WRAP 2008-12 Strategic Plan

WRAP Board Meeting

Salt Lake City, UT

February 20, 2008

- **Presenters:**
  - **David Jones, Cortina Rancheria - Technical Oversight Committee Tribal Co-Chair**
  - **Don Arkell, WESTAR - State Caucus Coordinator**
  - **Tom Moore, WRAP staff**
- **Thanks to the many contributors:**
  - **Members of Forums and Workgroups across the WRAP**
  - **Tribal Caucus**
  - **State Caucus (WESTAR)**
  - **Air Managers Committee & Technical Oversight Committee**
  - **Reviewed on Board conference call 11/30/07**

- **Review 2008-12 Strategic Plan**
- **2008 Technical and Planning Workshops**

- **WRAP Committees, Forums, and Workgroups have developed a Strategic Plan during 2007 to address the air quality analysis and planning priorities of the state, tribal, and federal members.**

- **Will use the Strategic Plan to develop work plans and budgets for 2009 & 2010 projects.**

- **Build the regional capability to support a one-atmosphere analysis and management approach for air pollution in the West.**

Preparing the Strategic Plan – Tribal Caucus findings

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.

Preparing the Strategic Plan – Tribal Caucus priorities

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

Preparing the Strategic Plan – State Caucus priorities

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.)

Preparing the Strategic Plan – State Caucus priorities

Regional Haze Implementation Support, continued:

- 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_2 milestone reports for §309 states
- Develop technical framework for 5-year review - including status of control strategy implementation

Preparing the Strategic Plan – State Caucus priorities

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

Strategic Plan - program goals

- As defined by WRAP members:
  - Broaden and deepen regional analysis and planning support capabilities to assist WRAP members;
  - Adapt and refine the organization and process used to involve and encourage collaboration among organizations with interests in these air quality issues; and
  - Using available resources, efficiently develop data, information, and strategies needed by WRAP members to reduce air pollution and its impacts.

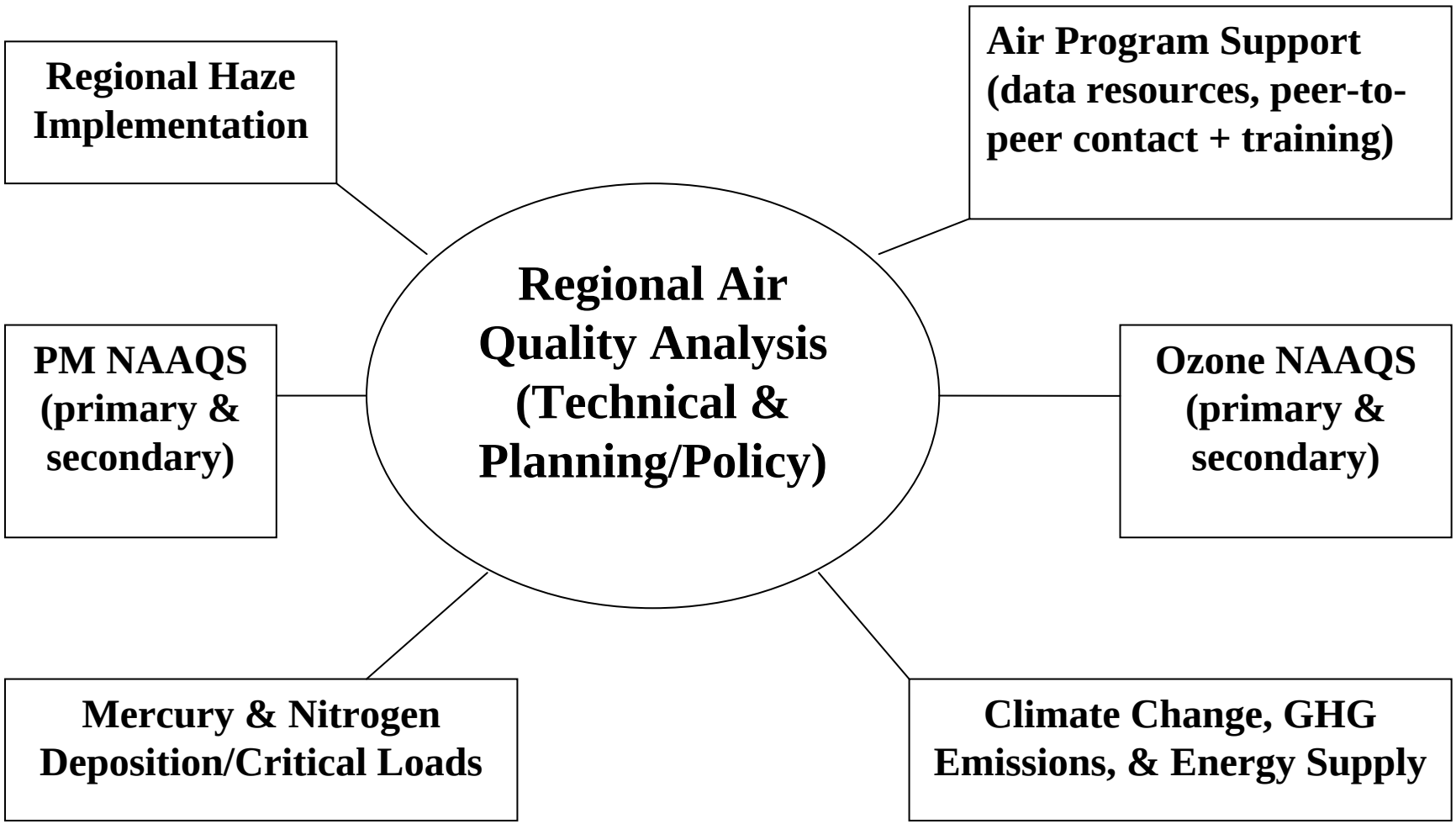
Strategic Plan – operational goals

- Capitalize and leverage strengths of WRAP members and associated organizations
- Focus on improving efficiencies and collaboration between and among WRAP members
  - Avoid duplicative efforts

Strategic Plan – 3 major areas of effort

- Regional Haze implementation
- One-atmosphere regional analysis approach for haze, Ozone and PM NAAQS, mercury and nitrogen deposition
- Assess air quality and emissions changes resulting from:
  - Changes to energy supply
  - Projected future climate conditions

WRAP support to members: Now + Future



WRAP staff work on Regional Haze in 2008

- Assist states with setting Reasonable Progress Goals
- Coordinate and gather BART control information
- Help states complete haze plans and EPA review/approval
- Process emissions for 2018 Final Reasonable Progress modeling analyses:
  - Regional visibility improvement from BART across WRAP region
  - Sensitivity run to assess impact of increases in Pacific shipping emissions
- Continue emissions and air quality tracking with WRAP systems

2008 preparing for 2009

- Limited funds and staff time in 2008 to begin new technical and policy work
- 3 technical and planning workshops
- Develop 2009 workplan for Board approval and EPA funding
  - Specific, targeted projects, costs, and deliverables as with previous workplans

2008 workshops

- Gather members of WRAP Committees, Forums, and Workgroups, as well as members of additional organizations not currently active in the regional haze effort to:
  - Identify strengths and weaknesses of existing State, Tribal, and Federal data and existing analysis tools;
  - Determine uses and limitations of those data and tools;
  - Develop coordination efforts needed with ongoing and planned State/Tribal/Federal projects;
  - Discuss timing, effort, activities, and any needed changes in future projects by WRAP contractors
  - Document results for 2009 workplan development purposes & next steps

2008 workshops

- Monitoring Data Analysis Workshop
  - 2-day workshop, targeted for May will address monitoring methods, network operations, and data analysis activities for Ozone, PM, haze, mercury and nitrogen deposition data
- Emissions & Modeling Analysis Workshop
  - 2-day workshop, targeted for late July will address emissions and modeling studies related to Ozone, PM, haze, mercury and nitrogen deposition
- Technical Data Needs for Air Quality Planning Workshop
  - 2-day workshop, targeted for September will bring forward technical data and analysis capabilities from the earlier workshops to address 2009-12 air quality control and management planning needs for:
    - Haze plan implementation – how/what/when to do
    - Defining data, studies, and results needed for air quality planning - ozone, PM, mercury and nitrogen deposition

2009-12 Regional Haze Implementation Activities leading to 2018 Haze Plan milestone

2008 Haze SIPs

Narrative

Visibility conditions (2000-04 baseline)
- Current
- Natural

Emissions (mostly 2002)
- Point
- Area
- Mobile
- Fire, Dust, et cetera
- International

2018 Emissions Projections

2018 Visibility Reasonable Progress Goals

2012 SIP Revision Approach
- Monitoring Data Trends
- Emissions Trends
  - In-state*
  - All contributing states
  - Other (fire, dust, international)

Measures

On-The-Books

Specific to RHR
- BART
- Other point ?
- Area ?
- Smoke Management ?

Actions needed for 2012 SIP revision toward new 2018 SIP

Same categories as 2002, based on Federal Programs, other State rules, plus BART and any additional measures (growth/control projections for some categories, others held constant)

Estimated using modeling of the "Reasonable Progress" strategies for most and least impaired days, then adjusted using monitoring Relative Response Factors – review of progress toward visibility goals selected in SIP by each state

Review completeness and trends in monitoring data

Based on latest & best regional emissions inventories:
1) Examine how trends in various emissions types and scales compares with the narrative prepared for SIP submittal*
2) Examine what is "now" On-The-Books and re-project 2018
3) Adjust SIP (measures and / or goal)

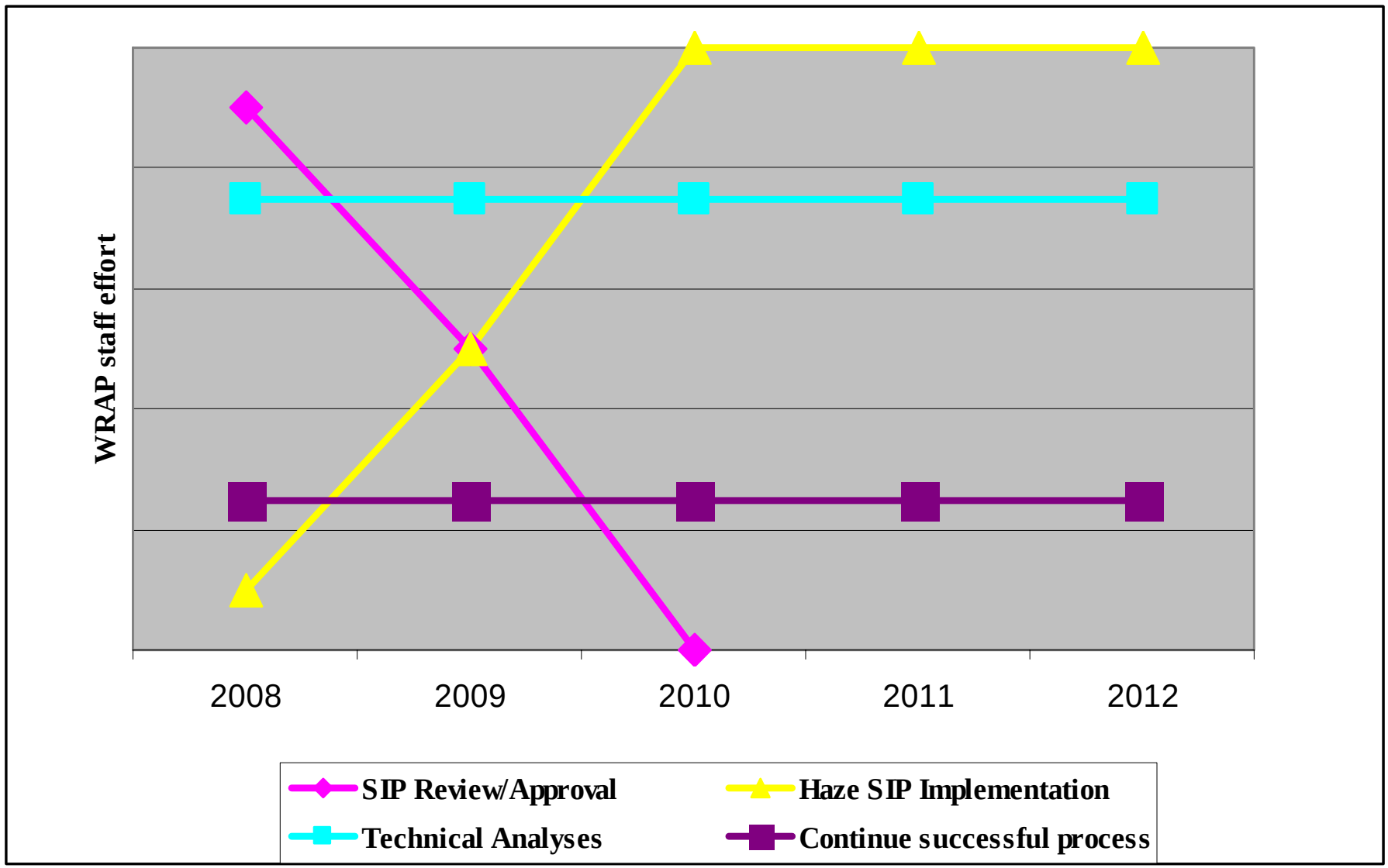
Identify needs for comprehensive regional emissions tracking and complete/representative Class I area monitoring data

Assess post-2012 need for additional regional analysis and planning to begin now for 2018 SIP submittal

These measures may include non-BART emissions limits, emission limits on source categories, and modification to smoke management plans, et cetera.

Conceptual WRAP Staff Effort for only Regional Haze

[Limited Current Known Funding (2008) & Proposed Future Funding (2009-12)]



2009-12 Activities

- Track, report, and conduct needed analyses of progress for regional haze;
- Determine regional contributions to Ozone and PM health and welfare standards' nonattainment issues at various scales;
- Understanding and analyzing the nature and causes of mercury and nitrogen deposition, and critical loads in the West;
- Assess air quality changes from emissions management strategies and programs; and
- In concert with emerging efforts to manage and adapt to climate change, fully integrate data for both energy supply and use as well as greenhouse gas emissions into air quality analyses.

One-atmosphere approach

- Sensible extension of comprehensive haze effort to date: recommended by National Academy of Science & EPA
- Leverages past & future in-kind staff time contributions
- Protects present & future investment in data and tools
- Allows efficient, effective, and integrated assessment of emissions management options
- Presents complete and transparent data for air pollution control decisions
- Necessary level of effort to address effects of climate change on air quality

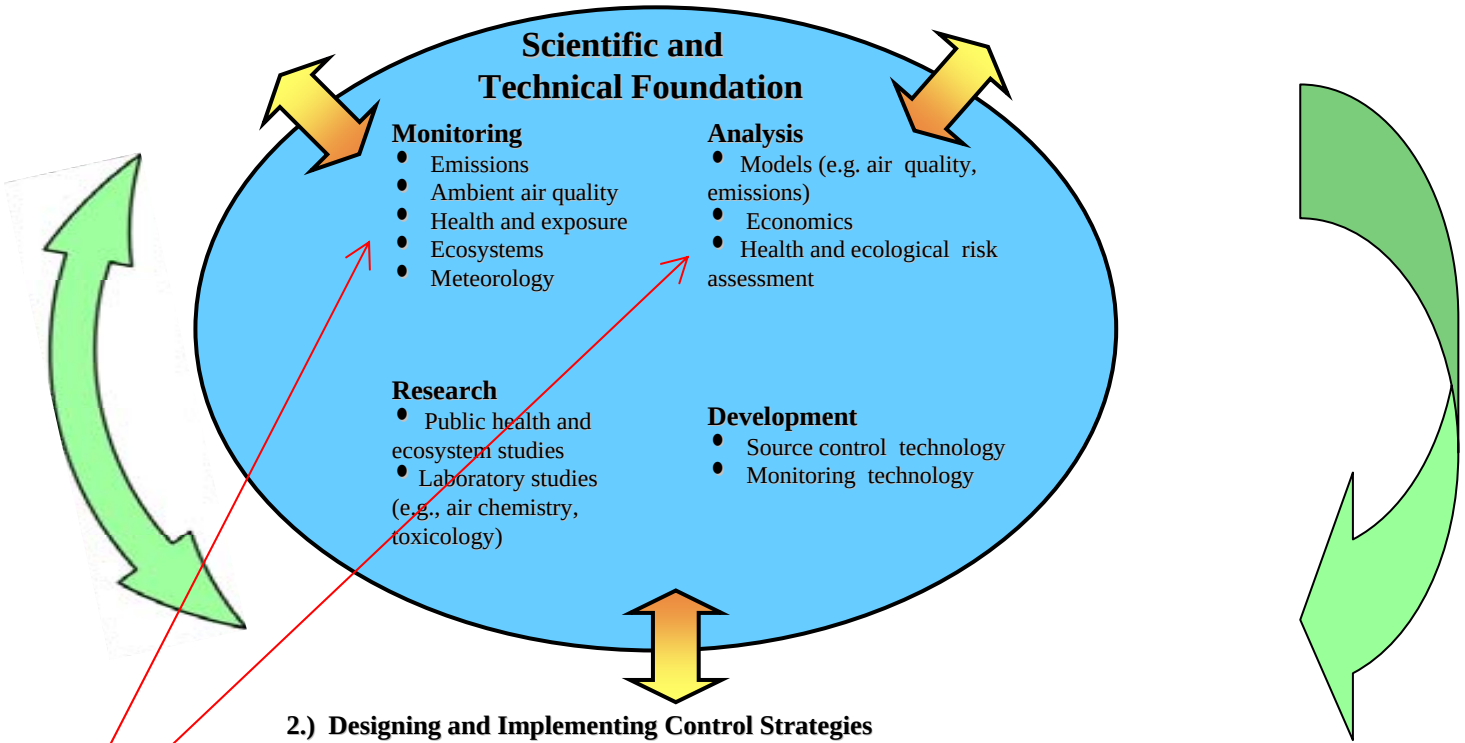
National Research Council Air Quality Management Schematic

3.) Assessing Status and Measuring Progress

- Emissions trends
- Air quality trends
- Health effects trends
- Ecosystem trends
- Institutional accountability

1.) Setting Standards and Objectives

- Emissions standards
- Ambient air quality standards
- Reducing acid deposition
- Reducing regional pollution
- Protecting visibility



2.) Designing and Implementing Control Strategies

- Source control technology requirements
- Emissions caps and trading
- Voluntary or incentive-based programs
- Energy efficiency
- Pollution prevention (e.g., product substitution and process alteration)
- Compliance assurance

Western Regional Air Partnership

Red lines are WRAP areas of regional analysis emphasis

Source: National Academy of Science

http://www.nap.edu/books/0309089328/html

Proposed Annual 2009-12 WRAP Funding Needs*

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
Technical Support System (haze implementation, includes IMPROVE monitoring data [VIEWS] and fire emissions tracking [FETS])	375,000	200,000	*Enables support for sub-regional and local studies to be available on a prioritized basis*
Regional Modeling Center (followup haze questions and studies of other pollutants)	350,000	250,000	
Emissions Data Management System (tracking for all pollutants reported by states and tribes)	200,000	125,000	
Emissions Projects (studies to fix incomplete data)	250,000	200,000	
Monitoring Data Analysis (haze and beyond in concert with RMC studies)	150,000	175,000	
Technical Data/Analysis Support subtotal	1,325,000	950,000	
Staff + Project Management (travel, meetings, overhead, etc.)	650,000	----0----	
Total	$1,975,000	$950,000	$2,925,000

* NTEC funding proposal separate, see Appendix E

Building on WRAP data and tools

- VIEWS/TSS – recently recognized by EPA main office as highly effective, leveraged, and desirable combination of data and decision support systems – interest in funding expansion of:
  - VIEWS data support system to all pollutants, emissions, modeling, and satellite data
    - *NASA grant awarded for satellite data - integrating routine products into VIEWS/TSS tools – includes involvement of WRAP Committees, Forums, and Workgroups in design and review of products*
  - TSS to one-atmosphere decision support system for air quality planning for regional haze, PM and Ozone NAAQS, and Critical Loads
    - Goal is to develop pilot project for states/tribes/feds in the West to develop results and displays needed for one-atmosphere air quality planning decisions

Building on WRAP data and tools

- FETS – building connections to individual state, tribal, and federal fire activity data tracking systems to:
  - Collect and store daily data
  - Support regional coordination on potential fire impacts across jurisdictional lines
  - Calculate complete and accurate fire emissions for immediate and retrospective analyses
  - Provide stable repository for data from smoke management and fire activity tracking programs
    - Format flexible to accept data from existing individual systems
    - Allows revised or new reporting systems developed by smoke and fire programs to have a regional repository to deposit data with little effort
  - Can output EPA NEI formatted data for reporting requirements

WRAP Support Needs

- Ongoing guidance from WRAP Board
- Continued direction and participation by users, i.e., WRAP members - states, tribes, and federal agencies.
- Sufficient and stable funding from EPA (~$3M/year)
- Maintain WRAP staff to implement strategic plan.