

Draft 2005 – 2006 Work Plan
Stationary Sources Joint Forum
7/6/04

Projects SS4 through SS7 assume that an emissions trading program will be implemented in lieu of BART for SO₂ and NO_x, respectively, in most of the WRAP region and for most large stationary sources. Some states and tribes may choose to implement BART at some or all of their sources which are subject to BART, but an emissions trading program may nonetheless be desirable and functional in these states and tribal areas. For instance, an emissions trading program could address non-BART sources, as well as sources where BART is being implemented. In the latter case, sources would be allocated allowance based in part or in whole on their BART emission limits and could potentially reduce emissions further given the financial value of unused allowances. Projects SS4 through SS7 are designed to comport with EPA's proposed guidelines for BART and alternative programs.

There may be cases in which BART sources can not participate in an emissions trading program. For example, adequate monitoring techniques may not be available, or a state or tribe may decide not to allow BART (and potentially other) sources to participate in an emissions trading program. In these cases, the BART source emissions would be addressed under the BART provisions of Section 308(e)(1) of the Regional Haze Rule, or an alternative program which does not involve emissions trading.

Project SS8 addresses emissions not included in the SO₂ and NO_x emissions trading programs which may also need to be addressed in order to satisfy BART and achieve reasonable progress under the Regional Haze Rule. These may include (1) emissions of VOC, PM, and NH₃ from BART sources included in the SO₂ and NO_x emissions trading programs; (2) emissions from BART sources that can not participate in an emissions trading program, for reasons such as those noted above; and (3) emissions from non-BART sources not included in the emissions trading programs (e.g., compressor emissions). Project SS8 could, for instance, coordinate or support the implementation of BART in some states.

Other activities by the SSJF will include working with EPA to finalize the proposed BART guidelines and to address any potential expansion of the Clean Air Interstate Rule (CAIR) to the West. In the course of its work, the SSJF will assume that the five-state SO₂ milestone and backstop emissions trading program will remain in effect and must be preserved in any regional strategy. Finally, NO_x and PM emissions must be addressed in such a way as to satisfy the SIP revision requirements under Section 309 of the Regional Haze Rule, as well as Section 308.

SS4 Baseline Inventories

The purpose of this project is to develop SO₂ and NO_x baseline emission inventories for the years 2002 and 2018 for sources which may be included in the emissions trading program. These "baseline trading program inventories" must include all BART-eligible sources and should include any other stationary sources which may be included in the emissions trading program (e.g., all stationary sources in the region emitting more than 100 tpy, or expecting to emit more than 100 tpy by 2018). Over time, the sources in

these inventories may be reduced depending on the applicability of the trading program (i.e., which sources must participate based on size, emissions monitoring capabilities, participation of the state/tribe in the regional program, etc.)

The project will begin in 2004 by establishing assumptions for the program's applicability, followed by an examination of the 2002 emissions inventory in the WRAP Emissions Data Management System (EDMS), which should be available by October 2004. Some quality assurance and review of this inventory will be necessary. For example, a source which typically emits more than 100 tpy may have emitted less than 100 tpy in 2002. As was the case when reviewing the initial WRAP 1996 inventory, there may also be incorrect emission estimates and control efficiencies, and emission units with source classification codes which are improper or which provide insufficient detail for determining whether emissions from such units belong in the 2002 baseline trading program inventory.

After the 2002 baseline trading program inventory is developed and verified, emissions will be projected to 2018. This will require assumptions to be developed regarding growth and retirement rates, compliance with ozone and particulate matter standards, and new source fuel mix. The resulting 2018 baseline trading program inventory will then become the basis for evaluating the effects of BART and any alternative program. All inventories developed under this project will be initially derived from and ultimately submitted to the EDMS.

SS5 Likely Reductions from the Application of BART

The purpose of this project is to determine the emission reductions that would likely result if BART were implemented. EPA's proposed guidelines would allow this to be done on a case-by-case basis or by conducting a category-wide analysis that takes into account the available technologies, the costs of compliance, the energy and non-air quality impacts, the control equipment in use, and the remaining useful life of the sources. For planning purposes, it is assumed that the SSJF will perform this analysis on a category-wide, pollutant-specific basis. Presumptive SO₂ and NO_x control levels for EGU BART sources are provided in EPA's proposed guidelines.

SS6 Trading Program Design

The purpose of this project is to design the SO₂ and NO_x emission trading programs. This will likely include the derivation of 2018 and interim milestones; geographic, new source, and tribal considerations; monitoring and reporting requirements; enforcement provisions; economic impact assessments; and a general method for allowance allocations.

When deriving SO₂ milestones, consideration will be given to the general approach taken in the Annex. If this general approach is followed, the assumptions in the Annex will be reviewed and updated where appropriate to reflect current understanding of growth rates, future fuel mixes, etc., since the Annex was finalized in 2000. As noted above, the SSJF

will assume that the five-state SO₂ milestone and backstop emissions trading program will remain in effect and must be preserved in any regional strategy.

When deriving NO_x milestones, the SSJF will follow the principles developed by the WRAP and expressed in its April 15, 2004 letter to EPA. These principles call for a cap that reflects cost effective emission reductions based on the aggressive application of combustion controls to all existing EGU sources. Emission reductions from other source categories may have to be evaluated separately. Analysis of EGU NO_x reductions will begin in 2004 with a review of the procedures used by EPA to develop the combustion-based western EGU NO_x cap considered in the expansion of the CAIR. A contractor will facilitate this process and enhance the analysis based on stakeholder review and supplemental data provided by EGU operators.

SS7 Demonstration of Greater Reasonable Progress

The purpose of this project is to demonstrate that the emission trading programs developed under SS6 would provide for greater reasonable progress than what would be achieved through the application of BART under SS5. The demonstration may include a number of factors, but must clearly show greater emission reductions under the trading program. Moreover, economic modeling will likely be required to determine if the geographic distribution of emissions under the trading program are significantly different than under BART. If so, according to EPA's proposed guidelines, air quality dispersion modeling would be required to demonstrate that, when averaged across all affected Class I areas, regional visibility improvements will be greater under the trading program and that visibility will not decline in any one of the areas.

SS8 Other Emissions from Stationary Sources

The purpose of this project is to address emissions not addressed by the SO₂ and NO_x emissions trading programs which may be needed to satisfy BART and achieve reasonable progress under the Regional Haze Rule. These may include (1) emissions of VOC, PM, and NH₃ from BART sources included in the SO₂ and NO_x emissions trading programs; (2) emissions from BART sources that can not participate in an emissions trading program (e.g., due to inadequate monitoring techniques, non-participation by some states and tribes, etc.); and (3) emissions from non-BART sources not included in the emissions trading programs (e.g., compressor emissions). The extent to which these emissions will be addressed through the WRAP depends on several factors which are not yet clear, such as the number of states and tribes, if any, which implement BART and which may rely on WRAP resources for technical assistance. It also depends on the amount of reasonable progress which may be achieved by the trading programs and the significance of and control options for emissions not included in the trading programs.

At a minimum, the SSJF will track and coordinate how states and tribes address these emissions and will initiate in 2004 an assessment of NO_x emissions from the oil and gas sector – the second largest category of stationary source NO_x emissions in the WRAP region. The assessment will include a characterization of the existing NO_x sources and

applicable emission standards, an evaluation and improvement of the 2002 emissions inventory, recommendations for projecting emissions to 2018 (and possibly deriving such an inventory), and an analysis of the potential control options and costs for new and existing sources.

	2005	2006
SS4 Baseline Inventories*	\$0	\$20,000
SS5 Likely Reductions from the Application of BART	\$150,000	\$0
SS6 Trading Program Design*	\$100,000	\$150,000
SS7 Demonstration of Greater Reasonable Progress	\$0	\$50,000
SS8 Other Emissions from Stationary Sources*	\$150,000	\$100,000
Total	\$400,000	\$270,000

* These projects are to begin in 2004 and will be funded largely, but not entirely by resources identified in the 2004 SSJF work plan.

Draft 2005 Work Plan
Dust Emissions Joint Forum
6/24/04

The mission of the Dust Emissions Joint Forum (DEJF) is to (1) improve the WRAP's dust emissions inventory, including the magnitude and spatial, temporal, and particle size distribution of dust emissions; (2) coordinate interpretation of modeling and monitoring results with respect to dust, including the apportionment of haze to natural and anthropogenic sources of dust; and (3) identify the most appropriate strategies for reducing anthropogenic sources of dust affecting Class I areas. At its discretion, the DEJF may also develop a research agenda to guide and coordinate efforts within the air quality community and may evaluate the usefulness of existing monitoring and modeling techniques for quantifying the contribution of dust to haze in Class I areas.

- DF1 Establish a Common Definition of Dust and Dust Emission Types – The goal of this project is to develop a common definition of dust and to develop a policy for categorizing dust emissions as either natural or anthropogenic. The common definition and categorization policy could then be used to consistently track dust emissions and their contributions to regional haze. In 2004, the DEJF started the process of a consensus-based definition of dust. A draft definition and examples of natural and anthropogenic dust were reviewed by the DEJF and the Implementation Work Group (IWG) and will be further developed when vital information is available in early 2005 from other DEJF projects and other WRAP activities, such as those of the Attribution of Haze Work Group. The DEJF anticipates using a facilitator and one or two public workshops to finalize the definition and categorization policy.
- DF5 Fugitive Dust Handbook and Website – The purpose of this project is to periodically update the handbook and website (originally developed in 2004) to keep them as relevant and useful as possible to WRAP members throughout the SIP development process (i.e., 2005-2007). New information will be included in the handbook and website as it becomes available from other WRAP projects (e.g., the Dust Control Measure Workshop described below) and from other dust-related efforts (e.g., dust control programs in various western jurisdictions).
- DF6 Enhanced Ambient Data Analysis – In 2004, the DEJF funded a project (DF2) to identify the 20 percent worst visibility days dominated by dust at all Western IMPROVE sites for the years 2000-2002, and to place these events into one of several categories (e.g., local, regional, Mexican, Asian, fire-related, uncertain, etc.). The purpose of this project (DF6) is to conduct further, “enhanced” analysis of ambient data to improve the categorization of any “uncertain events” and/or to address additional questions about the precise sources of dust (e.g., are local events highly localized, or on the scale of tens of miles? is the local dust associated with human activity? if so, what activities, where, and when? what are the trends in dust concentrations and are they related to trends in climate, land use, etc?). Given the more intensive types of analyses needed to answer these questions, the enhanced analysis will probably be limited to a subset of the IMPROVE sites (e.g., those with significant and/or variable dust sources). The selection of sites will be coordinated

with project DF7 (sample regional haze implementation plan for dust). An additional reason for continuing ambient data analysis of dust is the uncertainty regarding the quality and usefulness of the 2002 windblown dust emissions inventory currently under development. It is therefore important to maintain an alternative (e.g., ambient) method for assessing the impacts and causes of windblown dust.

DF7 Sample Regional Haze Implementation Plan for Dust – The purpose of this project is to develop the key elements that would likely comprise the dust portion of a regional haze SIP or TIP (e.g., a detailed inventory, ranking and selection of control methods, expected costs and benefits, and major regulatory/compliance elements.) This “Sample Plan” will be developed for a Class I area or small group of areas where a dust control strategy stands the most chance of being incorporated into an overall regional haze SIP or TIP. In essence, the Sample Plan will be a case study and will help resolve any analysis, planning, and communication issues which may otherwise arise when SIPs or TIPs are more fully developed in the 2006-2007 time frame. The Sample Plan will rely heavily on the DEJF’s prior and ongoing technical work and its Fugitive Dust Handbook. It will therefore integrate the DEJF’s prior work, enhance the DEJF’s policy agenda, and help identify any future needs of WRAP members. The area(s) for which the Sample Plan is developed will depend not only on the magnitude and types of dust sources, but also on the availability of data and (in kind) local expertise and support (e.g., from stakeholders and relevant government agencies). Finally, the DEJF dust control measures workshop (discussed below) will be used to gain input on how the Sample Plan could best be developed.

DF8 Dust Control Measures Workshop – The purpose of this one or two-day workshop is to discuss the success and limitations of current dust control strategies and to share thoughts on new and improved strategies, especially as they may pertain to regional haze. Results will be presented from various DEJF and other dust-related WRAP projects. Other workshop topics may include how to identify dust control strategies appropriate for individual Class I areas, quantifying emission and control measure reductions, developing dust ordinances and regulations, enforcement issues, and the politics behind adopting dust control measures.

2005 DEJF Projected Budget

Project Code	Project Title	CY05 Funding Request
DF1	Establish Common Definition of Dust and Emission Types	
DF5	Fugitive Dust Handbook and Website	20,000
DF6	Enhanced Ambient Data Analysis	50,000
DF7	Sample Regional Haze Implementation Plan for Dust	125,000
DF8	Dust Control Measures Workshop	10,000
Total		205,000

**Draft 2005 Work Plan
Fire Emissions Joint Forum
6/28/04**

The FEJF projects identified in the existing 2004 WRAP Workplan, and the proposed FEJF projects for the 2005 WRAP Workplan, fall into two main categories:

- 1) The first category provides analyses of technical and policy information needed for further Policy Refinement and Implementation of existing fire policies and programs applicable to the needs of §309 and §308 states.
- 2) The second category addresses existing and future Technical Needs, specifically emissions inventory development and related modeling analyses, fire tracking and emissions data management system, and emission reduction techniques.

The allocation of funding for the 2004 and 2005 FEJF projects is presented below at the end of the FEJF workplan. No additional 2005 funding requested as funding has been reprogrammed from funds allocated to FEJF in the 2004 WRAP Workplan.

Policy Refinement and Implementation

- FF1 Wildland Fire Effects Trade-Off Model Review - This project was funded and started in 2004. As fire management programs evolve, and as directed by the GCVTC, the applicability of the Wildland Fire Emissions Trade-off Model (FETM) will be reviewed for use in applying existing WRAP policies and guidance pertaining to smoke management of fire. Recommendations from this assessment have possible linkage to both the Enhanced Smoke Management Program and the Annual Emissions Goal policies, both §309 requirements and potentially useful approaches for §308. FETM may also be useful in the development of scenarios for future fire emissions inventories.
- FF"E" Fire Emissions Categorization Guidance: Restoration / Maintenance Difference – This project was funded in 2003 and started in 2004. Develop further user guidance to support the existing WRAP *Policy for Categorizing Fire Emissions*, to refine differences between restoration and maintenance prescribed burns in terms of vegetation structure, fuel loading, fuel size classes, ecosystem function and fire resilience. This project directly supports the “anthropogenic” / “natural” apportionment for implementation of the FTS requirement in §309 as well as similar implementation issues for §308. These categorizations will help support natural and anthropogenic differentiation needed for upcoming WRAP source apportionment efforts.
- FF9 Regional Coordination of Smoke Management Programs – This project was funded in 2003 and will be started in 2005. Regional Coordination is a required element within the ESMP Policy as coordination of burning activity (ranging from passive to active) is critical to avoiding cumulative smoke impacts within and across source types in mandatory Class I areas. Methods for this inter-jurisdictional and regional coordination will need to be developed for wildland and agricultural prescribed fire smoke

management programs, information sharing, and public notification. Proposed options will be developed, and then presented and reviewed at a facilitated conference, to be held in 2005. This project directly supports the implementation of the ESMP requirement in §309 as well as similar implementation issues for §308.

- FF12 Smoke Management Technical and Policy Workshop – Three-day workshop in 2005 to assess technical work to date, §309 policy and SIP implementation and refinement of policy options under §308. This effort will build on the two FEJF workshops held in 2004 to ensure that the needed technical and policy tools are in place for SIP/TIP development under §308. Reprogramming 2004 funding funded this project.

Technical Needs

- FF“C” 2002 Inventory of Wildfire and Prescribed Fire: Phase I & Phase II - This project was funded and started in 2003 and will continue into late 2004. The 2002 base year inventories will be prepared for the contiguous WRAP region for wildfire, prescribed fire, and wildland fire use on wildland and rangeland. Agricultural burning is also included. Alaska fire emissions may follow the lower states in deliverable schedule due to a different modeling plan as compared to the other WRAP jurisdictions. Phase I developed an initial emission inventory to allow the RMC to initialize the 2002 modeling efforts. Phase II involves further refinement of the Phase I inventory with greater QA/QC and state/tribal review of the fire activity estimates. Data collection to support estimates of private rangeland burning and augmentation of agricultural burning will occur in Phase II.

The use of remote sensing in both the QA/QC and augmentation steps of Phase II will be assessed and is now included with reprogrammed 2004 funding. This remote sensing approach may also allow for new approaches to the Phase III Baseline inventory. The 2002 emission inventory will include “anthropogenic” / “natural” apportionment to support the Attribution of Haze initial report. These projects directly support the modeling for the §308 SIPs/TIPs and should allow for assessment of remote sensing for future inventory development.

At the request of WRAP states, statewide CERR Reports for US EPA will be developed for the Phase II inventory for all fire sources. This will allow WRAP states to submit to US EPA reports, which will partially fulfill the states’ emissions inventory reporting requirements. This portion of the project was funded by reprogramming 2004 funding and will be started in 2004.

- FF6/3 Phase III and Phase IV Inventories & Preliminary Assessment of Apportionment Methods - This project was funded and will be started in 2004. Phase III is for the Baseline Planning Apportionment and create a 2000-2004 representative emissions inventory. Phase IV is for the 2018 Planning Apportionment and will be a 2018 representative inventory. The 2018 inventory may include a range of potential control scenarios and possible ranges of emissions to reflect the high degree of uncertainty in this type of forecast. The inventories will be prepared for the contiguous WRAP region for wildfire, prescribed fire, and wildland fire use on wildland and rangeland. Agricultural

burning is also included. Alaska fire emissions may follow the lower states in deliverable schedule due to a different modeling plan as compared to the other WRAP jurisdictions. This effort also includes categorization of “natural” and “anthropogenic” fire sources. The Attribution of Haze project will be supported by the FEJF through development of technical approaches to apportioning the impact of fire emissions between natural and anthropogenic source categories. These projects directly support the modeling for the §308 SIPs/TIPs.

- FF7 2002 National Wildfire Emissions Inventory (separate \$100,000 from OAQPS, national project, WRAP has lead RPO responsibility) - This project was funded and will be started in 2004. The 2002 emissions inventory for wildfire will be developed through an inter-RPO effort funded by EPA, based on a scope of work discussed amongst the RPOs. The FEJF has lead RPO responsibilities for this project. These projects directly support the modeling for the §308 SIPs/TIPs.

Included in the RFP was a list of optional tasks that may allow for inter-RPO collaboration such as 2002 Wildfire Inventory (Canada & Mexico), Representative Base Year Inventories (current conditions & 2018), Software Development for Location Conversion (STR to lat./long.), and 2002 Prescribed Fire Inventory. This list of optional projects that the FEJF may contribute to was funded by reprogramming 2004 funding and will be started in 2004. These projects directly support the modeling needs for the §308 SIPs/TIPs.

- FF4 Regional Modeling Center Support - This project was funded in 2004 and will be utilized as the need arises. Provide support to the Regional Modeling Center to assess the impact of various fire emissions scenarios, using modeling runs conducted by the RMC. Support may also be required for fire emissions QA and troubleshooting, which has historically been absorbed by other FEJF projects. This project directly supports the model assessment / sensitivity runs resulting in refinement of the modeling for the §308 SIPs/TIPs.

- FF“B” Model Assessment / Sensitivity Runs – This project was funded in 2003 and will be started in 2004. Independent assessment of fire emissions sensitivity runs to be conducted by the RMC. The assessment will address emissions inventory issues, pollutant speciation, plume height approach, variations in total net emissions, and other key assumed parameters in the context of the regional model results. This project directly supports refinement of the modeling for the §308 SIPs/TIPs.

- FF“D” Sensitivity Runs Phase II: Regional & Mesoscale – This project was funded in 2003 and will be started after completion of the initial Model Assessment/Sensitivity Runs are complete. Conduct an air quality source/impact analysis with two scales of modeling: regional and mesoscale. The regional-scale modeling features chemistry capacity with regional and longer temporal scales. The meso-scale modeling features complex terrain capacity with smaller geographic and temporal scales. Together, these two approaches will provide a comprehensive analysis of potential de minimus levels to assist states and tribes with maximizing efficiency for fire tracking, public notification and regional

coordination. This project directly supports the implementation of the FTS and ESMP requirements in §309 as well as similar implementation issues for §308.

FF5 Fire Tracking System / Emissions Data Management System – Portions of this project were funded prior to 2002 and in 2004 with additional 2004 funding being reprogrammed to this project and will be started in 2005. Evaluation of existing fire emissions inventory systems to develop a Fire Tracking System within, or bridged to, the WRAP EDMS as identified in the Fire Tracking System policy to calculate emissions from fire activity data. Develop user guidance to support the FTS policy identifying a specific format for the EDMS, parameters, defaults, structure and methods of emission calculation for required and optional FTS elements. This project directly supports the implementation of the FTS requirements in §309 as well as similar implementation issues for §308.

FF8 Quantitative Methods for Calculating Emissions Benefits of Emissions Reduction Techniques to Support Implementation of the AEG Policy – This project was funded and started in 2003 with the completion of an annotated bibliography on emission reduction techniques completed in 2004. This project will continue in 2004 and 2005. Develop technical guidance on ERTs applicable for wildland, rangeland, and agricultural burning for use in the establishment and support of AEGs. The guidance will include applicability criteria and calculation techniques by vegetation/crop type, emission factors, economics, and emissions averted including identification of new ERTs. Develop user guidance to support the tracking of ERTs (specific format, parameters, structure), which is an optional FTS Policy element. These projects directly support the Annual Emissions Goal reporting requirement in §309 as well as similar implementation issues for §308.

Code	Project Title	Obligated	Funding*
<i>Policy Refinement & Implementation</i>			
FF1	Wildland Fire Effects Trade-Off Model Review	15,000	
FF"E"	Fire Emissions Categorization Guidance: Restoration / Maintenance Difference		10,000
FF9	Regional Coordination of Smoke Management Programs		25,000
FF12	Smoke Management Technical and Policy Workshop		25,000
<i>Technical Needs</i>			
FF"C"	2002 Inventory of Wildfire and Prescribed Fire: Phase I & Phase II	142,464 (Phase I)	176,300 (Phase II)
FF6/3	Phase III & Phase IV Inventories & Preliminary Assessment of Apportionment Methods		180,000
FF7	2002 National Wildfire Emissions Inventory (Inter-RPO)	100,000	26,500
FF4	Regional Modeling Center Support		25,000
FF"B"	Model Assessment / Sensitivity Runs	42,650	
FF"D"	Sensitivity Runs Phase II: Regional & Mesoscale		100,000
FF5	Fire Tracking System / Emissions Data Management System		40,000
FF8	Quantitative Methods for Calculating Emissions Benefits of ERTs to Support Implementation of the AEG Policy		75,000

*Funding reprogrammed from funds allocated to FEJF in 2004 Workplan. No additional 2005 funding requested.

**Preliminary 2006-07 Work Plan
Fire Emission Joint Forum**

[This serves as an initial placeholder and will be refined further by the FEJF prior to the July 2004 WRAP Planning Team Meeting.]

FF2 User Guidance and Review of Feasibility Criteria for WRAP Fire Policies – Feasibility criteria for the implementation of smoke management policies and programs were identified in the RHR and adopted into the WRAP Fire Policies. As States and Tribes assess their program options for addressing smoke from fire under §308, additional guidance will be needed as to the use of such criteria. The WRAP called for further user guidance to be developed to support the existing WRAP *Policy for Categorizing Fire Emissions*.

FF11 Effects of Smoke Management Techniques In Reducing Regional Haze Impacts on Class I Areas - As smoke management techniques are used across the WRAP region, and are useful and economic methods for reducing smoke impacts on Class I areas, an analysis of these techniques and their benefits in reducing haze will be conducted. Techniques that should be assessed include use of meteorological conditions, dispersion characteristics, burning of smaller units, etc.

Agricultural Alternatives – Expand the existing Agricultural Alternatives Report to include quantitative examples of more crop types and regions, with greater involvement of agricultural stakeholder community.

International Emissions - Develop Emission Inventory for large fire sources from Mexico and Canada. Include assessment of use of remote sensed data for this purpose.

Biomass Utilization Assessment - Establish a workgroup with Pollution Prevention Forum to assess use of biomass/vegetative material for energy production (material availability, energy content, barriers, technology, pollution trade-off).

Code	Project Title	2006 Estimate	2007 Estimate
FF2	User Guidance and Review of Feasibility Criteria for Categorizing Fire Emissions	60,000	
FF11	Effects of Smoke Management Techniques in Reducing Regional Haze Impacts on Class I Areas	60,000	40,000
	Agricultural Alternatives	100,000	
	International Emissions		120,000
	Biomass Utilization Assessment		100,000

**Draft 2005 Work Plan
Mobile Sources Forum
7/1/04**

- MS1 WRAP Offroad Retrofit Program – This project was formerly named “Support of Nonroad Demonstration Project” and has been expanded in concept. Initiated in the summer of 2004, the goal of the retrofit program is to promote voluntary emission reductions from existing offroad vehicles and equipment in the WRAP region. In 2005, the MSF, with contractor support, will continue to provide WRAP members and vehicle/equipment owners with written guidance, technical support, outreach services, identification of incentives and public policy options, and examples of successful efforts and reduction opportunities.
- MS2 Offroad Retrofit Credits – The MSF will work with the EPA and other stakeholders to develop and implement, if appropriate, a program that uses retrofits of existing offroad sources to generate credits for compliance with new engine emission standards under the Tier IV nonroad diesel regulations. EPA has indicated an interest in working with stakeholders during 2004 – 2005 to examine the feasibility of this compliance option and implement it if appropriate. Other uses of offroad retrofit credits (e.g., for use in SIPs and TIPs) will be addressed by the Forum as needed.
- MS3 Review of EPA Analyses and Proposals – The MSF will review and where appropriate recommend WRAP comments on EPA technical analyses (e.g., for small nonroad diesel engines) and regulatory proposals (e.g., for ocean-going vessels and locomotives).

	2005	2006
MS1 <u>WRAP Offroad Retrofit Program</u>	\$100,000	\$100,000
MS2 <u>Offroad Retrofit Credits</u>	\$0	\$0
MS3 <u>Review of EPA Analyses and Proposals</u>	\$0	\$0
Total	\$100,000	\$100,000

Draft 2005 Work Plan Air Manager's Committee

2005 will be the second year of the current strategic plan. It is the year in which we transition from "phase I," to "phase II." The Attribution of Haze report will be out and serious discussions will be had about what pollutants are causing haze in which Class I area, where the pollutants originate, and what each state and tribe should do to take care of its share of the problem.

Projects Under Way

AMC1 – Staff support for the State and Tribal Caucuses

Two coordinators, one for each caucus, are positions under the Air Manager's Committee. The State Caucus Coordinator position is filled through a services contract between WGA and WESTAR. The Tribal Caucus Coordinator position is funded directly through NTEC and is included in the NTEC line item of the WRAP budget. The staff support provides the tribal and state air directors with continual tracking and reporting of WRAP activities, issue identification and communication among the WRAP partners, recruitment of WRAP participants from states and tribes, facilitation of issue resolution.

This is a multi-year project and should continue through 2005

AMC2 – Alaska Tribal Outreach Coordinator Position

This task of recruiting the Coordinator was completed in 2004.

AMC3 – Health-Based Effects of Regional Haze

Distilling health-related information from WRAP activities will provide added value to WRAP members and may generate further interest from individuals and organizations that may not otherwise be compelled to participate, such as some public interest groups, tribes, and members of the public. The AMC will attempt to boost the health-relevance of the WRAP's haze-related activities by first recruiting an expert in the area of air quality and health to draft a report which:

- (a) Summarizes what the available literature implies about the health significance of various PM constituents and PM precursors which may pose a health risk in the West;
- (b) Identifies WRAP data that can be used to assess health effects;
- (c) Identifies data gaps in the WRAP region (particularly on tribal lands) which could provide significantly more health-related information, and
- (d) Recommends ways in which the WRAP can use its current and forthcoming data (including filled data gaps) to estimate the health effects of haze and the health benefits of haze controls.

The funding for AMC3 is carried over from 2004 with a budget of \$45,000.00.

Included in this project is follow up workshop, the need for which will be proposed to the Communications Committee as part of outreach effort. It is probable that the workshop would occur in the 2006 budget year.

AMC4 – Traditional Tribal Practices and Regional Haze

Tribal traditional practices (e.g., ceremonial, cultural, religious) are regularly affected by regional haze or the policies intended to curb such haze. On the one hand, tribes are concerned with protecting their traditional practices from the air pollutants that obscure visibility. For instance, some tribal members have noted the importance of being able to see nearby mountains or other physical features for religious and ceremonial purposes. On the other hand, some traditional practices and activities involving fire may contribute to regional haze. In some cases, the WRAP has acknowledged these practices and exempted them from policies adopted by the organization (see, for example, “Enhanced Smoke Management Plan” policy document produced by the Fire Emissions Joint Forum and adopted by the WRAP Board). There is significant scientific documentation on traditional tribal practices but few, if any connections are made of the presence haze at sacred sites its impact on traditional tribal life ways.

The AMC4 work product will be a bound reference document that will be easily understood and suitable as resource material for states and tribes. NTEC maintains a catalogue of documents related to tribal traditional practices, which will be a primary resource for this project. Use of this resource should reduce the work involved in the compilation. This project can be accomplished for \$35,000, a reduction of \$20,000 from the original cost estimate. This task will require a compiler who is knowledgeable in tribal protocol.

AMC5 – Implementation Work Group (308 Template Development)

In 2004, the AMC formed the Implementation Work Group (IWG) of state, tribal and federal planners to develop one or more “templates” or “roadmaps” to assist states and tribes in writing their 308 and 309(g) plans. Tribes are not subject to specific deadlines to submit TIPs, but it is expected that the work of the Implementation Work Group will include developing parallel material for 308 TIPs. In addition further work is needed to complete the template for the 309 TIPs. Closely related to this, the IWG will maintain ongoing communication with the other forums as needed, prompting timely information from states and tribes, and in turn providing feedback to the forums to ensure they are focused on the critical planning questions. WESTAR provides direct staff assistance under a services contract with WGA. This staff support brings to bear the WESTAR experience of preparing templates and model rules the states and tribes can fit to their own formats as appropriate. The State of New Mexico provided contract staff to complete the 309 work in 2004 and has agreed to provide contract staff to address the specific planning needs of tribes for 308 in 2005.

The proposed budget for this is \$18,000 for the WESTAR contract, and \$20,000 for the New Mexico contract.

AMC6 – TIP/FIP Framework

This project is underway. It is an in-house project and carries no budget amount.

New Project for 2005

AMC6 – Workshops on Effective Collaboration

In the last year, during discussions among states and among tribes, reference has been made several times, along the lines, “The Tribes won’t talk to us.” or “State (agency) is making assumptions we don’t agree with.” Although there are examples of collaboration among states and tribes on specific projects, states in general have more mature air programs than most tribes and they must meet certain deadlines. Tribes are not subject to these deadlines. There is strong opinion among some of the tribes that they are included in WRAP work when it is convenient or in name only. Some states have little to no working relationship with tribes in their respective states. Tribal emissions and air quality data are almost non-existent. A number of tribes are reluctant to release tribal information because they are distrustful of state and federal regulators.

This task would begin to strengthen working relationships between states and tribes that is essential in order to fulfill the requirements of the regional haze planning process and the Regional Haze Rule. EPA’s Regional Haze Rule explicitly addresses state-tribal relationships and directs them to work collaboratively with each other and in “partnership with other interested stakeholders,” but provides little guidance in this regard. The goal of these workshops is to facilitate improvements in working relationships within WRAP and among individual states, tribes and federal agencies, by enhancing the understandings of leadership and staffs of these entities about how each of them functions within their organizations, their various operational protocols and traditions.

In general, the form of this project is a series of sub-regional workshops at selected locations within the WRAP region to instruct state and tribal WRAP partners in tribal/state protocols. Tribal and state leaders would address in turn their procedures and expectations of consultation, their governing structures, environmental priorities and their efforts toward collaboration. The focus would include identification of barriers to collaboration and ways to overcome them. Interested stakeholders would be invited to give insight into their organizational structures and collaborative efforts.

Some specific topics would include how to keep WRAP projects and goals on track when WRAP participants enter/exit committees and forums. Proceedings of each workshop will be developed and available as reference material for participants. The times, locations, agendas, participants and other details would be shaped by a steering committee appointed by AMC for this purpose.

The budget for this project will be \$50,000.00; Steering Committee meetings- \$2,500.00, Workshops-\$20,000.00, Travel costs-\$20,000.00, - Publication and meeting materials-\$ 7,500.00.

2006-2007

The AMC anticipates largely ongoing projects for 2006-2007, focusing on support of Phase II of the WRAP strategic plan. These projects will include staffing, and input on WRAP work products and finalizing working roadmaps for SIPs and TIPs.

The report on health benefits of haze strategies from AMC 3 will be handed off to the Communications Forum in 2006. The AMC sees a need for outreach this material to the broader community about the correlation of health effects indicators.

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(See AMC budget table, Revised June 24, 2004)

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 AMC 2005 Budget Table (June 24, 2004)

CODE	PROJECT TITLE	PENDING OR UNDERWAY 2004	ESTIMATED EXP. 2004	ESTIMATED CARRY FORWARD	PROPOSED NEW 2005	TOTAL 2005 (carry forw'd. + new)
AMC1	AMC staff support (State Caucus)*	117,000	117,000	-0-	120,000	120,000
AMC2	Hire AK Tribal Outreach Coordinator	40,000	?	-0-		
AMC2	AK Tribal Outreach Coordinator Position**	75,000	-0-	-0-		
AMC3	Health/Environmental Assessment of RH	45,000	-0-	45,000		45,000
AMC4	Traditional Tribal Practices and RH	55,000	-0-	55,000	<20,000>	35,000
AMC5	308/309 IWG (WESTAR)***	18,000	18,000		18,000	18,000
AMC5	308/309 IWG (Tribal)	20,000	20,000	-0-	20,000	20,000
AMC6	Workshops on Effective Collaboration				50,000	50,000
	Contractor Assistance	170,000	30,000	140,000		160,000
Totals					188,000	448,000

* Tribal Caucus staff support is funded by NTEC
 ** AK Tribal Outreach position to be funded by NTEC
 *** 2004 WESTAR support for IWG was funded from Contractor Assistance

**Draft 2005 Work Plan
Tribal Data Development Working Group**

The guidance for these tasks is to comply with the Regional Haze Rule and the requirements of the Clean Air Act.

TW1 Emissions Data Development Support - In 2005 the TDDWG is proposing to continue the contract with ITEP for the implementation and training on TEISS, and training on the software before making it available to the Tribes to compile their respective emissions inventory data. Also, training sessions will be offered for the Tribal Professional by ITEP. Some of the elements of this task will be done by the Tribal Data Development Working Group.

- TEISS Software Support (software distribution to interested tribes, promotion, technical assistance by phone and E-Mail);
- Alaska tribal support (ITEP will work the state of Alaska, and interested Alaskan Native Corporations to distribute, and provide voice and electronic support, for the use of TEISS in Alaska);
- TEISS Software User Workshops (Two workshops, designed for both new [3.5 days] and experienced [2.5 days] TEISS users, will be developed and conducted at the Tribal Air Monitoring Support (TAMS) Center's training facility in Las Vegas, NV or at an EPA facility that can provide a computer lab free of cost for the training); and
- Contractor support for tribal data needed by the Emissions Forum.
- Provide at least one TEISS training that piggybacks with another meeting and conference with tribes funding their own travel or using the travel funding from the travel funds available through WRAP.
- ITEP offer 2 trainings during conferences or meetings where primary travel expenses are by the participant.

TW 2: Continue Emissions Inventory & TEISS Technical Support:

ITEP will maintain a comprehensive website to provide information on the technical aspects of EI work that are unique to tribes. The information that will be easily accessible on this website will comprise sections covering:

- Summaries and URL links to EPA guidance documents and assistance
- Steps, procedures and documentation requirements for constructing a tribal EI
- Information about contractors who have worked with tribes on EI issues
- A tracking system for QA/QC concerns and issues derived from tribal experiences with the EI Process

ITEP's Tribal Environmental Resource Center will facilitate networking between tribes working on EIs through our *Tribal Air Mentor Network*. Tribes desiring specific kinds of assistance will be linked with ITEP's existing *Professional Exchange* program to get the training and knowledge they need, whether from another tribal air program or from EPA. ITEP staff will be available to provide technical assistance on a one-on-one basis on all aspects of EI work on tribal lands in the lower 48 United States. Due to the limited nature of this service, ITEP staff will consider each tribes request for one-on-one assistance in a formal process (to be developed with the TDDWG), and deliver this resource on a needs basis.

As part of this task ITEP staff will also be available to provide information and contact data on tribes for other forums and groups working with the WRAP. This service will be limited to providing focused contact lists in response to specific requests.

Funding to allow ITEP staff to travel to reservations and provide assistance on a one-on-one basis is requested. Due to travel related costs, requests for assistance from Alaskan tribes must be considered carefully and needs met in such a way that the maximum number of Alaskan tribal communities will be served. These needs could be met through mini-workshops in Alaska, with Alaskans providing their own travel funding to a central location in Alaska. ITEP would help facilitate the information distributed at these workshops – but no funding is requested in this proposal for ITEP staff or instructor travel to the state.

Funds are requested to allow those trained in the initial train-the-trainer workshop, or other tribal staff knowledgeable in EI techniques and methods, to travel to another tribe's reservation and provide assistance in planning EI work, collecting data, using TEISS, and completing and reporting EI results. These funds could also be used to fund travel for tribal trainers to assist with the TEISS workshops.

- *Contractor to Maintain and Provide Information on tribal coverages to the WRAP Forums and Committees, when needed*

Time is requested for a GIS Specialist whose task would be to maintain the geographic information system (GIS) tribal coverage for the WRAP region. The GIS Specialist would continue the outreach to tribes and updating of the GIS coverage developed under the 2003 work plan, to ensure that the tribal boundaries used in all WRAP projects are correct. A Specialist would provide maps and geographic analysis related to tribes to WRAP forums and committees upon request.

TW3 Tribal Regional Haze TSD Guidance/Template Development – In order for tribes to develop TIPs for regional haze, WRAP technical work will have to provide sufficient data resolution in appropriate formats for individual tribes. To date, state- and county-level emissions data have been used to analyze visibility improvements associated with various control strategies. When submitting a TIP, the tribe would need to provide a Technical Support Document (TSD) with the TIP, or have future WRAP regional TSD work products provide sufficient data resolution in the proper formats. The purpose of this project is to describe the TSD data and proper formats needed by an individual tribe to support TIP

preparation, particularly for those tribes that have never previously prepared a TIP.

TW4 Program Enhancement - This is a set-aside for projects that cannot be anticipated at this time. Following are some potential projects that could be initiated in 2005:

- 1) TEISS updates and conduct feasibility of modeling for TEISS
- 2) A collaborative project with the Economic Analysis Forum to form a valid and reliable database in the Indian Country;
- 3) The Tribal Data Development Work Group will also be fully supportive of efforts to address the “Tribal Traditional Practices and Regional Haze”. These practices have been exempted by the WRAP so that the Indian Nations could exercise their religious and ceremonial practices without being regulated by the Regional Haze Rule. Is addressed for 2005 under the Air Managers Committee Work Plan Proposal
- 4) Collaborate with Modeling Forum to develop basic and intermediate modeling training that is tribal specific for WRAP Regional modeling.

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TDDWG 2004 and 2005 Budget Table (July 8, 2004)

CODE	PROJECT TITLE	PENDING OR UNDERWAY 2004***	ESTIMATED EXP. 2004***	ESTIMATED CARRY FORWARD	PROPOSED NEW 2005	TOTAL 2005 (carry forw'd. + new)
Reflects Multi-Year \$	Tribal Inventory Gathering and Analysis (ITEP/NAU) - Phase I	330,423 underway	330,423*	-0- Request approx. 2,047 reallocated to Phase III		
Reflects Multi-Year \$	Tribal Inventory Gathering and Analysis (ITEP/NAU) - Phase II	345,573 underway	345,573*	-0- Request approx. 500 reallocated to Phase III		
Reflects Multi-Year \$	Tribal Inventory Gathering and Analysis (ITEP/NAU) - Phase III	215,000 underway	215,000** funding 6/16/04	-0-		
TW2 CY 04	Monitoring Data Analysis (addition to Causes of Haze)	85,000 pending	85,000	-0-		
TW3 CY 04	Tribal Regional Haze TSD Guidance/Template Development	-50,000	Reallocated to EDMS task	-0-		
TW4 CY 04	Program Enhancement	-50,000	Reallocated to EDMS task	-0-		
*New TW5	EDMS (Point Source)	+100,000	100,000	-0-		
TW 1 CY 05	Emissions Data Development Support	.			103,000	103,000
TW 2 CY 05	Continue Emissions Inventory & TEISS Technical Support				98,000	98,000
TW 3 CY 05	Tribal Regional Haze TSD Guidance + Template Development				50,000	50,000
TW 4 CY 05	Program Enhancement				50,000	50,000
Totals	***Includes Multi-Year Funding	975,996***	975,996***	-0-	301,000	301,000

Draft 2005 Workplan Economic Analysis Forum

The total cost of these tasks is estimated at \$380,000. The Forum currently has \$165,000 in uncommitted funds. The net budget request by the Economic Analysis Forum for 2005 is therefore \$215,000.

1. Development of Baseline Economic Data for States and Tribes – Baseline economic and demographic data (2002 and 2018) are required by the WRAP, selected Forums, and the states and tribes to assess the potential economic impacts of proposed haze reduction strategies on the states, tribes and other stakeholders. This data needs to be collected for each state, sub-state regions, and tribes. A particular challenge within this task will be the continued collection, and development of tribal baseline data. This portion of the effort will be closely coordinated with the Tribal Data Development Work Group. The overall baseline effort will also be conducted in close coordination with the Emissions Forum, for its emissions baseline must be predicated on similar, if not identical economic and demographic data as employed in economic assessments.

To date, baseline data has been collected for three states in the WRAP region at both the state and sub-state level as part of the ongoing Framework Test Application being carried forward by BBC Research. The EAF would continue its management role in the overall effort to compile baseline data for the remaining WRAP states. Development of the baseline economic and demographic data would include careful documentation of both the process and sources employed. In addition, that documentation would include easily applied rule sets for both modifications (if needed) and deconfliction as new information becomes available over next 2-4 years. The EAF and its contractor would provide assistance to WRAP and its respective stakeholders in generating those required baseline data and projection updates as part of the overall analyses processes as spelled out in the 2003-2008 strategic plan.

In concert with the Emissions Forum, the EAF and its support contractor would work to ensure that consistency is maintained between the baseline projections and their subsequent use by the Air Quality Modeling Forum in the conduct of its model runs of the alternative broad strategy formulations. The TDWG is working toward a standard data “template” which is designed to formally and effectively develop the needed demographic and economic data and data sets required to support consistent economic impact and tradeoff analysis by all. The tribal baseline work will implement that template as it works toward a complete picture of tribal conditions, and forecasts, in the WRAP region.

We are requesting \$40,000 to fund development of the 2002 baseline economic and demographic conditions and the 2018 projections for the remaining states (AZ, MT and ND being completed through the ongoing Framework Study Application). We are further requesting \$70,000 for tribal baseline estimates and projections. We believe the latter will prove to be insufficient given both the diversity and number of tribes within the WRAP region. Additional resources will need to be acquired through partnerships with other Forums and outside sources for successful completion of this task. Again, the work will be performed as an integral activity with the Tribal Data Working Group.

A total of \$110, 000 is being requested for this task.

2. Enhancement of Cost and Benefit Unit Values Used in WRAP Economic Analysis – The net benefit calculated for any haze reduction strategy will depend heavily on both the unit cost values (e.g., \$/ton) and the unit benefit values (e.g., \$/deciview and \$/life saved) applied within an economic framework (whether full or a “lite” version”) for reductions attributable to that particular strategy. As was documented in the initial Economic Framework study, and is being borne out in its current application to the off-road strategy comparisons in AZ, MT and ND, these values are often available from only a limited number of existing studies – often due to the rather large expense of conducting the needed research and the tremendous uncertainty involved in evaluating “soft” effects. “Tailored” unit benefit values taken from previous studies for such areas as health, materials and ecological impacts can provide credible “default” or standard coefficients by use of all stakeholders in future economic analyses and regulatory strategy tradeoffs. We recognize, however, that tailored values will fall short of the broad set of values needed by the diverse set of stakeholders with WRAP. As with some of the other tasks, the Forum will actively seek partners to complete the effort of improving existing air quality unit cost and benefit values.

The Forum has yet to address the other side of the cost/benefit equation – that of control costs for the myriad of strategy and technology options that may (should) be considered over the next few years as both the 308 path comes to completion and the 309 path is evaluated for effectiveness. The Forum and its supporting contractor(s) will focus on re-establishing standard benchmark cost estimates, both for the current set of control technologies, and those technologies that may be available in the future. Existing values used are out-of-date. As with the unit benefit values, documentation will include rule sets for making good choices when alternative value (usually due to inherent uncertainties in any forecast) selection and application need to be offered for both credibility and completeness. Care will be taken to include the “softer” technologies that may be more focused on operating options within production processes themselves as part of this cost side of the equation.

On the benefit side the three principal categories (outside of haze reduction itself) of health, materials damage and ecological quality will remain the focus. On the cost side, both technological options and changes in operating processes and practices will be included. We are requesting \$50,000 for the continuation of this task, with much of the funds being allocated to establishing unit cost values for use by all in future studies and assessments.

3. Enhancement of Visibility Benefit Values -- The EAF has broken this task out from the previous one due to its size, potential long-term commitment, and possible implications from WRAP support. Partnerships with other federal agencies (e.g., strong success story for the AP2 Forum with DOE), and other organizations whether they be public or private, are much to be desired. In addition, there is much work remaining if both appropriate tools and their supporting data sets are to be available for the next series of steps within the 2003-2008 Strategic Plan, which is quite dependent upon efficient and cost effective evaluation of alternative strategies available for reduction of regional haze.

The partnership proposed in this task is a bit different of the earlier efforts for EAF, and WRAP would be a junior partner in an ongoing NPS study addressing the fundamental question of valuing visibility *per se*. Further, this information would likely not be available until the 2006 time frame – possibly too late to be of optimal use within the ongoing assessments of alternative haze reduction studies. On the other hand, the current set of unit values cited most often have been judged, by many, as being deficient for defensible applications today (and may not even be accepted within the EPA itself by some). As noted, the work being proposed (and actually underway) here by the NPS would draw upon that agency for the bulk of its funding support, with WRAP’s proposed dollar contribution maybe 5-10% of the total budget over the next couple of years. NPS is working project funding within its own agency, and continues to actively seek partners for this project. The EAF is requesting \$80,000 for the 1st year effort, with an identical amount for the 2nd and (if needed) subsequent years to both become an active partner within this study championed by NPS and to provide strong guidance for the actual conduct of the study.

4. Screening Tool – The current economic analysis framework (study application ongoing for off-road mobile source reduction strategies for the states of AZ, MT and ND and three tribes) employs a fairly comprehensive analysis. Along with the comprehensiveness of such analyses comes the commensurate costs – understanding, skills, dollar costs and time. These considerations make it highly likely that its next set of applications will be used only an occasional basis to assess “packages” of control strategies that have either been well defined and/or are nearing serious consideration by WRAP stakeholders

As a complement to the study framework ongoing application, the Forum is targeting completion of an initial screening tool based on the framework (e.g., a light-weight version of the framework) to be applied more routinely and cost-effectively by WRAP stakeholders for assessing and ranking a variety and number of individual potential control strategies. Two products from this task would be a template and a cookbook of screening various control strategies. After finishing the screening tool, the forum will run through a couple of test cases to see if the tool works and to ensure that the final tool is something useful and meaningful for WRAP. This screening tool has been explicitly identified as a needed capability within the WRAP Strategic Plan for 2003-2008. (\$40,000)

5. Economic Assessment Capability – The Forum, and its supporting contractor(s) will provide WRAP and its stakeholders with some level of on-going economic assessment capability, depending (in part) on what stakeholders need and the varying role of economic analyses to be conducted for the 308 submittals and 309 reviews. We envision three alternative levels of that support capability -- each with a differing funding requirement.
 - The simplest role would be that of consultation, answering questions, and guiding the use of various economic models including both the full WRAP Economic Framework and its “lite” version (\$25-50 K).
 - The mid-level, or ‘partner’ role would involve partnering with the various stakeholders (principally the states and tribes who are ultimately responsible for 308 and 309 SIP preparation) in the actual conductance of their respective varying economic analyses (\$40-150K).

- A third level, or role would be for the EAF and its supporting contractors to perform most, if not almost all of the ensuing economic analyses conducted within WRAP, both for WRAP as a whole and for each of its constituent members. Under all three levels, the Forum would house one or more economic models, such as IMPLAN or REMI for both total impact and distributional analysis, to assist in the comprehensive economic analyses conducted within WRAP (\$75-200 K).

Assuming the mid-level role, or involvement in the conduct of required economic analyses as the most probable EAF capability, and assuming that this task would need some set up time to fully established and operational, requested funding would be in the \$100,000 range.

6. Control Strategy Menu Development – The Forum will be prepared to assist the IOC in any effort to compile and rank available control strategies for different pollutants or source sectors. A key aspect of such a project would be collecting and summarizing the first order costs and benefits of each strategy, making strong use of the baseline data projections and the “lite” screening tool currently under development. It is this function in which the Forum could provide the most assistance. (No funding requested.)
7. Coordination and Outreach – An ongoing and inherent task of the Forum will be the coordination with other Forums. As noted above, the Emissions Forum and Economic Analysis Forum would co-develop and share a common set of economic and demographic baseline data, both current conditions and future projections. In addition, because economic analysis is dependent upon results from air quality modeling, the EAF would work very closely with the Air Quality Modeling Forum to fully and in a timely manner capture results from their sets of runs. Also, the EAF and its supporting contractors will be making more extensive use of GIS data, and would be working closely with the Areas Within and Near Class I Areas Forum. A critical area of coordination will be with tribal issues (e.g., baseline data, distributional impacts, and alternative values), with requires a close working relationship, if not partnership, with the Tribal Data Working Group. Finally, outreach to other WRAP Forums and stakeholders (including the public) is important to ensure proper use and understanding of economic principles and analytical results, especially since formal, comprehensive (e.g., both costs and benefits) economic analysis is not typically an everyday part of WRAP member activities. To improve coordination and outreach, the EAF will take advantage of WRAP-wide meetings to host periodic workshops on the application of the tools and interpretation of results of the Forum’s analyses framework and supporting data sets. (No funding requested.)

The Modeling Forum plans to continue operation of the Regional Modeling Center (RMC) as their single major project, including modeling of Alaska regional haze. The proposed work for the RMC will primarily focus on completing emissions processing and air quality modeling evaluations of revised/final 2002 emissions and 2018 emissions projections data. The RMC will prepare a specific 2005 cost proposal and workplan for Modeling Forum review and approval by November 1, 2004, and the RMC contract will be amended to reflect this workplan by January 1, 2005. The following is an unordered list of RMC activities for the 2005 calendar year contract.

Contiguous WRAP region modeling

These tasks continue work begun in 2004, and are identified in the WRAP Strategic Plan.

- ❑ Process revised 2002 emissions and 2018 emissions projections
- ❑ Update new model codes for SMOKE, MCIP, and CMAQ as needed
- ❑ Continue to update post-production displays
- ❑ Run CMAQ model with 2002 and 2018 inputs
- ❑ Conduct source apportionment/sensitivity model runs
- ❑ Training – Plan to do all 4 types of training [Air Managers, tribal, basic SMOKE/CMAQ, advanced in-person/one-on-one] in 2005 – RMC will need to include course dates and draft syllabuses in their 2005 workplan – plan move \$50k from 2004 RMC budget to 2005
- ❑ QA/QC:
 - Implement version control mechanism
 - EI data file to SMOKE outputs analysis & reports
 - Model performance evaluation
- ❑ April 2005 – 2002 final base case modeling results report
- ❑ June 2005 – 2018 final base case modeling results report
- ❑ August 2005 – 2018 base case final source apportionment modeling results report
- ❑ Fall 2005 – Three to five [3-5] 2018 control strategy sensitivity modeling results reports

Alaska region modeling

This portion of the RMC work is aimed at providing a credible evaluation of the potential contributions to regional haze in the Class I areas of Alaska that are more likely to be affected by in-state emissions, namely Tuxedni and Denali. During 2004, the RMC is completing two tasks: 1) Develop appropriate methods for running MM5 over central Alaska, including Cook Inlet, the Alaska Range, to north of Fairbanks, and 2) Run MM5 for this region for several time periods representing different seasonal and meteorological conditions and evaluate the meteorological model results. For the 2005 Alaska modeling tasks:

- ❑ Assuming the MM5 model test period runs are credible, run the MM5 model for all of 2002.
- ❑ Then run a LaGrangian model, such as CALPUFF, for the largest point sources in the region (up to about 10) - provide a modeling results report.
- ❑ Run the LaGrangian model [chosen previously] to evaluate the potential for impacts from the urban areas of Anchorage and Fairbanks - provide a modeling results report.

Funding: For the 2005 Regional Modeling Center activities described above, \$650,000 is requested.