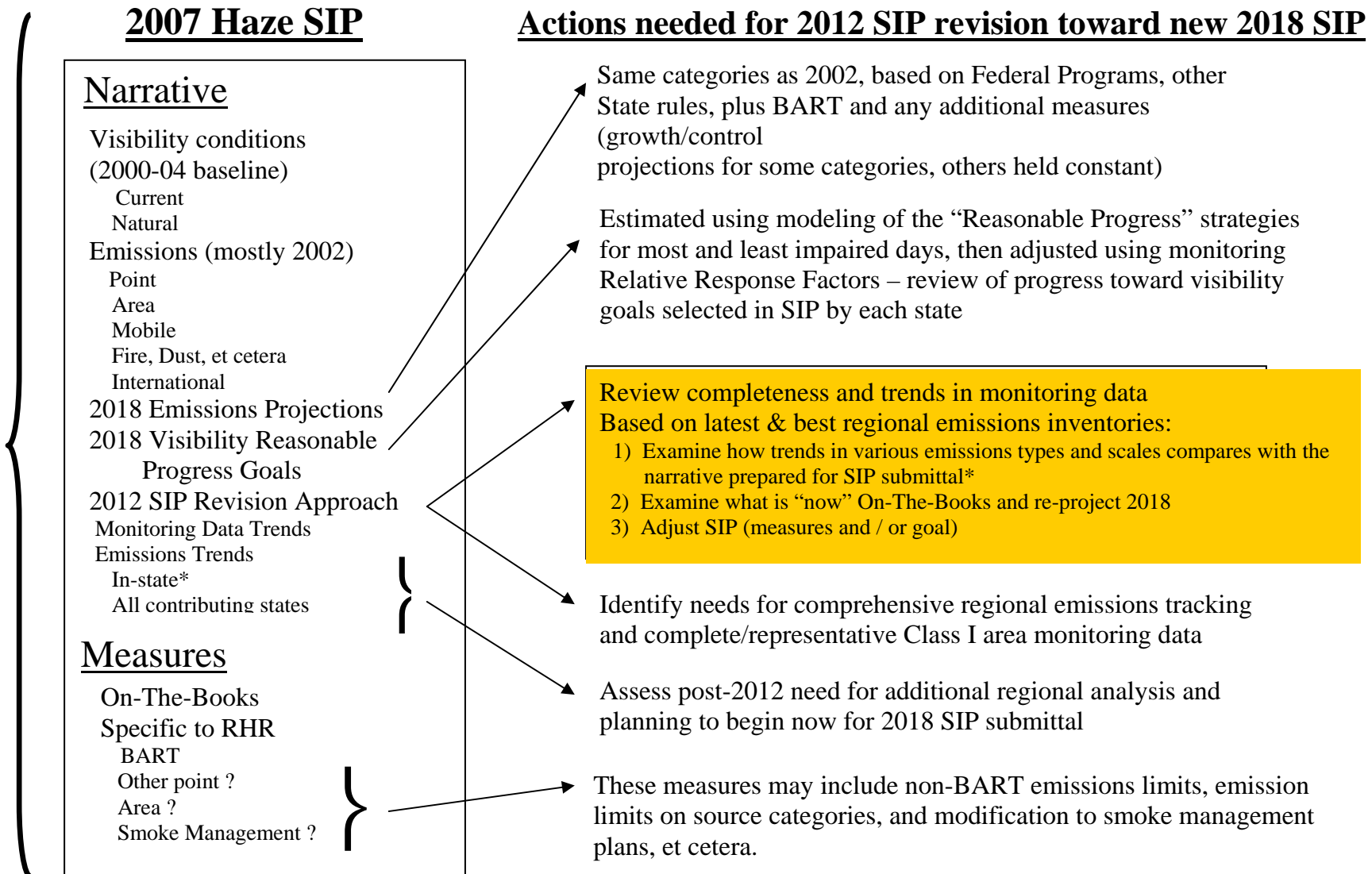
*The WRAP proposes to have 5 primary technical activities to support the implementation of the regional haze plans during the 2008-12 time period. Those are:*

1. Support states during EPA’s regional haze SIP review and approval process (2008-09);
2. Assist tribes preparing TIPs and/or working with EPA on FIPs (2008 and onward);
3. Support and provide coordination in implementing emissions reductions in regional haze plans, and track Class I area visibility improvement resulting from regional haze strategies (2008 and onward);
4. Maintain and update technical capabilities for haze (databases, regional analysis functions, data and decision support systems – 2008 and onward); and
5. Provide analysis and data needed for 2012 progress report and SIP revisions (2009-12).

These activities are illustrated in Figure 2, depicting how the regional haze SIPs will receive ongoing review and be adapted over the next 10 years. The reasonable progress requirement of the RHR is fundamentally different than the SIP requirements for the National Ambient Air Quality Standards (NAAQS). The haze SIPs are ongoing management plans, which accumulate control strategies from other air quality management programs over time, require consultation with upwind and downwind jurisdictions, and determine how natural and/or uncontrollable emissions are affecting reasonable progress toward natural visibility conditions in 60 years.

Proposed annual funding described in Appendix C for the technical support effort for haze implementation for 2009-12 is a level of effort generally consistent with the 2005-07 average. It is important to note that the funding currently available for 2008 technical work is at a “bare bones” level due to EPA funding cuts. The funding currently available and the amount of associated technical work in 2008 are expected to possibly be adequate, but not at all comparable with historic efforts by WRAP.

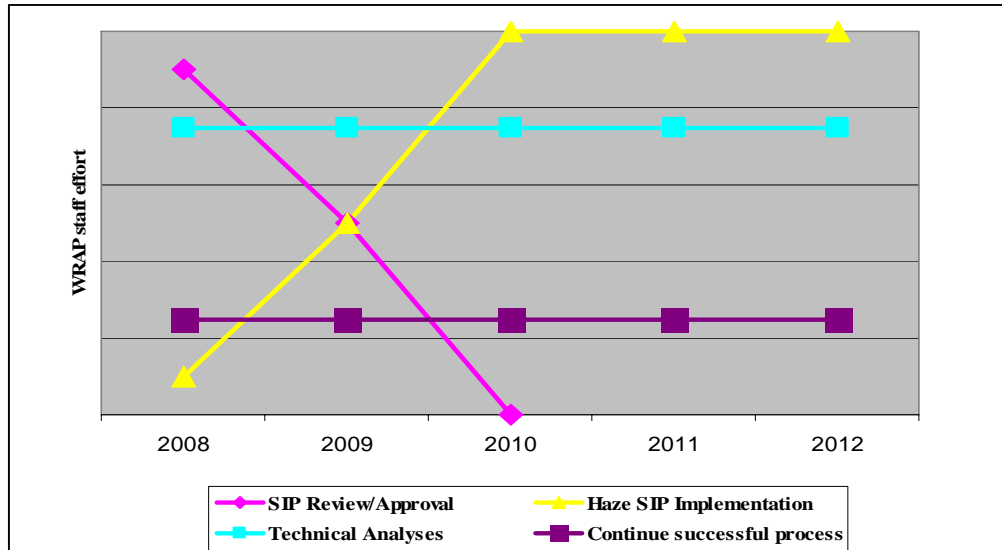
Figure 2. 2007 to 2012 Regional Haze Implementation Activities leading to 2018 Haze Plan milestone



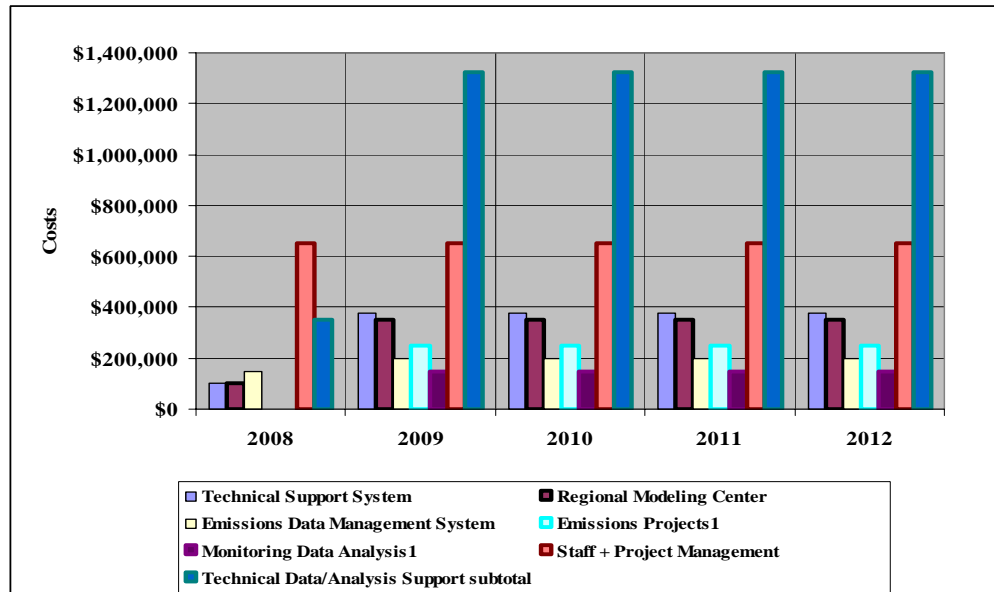
\* – This analysis for the 2012 SIP check will establish accountability for emissions reductions/management strategies for that state identified in each 2007 haze SIP – did they track as anticipated? The 2007 SIP should require the state to complete a review of its emissions and spell out the circumstances of how a SIP revision prior to 2018 would be triggered. If things have changed enough, that State needs to re-do the projections based on its changed emissions and either re-affirm that it will be on target for 2018, or make the needed changes to emissions strategies and / or the SIP RP goals written into each state’s 2007 SIP.

The review and approval by EPA of the haze plans in the WRAP region is expected to take up to 2 years, well into 2009, followed by analysis and preparation for a 2012 SIP revision. During the EPA review process for the individual state haze plans, which are based on the collective regional databases and analytical work products, questions about the impacts of some source categories and source regions are likely to occur. The WRAP regional haze data, developed by consensus technical efforts and regional technical analysis capabilities will need to be applied to answer those questions. The proposed WRAP staff effort as well as existing and proposed funding for broad workplan topics for the 2008-12 time period are shown in Figure 3 and 4.

**Figure 3. Conceptual WRAP Staff Effort Distribution on only Regional Haze tasks [based on Limited Current Known Funding (2008) & Proposed Future Funding (2009-12)]**



**Figure 4. Distribution of Limited Current Known Funding (2008) & Proposed Future Funding (2009-12) for all technical work activities and staff support**



1- the costs and effort to be applied to the Emissions and Monitoring projects are scaleable for any particular year; usually these are done early in the multi-year analysis sequence leading to the 2012 SIP revision.

Key project activities in 2008 for support of the regional haze SIP review and approval process with the limited funding currently available to WRAP include:

- Collection, storage, tracking, display, and analysis of emissions and visibility monitoring trend data as they are reported to WRAP data and decision support centers.
- Emissions analysis and modeling simulation of the regional “2018 Final Reasonable Progress” scenario, which is to include:
  - Permitted/controlled emissions rates for the sources states and EPA have determined to be “subject-to-BART” – this information will be provided by individual states and EPA for processing into a single regional emissions analysis and modeling simulation effort; and
  - Correction of the limited number of remaining errors in the 2018 emissions projection data.
- A limited number of regional modeling sensitivity analyses, for example, international transport, marine shipping inventory improvements, et cetera.
- Respond to regional analytical needs as resources allow for topics such as fire emissions contributions to 2000-04 baseline conditions and the implied contribution to 2064 natural conditions targets.

Beginning in 2009, the WRAP proposes to coordinate the implementation of the Regional Haze SIP strategies and provide analyses and tracking of Reasonable Progress, laying the groundwork for a comprehensive and rigorous analysis supporting the 2012 SIP revisions. The work will include collecting and analyzing data for monitoring and emissions trends, performing selected modeling studies to address source and source region impacts, and conducting regional analyses to support control strategy development.

The kinds of sources and geographic regions to be studied and assessed for controls or improved management include:

- Non-BART point and stationary area sources;
- §309 SO<sub>2</sub> Annex Backstop Cap and Trade Program sources;
- Concentrated geographic groups of sources proximate to Class I areas;
- Oil and Gas production and distribution;
- Dust emissions;
- Fire emissions;
- Secondary aerosol precursor emissions such as ammonia and volatile organic compounds; and
- Sources outside the WRAP region, international transport, and/or beyond the states’ control.

This work would involve monitoring data analysis and emissions inventory studies, and include applying the regional air quality modeling tools to assess changes in cumulative visibility impacts at each Class I area. This work could be done efficiently and effectively within the WRAP organizational structure using existing regional technical tools and capabilities, allowing assessment of sources common to all states and air regulatory agencies as well as to explore the impacts and management of sub-regional groupings of all kinds of sources.

To achieve these goals, WRAP proposes to conduct the following activities:

- Refine and improve data and tools to improve the ability of states, tribes, FLMs, and EPA to predict regional haze impacts and attribute sources.

- Apply these data and tools to help states, tribes, FLMs, and EPA be more strategic in securing future emissions reductions, meet or exceed reasonable progress goals, and make mid-course corrections as needed.
- Maintain and update technical capabilities for regional haze related to visualization, tracking, and analysis of data and analytical results - data and decision support systems:
  - Technical Support System (TSS - decision support) is the regional haze plan technical data resource, and includes:
    - VIEWS (IMPROVE visibility monitoring data, analysis tools);
    - CoHA (analysis of historical meteorological and particulate monitoring data); and
    - FETS (fire activity/emissions data, prescribed fire regional coordination, analysis tools).
  - Emissions Data Management System (EDMS - tracking of all emissions inventory data, analysis); and
  - Regional Modeling Center (RMC - comprehensive photochemical aerosol modeling studies, testing of source category and source region impacts, training, technical data file transfer, and user support).

Deliverables and Timeline:

- As noted above, support for the states, tribes, FLMs, and EPA during review and approval of the haze SIPs will begin in 2008 and likely continue through 2009. Beginning in 2009, work identified by WRAP Committees, Forums, and Workgroups will begin on the implementation for the Haze SIPs, becoming the major focus for 2010 through 2012, the due date for Haze SIP revisions confirming progress or making mid-course adjustments to improve progress toward the 2018 Reasonable Progress Goals. It is expected that the need for collection, preparation, and dissemination of technical data and analytical results will need to continue at least at the average of the 2005 through 2007 levels of WRAP effort, to support both these efforts across the 2008 through 2012 time period. The process support will need to continue at 2005 through 2007 levels as well. The funding presently available for technical data and analyses for use during 2008 is limited, but will need to return to pre-2006 levels to support haze SIP review, approval, and implementation leading to the 2012 haze SIP revision.

## **B. Support for other Air Quality Management Priorities**

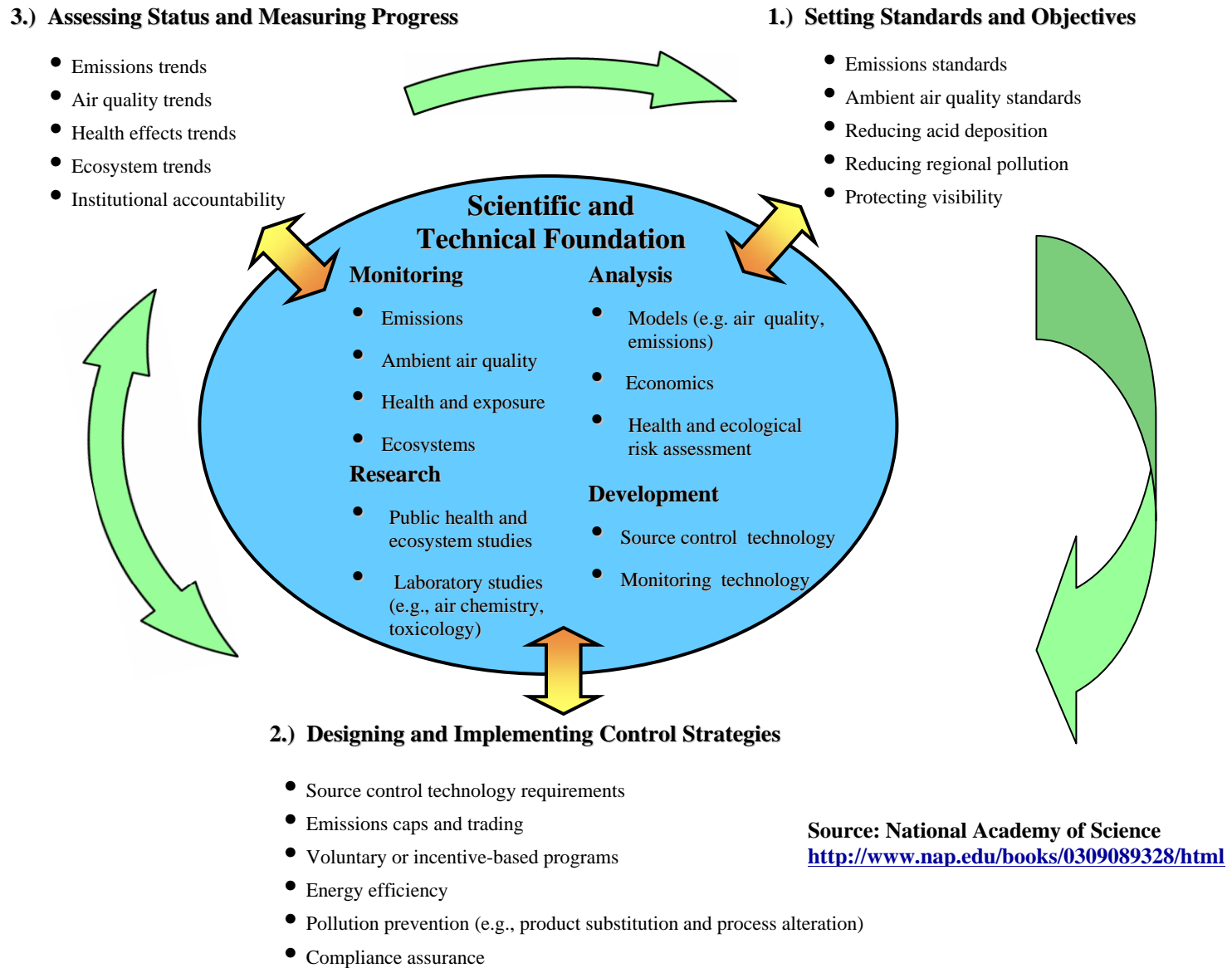
As directed by the U.S. Congress, the National Research Council (NRC) of the National Academy of Science published Air Quality Management in the United States in 2004. Figure 5 (below) from that report illustrates the interconnected nature of regional air pollution impacts, emissions control, and air quality management. More recently, EPA senior technical management staff published The Rationale for a Multipollutant, Multimedia Air Quality Management Framework in the May 2007 edition of the Environmental Manager magazine of the Air & Waste Management Association. Both the research community in the NRC report and now the EPA have articulated the need for one-atmosphere analysis approach regarding state and tribal emissions control decisions to achieve health and welfare standards as well as aesthetic goals codified in the federal Clean Air Act.

*With incremental additional funding, the WRAP proposes to conduct regional technical analyses and coordinate emissions control assessments on a value-added basis beyond regional haze implementation, primarily for the Ozone and Particulate Matter (PM) NAAQS.* This work would be of benefit to WRAP members and affected groups across the West, as noted in the priorities identified in Section II above, Organization and Structure. The primary reasoning for proposing this value-added effort is the ongoing success of regional haze analysis and planning work, the cost-effectiveness of applying existing data and analytical tools from regional haze to other pollutants in, and impacts from, the same atmosphere, and the experience of the WRAP in coordinating the analysis and reduction of haze emissions over the past 10 years. Opportunities for making assessment of impacts and effects of controls on climate change adaptation strategies, mercury and acid deposition, and other air quality management issues would also be possible.

As with regional haze implementation, this work would involve monitoring data analysis and emissions inventory studies, and would apply the regional air quality modeling tools to assess changes in cumulative air pollution impacts at Class I areas, urban areas, and more rural locations such as tribal lands. This work could be done efficiently and effectively within the WRAP organizational structure using existing regional technical tools, allowing assessment of sources common to all states and air regulatory agencies as well as to explore sub-regional groupings of all kinds of sources. These technical tools and methods could also be applied in combination or sequentially, and would look at the PM and Ozone NAAQS and other issues simultaneously.

States, tribes, FLMs, and EPA are already using WRAP data and analytical results in sub-regional studies to assess attainment, protection, and maintenance of health and welfare air quality standards (see Appendix D). These efforts have received no consistent WRAP-wide assessment as with the regional haze analyses, and suffer from funding shortages to recreate and reanalyze results for sub-regional issues.

**Figure 5. National Research Council Air Quality Management Schematic**



Future air program analysis priorities under this incremental regional technical analysis effort would be better coordinated and address a variety of dimensions, for example:

- Simultaneously assess regional haze implementation, Ozone and PM NAAQS issues, mercury and acid deposition problems, air quality impact of greenhouse gases reductions and energy development in an integrated fashion.
- Determine the regional contribution to locally-oriented NAAQS problems such as exceeding the 24-hour PM standard along the Wasatch Front or other populated areas;
- Assist well-organized and substantial sub-regional analysis and planning efforts such as those listed in Appendix D; and
- To protect health and welfare standards, analysis is needed to understand the regional response to emissions control and management programs over time.

Proposed annual funding (see Appendix B) for this incremental additional regional technical analysis effort for 2009 through 2012 assumes that the haze implementation resources identified earlier are provided as a foundation. The WRAP is not currently funded for this additional work, so no resources are currently available in 2008. No funding for additional WRAP staff or operations is requested for this additional effort 2008 through 2012. Planning by WRAP Committees, Forums, and Workgroups during 2008 is needed to make the fullest use of these incremental value-added funds, should they be provided for the 2009 through 2012 time period. The re-focusing of the missions and responsibilities of WRAP Committees, Forums, and Workgroup described above in Section II, Organization and Structure, would adapt to these priorities as incremental funding is provided.

As funding for the technical projects and analyses beyond haze implementation is provided, there will be a process for project selection and prioritization. Meetings will be held to develop and review conceptual descriptions of projects and evaluation criteria. These will then be used to develop more detailed annual workplans (2009, 10, 11, 12) for Board approval and action by Committees, Forums, and Workgroups. The incremental regional technical analysis effort supporting planning and policy in the WRAP region will address the following topics:

- Refine emissions and air quality analysis data and tools to support nested studies within the WRAP region of the contributing sources and regions for Ozone NAAQS monitors across the West, and specifically nonattainment areas.
  - Develop or adapt existing tools for states to use in ozone modeling, nested within regional analysis tools, and provide technical assistance to agencies in developing regional approaches to ozone control programs.
- Refine emissions and air quality analysis data and tools to support nested studies within the WRAP region of the contributing sources and regions for PM NAAQS monitors across the West, and specifically nonattainment areas.
- Conduct the control strategy analyses for these regional and nested studies to improve the evaluation of control strategies to continue reasonable progress for regional haze in concert with attainment of the ozone and PM health standards.
- Regional analysis of the contributing sources and regions for mercury and acid deposition (Critical Loads) issues in the WRAP region.
  - Develop the capability to determine the transport and regional fate of Mercury emissions.

- Develop tools, data, and methods to routinely evaluate regional contributions to atmospheric deposition in Class I areas.
- Regional data collection and storage, as well as regional analysis of emissions resulting from New Source Review permitting processes.
- Climate change-related activities:
  - Mitigation and adaptation strategies;
  - Energy supply and use; and
  - Greenhouse gas emissions tracking, analysis, and management.

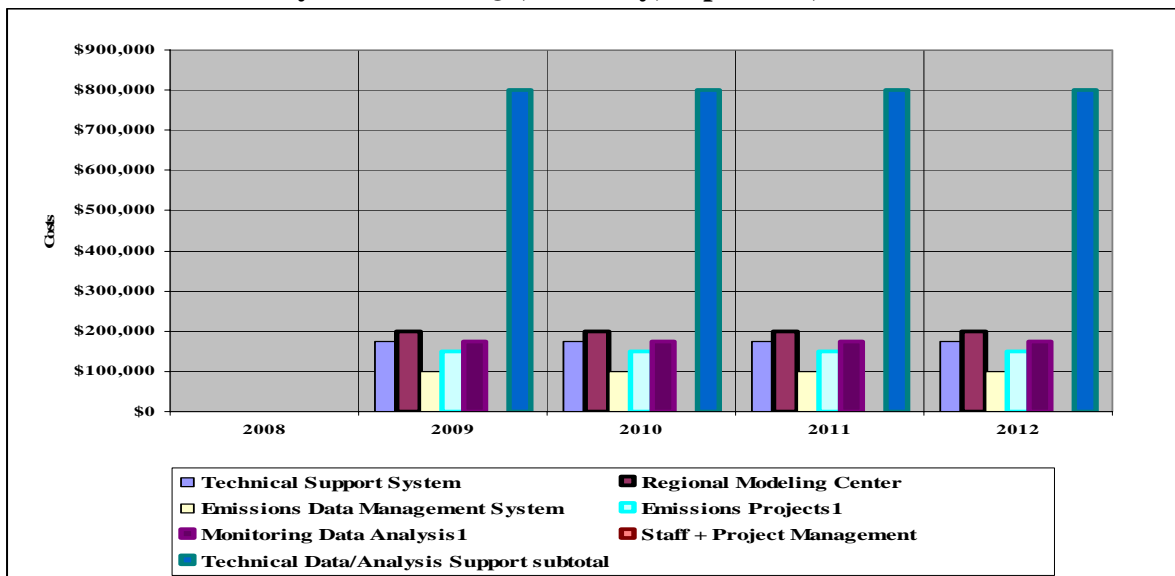
Deliverables and Timeline

The distribution of the effort for the incremental regional technical analysis efforts is depicted in Figure 6. As an example of deliverables over time for the regional contribution to Ozone and PM NAAQS problems:

Technical Issue: Evaluate regional and international sources of Ozone/PM precursors and PM emissions, and the resulting formation and transport of Ozone and PM impacts across the West.

- Activities: 2008 – hold workshops, assess efforts underway, identify gaps, and develop specific annual workplan(s) and analysis schedule/deliverables;
- 2009 - improve and/or develop emissions data, conduct monitoring data analysis, and begin meteorological, emissions, and air quality modeling preparations;
- 2010 - assess model performance, refine base year and projection base case inventories;
- 2011 - test emissions control scenarios, assess and begin SIP process; and
- 2012 - provide regional technical support for adopting controls in individual SIPs.

**Figure 6. Distribution of Proposed Future Funding Needs (2009-12) for regional technical analyses for NAAQS, mercury, deposition, and climate issues.**



1- the costs and effort to be applied to the Emissions and Monitoring projects are scaleable for any particular year; usually these are done earlier in the multi-year sequence to support emissions and air quality modeling for Ozone and PM NAAQS, Mercury, and other pollutants.

### C. Assessing air quality impacts of changes in energy supply and use and in the activities of sources of greenhouse gas emissions

Climate change management and adaptation activities continue at a rapid pace in the West. The WRAP Board has directed the development of greenhouse gas emissions inventories for the WRAP region, available at: <http://wrapair.org/WRAP/ClimateChange/index.html>. Members of [The Climate Registry](#) currently include 39 states in the U.S., 3 tribes, 2 states in Mexico, and 7 provinces in Canada; The Climate Registry provides standard protocols for participants to use in reporting and tracking greenhouse gas emissions. The [Western Climate Initiative](#) is developing emissions reduction targets for its members. *Employing the one-atmosphere analysis approach suggested in the previous section to support state and tribal air pollution emissions control decisions to achieve health and welfare standards as well as aesthetic goals codified in the federal Clean Air Act, will require integration of the efforts to mitigate and adapt to the effects of climate change.*

The air pollution emissions inventory data collection and reporting projects for 2009-12 will assess the following effects on air pollution emissions related to climate change:

- Changes in the fuels used to generate electricity and power the transportation sector;
- Modifications to emissions rates from air pollution sources;
- New and modified operating protocols for air pollution sources;
- Mitigation strategies to reduce greenhouse gas emissions;
- Adaptation strategies related to air pollution sources affecting air quality in the West; and
- International sources of air pollution.

The regional air quality modeling and data analysis projects for 2009-12 will assess the following effects on air pollution impacts related to climate change:

- Effects on implementation of controls and reasonable progress goals for regional haze;
- Changes in the understanding of the source types and regions contributing to regional haze, Ozone and PM NAAQS attainment, and critical loads related to mercury and nitrogen deposition;
- Contributions from new electrical energy generation and transportation fuels sources;
- Contributions from modified operations of existing air pollution sources;
- Mitigation strategies to reduce greenhouse gas emissions;
- Adaptation strategies related to air pollution sources affecting air quality in the West;
- International and intercontinental transport of air pollution; and
- Changes in the climate for future air quality projections.

**Appendix A: Status of Partners' Priorities and Findings of the WRAP Board**

***Tribal Caucus findings and priorities - September 2006 WRAP Board Meeting***

**Perspective on Partnership**

- The WRAP partners have facilitated many successful dialogues on air quality issues important to Western tribes.
- Shared experiences and exchange of cultural values have enhanced air quality efforts by states and tribes to develop regulatory programs and strategies that benefit the environment and solve problems for both tribes and states

**Needed Technical Studies**

- Transport/characterization/impacts of PM in rural communities
- PM health impacts and risk analysis
- Dust emissions and air quality modeling
- Climate change – emissions inventories
- Oil and gas development and production emissions
- Atmospheric deposition – mercury and sulfur/nitrogen
- PSD consumption – systematic tracking and management
- Tribal emissions and air quality data
- Ozone – especially rural areas

***National Park Service priorities and findings - March 2007 WRAP Board meeting***

- Ongoing technical support to assist in regional haze program implementation (IMPROVE reasonable progress monitoring and tracking)
- Rural ozone
- Critical Loads for air, water, soil, and ecosystems:
  - Nitrate deposition
  - Ammonia emissions and sources
- International transport (especially toxic and heavy metal pollutants from Asia)
- Trust and cooperation among the WRAP members and stakeholders and with the WRAP process is well-established

***State Caucus/WESTAR Survey findings and priorities - June 2007***

**Regional Haze Implementation Support:**

- Provide emissions and modeling analyses support for SIP Reasonable Progress Goals
- Facilitate issue resolution from EPA review of submitted SIPs
- Provide venues for and facilitate interstate communications and meetings as needed
- Provide technical support for qualified users of TSS and the data nodes (EDMS, VIEWS, FETS CoHA, RMC, etc.)
- Compile updated emissions, monitoring data for tracking reasonable progress
- Test and refine fire tracking system

- Maintain minimum capability for supplemental analyses needed for SIP issue resolution and TSS maintenance, including contract support
- Continue to manage annual SO<sub>2</sub> milestone reports for §309 states
- Develop technical framework for 5-year review-including status of control strategy implementations

**Analyses for other air program management priorities:**

- Identify gaps in technical understanding of pollutant transport in the west-as needed to meet planning and regulatory requirements
- Provide venues for and facilitate peer-to-peer and stakeholder communications and meetings to prioritize issues and develop regional approaches
- Within resource availability, develop or adapt existing WRAP tools to raise level of understanding for application to planning and regulatory requirements
- Undertake joint project with other organizations to assess opportunities for improving efficiencies of (state, tribal) staff and avoiding duplicative efforts

***WRAP Board findings - March 2007 meeting***

- Board strongly supports the continuation of WRAP technical and planning support and broadening work beyond haze to include climate change and other regional air quality issues.
- Sufficient funds in hand to maintain essential services and support of haze plan implementation through 2008.
- Anticipate some FY08 EPA funding (for 2009 work).
- WRAP Board as a whole shares concerns and priorities articulated by tribes and FLMs, with an emphasis on health effects from PM.

## Appendix B: WRAP Technical Data and Decision Support Systems

### Technical Data Support Centers



**Visibility Information Exchange Web System (VIEWS)**: VIEWS provides on-line access to monitoring data, research results and special studies related to visibility.



**Causes of Haze Assessment (CoHA)**: A detailed analysis of ambient monitoring data for regional haze in the WRAP region.



**Fire Emissions Tracking System (FETS)**: FETS is a database with a web interface for tracking and managing planned and unplanned fire events. Users can view fire data on-screen with a mapping tool and query the database for downloads of data.



**Regional Modeling Center (RMC)**: The WRAP's Regional Modeling Center at the University of California Riverside provides state and tribal agencies with sophisticated modeling of regional haze and other air quality parameters in the Western United States.



**Emissions Data Management System (EDMS)**: An emission inventory data warehouse for states and tribes. The system provides a consistent, complete and regional approach to emissions data management and tracking.

### Technical Decision Support System



The **Technical Support System** integrates a number of different data support resources under one web-based decision support umbrella for regional haze planning and implementation, with planned extension to other pollutants/air management issues.

**Appendix C: Preliminary 2009-12 Budget (no additional CY08 funds are anticipated)**

Cost estimates are presented for the 5 major work areas and staffing/meetings/project operations for a “Basic Effort” – implementing the regional haze plans, and a “Value-added Effort” – additional data collection, analysis, and studies for assessing the regional contribution to the Ozone and PM NAAQS, mercury and acid deposition, and other topics as resources allow.

**WRAP Annual Costs\***

Major Work Areas	Basic Effort – Costs to Implement Haze Plans	Value-added Effort – Incremental Costs Beyond Haze to Address Regional Air Quality Analysis Priorities	Comprehensive Regional Effort
<b>Technical Support System</b> (haze implementation, includes IMPROVE monitoring data [VIEWS] and fire emissions tracking [FETS])	375,000	200,000	<i>Enables support for sub-regional and local studies to be available on a prioritized basis</i>
<b>Regional Modeling Center</b> (followup haze questions and studies of other pollutants)	350,000	250,000	
<b>Emissions Data Management System</b> (tracking for all pollutants reported by states and tribes)	200,000	125,000	
<b>Emissions Projects</b> (studies to fix incomplete data)	250,000	200,000	
<b>Monitoring Data Analysis</b> (haze and beyond in concert with RMC studies)	150,000	175,000	
Technical Data/Analysis Support subtotal	1,325,000	950,000	
<b>Staff + Project Management</b> (travel, meetings, overhead, etc.)	650,000	----0----	
<b>Total</b>	\$1,975,000	\$950,000	\$2,925,000

\* NTEC funding proposal separate, see Appendix C

**Technical Support System**

- Basic effort - annual cost estimate \$375,000 – continue haze implementation support through technical decision support work
  - Analysis/display of answers to EPA questions for plan approval
  - Display/storage of analyses/results from haze planning
  - Ongoing monitoring data from IMPROVE
  - Periodic EI summary and analysis for SIP trends using data from states (2005, 2008, 2011), as well as display of regional EI trends for natural and uncontrollable emissions
- Value-added effort – further analysis of haze technical data and analysis/display of data for other air quality issues, \$200,000 if funded

**Regional Modeling Center**

- Basic effort - annual cost estimate \$350,000 – continue haze implementation support through regional modeling studies
  - Emissions/modeling analysis of EPA questions for plan approval
  - Modeling sensitivity studies for potential additional control strategies and source apportionment studies for potential additional control strategies for reasonable progress
  - Modeling studies and analysis of periodic EIs from states/tribes (2005, 2008, 2011)
  - Preparation/training/transfer of modeling data inputs/results for state/tribal/FLM use
- Value-added effort - emissions/modeling studies of regional contribution to Ozone and PM NAAQS issues and modeling studies for other air quality issues, \$250,000 if funded

**Emissions Data Management System**

- Basic effort - annual cost estimate \$200,000 – continue haze emissions data tracking, storage, and analysis
  - Emissions tracking/trend analysis - periodic EIs from states/tribes (2005, 2008, 2011)
  - Analysis/display of answers to EPA questions for plan approval
- Value-added effort - further analysis of haze emissions data for other air quality issues and identify gaps in emissions for study of other pollutants, \$125,000 if funded

**Emissions Projects**

- Basic effort - annual cost estimate \$250,000 – continue haze EI improvement, development, and analysis
  - Develop answers to EPA questions for plan approval
  - Studies to correct incomplete/inaccurate data
  - Augment natural/uncontrollable sources EIs to support trend analysis
- Value-added effort - address gaps in EIs for other air quality studies and study of other related pollutants, \$200,000 annually if funded

**Monitoring Data Analysis**

- Basic effort - annual cost estimate \$150,000 – continue haze monitoring data analysis
  - Analysis/display of answers to EPA questions for plan approval
  - Assess ongoing IMPROVE monitoring data and network adequacy
- Value-added effort - further analysis of haze technical data for other air quality issues and begin new analysis of monitoring data for other air quality issues, \$175,000 annually if funded

**Appendix D: Current List of Technical Air Quality Studies Using WRAP Data**

- Rocky Mountain National Park Sulfur and Nitrogen Study (RoMANS) – National Park Service and State of Colorado
- Rural Ozone Impacts from Oil & Gas emissions in the 4 Corners Region – NPS modeling study
- Rural Ozone Impacts from Oil & Gas in northeast UT/southwest WY – States of Utah and Wyoming
- Emissions reductions options analysis – 4 Corners AQ Task Force Cumulative Effects WG
- Sub-regional air quality modeling in 4 Corners region – 4CAQTF Mitigation Modeling group
- Pilot Dust Regional Haze SIP for Salt Creek Wilderness – State of New Mexico
- Nested BART CalPuff modeling using regional modeling data as background – State of North Dakota
- 2018 emissions projections as basis for Columbia Gorge air quality planning
- Consistent, accessible data for permit analyses by WRAP members, sources, and consulting firms

**Appendix E: Support of Tribal Air Quality Management Capability and Tribal Implementation Plan (TIP) Development**

*National Tribal Environmental Council Workplan Proposal*

*Continued Support for Tribal Participation in the Western Regional Air Partnership*

*January 1, 2009 – December 31, 2012*

*4-year budget proposal total \$1,986,346 for 2009 through 2012*

**Introduction/Background**

The National Tribal Environmental Council (NTEC) was established in 1991 as a membership organization dedicated to assisting tribes in the protection and preservation of their homelands. NTEC supports tribal governments in their efforts to protect, regulate and manage their resources according to their respective priorities and values. NTEC has grown from its seven founding tribes to a current membership of more than one hundred eighty tribes.

In accordance with this mission, and the included goal of assisting tribes in working with federal and state environmental agencies, NTEC has facilitated tribal participation in the Western Regional Air Partnership (WRAP), and its predecessor, the Grand Canyon Visibility Transport Commission (GCVTC), since 1994. Through these efforts, NTEC has helped western tribes establish the WRAP as a unique and innovative approach to state, tribal, federal and stakeholder collaboration to meet environmental objectives.

The WRAP continues to lead the nation in regional haze planning efforts, and in setting an example for tribal participation. The WRAP continues to move forward on policy and technical issues as they relate to the development and submission of regional haze implementation plans. To advance this effort and provide the necessary management and resources to tribes, NTEC relies on the following professional and competent team of individuals whose time is either partially or wholly devoted to the WRAP: WRAP Co-Director, Tribal Caucus Coordinator, Senior Policy Analyst, and an Administrative Assistant. NTEC also provides for travel assistance for tribal involvement at WRAP-related meetings, trainings and conferences.

The Confederated Salish and Kootenai Tribes and its designated representative, Councilman Lloyd Irvine currently serves as Tribal Co-Chair of the WRAP. With its present staffing, NTEC manages its WRAP efforts with oversight and direction from the WRAP Tribal Caucus and as presented to the WRAP Board. The WRAP Board has determined that those issues identified by the Tribal partners (Tribal Caucus) will be incorporated into the WRAP mission and the scope of the future workplan. The tribes within the WRAP region continue to be committed to the organization's efforts to expand the scope of the WRAP and will work closely with NTEC to assure that Tribal Implementation Plan (TIP) development and the tools which support such development remain a priority of the organization.

This proposal is for a continuation of NTEC's efforts to facilitate tribal participation in the WRAP. The proposal is organized by position functions (WRAP Co-Director, Tribal Caucus Coordinator, Senior Policy Analyst, and Administrative Assistant) and a distinct section for travel. Under each position function is a series of target periods for holding meetings and completing documents that fall within the purview of NTEC staff to complete in a timely and professional manner.

**I. WRAP Co-Director (Lewis McLeod)**

**A. Description**

NTEC is identified in the WRAP By-Laws and workplans as co-manager of the WRAP project, along with the Western Governors' Association (WGA). This co-management role at NTEC is accomplished through the efforts of a WRAP Co-Director who handles the day-to-day administrative tasks associated with the WRAP grant such as:

- Providing appropriate supervisory support to staff members assigned to the WRAP grant at NTEC (e.g., Tribal Caucus Coordinator, Administrative Assistant);
- Managing contractual work associated with the WRAP grant such as that associated with ITEP and the Tribal Emissions Inventory Software Solution Project;
- Overseeing the WRAP grant, budget, and workplan for NTEC, gathering comments from the Tribal Caucus as necessary and incorporating them into NTEC projects and deliverables as appropriate;
- Engaging in WRAP grant management activities such as grant analysis, ensuring compliance with relevant grant provisions and regulations, submitting progress reports, and meeting reporting deadlines;
- Working collaboratively with tribal leaders and representatives regarding air quality issues related to regional haze and other issues deemed appropriate by the WRAP Board and helping these members come to consensus on matters of concern; and
- Utilizing existing research and analysis to draft position papers on a vast range of regional haze, and air quality issues.

While the WGA administers the majority of WRAP funds in support of states and stakeholders, and handles most logistical functions for these entities, NTEC works closely with WGA and facilitates all travel of tribal representatives to insure tribal participation is equal in every respect as noted below:

- Coordinate tribal participation in WRAP budget development for Calendar Years 2009 and beyond;
- Regular participation in committee, forum and workgroup meetings;
- Assist in agenda development for WRAP annual/mid-year, planning team, and other key meetings;
- Coordinate tribal participation in WRAP entities;
- Assist in matching interested individuals with appropriate committees, forums and workgroups;
- Facilitate communication between the Tribal Caucus and tribal participants on various committees, forums and workgroups; and
- Provide specialized assistance to the WRAP Board, Initiatives and Technical Oversight Committees, Technical Advisory Forum, the Tribal Data Development Work Group (TDDWG), and joint forums of the organization.

**B. Regular Deliverables and/or Products**

In addition to the aforementioned activities, the WRAP Co-Director shall provide the specific deliverables and/or products on a regular basis:

- Coordinate and schedule a **monthly** meeting with NTEC WRAP staff to discuss relevant issues;
- Coordinate and schedule, at the pleasure of the WRAP Tribal Co-Chair and Tribal Caucus, conference calls with tribal leaders of the WRAP Board or their representatives, and record and distribute meeting minutes **within two weeks** of a meeting;
- Draft and submit news pieces for the **monthly** WRAP Tribal News;
- Draft and submit a WRAP article for the NTEC newsletter or NTEC Insights Newsletter as requested; and
- Complete an **annual** report regarding WRAP activities undertaken, to be submitted to the WRAP project officer located in the Region 9 U.S. Environmental Protection Agency (EPA) Office.

### C. Contract Management

Effective **July 1, 2006**, the WRAP Co-Director assumed contract management oversight of projects initiated by the TDDWG in accordance with federal rules, regulations and guidelines; NTEC internal guidelines; and additional oversight provided by NTEC's Business Manager. Upon completion of a scope of work by members of the TDDWG, NTEC will develop and distribute Request for Proposals (RFPs) to appropriate entities, oversee the bidding and review process, work closely with members of the TDDWG in negotiating contracts with selected contractors, and pay invoices to contractors as contract deliverables are met properly and timely in accordance with the signed contracts between NTEC and said contractors, and based on a determination made by TDDWG members. Anticipated projects are as follows:

#### **TW 1: Provide the avenue to maintain the TEISS License through the Institute for Tribal Environmental Professionals (ITEP)**

**Goal:** To maintain a tribal air emissions inventory database for tribes to access for evaluating impacts to tribal lands as a result of State Implementation Plans (SIPs), Federal Implementation Plans (FIPs) or Tribal Implementation Plans (TIPs).

**Objective:** To increase the number of tribes with information in the database thereby insuring that tribal data gaps are minimized.

**Deliverables:** The continued availability of the TEISS to tribal air quality organizations and other authorized entities.

#### **TW2: An Oil & Gas Project to fully explore Tribal analysis**

**Goal:** To provide a more comprehensive database of oil & gas activities on tribal lands.

**Objective:** To assist tribes in accessing the updated emissions inventories and modeling results, the contractor will be providing specific information that a tribe can use to identify sources that may be impacting them, as the technical basis for a TIP, or as part of their knowledge base when negotiating a FIP with the EPA.

**Deliverables:** Reports on the results of the project which will produce a list of tribes involved in oil and gas activity and the emissions involved in producing oil and gas on tribal lands.

Contractor will include findings on limitations of the data and also suggest improvements in the models and data that will better serve tribes. This information will be summarized in quarterly reports and a comprehensive final report.

**TW3: Tribal Emissions Inventory Project**

**Goal:** To continue to encourage tribes to gather their emissions inventory data to include other emissions not considered criteria pollutants, i.e., carbon dioxide, Ammonia and to make that data available for the WRAP’s Emissions Data Management System (EDMS) and modeling tools.

**Objective:** This project has 4 primary objectives:

1. Keep Tribal Emissions Inventory Software Solution (TEISS) license current
2. Provide TEISS training for tribal representatives, both new and advanced users
3. Provide technical assistance for TEISS users
4. Reconcile the tribal data with state and county data to ensure accurate regional emissions inventories

**Deliverables:** One training and continued technical support as tribes deem necessary.

**TW4 Other projects to parallel WRAP Projects as needed.**

**The goals, objectives and deliverables of this task cannot be defined at this time. As WRAP Projects are developed the TDDWG will evaluate/analyze them and determine through the Tribal Caucus what tribal projects should be undertaken.**

**II. Tribal Caucus Coordinator (Ken Cronin)**

**A. Description**

The Tribal Caucus Coordinator will work to ensure that tribal participants in the WRAP are continuously informed of the processes, schedules, issues, budgets, proposals, work products and decisions of the WRAP committees, forums and workgroups.

The Tribal Caucus Coordinator will track WRAP issues and work product development on a continual basis through:

- Regular participation in committee, forum and workgroup meetings, or similar participation on conference calls of such entities;
- Ongoing communication with the WRAP staff including such individuals as the State Caucus Coordinator and Technical Coordinator;
- Communication as necessary with committee, forum and workgroup co-chairs, tribal

- participants, and other people involved with the WRAP; and
- Monitoring of forum progress, including RFP development, contracted work products, and work performed by the committees, forums and workgroups themselves.

The Tribal Caucus Coordinator will synthesize and summarize the information obtained, highlight issues of potential concern to tribes, and disseminate this information to the Tribal Caucus through appropriate means such as conference calls, newsletters, e-mail, memoranda, in-person presentations, or other mechanisms as appropriate.

The Tribal Caucus Coordinator will also arrange, plan and facilitate face-to-face meetings, either in conjunction with meetings of the Air Managers Committee, WRAP Board, or as a stand-alone meeting. Through meetings such as this along with other means of communication, the Tribal Caucus Coordinator will assist the Tribal Caucus in identifying and developing any visibility and non-visibility issues the Caucus may wish to bring to the WRAP.

## **B. Regular Deliverables and/or Products**

In addition to the aforementioned activities, the Tribal Caucus Coordinator will provide the specific deliverables and/or products on a regular basis:

- Identify and use existing communication and dissemination outlets on a **bi-weekly** basis;
- Provide a report to the Tribal Caucus on a **monthly** basis concerning activities of WRAP committees, forums and workgroups as activities warrant;
- Schedule and conduct **monthly** Tribal Caucus conference calls, and record and distribute meeting minutes **within one week** of the meeting;
- Draft and produce the WRAP Tribal Newsletter **monthly**;
- Attend **quarterly** TDDWG meetings, and record and distribute meeting minutes **within two weeks** of the meeting; and
- Organize, coordinate and oversee a **yearly** meeting and/or workshop for WRAP Tribes concerning WRAP activities and other outdoor air-related issues.

## **C. Specific Calendar Year for Deliverables and/or Products for 2009-2012**

The Tribal Caucus Coordinator will be engaged in the following activities during the specified period that will lead to the following deliverables and/or products:

### **1. Recruitment Strategy Document**

Tribal involvement within the WRAP activities has been sporadic due to a number of reasons such as other priorities facing tribes, lack of resources available to attend meetings, and the fact that Regional Haze is not necessarily a priority for tribes, etc. With the new direction of WRAP, a new effort by the Tribal Caucus Coordinator will develop a new recruitment strategy document that will be used as both a means to attract tribal representatives to the activities of the WRAP and to monitor involvement of such representatives as a whole.

### **2. WRAP Tribal Policy and Technical Workshop (To Be Held During May - August of each calendar year)**

The Tribal Caucus Coordinator will develop, coordinate, and schedule a tribal policy and technical meeting that covers some of the following topics:

- Science of Visibility;
- Connection between Science of Visibility and Climate Change;
- Road and Windblown Dust;
- Emission Inventories;
- Modeling;
- Monitoring;
- Tribally-focused WRAP products;
- Tribal-specific issues (e.g., severability);
- Special topics related to regional haze, rural ozone, etc; and
- Specific WRAP Forum Products.

A workshop was held during fall of 2006 with more than 50 tribal representatives attending. NTEC staff hopes to attract a number greater than those previously in attendance during the upcoming calendar years.

### **III. Senior Policy Analyst (Bob Gruenig)**

#### **A. Description**

Some issues originating in the WRAP require more detailed analysis and research, in addition to summarization. A number of these issues come up during the course of the year for which policy analysis must be conducted reactively and will be mentioned from time to time through such communication venues as the WRAP Tribal News, but there are other issues for which NTEC can address proactively. NTEC therefore proposes that it will devote its attention to policy issues while still being prepared to address other issues as they arise.

### **IV. Administrative Assistant**

#### **A. Description**

To a significant degree, outreach is an inherent part of all NTEC staff activities related to the WRAP. Staff including the Administrative Assistant takes advantage of attendance at a variety of meetings and conferences to advertise and recruit for the WRAP, and conducts e-mail and telephone outreach on a regular basis to meet recruiting and input (tribal comment) needs.

Because of the breadth and complexity of WRAP issues, and the time and effort required of staff to keep up with issues internally, there is a continued need for assistance in order to provide more continuous, systematic and persistent outreach to tribes throughout the region.

#### **B. Regular Deliverables and/or Products**

The Administrative Assistant will provide the specific deliverables and/or products on a regular basis:

- Send out a **monthly** e-mail and/or fax message concerning upcoming WRAP meetings and whom to contact;
- Work with the WGA in providing **monthly** (or when appropriate) information pieces over the WRAP listserv;
- Distribute **on a monthly basis** the WRAP Tribal News, a publication dedicated to keeping tribes updated about activities taking place within the WRAP that are relevant to tribes;
- Recruit tribal environmental staff for involvement on air quality initiatives by conducting targeted outreach;
- Redesign, publish and distribute new WRAP recruitment handouts as they are developed by the Co-Director or other staff;
- Distribute promotional items such as fact sheets and brochures;
- Attend meetings as assigned by the Co-Director; and
- Staff exhibit booths at regional and national conferences.

## V. Travel

### A. Description

Travel support is an integral element of NTEC's workplan that allows staff members and tribal representatives to effectively engage in WRAP-related activities. Due to this, the following trips are expected in order to enable this effective engagement:

### B. Staff

This item is to cover staff travel to WRAP meetings and other regional haze related meetings. See attached budget for funding details.

WRAP Co-Director	60 trips
Tribal Caucus Coordinator	52 trips
Senior Policy Analyst	12 trips
Administrative Assistant	12 trips

### C. Tribal Representatives

This item is to cover travel of tribal representatives attending committee, forum, and workgroup meetings. This item also supports speakers who present on regional haze and other WRAP related issues at NTEC's annual conference and similar meetings. Effective **July 1, 2006**, NTEC became responsible for reimbursing all such expenses associated with tribal representative travel. See attached budget for funding details.

Tribal Travel	200 trips
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### D. Regional Haze and other WRAP-Related Travel

From time to time, meetings come up whose subject matter is related to regional haze and other WRAP-related issues necessitate tribal participation in order to protect tribal interests. One example has been the Prevention of Significant Deterioration meetings previously held and expected to be held once again by the Western States Air Resources Council. In addition, some

