

GUIDANCE FOR COORDINATING SMOKE MANAGEMENT PROGRAMS

APPROVED BY CONSENSUS:

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EXECUTIVE SUMMARY

In 1999, the U.S. Environmental Protection Agency (EPA) promulgated rules in an effort to improve air quality in select national parks and wilderness areas (Federal Class I areas). The Regional Haze Rule (RHR) calls for state and tribes to work with federal agencies to improve visibility in 156 national parks and wilderness areas such as the Grand Canyon, Yellowstone, and Glacier. The RHR requires states, in coordination with federal land managers and other interested parties, to develop and implement visibility protection plans to reduce anthropogenic (man-made) air pollution that causes visibility impairment. Tribes are not subject to the same requirements of the RHR as states, but tribes wishing to assume the regional haze requirements outlined in the RHR may, according to the Tribal Authority Rule (TAR), seek approval under 40 CFR 49 to be “treated in the same manner as states.”

The Western Regional Air Partnership (WRAP) is a collaborative effort of states, tribes, federal land managers and other interested parties, brought together by WRAP, to develop technical and policy tools needed by western states and tribes to develop and implement visibility protection plans.

This *Guidance for Coordinating Smoke Management Programs* (Guidance) was developed to assist WRAP region burners and regulators in fulfilling RHR requirements during the implementation of smoke management programs (SMPs). This Guidance does not alter or change the 2002 *WRAP Policy on Enhanced Smoke Management Programs for Visibility* (ESMP Policy). Rather, this Guidance focuses primarily on the interjurisdictional exchange of certain critical information describing characteristics of planned burns, i.e., SMP elements.

The following summarizes the guiding principles upon which this Guidance was developed.

This Guidance is intended to provide strategies to prevent / mitigate visibility impairment in Class I areas from emissions of planned burning from one jurisdiction to another.

This Guidance also:

- Clarifies the *WRAP Policy on Enhanced Smoke Management Programs for Visibility*;
- Emphasizes planned burning, which may include other emissions;
- Defines who is eligible to participate;
- Generally describes types of fire emissions;
- Recommends program elements to share inter-jurisdictionally;
- Complements the work of the fire tracking system;
- Provides examples of other coordination strategies;
- Provides information for air quality planning purposes and attaining reasonable progress goals; and
- Will be revised as necessary.

This Guidance is NOT intended to:

- Mandate participation;
- Create or revise smoke management programs or regulations;
- Emphasize National Ambient Air Quality Standards (NAAQS) or nuisance smoke;
- Dictate how shared information is used;
- Provide a basis for litigation or otherwise gain access to proprietary information;
- Require database entry; and/or
- Determine what constitutes “cause or contribute” to visibility impairment.

ACRONYMS

308	40 CFR 51.308
309	40 CFR 51.309
CANSAC	California and Nevada Smoke and Air Consortium
EPA	United States Environmental Protection Agency
ESMP	Enhanced Smoke Management Program
FEJF	WRAP Fire Emissions Joint Forum
GCVTC	Grand Canyon Visibility Transport Commission
NAAQS	National Ambient Air Quality Standards
RHR	Regional Haze Rule
SIP	State Implementation Plan
SMP	Smoke Management Program
TAR	Tribal Authority Rule
TIP	Tribal Implementation Plan
WFU	Wildland Fire Use
WRAP	Western Regional Air Partnership

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1. INTRODUCTION

WHY BURNERS AND REGULATORS SHOULD DO INTERJURISDICTIONAL COORDINATION

The Western Regional Air Partnership (WRAP), as the successor to the Grand Canyon Visibility Transport Commission (GCVTC), is directed to implement the GCVTC recommendations and to develop the technical and policy tools necessary for western states and tribes to comply with the U.S. Environmental Protection Agency's (EPA) regional haze regulations. The WRAP Fire Emissions Joint Forum (FEJF) was established to develop policy and technical tools to address fire emissions.

On November 12, 2002, the WRAP approved by consensus the FEJF developed *WRAP Policy on Enhanced Smoke Management Programs for Visibility* (ESMP Policy) that requires developing guidance facilitating regional coordination of Smoke Management Programs (SMPs). Under the Regional Haze Rule (RHR) at 40 CFR 51.309 (309) states were required to submit smoke management plans to the EPA that included, among other requisites, a regional program coordination component. The preamble to the RHR states, “[T]herefore, States will need to develop strategies in coordination with one another, taking into account the effect of emissions from one jurisdiction to air quality in another.” 64 FR 35714

Therefore, in December 2004, FEJF formed the Regional Coordination Task Team to establish this *Guidance for Coordinating Smoke Management Programs* (Guidance) to assist burners and regulators in fulfilling requirements of the RHR during the implementation of SMPs. This Guidance focuses primarily on the interjurisdictional exchange of certain critical information describing characteristics of planned burns, i.e., SMP elements.

Under the RHR and the Tribal Authority Rule, tribes in the Grand Canyon Visibility Transport Region may, but are not required to, receive delegation of authority to adopt tribal implementation plans (TIPs) under Sections 308 or 309. 40 CFR 49.1-11 Tribal selection of either is independent of the strategy of the state(s) within which the tribal land is located. In addition, tribes may apply for approval of “reasonably severable” elements of the RHR. Further, deadlines for EPA plan submission that apply to states do not apply to tribes.

Depending upon improvements in technology, the alteration of priorities, new regulatory requirements, and changes in air quality; state and tribal SMPs will likely be revised. Following an inter-jurisdictional evaluation of SMP performance for regional haze impacts, the SMP elements or their exchange might also be revised. Thus, the contents of this Guidance are dynamic and are expected to change as regulatory and environmental circumstances change.

2. PURPOSE

WHY BURNERS AND REGULATORS SHOULD COORDINATE

Emissions from fire may cross jurisdictional boundaries and obscure visibility miles from the source. Therefore, burners and regulators should develop strategies to share SMP elements on a regional basis. Coordination is necessary in order to harmonize planning and tracking of fire emissions that are continuous across state and tribal boundaries and take into consideration various burn seasons.

Regional coordination increases communication between burners and regulators, thus increasing regulatory predictability and minimizing possible regulatory differences across state and tribal boundaries. A state or tribe may elect to adopt this Guidance as State Implementation Plan (SIP) or TIP measures. SMP elements may also form the basis of regulatory measures developed to demonstrate reasonable further progress for improving visibility impairment.

2.1 GENERAL CITATIONS

The RHR applicable to states under 40 CFR 51.308 (308) does not expressly require the same regional program coordination component as those under 309, but the ESMP Policy encourages the same inclusion in 308 SIPs.

The ESMP Policy Statement “D” identified the development of regional SMPs as a tool for states and tribes to use in support of required SIPs and optional TIPs. Section 308 requires states to address visibility impairment caused by emissions from all sources, including fire activities. The preamble to the RHR emphasizes the role of interstate cooperation: *“In developing each reasonable progress goal, the State must consult with those states which may reasonably be anticipated to cause or contribute to visibility impairment in the mandatory Class I Federal Area.”* 64 FR 35714

The 2001 *WRAP Policy for Categorizing Fire Emissions* (Categorization Policy) also advocates the establishment of regional SMP coordination. Management includes burner observance of applicable regulatory structures. However, many burners face the problem of managing land that is encompassed by, or is adjacent to, jurisdictions with dissimilar regulations (e.g., adjacent state or tribal lands).

The Categorization Policy also notes that coordination of burning activity is critical to avoiding cumulative Federal Class I visibility impacts over broad areas. In order to succeed in the process of mitigating, tracking, and reporting smoke emissions and, ultimately, realizing progress toward the 2064 natural conditions goal, burners, and regulators should establish a process of coordination.

2.2 ESMP POLICY CITATIONS

The following statements from the ESMP Policy are relevant to this Guidance and are included herein for purposes of continuity between documents.

Page 1 – *“Policy Statement C. Enhanced smoke management programs are required for states under Section 309 of the Regional Haze Rule.”*

Note: Tribes are not required to adopt ESMPs under Section 309.

Page 1 – *“Policy Statement D. Enhanced smoke management programs are a viable tool for all other states and tribes in the WRAP region to use in the development of their implementation plans.”*

Page 1 – *“Policy Statement E. Enhanced smoke management programs include nine elements that are necessary to meet the requirements of the Regional Haze Rule as follow:*

...
*Element 9. Regional Coordination
Communication and information sharing across state/tribe jurisdictional lines.”*

Page 7 – *“Each state has an obligation to account for those emissions it produces that have impacts in its own mandatory Class I areas. Accountability also extends to states and tribes that have smoke impacts outside their jurisdictions.”*

Page 9/10 – *“Without a central burn authority considering the cumulative smoke impacts, it will be difficult on a daily basis for individual land managers/owners to assess their relative contribution to regional haze. Regional coordination (i.e., Element #9) is central to burn authorization, and will facilitate coordinated decision-making. It is a necessary mechanism to address transport issues and cumulative effects, especially when considering impacts of a source that may be large, or many sources that cumulatively are large, but a long distance from a Class I area (i.e., greater than 100 km).”*

Page 11/12 – *“3.6.9. Element 9. Regional Coordination
Coordination of burning activity is critical to avoiding cumulative smoke impacts within and across source types in mandatory Class I areas. Coordination may range from a passive mode of information sharing between land managers/owner and/or the public to a more active coordination in which burn decisions are altered based on jurisdictional authority and other activities that are occurring or have recently occurred. Methods for this inter-jurisdictional and regional coordination will need to be developed. The development process should be a collaborative one involving state, tribal, local, and federal agencies, and private parties.”*

3. APPLICABILITY

WHO PARTICIPATES IN REGIONAL COORDINATION

This Guidance is applicable to all burners and air quality regulators seeking to mitigate visibility impacts on an inter-jurisdictional basis. Burners include, but are not limited to, private, agricultural, state, tribal, municipal, or federal agencies. Regulators include local, state, tribal, or federal agencies with statutory obligations to address visibility in Federal Class I areas. Ultimately, the states and tribes themselves shall determine the formal or informal coordination and the geographical extent of the same between burners and regulators.

3.1 TEMPORAL APPLICABILITY

WHEN BURNERS AND REGULATORS SHOULD COORDINATE

Burners and regulators should coordinate:

Pre-Burn. Prior to ignition, burners and regulators should establish a strategy of sharing SMP elements. Because many states and tribes have overlapping burning seasons, establishing a strategy of sharing should occur and remain constant throughout the year. Sharing information before ignition occurs maximizes the time available for pursuing measures or instituting burn restrictions to mitigate visibility impairment.

During Burn. Sharing information during the course of a burn maximizes decision-making regarding visibility protection as the burn proceeds.

Post- Burn. Following the conclusion of a burn, archiving SMP elements for future retrieval allows burners and regulators to assess past activities and make appropriate corrections for future activity. After-burn assessments are also important in demonstrating reasonable progress.

3.2 SPATIAL APPLICABILITY

WHERE BURNERS AND REGULATORS SHOULD COORDINATE

SMP elements should be shared from reported planned and unplanned burns located within local, state, or tribal boundaries and which may impact visibility in Class I areas.

4. CORE SMP ELEMENTS

WHAT BURNERS AND REGULATORS SHOULD SHARE

Regional coordination of SMP elements includes sharing available information regarding emissions from burns occurring within state or tribal air quality authority that may have an inter-jurisdictional impact on visibility. These types of fires include agricultural fire, Native American cultural fire, escaped prescribed fire, Wildland Fire Use (WFU), wildland fire, and wildland / rangeland prescribed fire. The Guidance recognizes that not every SMP element may be available in every circumstance, e.g. fuel loading for wildfire.

In order to obtain information regarding the impact of fire emissions on visibility within a regional context, burners and regulators need to share data with other regional SMP coordinators. The incorporation of core SMP elements into a SMP is consistent with EPA's 1998 *Interim Air Quality Policy on Wildland and Prescribed Fires* that serves as guidance for certifying basic SMPs and with the ESMP Policy as set forth in Appendix C.2.9 Element 9. Regional Coordination. The following describes the minimum recommended shared SMP elements.

Shared Core SMP Elements:

Location. Describe burn location through any means of describing absolute position including, but not limited to, Universal Transverse Mercator Coordinates, latitude and longitude, State Plane Coordinates, or Public Land Survey (townships and ranges).

Size. Report daily proposed prescribed burn acres for prescribed burns. For wildfire and WFU, describe size as information allows.

Burn Type. Describe the type of burn, e.g. prescribed, WFU, wildfire, etc.

Fuel Loading (tons/acre). Describe estimated fuel loadings in tons of consumable debris per acre or in total tons per unit. For wildfire and WFU, describe fuel loading as information allows.

Burn Date. Reported daily prescribed burning date submitted at least 24-hours in advance of initial burn and/or a multiple day burn.

5. COORDINATION STRATEGIES

HOW BURNERS AND REGULATORS SHOULD COORDINATE

Burners and regulators are encouraged to share SMP elements through various coordination strategies. In order to mitigate visibility impairment, the focus of SMPs for purposes of regional coordination must emphasize the sharing of elements prior to burning.

Burners and regulators are free to choose their own coordination strategies, selecting as many or as few of the SMP elements as feasible or desired.

Sharing SMP elements depends upon effective coordination between burners and regulators of all affected jurisdictions. Coordination efforts range from establishing a simple phone, fax, or e-mail tree to protocol requiring a combination of prerequisite conditions and associated actions and ongoing evaluation. Coordination strategies should also include regularly scheduled face-to-face meetings complete with developed agendas and action items.

Sharing SMP elements through Internet access is the most effective strategy. Internet access to burn activity information allows burners and regulators complete access to information necessary for determining the probability of visibility impairment, establishing contact with other, smoke-emitting jurisdictions, and issuing burn restrictions and/or burn approvals. The need for frequent phone calls and e-mails is reduced and historic information is available for future planning.

The future challenge in regional coordination involves converting the core SMP element data into information available for assessing visibility impacts in multi-jurisdictional areas. The identification of visibility impairment then triggers an investigation process to determine the probable source(s) of emissions that contributed to the visibility impairment. The outcome of the investigation could result in the need to decrease emissions, regardless of the location of the source of the emissions. As envisioned by this Guidance, regional coordination then facilitates a multi-jurisdictional process effort to mitigate visibility impairment, providing for clearer expectations and more consistent actions and results.

Beyond establishing communication procedures, burners and regulators may use consistent meteorological forecasting tools for burn authorization across the region. This information may come from the National Weather Service or mesoscale atmospheric models (e.g., MM5) produced by a regional modeling consortium such as CANSAC (California and Nevada Smoke and Air Consortium). By using a consistent and recognized set of tools, burners and regulators will utilize the same information for decision-making, thus reducing the potential for inconsistency in burn restrictions. Additionally, SMPs should provide the public and burners consistent educational / regulatory (when applicable) information.

The capacity to add Geographic Information System layers to map past, present, and future burns is also beneficial to burners, regulators, and the public. The table below lists various coordination strategies generally described in order of increasing resource commitment.

In addition to the prior descriptions of Applicability, Core SMP Elements, and Coordination Strategies; Appendix A of this document contains several examples of State and Tribal smoke management programs.

TABLE 1 COORDINATION STRATEGIES

#	STRATEGY	DESCRIPTION
1	Make core SMP elements available for each burn on state/tribal website.	Burners may directly enter data (or regulators may post the same as reported by burners) into an online form.
2	Establish non-regulatory measures addressing inter-jurisdictional transport of fire emissions.	Regulators may establish agreements for the use of voluntary burn restrictions, incentives for non-burn alternatives and other measures.
3	Develop phone, fax, or e-mail contact list and a regular distribution of updates to the same.	As a result of their visibility assessments, regulators contact other jurisdictions and notify them of their findings. The smoke-generating jurisdiction may implement any available option to mitigate the smoke emissions' impact on visibility. Sometime after the burn season, burners and regulators gather at a face-to face meeting to discuss the past season and plan for the upcoming year.
4	Hold meetings to ensure continued communication.	
5	Make ad hoc telephone calls or e-mail to inter-jurisdictional colleagues.	
6	Track information from other sources for wildfire and WFU information.	Besides the SMP elements posted by burners and regulators, other data may be available from many sources.
7	Using meteorological forecasting.	The regulator may use burn data to assess the relative impact on visibility in the regulator's jurisdiction. While the assessment method is left to each regulator to decide, the regulator may incorporate the data with meteorological/ventilation dispersion information using information generated by sources such as the National Weather Service or mesoscale atmospheric models (e.g., MM5) produced by a regional modeling consortium, such as CANSAC (California and Nevada Smoke and Air Consortium). The regulator may ultimately use the results to model the anticipated visibility impacts.
8	Public outreach / education / training.	Providing press releases to the public on smoke/visibility health issues so those affected may monitor and take steps to protect their own health and voluntarily restrict outdoor burning. Assisting in the dissemination of public health advisories and burn restrictions. Organizing or providing instruction at burner training seminars.

#	STRATEGY	DESCRIPTION
9	Web-based data entry.	Ideally, prior to ignition, burn data is entered with the appropriate regulatory agency on a completely automated, web-based electronic form (burn location, burn data, burn type, and fuel loading). For example, States /Tribes may direct burners to submit the information, regardless of the existence or degree of open burning regulations.
10	Enter data into regional database.	Using available databases, consistent with state reporting requirements, emphasizing central acquisition and retrieval.
11	Use consistent meteorological weather forecasting tools.	Beyond establishing communication procedures, burners and regulators may use consistent meteorological forecasting tools for burn authorization across the region. This information may come from either the National Weather Service or mesoscale atmospheric models (e.g., MM5) produced by a regional modeling consortium such as CANSAC (California and Nevada Smoke and Air Consortium).
12	Model results on a map posted to a universally accessible website.	The capacity to add Geographic Information System layers to map past, present, and future burns is also beneficial to burners, regulators, and the public.
13	Assess and share current conditions.	The ability to view real-time progress of emissions, air quality, and meteorology as a burn proceeds.
14	Archive visibility and burn activity data following burns.	The data should be entered into a universally-accessible database for use in measuring reasonable progress goals.
15	Evaluate efficacy of regional coordination strategies.	Hold an annual meeting or conference call among all WRAP states. Elect a chair to coordinate.
16	Jointly evaluate anomalous smoke events.	Regional Coordination Chair receives input prior to annual meeting/call regarding any major events.
17	Quantify / Qualify reasonable further progress on visibility goals.	Regional Coordination Chair and modeling personnel run each year's data.
18	Institute burn restrictions.	Following an assessment of meteorological conditions and burn data, restrict areas as necessary.

#	STRATEGY	DESCRIPTION
19	Respond to public complaints.	Offer a centralized hotline for personal contact or recording or website for frequently asked questions.
20	Develop and implement non-regulatory measures addressing interstate transport of fire emissions.	Provide alternatives, such as ERTs, voluntary restrictions, or other measures to reduce interstate smoke impacts. Some jurisdictions may have no authority to order suppression or restrict burning. These jurisdictions are encouraged to negotiate with burners to restrict burn activity on a voluntary basis.
21	Conduct joint investigation.	Rather than pursuing an investigation process in more than one jurisdiction, two or more jurisdictions may assess the effect of a visibility-impairing burn and decide upon a course of action that results in pursuing formal action against a burner in a single jurisdiction.
22	Public outreach / education / training.	Post frequently asked questions or other information on website. Conduct educational outreach or train teachers to do the same in schools or other appropriate forums.
23	Burner & regulator training.	Smoke management personnel make themselves available to participate in federal smoke management training events and meetings with local groups, e.g., Cattlemen's Association, Pecan Growers Association, Natural Resources Conservation Service, etc.) to provide training. Participate in any revisions to federal training programs.

APPENDICES

APPENDIX A EXAMPLE STATE AND TRIBAL SMOKE MANAGEMENT PROGRAMS

Several programs that feature coordination or other inter-jurisdictional cooperative arrangements already exist in some areas. While ultimately moving toward a more centralized system, states and tribes may fulfill immediate needs and obtain optimum results by joining with an existing group.

This appendix contains brief descriptions of several State and Tribal SMPs that have been provided as examples. The following list is not a comprehensive list of all State and Tribal SMPs in the WRAP region.

- Montana/Idaho State Airshed Group
- Arizona White Mountain Zone
- New Mexico State Smoke Management Program
- California Smoke Management Program
- Oregon Smoke Management Programs
- Nez Perce Tribe Smoke Management Program
- Utah Smoke Management Program
- State of Washington Smoke Management Plan

Table A-1 summarizes the scope as well as incorporation of the shared SMP elements and other SMP attributes for these example State and Tribal SMPs.

TABLE A-1

SUMMARY OF EXAMPLE STATE AND TRIBAL SMOKE MANAGEMENT PROGRAMS

		MT/ID State Airshed Group		AZ White Mountain Group		NM State SMP		CA Smoke Management Program		OR Smoke Management Program		Nez Perce		Utah Smoke Management Program		Washington State	
Jurisdictions Involved		Montana, Idaho		Arizona, Fort Apache Agency of BIA, USFS, White Mountain Apache Tribe, San Carlos Tribe		New Mexico, Arizona		California Land Management Agencies, CARB and California Local Air Pollution Control Districts		Oregon		Nez Perce Reservation, Idaho		Utah		Washington	
Shared SMP Elements	Location		Y		Y		Y		Y		Y		Y		Y		Y
	Fire Size		Y		Y		Y		Y		Y		Y		Y		Y
	Fire Type		Y		Y		Y		Y		Y		Y		Y		Y
	Fuel Loading		Y		Y		Y		Y		Y		Y		Y		Y
	Burn Date		Y		Y		Y		Y		Y		Y		Y		Y
Other SMP Attributes	SMP Central Coordination and Outreach		Y		Y		Y		Y		Y		Y				Y
	Fire Emissions Tracking System		Y		N		Y		Y		Y		Y				Y
	Smoke/Impact Forecasting (using Meteorology)		N		Y		N		Y		Y		Y				Y
	Burning Advisories / Restrictions Issued		Y		N		N		Y		Y		Y				Y
Fire Types Excluded?	<u>Fire Types</u> 1 - Agricultural 2 - Rx Forest & Range 3 - Wildfire 4 - WFU 5 - Open Burning	1, 3, 4		1, 5		None		5		None		3, 4		None		1, 3, 4, 5	
Comments	Direct user input into centralized database. Utilizes met forecasting to predict optimum dispersion. Restrictions reported daily.				Utilizes met forecasting to predict optimum dispersion. Data is accessible on the web for all to see.				Oregon does not post wildfire size or burn type.		Program operated under Delegation Agreement with EPA for administration of Federal Air Rules for Reservations. EPA retains enforcement authority.		Utah makes burn/no burn decisions on a daily basis based on fire-related data and met conditions. UT does not post de minimus prescribed fires (less than 20 acres) or wildfires. UT utilizes NFFL Fuel Model number that corresponds to load estimates provided by Ottmar 1997. Burn info posted at: www.utahsmp.net		WA requires burner submission regarding all core elements; the information is available upon request but WA does not post the same to a website. Utilizes met forecasting to predict optimum dispersion and determine appropriate burn restrictions.		

A.1 MONTANA / IDAHO STATE AIRSHED GROUP

The Montana / Idaho State Airshed Group (Group) was formed in 1978 to minimize or prevent the accumulation of smoke from prescribed fire in order to protect state and federal air quality standards. The Group also recognizes the importance of prescribed fire for the removal of logging debris and forest health. The Group works to maintain a proper balance between protecting the need for prescribed fire by the forest products industry and the need to protect public health.

The Group is self-regulating. In Montana, the members are classified as major open burners based on a calculation of annual emissions. Members voluntarily abide by the provisions of the Smoke Management Plan Operations Guide. The ability to coordinate prescribed fire activities allows more opportunities to burn. Group membership reduces risk of violating state and federal air quality standards and may also reduce the number of public complaints concerning smoke.

With the exception of tribal regulation of Indian lands lying within the state boundaries, Idaho does not regulate legal forms of open burning such as prescribed burning, but it does encourage participation in programs such as the Group. Montana implements a permit program for major outdoor burning activity on non-tribal lands. The Montana Department of Environmental Quality (MDEQ) recognizes Group membership as fulfilling requirements for best available control technology (BACT) for regulating smoke from prescribed fire. DEQ annually issues air quality open burning permits to Group members allowing them to burn under the rules and regulations of the Montana Clean Air Act and MDEQ air quality rules and the Smoke Management Plan Operations Guide.

The state of Montana is divided into ten airsheds and Idaho is divided into seventeen airsheds. Sensitive communities are recognized as impact zones within an airshed. The program coordinator, utilizing the services of a meteorologist, analyzes atmospheric conditions for burn day restrictions during the spring (February 28 through May 31) and fall (September 1 through November 30) open burning season (September through November). This airshed management approach offers more protection and allows Group members more flexibility to burn at various locations and/or elevations than if they operated independently. The meteorological information service is only available to Group members.

Group members submit their proposed Fall burn lists by September 1st of each year. Group members are required to enter burn unit descriptions into the RAZU database by 11 am the day before any planned burning. Members may access prescribed fire weather forecasts on MDEQ's 1-800 hotline by 4 pm for the next day's planned burns. Annual fees are based upon the previous year's number of completed acres. The Group recognizes nonattainment areas and closely monitors 'impact' zones to ensure member burning does not violate state or federal air quality regulations.

The Group meets at least once per year to discuss and review the performance of the previous year's burning. This meeting also provides members with the opportunity to make recommendations for the upcoming burn season and to fully participate in the function and operation of the Group.

Minor burners also contribute emissions to airsheds, but are not required to obtain a permit or pay fees. Minor burners are not eligible for Group membership. Montana requires minor open burners to observe other BACT, including utilizing the smoke management hotline and obtaining permission to burn from their local forestry office.

The URL below is the gateway to the Group web-site:

<http://www.smokemu.org/home.php>

A.2 ARIZONA WHITE MOUNTAIN ZONE

The Arizona Department of Environmental Quality (ADEQ) requires Federal/State Land Managers and private or municipal burners with whom ADEQ has entered a Memorandum of Agreement, to obtain burn permits under the State's Forest and Range Management Burn Rule. Open burning permits are required primarily for agricultural, construction, residential and prescribed burning on private lands without Federal/State Land Manager assistance. The State of Arizona is divided into 11 airsheds that approximate large watersheds and 5 zones. Currently, Arizona does not assess fees to burners to implement the State's Smoke Management Program. The State convenes annual meetings between ADEQ and Federal/State Land Managers to evaluate the Smoke Management Program and cooperatively establish the annual emission goal. See the ADEQ website, www.azdeq.gov/environ/air/smoke, for more information.

In the 1990's, the White Mountain Apache Tribe (hereinafter "Tribe"), USDI Bureau of Indian Affairs, Fort Apache Agency (hereinafter "Agency"), and USDA Forest Service, Apache-Sitgreaves and Tonto National Forests (hereinafter "Forest Service") entered into a Memorandum of Understanding (MOU) to strengthen relationships and foster a shared stewardship approach to managing air quality in northeastern Arizona --- including key airsheds affecting Phoenix --- through a cooperative smoke management program.

Parties use the MOU to resolve resource issues under the umbrella of a collaborative decision-making process. They share resource expertise and meet quarterly to facilitate dialogue and collaboration on smoke management and prescribed fire program implementation to promote healthy ecosystems. Under the MOU, the Forest Service recognizes Tribal lands are not necessarily subject to the same controls as Forest Service lands. The Forest Service also agrees, to the maximum extent allowed by law, to protect certain Tribal smoke management information from disclosure.

The MOU requires the parties to use Best Management Practices and to collaborate on development and implementation of a White Mountain Smoke Management Strategy

including a coordination plan (pre-season, during season), operating procedures for a Multi-Agency Coordinating (MAC) Group that convenes to mitigate airshed conflicts when certain PM-10 thresholds are reached, a communication plan, and a smoke monitoring plan. The Smoke Management Strategy is periodically revised separately from the MOU through the individual review and approval processes of the parties. Each party maintains its individual prescribed fire and smoke management plans and priorities but implements them within the cooperative guidelines outlined in the strategy.

The Tonto National Forest and the Bureau of Indian Affairs assign one employee at the ADEQ office in Phoenix with major duties in State-wide interagency smoke coordination. Under the current White Mountain Smoke Management Strategy, parties to the MOU exchange maps, burn information (9 elements), and smoke monitoring information at the annual pre-season meeting held in March/April. During burning season, start-up notification requirements (e.g., burn units to be initiated for the month, week, day) include adjacent Forests/Reservations but not adjacent States. Parties submit ADEQ burn request forms via e-mail or fax to the White Mountain Zone by 1300 the day prior to implementation. The White Mountain Zone submits request forms to ADEQ at 1300 and transmits via fax “approvals”/“responses” to districts or reservations by 1700 when possible. Approvals and responses are also available on ADEQ’s website if needed earlier.

A.3 NEW MEXICO STATE SMOKE MANAGEMENT PROGRAM

New Mexico (NM) operates a smoke management program which requires all burners (state, federal, private, municipal) to register burn projects greater than 10 acres or 1,000 cubic feet of piled material burned per day. Burners register and receive an identification number. Burners report the approximate season(s) they intend to burn, fuel type, fuel loading, public notification, etc. From the registration forms, maps of the planned burns are generated for each season for long-range planning purposes. One day before the actual ignition (10:00 a.m. the previous business day) the burner notifies the state of intent to burn. The state generates a daily map of planned burns and posts the map on the smoke management webpage.

Prior to ignition, burners use the ventilation index to determine if the weather is conducive to good smoke dispersion. The state provides a telephone recording of the daily ventilation forecast and links to the fire weather forecast provided by the National Weather Service. The state also provides smoke education for burners and participates in the RX-410 (Federal smoke management class) and develops brochures for smoke management and open burning.

The state accesses the Southwest Fire website to view planned burns for the state of Arizona (AZ) and other national fire activity. Telephone calls / e-mails are occasionally exchanged between the states of AZ, NM, Colorado, and the county of Bernalillo. Tribes sometimes provide burn information. For wildfires and WFUs, the states of NM and AZ work with federal land managers to access wildfire reports (209 Forms) and

have implemented a supplement to the 209 Form (Block 44) to obtain information to generate daily smoke estimates.

The Southwest Coordinating Group is implementing Zone Smoke Plans. Zone Plans facilitate communication between federal and state agencies to discuss future planned burning and coordinate resources. Currently, NM does not assess fees to burners to implement NM's smoke management program. The state meets annually with all burners to evaluate the efficacy of the smoke management program.

New Mexico's Smoke Management Website:
www.nmenv.state.nm.us/aqb/SMP/smp_index.html

New Mexico's Open Burning Website:
www.nmenv.state.nm.us/aqb/projects/openburn/openburning_index.html

A.4 CALIFORNIA SMOKE MANAGEMENT PROGRAM

The California Air Resources Board (ARB) oversees California's Smoke Management Program. The Smoke Management Guidelines (Guidelines) for Agricultural and Prescribed Burning adopted by ARB in 2000 provides the legal basis for the program. The Guidelines provide the framework for State and local air district regulators to conduct California's Smoke Management Program (Program).

Local air pollution control programs and air quality management districts, in concert with ARB and burners (primarily land management agencies and agriculture), implement the Program. The ARB uses meteorological and air quality data to make daily burn/no-burn decisions for California's fifteen air basins. Local air districts refine ARB's decisions to address the timing, location, and the amount of burning that can be authorized without an adverse public health or air quality impact. The Guidelines require the air districts to have a daily burn authorization system that addresses each of these considerations. The local air districts may further restrict burning on a burn day for their air basins, but they may not allow burning on a no-burn day.

The Program requires appropriate planning prior to conducting a prescribed burn. Before obtaining air district permission to burn, a burner completes the following planning steps: 1) register their annual burn project list with the air district; 2) obtain an air district and/or fire agency burn permit; 3) submit a smoke management plan (SMP) to the air district for each burn; and 4) obtain air district approval of each SMP. The SMP specifies the "smoke prescription," a set of air quality, meteorological, and fuel conditions required before burn ignition may commence. Basic information on burn location, types and amounts of material to be burned, and location of smoke-sensitive areas are required for burns greater than 10 acres. The Program requires more comprehensive plans for the largest burns (greater than 100 acres). Depending on the size and complexity of the burn, the SMP may contain some or all of the following information: the location and size of the burn, the burn method and fuel type, planned

burn time, acceptable burn ignition conditions, contingency planning, burn monitoring procedures, expected air emissions, smoke travel projections, duration of the burn, smoke minimization techniques, description of alternatives to burning, and public notification procedures.

After the local air district approves all the burn planning requirements, including the permit and smoke management plan, the burner may begin making the final preparations to carry out the burn, including identifying resources needed to conduct the burn, notifying the public about the planned timing and specifics of the burn, and obtaining a final local air district authorization to burn. The burner may contact the local air district up to 96 hours prior to the desired burn time to obtain ARB or local air district forecasts of meteorology and air quality needed to safely conduct the burn. The burner continues to communicate with the local air district and the ARB until the day of the burn to update forecast information. The individual authorized to burn (burn manager) is responsible for assuring compliance with all conditions in the SMP and burn permit throughout the course of the burn. The air district has the authority to stop or curtail any prescribed burn. Penalties for non-compliance are assessed through the California Health and Safety Code.

Additional information can be obtained from ARB's Smoke Management website at: <http://www.arb.ca.gov/smp/regs/regs.htm>

A.5 OREGON SMOKE MANAGEMENT PROGRAMS

The State of Oregon has two state-run smoke management programs. One regulates prescribed burning in most forested areas of the state, and the other regulates the largest source of agricultural burning, which takes place in Oregon's Willamette Valley. Both are considered mandatory smoke management programs, where burners seek daily authorization by the state. Both programs are 309 "Enhanced" smoke management programs. Three county-run smoke management programs exist in Jefferson, Union, and Umatilla counties for agricultural burning.

The Oregon Department of Forestry (ODF) regulates prescribed burning under the Oregon Smoke Management Program (OSMP). All state and national forests conduct prescribed burning under the OSMP. With the exception of two national forests operating on a voluntary basis, burning in all forests is regulated. ODF issues daily forecasts and burning authorizations for the entire state. ODF considers general unit size and spacing requirements when authorizing burning. Local forest districts select actual burn units. Burning may not cause smoke impacts in the larger cities, which are referred to as "Designated Areas." ODF tracks burns and issues an annual report on acres and tons burned. Using equipment supplied by Oregon Department of Environmental Quality (ODEQ) and the Bureau of Land Management, ODF operates a real-time monitoring network to track and record smoke impacts. Under state law, ODF and ODEQ jointly conduct a periodic review of the OSMP every 5 years. Both ODF and ODEQ are required to approve the OSMP following this review.

The Oregon Department of Agriculture (ODA) regulates Willamette Valley agricultural burning. This is a summertime activity only (July through September) during which 65,000 acres may be burned according to state law. The majority of this burning is grass straw and wheat residue left over after harvest. The ODA charges fees to support the Willamette Valley Field Burning Program (WVFBP). ODA issues daily forecasts and burning authorizations and reports to rural fire protection districts, which, in turn, select the actual fields to be burned. All fields must be registered prior to burning, and a burn permit is required on the day of the burn. Strict compliance is required in terms of acres burned, location of fields burned, and time periods for burning. ODA tracks and records smoke impacts with a ODEQ-maintained network. The program also regulates field propane burning and straw bale burning. ODA operates a fee-funded Research and Development Program to develop alternatives to burning.

Other areas of concentrated agricultural burning occur in Jefferson, Union and Umatilla counties. With the exception of tribal regulation of Indian lands lying within the state boundaries, these counties regulate burning through county ordinance. Jefferson and Union counties allow grass burning and wheat residue burning in the summer months, similar to the Willamette Valley, but in much smaller amounts (approximately 10,000 acres each). These counties assess fees, require field registration, issue daily burning authorizations, monitor smoke impacts, and conduct some enforcement. Umatilla county burning is a mix of different types of agricultural burning, and is operated year-round. This basic smoke management program does not require field registration or tracking of burns and primarily issues "burn day" and "no burn day" announcements.

Unregulated agricultural burning occurs in lesser amounts around the state under state law prohibiting the regulation of agricultural burning, except for Willamette Valley field burning.

Finally, rangeland burning occurs in some areas of central and eastern Oregon primarily on BLM land and is currently unregulated. No reliable estimates exist regarding the amount of rangeland burning.

A.6 NEZ PERCE TRIBE SMOKE MANAGEMENT PROGRAM

The Nez Perce Reservation covers 1,200 square miles and portions of five north central Idaho counties: Clearwater, Idaho, Latah, Lewis, and Nez Perce. The Reservation and these five counties comprise the Clearwater Airshed. The complex geography of the Clearwater Airshed includes prairies, rolling hills, moderate to deep river valleys, canyons, and mountains. This contributes to varied microclimatic dispersion and ventilation conditions. For example, four major and several smaller communities on the Reservation are located in river valleys and are especially prone to weather inversions that can trap pollutants.

The Tribe's involvement in smoke management (SMP) has evolved from very general participation in an agricultural SMP in 2001 to a significantly more complex program run by the Tribe that covers all types of outdoor burning. The Clearwater Airshed boundary was established through a 2001 memorandum of agreement (MOA) between the Tribe, EPA, and the Idaho Department of Environmental Quality (IDEQ) for the purposes of coordinating air quality management in the area. A subsequent MOA in 2003 between the Tribe, EPA, IDEQ, and the Idaho State Department of Agriculture (ISDA) was established for the coordination of agricultural smoke management in the Airshed. This SMP MOA was revised in 2005 to incorporate the EPA Region 10 Federal Air Rules for Reservations in Idaho, Oregon, and Washington (FARR) which became effective that year.

In 2002, the Nez Perce Tribe's smoke management program was formed with the goal of protecting air quality while continuing to use fire as a tool for crop residue disposal on the Reservation. The Tribe began issuing agricultural burn decisions for growers on the Reservation using a permit program coordinated with the State of Idaho through the Clearwater Airshed SMP MOA. With the FARR becoming effective in 2005, the burn permit program on the reservation became mandatory and enforceable, and EPA/Tribal-issued permits are now required. The Tribe issues the EPA permits and runs the smoke management program for agricultural, forestry, residential outdoor and other large outdoor burning, including fire department practice fires, ditchbank burning, and range burning. More information on the FARR is available at www.epa.gov/r10earth/FARR.htm.

Through the use of a meteorological contractor, dispersion models, air quality monitors, and fire weather information, the Tribe's air quality staff make twice-daily burn decisions specific to each type of burn. The Nez Perce Tribe has an AQ monitoring network of three sites on the Reservation in Kamiah, Reubens, and Lapwai. In Kamiah, two collocated FRM samplers collect PM_{2.5} data every six days on the federal schedule, and a TEOM measures PM_{2.5} continuously. TEOMs are also located at Reubens and in Lapwai. Meteorological towers collect weather data at each of these three locations. Data from the TEOMs and met towers is accessible real time via modem. The Tribe also works with IDEQ to have PM_{2.5} continuous data polled by the state's data acquisition system and posted on the state's website at <http://www.tcsn.net/family/Idaho/index.html>. The site includes a page for current and 10-day history PM_{2.5} readings for the monitoring sites in the Clearwater Airshed which include the Tribes three sites and the three sites operated by the state.

Other sampling and data gathering work is also conducted to assist with SMP decisions. During the summers of 2003-2006 data was collected from a SODAR set up at the Reubens site. This data is used to help evaluate atmospheric dispersion characteristics. Balloon releases have been used since 2002 to help assess ventilation in the field.

Approximately 45,000 acres of Kentucky Bluegrass, cereal grain stubble, and slash piles are burned on the Nez Perce Reservation each year. Tribal air quality staff

approve agricultural, forestry and large general open burns on a case-by-case basis. Application information includes burn location by township, range, section, acreage of each burn, burn type (field burning, piles, forestry burning, larger open burning), fuel type, special considerations (early burn, canyon rim, near highway, wind direction needs) and ignition method. After submitting a permit, when applicants are ready to burn, they call and are placed on a burn request list. Requests must be submitted at least 24-hours before the burner would like to burn. Prioritization of burning is based upon air quality conditions at the burn location, burn size, special considerations, and on a first-come first served basis. The Tribe is developing on-line access to permit and burn information at www.nezperce.org (under construction in 2007).

During the peak agricultural burn season, generally mid-July through October, the regional agricultural smoke management agencies discuss agricultural burn decisions in the Clearwater and adjoining North Idaho airsheds during twice daily conference calls. A meteorologist provides a preliminary burn forecast by 2:30pm the afternoon before a burn day and gives an update the following morning by 8:00am. Growers requesting to burn are given preliminary approval the afternoon before the requested burn date and are updated the following morning.

Two field coordinators provide additional staff resources for smoke management at the field level. Field coordinators evaluate fuel, wind speed and direction, ventilation, and dispersion conditions before allowing fields to be burned. Growers must contact field coordinators or office staff prior to ignition, provide a post-burn report, and must be able to shut down burns if conditions warrant. Complaints can be phoned in to the Tribe's air office or to a North Idaho Agricultural Burning Complaint Line. Complaints to the complaint line are sent out immediately to all North Idaho agricultural SMP agencies, and are responded to based on location and jurisdiction.

For small opening burning (piles less than six feet in diameter), burners obtain a permit which is good for the calendar year, and those possessing a permit call a 1-800 number to see if the day is approved for residential burning and the times burning is allowed during the day. At the end of the recording, they leave a message that they are burning (name, phone number, what they're burning, location) and record that information on their permit for their own records.

To determine approved burn days on the Reservation, Nez Perce Tribe air quality staff scrutinize air quality monitoring data and forecasts first thing each morning and again near the end of the workday. Log books are utilized for recording forecast, fire weather, and/or monitoring information as the day progresses. Burn permit information for the burn permit programs on the Nez Perce Reservation is stored in a database. A summary report and smoke events analysis are completed annually for the Tribe and EPA. Additionally, the Nez Perce Tribe contributes annually to the Idaho Crop Residue Disposal Smoke Management Program Season Review prepared by the Idaho State Department of Agriculture.

In order to provide a relatively seamless SMP for burning in the Clearwater Airshed, on-reservation agricultural SMP activities have been coordinated with EPA, ISDA, IDEQ. For agricultural smoke management at a regional level, this group also coordinates burn decisions with the Coeur d'Alene Tribe, the Kootenai Tribe of Idaho, and Washington State Department of Ecology. Ongoing involvement with growers and the public has been a major component of this effort. The Tribe coordinates forestry burning with the Montana Idaho Airshed Group and other forestry burning agencies involved in burning on and surrounding the Reservation. The Tribe maintains a network of other agencies such as the Idaho Department of Lands, Nez Perce Tribe Fire Management, and county fire districts that receive daily notification of Tribal burn approvals made for the Reservation.

Regulatory and non-regulatory measures have been in place to support the SMP. Until the implementation of the FARR on the Reservation, mechanisms had been non-regulatory. Burners who do not follow the SMP process drop in priority for subsequent burn approvals. Since June of 2005, the FARR established federal enforceability. The Tribe conducts investigations of compliance issues, submits reports to EPA, and EPA proceeds with any enforcement action. Investigations concerning cross-boundary events are coordinated between all parties to the Clearwater Airshed MOA.

TABLE A.6-1: Nez Perce Tribe SMP	Pre-2001	2001	2002	2003	2004	2005-2006
SMP elements tracked			X	X	X	X
Burn location						
Size						
Type						
Fuel loading (tons/acre)						
Burn date						
Regional coordination of SMP elements			X	X	X	X
Website database for SMP elements				X	X	X
Web-based information sharing with SMP element data entry				X	X	X
Sharing information before, during, and after burn			X	X	X	X
Archive burn data			X	X	X	X
Non-regulatory measures for addressing interjurisdictional transport of fire emissions (e.g. voluntary restrictions)			X	X	X	X
Regulatory measures for addressing interjurisdictional transport of fire emissions (e.g. burn bans, restrictions)						X
Distribution of updates via phone, fax, email contact list				X	X	X
Mechanism(s) for visibility assessments			X	X	X	X
PM2.5 monitors						
In-field observations						
Web-cam						
Satellite photos						
Met data						
Assessment meetings with burners			X	X	X	X
Regional assessment meetings with SMP regulators		X	X	X	X	X
Evaluate efficacy of regional coordination strategies			X	X	X	X
Evaluate joint anomalous smoke events			X	X	X	X
Assessment mechanism for public		X	X	X	X	X

TABLE A.6-1: Nez Perce Tribe SMP	Pre-2001	2001	2002	2003	2004	2005-2006
Ad hoc communication with interjurisdictional colleagues (e.g. telephone, email)		X	X	X	X	X
Track information from other sources for wildfire and WFU		X	X	X	X	X
Meteorological forecasting		X	X	X	X	X
Use of consistent meteorological weather forecasting		X	X	X	X	X
Public outreach, education, training, notification		X	X	X	X	X
Public complaint response	X	X	X	X	X	X
Regional complaint response	X	X	X	X	X	X
Burner outreach, education, training, notification		X	X	X	X	X
Model results on a map posted to universally accessible website			X	X	X	X
Conduct joint compliance/enforcement actions				X	X	X
Quantify/qualify reasonable further progress on visibility goals						

A.7 UTAH SMOKE MANAGEMENT PROGRAM

The State of Utah administers a smoke management program that regulates prescribed fires and wildland fire use fires (WFUs) throughout the state. The program began in 1999 and is revised annually to ensure it meets the needs of both burners and the State air quality program.

The Utah Smoke Management Plan (SMP) and State administrative rule R307-204 contain Utah's smoke management program. The SMP describes the operational procedures for prescribed fires or WFUs on lands in Utah owned or managed by state and federal land management agencies. The SMP also provides details on the responsibilities of the parties involved in the program as well as the organizational structure that has been developed to operate the smoke management program. Additionally, on August 11, 2003, the Utah Enhanced Smoke Management Plan (ESMP) was finalized. The ESMP was developed to provide for visibility protection from smoke in Class I Areas as required by the federal Regional Haze Regulation (40 CFR 51.309(d)(6)). The ESMP is an addendum to the SMP and allows the SMP to be considered a §309 "Enhanced" smoke management program. Although the SMP does not have any legal power in and of itself, the plan provides detailed operational procedures that were developed cooperatively to ensure safe and effective smoke management throughout the State.

In order to provide enforceability for the SMP, state administrative rule, R307-204 (Emission Standards, Smoke Management), was promulgated in 2001. The rule was drafted from the content of the SMP and specifies the regulatory responsibilities of all persons using prescribed fire or WFU fire on land that they own or manage. Under R307-204, prescribed fires requiring a burn plan cannot be ignited and WFU cannot be managed before the Executive Secretary of the Air Quality Board (AQB) approves or conditionally approves the burn request. R307-204 does not apply to agricultural activities; however, it does expand the scope of fires covered by the smoke management program. Although only fires on lands in Utah owned or managed by

state and federal land management agencies are covered in the SMP, R307-204 applies to all non-agricultural burning in the State.

Operationally the Utah smoke management program works by making burn/no-burn/conditional burn decisions on a daily basis. These decisions are based on numerous fire related factors, including the size of planned burns, meteorological conditions, the impact of smoke from a proposed fire and the fire's relation to other proposed fires. The burn approvals are issued by the Executive Secretary of the AQB with assistance of an interagency Smoke Program Coordinator (SPC). The SPC is an interagency employee that works in the Utah Department of Air Quality (UDAQ) office. The SPC acts as a liaison between UDAQ and all participating burning agencies and provides necessary burn approval or denial recommendations to the Executive Secretary. In addition the SPC helps develop and maintain fire-related emissions inventory information, a database of fire activity and an annual report regarding the burning that occurred during each year.

Additional information about the Utah smoke management program can be found online at <http://www.utahsmp.net/>.

A.8 STATE OF WASHINGTON SMOKE MANAGEMENT PLAN

Background:

The state of Washington began its Smoke Management Program (SMP) for silvicultural burning in 1969. The current plan was developed in 1993 and revised in 1998. It includes emission reduction targets for silvicultural burning that were met in 2000 and have been maintained since. The SMP coordinates and facilitates the statewide regulation of prescribed outdoor burning on lands protected by the Washington Department of Natural Resources (DNR) and on unimproved, federally managed forest lands. The SMP is designed to meet the requirements of the Washington State Clean Air Act (CAA). DNR is responsible for the overall administration of the SMP.

Scope:

The SMP provides regulatory direction, operating procedures, and advisory information regarding the management of smoke and fuels on forested land in Washington State. It applies to all persons, landowners, companies, state and federal land management agencies, and others who conduct outdoor burning.

The SMP does not apply to agricultural burning (regulated by Department of Ecology), "rule" burning (small burns not requiring a permit), rangeland burning, or wildland fire use (WFU).

Goals:

The goals of the SMP are to: (1) protect human health and safety from the effects of smoke from outdoor burning; (2) facilitate the enjoyment of the natural attractions of the state; (3) provide a limited burning program for the public; (4) provide an opportunity for

essential forest burning while minimizing smoke; (5) foster and encourage the use of alternatives to outdoor burning; and (6) acknowledge the natural role of fire in the ecosystem and allow the use of fire under controlled conditions to maintain healthy forests.

General Burning Requirements:

Non-federal landowners are required to obtain a burn permit from their local DNR region office. Permits are site-specific and include requirements to mitigate smoke impacts and fire danger. Both non-federal and federal landowners pay a fee for each burn unit based on actual emissions.

All burners are required to provide specific pre-burn and post-burn data to DNR. DNR maintains a database of all burns, including emissions data.

All burning must be approved prior to ignition. The mechanism, criteria, and requirements for burning approval vary according to the size of the proposed burn. For burns expected to consume less than 100 tons of fuel, the administrative unit manager approves or disapproves daily burns. All landowners are required to contact the DNR prior to burning (phone or website) for any daily restrictions for the county they are located in (air quality and fire danger). Daily restrictions become a part of all DNR issued permits. Federal land managers are subject only to air quality restrictions.

Burns expected to produce greater than 100 tons of emissions require smoke management approval from DNR smoke management section (staffed with a fire weather meteorologist and smoke management specialist). Each proposed burn is evaluated individually considering unit information, meteorology, and distance from sensitive and designated areas. An approved burn requires final approval from the administrative unit manager.

The SMP requires communication with the Department of Ecology (DOE) in order to avoid nuisance smoke and negative public health effects. It also exempts burning conducted for the purpose of restoring forest health or to prevent the additional deterioration of forest health from emission reduction targets. Burning to restore forest health must meet all other air quality standards.

Annual Reporting:

DNR provides an annual report to the DOE that details the total emissions created by all burning included within the scope of this plan, other burning statistics and trends, and the progress made toward meeting the emission reduction targets of the Washington CAA.

To view the plan, see <http://www.dnr.wa.gov/htdocs/rp/smptoc.pdf>.