

# **GUIDANCE FOR COORDINATING SMOKE MANAGEMENT PROGRAMS**

**FINAL DRAFT**

**APPROVED BY CONSENSUS:**

**FIRE EMISSIONS JOINT FORUM  
OF THE WESTERN REGIONAL AIR PARTNERSHIP  
[INSERT DATE]**

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**February, 2007**

# 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:

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- 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 propriety information;
  - Require database entry; and/or
  - Determine what constitutes “cause or contribute” to visibility impairment.

1 **ACRONYMS**

2

3 308 40 CFR 51.308

4 309 40 CFR 51.309

5 CANSAC California and Nevada Smoke and Air Consortium

6 EPA United States Environmental Protection Agency

7 ESMP Enhanced Smoke Management Program

8 FEJF WRAP Fire Emissions Joint Forum

9 GCVTC Grand Canyon Visibility Transport Commission

10 NAAQS National Ambient Air Quality Standards

11 RHR Regional Haze Rule

12 SIP State Implementation Plan

13 SMP Smoke Management Program

14 TAR Tribal Authority Rule

15 TIP Tribal Implementation Plan

16 WFU Wildland Fire Use

17 WRAP Western Regional Air Partnership

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1 **1. INTRODUCTION**

2  
3 ***WHY BURNERS AND REGULATORS SHOULD DO INTERJURISDICTIONAL COORDINATION***

4  
5 The Western Regional Air Partnership (WRAP), as the successor to the Grand Canyon  
6 Visibility Transport Commission (GCVTC), is directed to implement the GCVTC  
7 recommendations and to develop the technical and policy tools necessary for western  
8 states and tribes to comply with the U.S. Environmental Protection Agency's (EPA)  
9 regional haze regulations. The WRAP Fire Emissions Joint Forum (FEJF) was  
10 established to develop policy and technical tools to address fire emissions.

11  
12 On November 12, 2002, the WRAP approved by consensus the FEJF developed *WRAP*  
13 *Policy on Enhanced Smoke Management Programs for Visibility* (ESMP Policy) that  
14 requires developing guidance facilitating regional coordination of Smoke Management  
15 Programs (SMPs). Under the Regional Haze Rule (RHR) at 40 CFR 51.309 (309)  
16 states were required to submit smoke management plans to the EPA that included,  
17 among other requisites, a regional program coordination component. The preamble to  
18 the RHR states, “[T]herefore, States will need to develop strategies in coordination with  
19 one another, taking into account the effect of emissions from one jurisdiction to air  
20 quality in another.” 64 FR 35714

21  
22 Therefore, in December 2004, FEJF formed the Regional Coordination Task Team to  
23 establish this Guidance for coordinating Smoke Management Programs (Guidance) to  
24 assist burners and regulators in fulfilling requirements of the RHR during the  
25 implementation of SMPs. This Guidance focuses primarily on the interjurisdictional  
26 exchange of certain critical information describing characteristics of planned burns, i.e.,  
27 SMP elements.

28  
29 Under the RHR and the Tribal Authority Rule, tribes in the Grand Canyon Visibility  
30 Transport Region may, but are not required to, receive delegation of authority to adopt  
31 tribal implementation plans (TIPs) under Sections 308 or 309. 40 CFR 49.1-11 Tribal  
32 selection of either is independent of the strategy of the state(s) within which the tribal  
33 land is located. In addition, tribes may apply for approval of “reasonably severable”  
34 elements of the RHR. Further, deadlines for EPA plan submission that apply to states  
35 do not apply to tribes.

36  
37 Depending upon improvements in technology, the alteration of priorities, new regulatory  
38 requirements, and changes in air quality; state and tribal SMPs will likely be revised.  
39 Following an inter-jurisdictional evaluation of SMP performance for regional haze  
40 impacts, the SMP elements or their exchange might also be revised. Thus, the contents  
41 of this Guidance are dynamic and are expected to change as regulatory and  
42 environmental circumstances change.

1 **2. PURPOSE**

2  
3 ***WHY BURNERS AND REGULATORS SHOULD COORDINATE***

4  
5 Emissions from fire may cross jurisdictional boundaries and obscure visibility miles from  
6 the source. Therefore, burners and regulators should develop strategies to share SMP  
7 elements on a regional basis. Coordination is necessary in order to harmonize planning  
8 and tracking of fire emissions that are continuous across state and tribal boundaries and  
9 take into consideration various burn seasons.

10  
11 Regional coordination increases communication between burners and regulators, thus  
12 increasing regulatory predictability and minimizing possible regulatory differences  
13 across state and tribal boundaries. A state or tribe may elect to adopt this Guidance as  
14 State Implementation Plan (SIP) or TIP measures. SMP elements may also form the  
15 basis of regulatory measures developed to demonstrate reasonable further progress for  
16 improving visibility impairment.

17  
18  
19 **2.1 GENERAL CITATIONS**

20  
21 RHR applicable to states under 40 CFR 51.308 (308) does not expressly require the  
22 same regional program coordination component as those under 309, but the ESMP  
23 Policy encourages the same inclusion in 308 SIPs.

24  
25 The ESMP Policy Statement “D” identified the development of regional SMPs as a tool  
26 for states and tribes to use in support of required SIPs and optional TIPs. Section 308  
27 requires states to address visibility impairment caused by emissions from all sources,  
28 including fire activities. The preamble to the RHR emphasizes the role of interstate  
29 cooperation: “In developing each reasonable progress goal, the State must consult with  
30 those states which may reasonably be anticipated to cause or contribute to visibility  
31 impairment in the mandatory Class I Federal Area.” 64 FR 35714

32  
33 The 2001 *WRAP Policy for Categorizing Fire Emissions* (Categorization Policy) also  
34 advocates the establishment of regional SMP coordination. Management includes  
35 burner observance of applicable regulatory structures. However, many burners face the  
36 problem of managing land that is encompassed by, or is adjacent to, jurisdictions with  
37 dissimilar regulations (e.g., adjacent state or tribal lands).

38  
39 The Categorization Policy also notes that coordination of burning activity is critical to  
40 avoiding cumulative Federal Class I visibility impacts over broad areas. In order to  
41 succeed in the process of mitigating, tracking, and reporting smoke emissions and,  
42 ultimately, realizing progress toward the 2064 “natural” conditions goal, burners, and  
43 regulators should establish a process of coordination.

1 **2.2 ESMP POLICY CITATIONS**

2  
3 The following statements from the ESMP Policy are relevant to this Guidance and are  
4 included herein for purposes of continuity between documents.

5  
6 Page 1 – “*Policy Statement C. Enhanced smoke management programs are required*  
7 *for states under Section 309 of the Regional Haze Rule.*”

8  
9 Note: Tribes are not required to adopt ESMPs under Section 309.

10  
11 Page 1 – “*Policy Statement D. Enhanced smoke management programs are a viable*  
12 *tool for all other states and tribes in the WRAP region to use in the development of their*  
13 *implementation plans.*”

14  
15 Page 1 – “*Policy Statement E. Enhanced smoke management programs include nine*  
16 *elements that are necessary to meet the requirements of the Regional Haze Rule as*  
17 *follow:*

18       ...  
19       *Element 9. Regional Coordination*  
20       *Communication and information sharing across state/tribe jurisdictional lines.*”

21  
22 Page 7 – “*Each state has an obligation to account for those emissions it produces that*  
23 *have impacts in its own mandatory Class I areas. Accountability also extends to states*  
24 *and tribes that have smoke impacts outside their jurisdictions.*”

25  
26 Page 9/10 – “*Without a central burn authority considering the cumulative smoke*  
27 *impacts, it will be difficult on a daily basis for individual land managers/owners to assess*  
28 *their relative contribution to regional haze. Regional coordination (i.e., Element #9) is*  
29 *central to burn authorization, and will facilitate coordinated decision-making. It is a*  
30 *necessary mechanism to address transport issues and cumulative effects, especially*  
31 *when considering impacts of a source that may be large, or many sources that*  
32 *cumulatively are large, but a long distance from a Class I area (i.e., greater than 100*  
33 *km).*”

34  
35 Page 11/12 – “3.6.9. Element 9. Regional Coordination  
36 *Coordination of burning activity is critical to avoiding cumulative smoke impacts within*  
37 *and across source types in mandatory Class I areas. Coordination may range from a*  
38 *passive mode of information sharing between land managers/owner and/or the public to*  
39 *a more active coordination in which burn decisions are altered based on jurisdictional*  
40 *authority and other activities that are occurring or have recently occurred. Methods for*  
41 *this inter-jurisdictional and regional coordination will need to be developed. The*  
42 *development process should be a collaborative one involving state, tribal, local, and*  
43 *federal agencies, and private parties.*”

1 **3. APPLICABILITY**

2  
3 ***WHO PARTICIPATES IN REGIONAL COORDINATION***

4  
5 This Guidance is applicable to all burners and air quality regulators seeking to mitigate  
6 visibility impacts on an inter-jurisdictional basis. Burners include, but are not limited to,  
7 private, agricultural, state, tribal, municipal, or federal agencies. Regulators include  
8 local, state, tribal, or federal agencies with statutory obligations to address visibility in  
9 Federal Class I areas. Ultimately, the states and tribes themselves shall determine the  
10 formal or informal coordination and the geographical extent of the same between  
11 burners and regulators.  
12

13  
14 **3.1 TEMPORAL APPLICABILITY**

15  
16 ***WHEN BURNERS AND REGULATORS SHOULD COORDINATE***

17  
18 Burners and regulators should coordinate:

- 19 • Pre-Burn. Prior to ignition, burners and regulators should establish a strategy of  
20 sharing SMP elements. Because many states and tribes have overlapping  
21 burning seasons, establishing a strategy of sharing should occur and remain  
22 constant throughout the year. Sharing information before ignition occurs  
23 maximizes the time available for pursuing measures or instituting burn  
24 restrictions to mitigate visibility impairment.  
25 • During Burn. Sharing information during the course of a burn maximizes  
26 decision-making regarding visibility protection as the burn proceeds.  
27 • Post- Burn. Following the conclusion of a burn, archiving SMP elements for  
28 future retrieval allows burners and regulators to assess past activities and make  
29 appropriate corrections for future activity. After-burn assessments are also  
30 important in demonstrating reasonable progress.  
31

32  
33 **3.2 SPATIAL APPLICABILITY**

34  
35 ***WHERE BURNERS AND REGULATORS SHOULD COORDINATE***

36  
37 SMP elements should be shared from reported planned and unplanned burns located  
38 within local, state, or tribal boundaries and which may impact visibility in Class I areas.  
39  
40

## 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, WFUs.
- 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.

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

3  
4 Sharing SMP elements depends upon effective coordination between burners and  
5 regulators of all affected jurisdictions. Coordination efforts range from establishing a  
6 simple phone, fax, or e-mail tree to protocol requiring a combination of prerequisite  
7 conditions and associated actions and ongoing evaluation. Coordination strategies  
8 should also include regularly scheduled face-to-face meetings complete with developed  
9 agendas and action items.

10  
11 Sharing SMP elements through Internet access is the most effective strategy. Internet  
12 access to burn activity information allows burners and regulators complete access to  
13 information necessary for determining the probability of visibility impairment,  
14 establishing contact with other, smoke-emitting jurisdictions, and issuing burn  
15 restrictions and/or burn approvals. The need for frequent phone calls and e-mails is  
16 reduced and historic information is available for future planning.

17  
18 The future challenge in regional coordination involves converting the core SMP element  
19 data into information available for assessing visibility impacts in multi-jurisdictional  
20 areas. The identification of visibility impairment then triggers compliance/enforcement  
21 actions that result in a decrease in emissions, regardless of the location of the source of  
22 the emissions. Regional coordination then facilitates a process effort to mitigate  
23 visibility impairment, providing for clearer expectations and more consistent actions and  
24 results.

25  
26 Beyond establishing communication procedures, burners and regulators use consistent  
27 meteorological forecasting for burn authorization across the region. This information  
28 may come from the National Weather Service or government agency services like  
29 BlueSkyRAINS or a group like CANSAC (California and Nevada Smoke and Air  
30 Consortium). This system will allow burners and regulators to utilize the same  
31 information for decision-making, thus reducing inconsistency in burn restrictions.  
32 Additionally, SMPs should provide the public and burners consistent educational /  
33 regulatory (when applicable) information.

34  
35 The capacity to add Geographic Information System layers to map past, present, and  
36 future burns is also beneficial to burners, regulators, and the public. The table below  
37 lists various coordination strategies generally described in order of increasing resource  
38 commitment.

39  
40 In addition to the description of Applicability, Core SMP Elements, and Coordination  
41 Strategies; Appendix A of this document contains several examples of State and Tribal  
42 smoke management programs.

1  
2

**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 government agency services like BlueSkyRAINS or CANSAC. 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 use consistent meteorological forecasting tools for burn authorization across the region. This information may come from either the National Weather Service or government agency services like BlueSkyRAINS.
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.
19	Respond to public complaints.	Offer a centralized hotline for personal contact or recording or website for frequently asked questions.

#	STRATEGY	DESCRIPTION
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 compliance/enforcement actions.	Rather than pursuing an enforcement action 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 into a single jurisdiction for the purposes of compliance or enforcement.
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, NRCS, etc.) to provide training. Participate in any revisions to federal training programs.

1 **APPENDICES**

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3  
4 **APPENDIX A EXAMPLE STATE AND TRIBAL SMOKE**  
5 **MANAGEMENT PROGRAMS**  
6

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

11  
12 The following programs are described briefly:

- 13 • Montana/Idaho State Airshed Group
- 14 • Arizona White Mountain Zone
- 15 • New Mexico State Smoke Management Program
- 16 • California Smoke Management Program
- 17 • Oregon Smoke Management Programs
- 18 • Nez Perce Tribe Smoke Management Program
- 19 • Utah Smoke Management Program
- 20 • State of Washington Smoke Management Plan

21  
22 Table A.1 summarizes the scope as well as incorporation of the shared SMP elements  
23 and other SMP attributes for these example State and Tribal SMPs.  
24

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 Wildland Fire Use Coordination & Communication Protocol		OR Smoke Management Program	
<b>Jurisdictions Involved</b>		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	
<b>Shared SMP Elements</b>	Location		Y		Y		Y		Y		Y
	Fire Size		Y		Y		Y		Y		Y
	Fire Type		Y		Y		Y		Y		Y
	Fuel Loading		Y		Y		Y		Y		Y
	Burn Date		Y		Y		Y		Y		Y
<b>Other SMP Attributes</b>	SMP Central Coordination and Outreach		Y		Y		Y		Y		Y
	Fire Emissions Tracking System		Y		N		Y		Y		Y
	Smoke/Impact Forecasting (using Meteorology)		N		Y		N		Y		Y
	Burning Advisories / Restrictions Issued		Y		N		N		Y		Y
<b>Fire Types Excluded?</b>	<u>Fire Types</u> 1 - Agricultural 2 - Rx Forest & Range 3 - Wildfire 4 - WFU 5 - Open Burning	1,3,4		None		None		3,4		None	
<b>Comments</b>		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.	

		Nez Perce		Utah Smoke Management Program		Washington State		CA and NV Smoke & Air Consortium	
<b>Jurisdictions Involved</b>		Nez Perce Reservation, Idaho		Utah		Washington		California and Nevada land mgt agencies, CARB, APCD, NV Dept of Env. Quality and Univ of Nevada (DRI)	
<b>Shared SMP Elements</b>	Location		Y		Y		Y		Y
	Fire Size		Y		Y		Y		Y
	Fire Type		Y		Y		Y		Y
	Fuel Loading		Y		Y		Y		Y
	Burn Date		Y		Y		Y		Y
<b>Other SMP Attributes</b>	SMP Central Coordination and Outreach		Y				Y		
	Fire Emissions Tracking System		Y				Y		
	Smoke/Impact Forecasting (using Meteorology)		Y				Y		
	Burning Advisories / Restrictions Issued		Y				Y		
<b>Fire Types Excluded?</b>	Fire Types 1 - Agricultural 2 - Rx Forest & Range 3 - Wildfire 4 - WFU 5 - Open Burning	3,4		None		1,3,4,5		?,?	
<b>Comments</b>		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 of information 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.		Hourly MM5 runs will be generated. The output will be is used to run BlueSky. * MM5 out-puts are being generated. Development of PFIRS is holding to run Blue Sky	

1 **A.1 MONTANA / IDAHO STATE AIRSHED GROUP**  
2

3 The Montana / Idaho State Airshed Group (Group) was formed in 1978 to minimize or  
4 prevent the accumulation of smoke from prescribed fire in order to protect state and  
5 federal air quality standards. The Group also recognizes the importance of prescribed  
6 fire for the removal of logging debris and forest health. The Group works to maintain a  
7 proper balance between protecting the need for prescribed fire by the forest products  
8 industry and the need to protect public health.  
9

10 The Group is self-regulating. In Montana, the members are classified as major open  
11 burners based on a calculation of annual emissions. Members voluntarily abide by the  
12 provisions of the Smoke Management Plan Operations Guide. The ability to coordinate  
13 prescribed fire activities allows more opportunities to burn. Group membership reduces  
14 risk of violating state and federal air quality standards and may also reduce the number  
15 of public complaints concerning smoke.  
16

17 With the exception of tribal regulation of Indian lands lying within the state boundaries,  
18 Idaho does not regulate legal forms of open burning such as prescribed burning, but it  
19 does encourage participation in programs such as the Group. Montana implements a  
20 permit program for major outdoor burning activity on non-tribal lands. The Montana  
21 Department of Environmental Quality (MDEQ) recognizes Group membership as  
22 fulfilling requirements for best available control technology (BACT) for regulating smoke  
23 from prescribed fire. DEQ annually issues air quality open burning permits to Group  
24 members allowing them to burn under the rules and regulations of the Montana Clean  
25 Air Act and MDEQ air quality rules and the Smoke Management Plan Operations Guide.  
26

27 The state of Montana is divided into ten airsheds and Idaho is divided into seventeen  
28 airsheds. Sensitive communities are recognized as impact zones within an airshed.  
29 The program coordinator, utilizing the services of a meteorologist, analyzes atmospheric  
30 conditions for burn day restrictions during the spring (February 28 through May 31) and  
31 fall (September 1 through November 30) open burning season (September through  
32 November). This airshed management approach offers more protection and allows  
33 Group members more flexibility to burn at various locations and/or elevations than if  
34 they operated independently. The meteorological information service is only available  
35 to Group members.  
36

37 Group members submit their proposed Fall burn lists by September 1st of each year.  
38 Group members are required to enter burn unit descriptions into the RAZU database by  
39 11 am the day before any planned burning. Members may access prescribed fire  
40 weather forecasts on MDEQ's 1-800 hotline by 4 pm for the next day's planned burns.  
41 Annual fees are based upon the previous year's number of completed acres. The  
42 Group recognizes nonattainment areas and closely monitors 'impact' zones to ensure  
43 member burning does not violate state or federal air quality regulations.  
44

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

5  
6 Minor burners also contribute emissions to airsheds, but are not required to obtain a  
7 permit or pay fees. Minor burners are not eligible for Group membership. Montana  
8 requires minor open burners to observe other BACT, including utilizing the smoke  
9 management hotline and obtaining permission to burn from their local forestry office.

10  
11 The URL below is the gateway to the Group web-site:

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

## 13 14 15 **A.2 ARIZONA WHITE MOUNTAIN ZONE**

16  
17 The Arizona Department of Environmental Quality (ADEQ) requires Federal/  
18 State Land Managers and private or municipal burners with whom ADEQ has entered a  
19 Memorandum of Agreement, to obtain burn permits under the State's Forest and Range  
20 Management Burn Rule. Open burning permits are required primarily for agricultural,  
21 construction, residential and prescribed burning on private lands without Federal/State  
22 Land Manager assistance. The State of Arizona is divided into 11 airsheds that  
23 approximate large watersheds and 5 zones. Currently, Arizona does not assess fees to  
24 burners to implement the State's Smoke Management Program. The State convenes  
25 annual meetings between ADEQ and Federal/State Land Managers to evaluate the  
26 Smoke Management Program and cooperatively establish the annual emission goal.  
27 See the ADEQ website, [www.azdeq.gov/environ/air/smoke](http://www.azdeq.gov/environ/air/smoke), for more information.

28  
29 In the 1990's, the White Mountain Apache Tribe (hereinafter "Tribe"), USDI Bureau of  
30 Indian Affairs, Fort Apache Agency (hereinafter "Agency"), and USDA Forest Service,  
31 Apache-Sitgreaves and Tonto National Forests (hereinafter "Forest Service") entered  
32 into a Memorandum of Understanding (MOU) to strengthen relationships and foster a  
33 shared stewardship approach to managing air quality in northeastern Arizona ---  
34 including key airsheds affecting Phoenix --- through a cooperative smoke management  
35 program.

36  
37 Parties use the MOU to resolve resource issues under the umbrella of a collaborative  
38 decision-making process. They share resource expertise and meet quarterly to  
39 facilitate dialogue and collaboration on smoke management and prescribed fire program  
40 implementation to promote healthy ecosystems. Under the MOU, the Forest Service  
41 recognizes Tribal lands are not necessarily subject to the same controls as Forest  
42 Service lands. The Forest Service also agrees, to the maximum extent allowed by law,  
43 to protect certain Tribal smoke management information from disclosure.

44  
45 The MOU requires the parties to use Best Management Practices and to collaborate on  
46 development and implementation of a White Mountain Smoke Management Strategy

1 including a coordination plan (pre-season, during season), operating procedures for a  
2 Multi-Agency Coordinating (MAC) Group that convenes to mitigate airshed conflicts  
3 when certain PM-10 thresholds are reached, a communication plan, and a smoke  
4 monitoring plan. The Smoke Management Strategy is periodically revised separately  
5 from the MOU through the individual review and approval processes of the parties.  
6 Each party maintains its individual prescribed fire and smoke management plans and  
7 priorities but implements them within the cooperative guidelines outlined in the strategy.  
8

9 The Tonto National Forest and the Bureau of Indian Affairs assign one employee at the  
10 ADEQ office in Phoenix with major duties in State-wide interagency smoke coordination.  
11 The full-time ADEQ smoke specialist position was vacated in late May, 2005 and the  
12 long-term extent of ADEQ resource commitments is presently unknown. Under the  
13 current White Mountain Smoke Management Strategy, parties to the MOU exchange  
14 maps, burn information (9 elements), and smoke monitoring information at the annual  
15 pre-season meeting held in March/April. During burning season, start-up notification  
16 requirements (e.g., burn units to be initiated for the month, week, day) include adjacent  
17 Forests/Reservations but not adjacent States. (Occasional telecommunications are  
18 exchanged between AZ, NM, CO and UT for large burns planned near State  
19 boundaries.) Parties submit ADEQ burn request forms via e-mail or fax to the White  
20 Mountain Zone by 1300 the day prior to implementation. The White Mountain Zone  
21 submits request forms to ADEQ at 1300 and transmits via fax "approvals"/"responses"  
22 to districts or reservations by 1700 when possible. Approvals and responses are also  
23 available on ADEQ's website if needed earlier.  
24  
25

### 26 **A.3 NEW MEXICO STATE SMOKE MANAGEMENT PROGRAM**

27

28 New Mexico (NM) operates a smoke management program which requires all burners  
29 (state, federal, private, municipal) to register burn projects greater than 10 acres or  
30 1,000 cubic feet of piled material burned per day. Burners register and receive an  
31 identification number. Burners report the approximate season(s) they intend to burn,  
32 fuel type, fuel loading, public notification, etc. From the registration forms, maps of the  
33 planned burns are generated for each season for long-range planning purposes. One  
34 day before the actual ignition (10:00 a.m. the previous business day) the burner notifies  
35 the state of intent to burn. The state generates a daily map of planned burns and posts  
36 the map on the smoke management webpage.  
37

38 Prior to ignition, burners use the ventilation index to determine if the weather is  
39 conducive to good smoke dispersion. The state provides a telephone recording of the  
40 daily ventilation forecast and links to the fire weather forecast provided by the National  
41 Weather Service. The state also provides smoke education for burners and participates  
42 in the RX-410 (Federal smoke management class) and develops brochures for smoke  
43 management and open burning.  
44

45 The state accesses the Southwest Fire website to view planned burns for the state of  
46 Arizona (AZ) and other national fire activity. Telephone calls / e-mails are occasionally

1 exchanged between the states of AZ, NM, Colorado, and the county of Bernalillo.  
2 Tribes sometimes provide burn information. For wildfires and WFUs, the states of NM  
3 and AZ work with federal land managers to access wildfire reports (209 Forms) and  
4 have implemented a supplement to the 209 Form (Block 44) to obtain information to  
5 generate daily smoke estimates.

6  
7 The Southwest Coordinating Group is implementing Zone Smoke Plans. Zone Plans  
8 facilitate communication between federal and state agencies to discuss future planned  
9 burning and coordinate resources. Currently, NM does not assess fees to burners to  
10 implement NM's smoke management program. The state meets annually with all  
11 burners to evaluate the efficacy of the smoke management program.

12  
13 New Mexico's Smoke Management Website:  
14 [www.nmenv.state.nm.us/aqb/SMP/smp\\_index.html](http://www.nmenv.state.nm.us/aqb/SMP/smp_index.html)

15  
16 New Mexico's Open Burning Website:  
17 [www.nmenv.state.nm.us/aqb/projects/openburn/openburning\\_index.html](http://www.nmenv.state.nm.us/aqb/projects/openburn/openburning_index.html)

#### 18 19 20 **A.4 CALIFORNIA SMOKE MANAGEMENT PROGRAM**

21  
22 The California Air Resources Board (ARB) oversees California's Smoke Management  
23 Program. The Smoke Management Guidelines (Guidelines) for Agricultural and  
24 Prescribed Burning adopted by ARB in 2000 provides the legal basis for the program.  
25 The Guidelines provide the framework for State and local air district regulators to  
26 conduct California's Smoke Management Program (Program).

27  
28 Local air pollution control programs and air quality management districts, in concert with  
29 ARB and burners (primarily land management agencies and agriculture), implement the  
30 Program. The ARB uses meteorological and air quality data to make daily burn/no-burn  
31 decisions for California's fifteen air basins. Local air districts refine ARB's decisions to  
32 address the timing, location, and the amount of burning that can be authorized without  
33 an adverse public health or air quality impact. The Guidelines require the air districts to  
34 have a daily burn authorization system that addresses each of these considerations.  
35 The local air districts may further restrict burning on a burn day for their air basins, but  
36 they may not allow burning on a no-burn day.

37  
38 The Program requires appropriate planning prior to conducting a prescribed burn.  
39 Before obtaining air district permission to burn, a burner complete the following planning  
40 steps: 1) register their annual burn project list with the air district; 2) obtain an air district  
41 and/or fire agency burn permit; 3) submit a smoke management plan (SMP) to the air  
42 district for each burn; and 4) obtain air district approval of each SMP. The SMP  
43 specifies the "smoke prescription," a set of air quality, meteorological, and fuel  
44 conditions required before burn ignition may commence. Basic information on burn  
45 location, types and amounts of material to be burned, and location of smoke-sensitive  
46 areas are required for burns greater than 10 acres. The Program requires more

1 comprehensive plans for the largest burns (greater than 100 acres). Depending on the  
2 size and complexity of the burn, the SMP may contain some or all of the following  
3 information: the location and size of the burn, the burn method and fuel type, planned  
4 burn time, acceptable burn ignition conditions, contingency planning, burn monitoring  
5 procedures, expected air emissions, smoke travel projections, duration of the burn,  
6 smoke minimization techniques, description of alternatives to burning, and public  
7 notification procedures.

8  
9 After the local air district approves all the burn planning requirements, including the  
10 permit and smoke management plan, the burner may begin making the final  
11 preparations to carry out the burn, including identifying resources needed to conduct the  
12 burn, notifying the public about the planned timing and specifics of the burn, and  
13 obtaining a final local air district authorization to burn. The burner may contact the local  
14 air district up to 96 hours prior to the desired burn time to obtain ARB or local air district  
15 forecasts of meteorology and air quality needed to safely conduct the burn. The burner  
16 continues to communicate with the local air district and the ARB until the day of the burn  
17 to update forecast information. The individual authorized to burn (burn manager) is  
18 responsible for assuring compliance with all conditions in the SMP and burn permit  
19 throughout the course of the burn. The air district has the authority to stop or curtail any  
20 prescribed burn. Penalties for non-compliance are assessed through the California  
21 Health and Safety Code.

22  
23 Additional information can be obtained from ARB's Smoke Management website at:  
24 <http://www.arb.ca.gov/smp/regs/regs.htm>

## 25 26 27 **A.5 OREGON SMOKE MANAGEMENT PROGRAMS**

28  
29 The State of Oregon has two state-run smoke management programs. One regulates  
30 prescribed burning in most forested areas of the state, and the other regulates the  
31 largest source of agricultural burning, which takes place in Oregon's Willamette Valley.  
32 Both are considered mandatory smoke management programs, where burners seek  
33 daily authorization by the state. Both programs are 309 "Enhanced" smoke  
34 management programs. Three county-run smoke management programs exist in  
35 Jefferson, Union, and Umatilla counties for agricultural burning.

36  
37 The Oregon Department of Forestry (ODF) regulates prescribed burning under the  
38 Oregon Smoke Management Program (OSMP). All state and national forests conduct  
39 prescribed burning under the OSMP. With the exception of two national forests  
40 operating on a voluntary basis, burning in all forests is regulated. ODF issues daily  
41 forecasts and burning authorizations for the entire state. ODF considers general  
42 unit size and spacing requirements when authorizing burning. Local forest districts  
43 select actual burn units. Burning may not cause smoke impacts in the larger cities,  
44 which are referred to as "Designated Areas." ODF tracks burns and issues an annual  
45 report on acres and tons burned. Using equipment supplied by Oregon Department of  
46 Environmental Quality (ODEQ) and the Bureau of Land Management, ODF operates a

1 real-time monitoring network to track and record smoke impacts. Under state law, ODF  
2 and ODEQ jointly conduct a periodic review of the OSMP every 5 years. Both ODF and  
3 ODEQ are required to approve the OSMP following this review.

4  
5 The Oregon Department of Agriculture (ODA) regulates Willamette Valley agricultural  
6 burning. This is a summertime activity only (July through September) during  
7 which 65,000 acres may be burned according to state law. The majority of this burning  
8 is grass straw and wheat residue left over after harvest. The ODA charges fees to  
9 support the Willamette Valley Field Burning Program (WVFBP). ODA issues daily  
10 forecasts and burning authorizations and reports to rural fire protection districts, which,  
11 in turn, select the actual fields to be burned. All fields must be registered prior to  
12 burning, and a burn permit is required on the day of the burn. Strict compliance is  
13 required in terms of acres burned, location of fields burned, and time periods  
14 for burning. ODA tracks and records smoke impacts with a ODEQ-maintained network.  
15 The program also regulates field propane burning and straw bale burning. ODA  
16 operates a fee-funded Research and Development Program to develop alternatives to  
17 burning.

18  
19 Other areas of concentrated agricultural burning occur in Jefferson, Union and Umatilla  
20 counties. With the exception of tribal regulation of Indian lands lying within the state  
21 boundaries, these counties regulate burning through county ordinance. Jefferson and  
22 Union counties allow grass burning and wheat residue burning in the summer months,  
23 similar to the Willamette Valley, but in much smaller amounts (approximately 10,000  
24 acres each). These counties assess fees, require field registration, issue daily burning  
25 authorizations, monitor smoke impacts, and conduct some enforcement. Umatilla  
26 county burning is a mix of different types of agricultural burning, and is operated year-  
27 round. This basic smoke management program does not require field registration or  
28 tracking of burns and primarily issues "burn day" and "no burn day" announcements.

29  
30 Unregulated agricultural burning occurs in lesser amounts around the state under state  
31 law prohibiting the regulation of agricultural burning, except for Willamette Valley field  
32 burning.

33  
34 Finally, rangeland burning occurs in some areas of central and eastern Oregon primarily  
35 on BLM land and is currently unregulated. No reliable estimates exist regarding the  
36 amount of rangeland burning.

## 37 38 39 **A.6 NEZ PERCE TRIBE SMOKE MANAGEMENT PROGRAM**

40  
41 The Nez Perce Reservation covers 1,200 square miles and portions of five north central  
42 Idaho counties: Clearwater, Idaho, Latah, Lewis, and Nez Perce. The Reservation and  
43 these five counties comprise the Clearwater Airshed, a general airshed boundary  
44 established through a 2001 memorandum of agreement (MOA) between the Tribe,  
45 EPA, and the Idaho Department of Environmental Quality (IDEQ) for the purposes of  
46 coordinating air quality management in the area. A subsequent MOA in 2003 between

1 the Tribe, EPA, IDEQ, and the Idaho State Department of Agriculture (ISDA) was  
2 established to coordinate agricultural smoke management in the Airshed. This MOA  
3 was revised in 2005 to incorporate EPA Region 10 Federal Air Rules for Reservations in  
4 Idaho, Oregon, and Washington (FARR).

5  
6 The complex geography of the Clearwater Airshed includes prairies, rolling hills,  
7 moderate to deep river valleys, canyons, and mountains. This contributes to varied  
8 microclimatic dispersion and ventilation conditions and reduced visibility. For example,  
9 four major and several smaller communities on the Reservation are located in river  
10 valleys and are especially prone to weather inversions that can trap pollutants.

11  
12 The Tribe's involvement in the smoke management program (SMP) evolved from very  
13 general participation in agricultural SMP operated by another agency in 2001 to a  
14 significantly more complex program operated by the Tribe that covers all types of  
15 outdoor burning.

16  
17 In 2002, the Nez Perce Tribe formed the smoke management program with the goal of  
18 protecting air quality while using fire as a tool for crop residue disposal on the  
19 Reservation. The Tribe has issued agricultural burn decisions for growers on the  
20 Reservation since 2002 using a permit program coordinated with the State of Idaho  
21 through the Clearwater Airshed SMP MOA. With the FARR effective in 2005, the burn  
22 permit program on the reservation became mandatory and enforceable, and EPA/Tribal-  
23 issued permits were required. More information on the FARR is available at  
24 [www.epa.gov/r10earth/FARR.htm](http://www.epa.gov/r10earth/FARR.htm). The Tribe issues permits and runs the smoke  
25 management program for agricultural, forestry, residential outdoor and other large  
26 outdoor burning, including fire department practice fires, ditch bank burning, and range  
27 burning.

28  
29 Through the use of a meteorological contractor, dispersion models, air quality monitors,  
30 and fire weather information, the Tribe's air quality staff makes daily burn decisions  
31 specific to each type of burn. The Nez Perce Tribe maintains an AQ monitoring network  
32 on the Reservation in Kamiah, Reubens, and Lapwai. In Kamiah, two collocated  
33 monitors collect manual PM2.5 data and a TEOM measures PM2.5 continuously.  
34 TEOMs are also located at Reubens and in Lapwai. Meteorological towers collect  
35 weather data at each of these three locations. Data from the TEOMs and met towers is  
36 accessible real time via modem. The Tribe also works with IDEQ to have PM2.5  
37 continuous data polled by the state's data acquisition system and posted on the state's  
38 website at <http://www.tcsn.net/family/Idaho/index.html>. The site includes a page for  
39 current and 10-day history PM2.5 readings for the Clearwater Airshed and the Tribes'  
40 three sites and the states' three sites in the area.

41  
42 Other sampling and data gathering work is also conducted to assist with SMP decisions.  
43 During the summers of 2003-2005 data was collected from a SODAR set up at the  
44 Reubens site. This data was used to help evaluate atmospheric dispersion  
45 characteristics. Balloon releases have been used since 2002 to help assess ventilation  
46 in the field.

1  
2 Small residential burners obtain a one-year permit and are required to call a 1-800  
3 number to see if the day is approved for residential burning and obtain the hours  
4 burning is allowed during the day. At the end of the recording, callers leave a message  
5 regarding their planned burning (including name, phone number, material to be burned,  
6 burn location) and record that information on their permit for their own records.  
7

8 Tribal air quality staff approves agricultural, forestry, and large general open burns on a  
9 case-by-case basis. Application information includes burn location by  
10 township/range/section, acreage of each burn, burn type (field burning, piles, forestry  
11 burning, larger open burning), fuel type, special considerations (early burn, canyon rim,  
12 near highway, wind direction needs), and ignition method. After submitting a permit and  
13 prior to ignition, applicants call to be placed on a burn request list. Applicants are  
14 required to submit requests at least 24-hours before ignition. Using information on burn  
15 size, location, and other factors, requests are prioritized based upon air quality/visibility  
16 considerations and are processed on a first-come first-served basis. The Tribe is  
17 developing on-line access to permit and burn information at [www.nezperce.org](http://www.nezperce.org) (under  
18 construction in 2005).  
19

20 Approximately 45,000 acres of Kentucky Bluegrass, cereal grain stubble, and slash  
21 piles are burned on the Nez Perce Reservation each year. During the peak agricultural  
22 burn season, generally mid-July through October, the regional agricultural smoke  
23 management agencies discuss agricultural burn decisions in the Clearwater and  
24 adjoining North Idaho airsheds during twice-daily conference calls. A meteorologist  
25 provides a preliminary burn forecast by 2:30 p.m. the afternoon before a burn day and  
26 gives an update the following morning by 8:00 a.m. Growers requesting to burn are  
27 given preliminary approval the afternoon before the requested burn date and approvals  
28 are updated the following morning.  
29

30 On approved burn days on the Reservation, Nez Perce Tribe air quality staff scrutinizes  
31 air quality monitoring data and forecasts. Two field coordinators provide additional staff  
32 resources for smoke management at the field level. Field coordinators evaluate fuel,  
33 wind speed and direction, ventilation, and dispersion conditions before allowing fields to  
34 be burned. Growers are required to contact field coordinators or office staff prior to  
35 ignition, provide a post-burn report, and may be required to suppress down burns if  
36 conditions warrant. Complaints may be phoned in to the Tribe's air office or to a North  
37 Idaho Agricultural Burning Complaint Line. Complaints to the complaint line are sent  
38 out immediately to all North Idaho agricultural SMP agencies for response based on  
39 location and jurisdiction.  
40

41 The Tribe maintains log books to record forecast, fire weather, and/or monitoring  
42 information as the day progresses. Burn permit information for the programs on the  
43 Nez Perce Reservation is stored in a database. The Tribe prepares an annual  
44 summary report and smoke events analysis. Additionally, the Nez Perce Tribe  
45 contributes annually to the Idaho Crop Residue Disposal Smoke Management Program  
46 Season Review prepared by the Idaho State Department of Agriculture.

1  
2 In the Clearwater Airshed, on-reservation agricultural SMP activities are coordinated  
3 with EPA, ISDA, and IDEQ. For agricultural smoke management at a regional level, this  
4 group also coordinates burn decisions with the Coeur d'Alene Tribe, the Kootenai Tribe  
5 of Idaho, and Washington State Department of Ecology. Ongoing involvement with  
6 growers and the public has been a major component of this effort. The Tribe  
7 coordinates forestry burning with the Montana Idaho Airshed Group and other forestry  
8 burning agencies involved in burning on and around the Reservation. The Tribe  
9 maintains a network of other agencies such as the Idaho Department of Lands, Nez  
10 Perce Tribe Fire Management, and county fire districts that receive daily notification of  
11 Tribal burn approvals made for the Reservation.

12  
13 Regulatory and non-regulatory measures support the SMP. Until the implementation of  
14 the FARR on the Reservation, mechanisms were non-regulatory. Burners who do not  
15 follow the SMP process drop in priority for subsequent burn approvals. Since June of  
16 2005, the FARR established federal enforceability for burn restrictions. The Tribe  
17 conducts investigations of compliance issues, submits reports to EPA, and EPA  
18 proceeds with any enforcement action. Investigations concerning cross-boundary  
19 events are coordinated between all parties to the Clearwater Airshed MOA.

## 20 21 22 **A.7 UTAH SMOKE MANAGEMENT PROGRAM**

23  
24 The State of Utah administers a smoke management program that regulates prescribed  
25 fires and wildland fire use fires (WFUs) throughout the state. The program began in  
26 1999 and is revised annually to ensure it meets the needs of both burners and the State  
27 air quality program.

28  
29 The Utah Smoke Management Plan (SMP) and State administrative rule R307-204  
30 contain Utah's smoke management program. The SMP describes the operational  
31 procedures for prescribed fires or WFUs on lands in Utah owned or managed by state  
32 and federal land management agencies. The SMP also provides details on the  
33 responsibilities of the parties involved in the program as well as the organizational  
34 structure that has been developed to operate the smoke management program.  
35 Additionally, on August 11, 2003, the Utah Enhanced Smoke Management Plan  
36 (ESMP) was finalized. The ESMP was developed to provide for visibility protection from  
37 smoke in Class I Areas as required by the federal Regional Haze Regulation (40 CFR  
38 51.309(d)(6)). The ESMP is an addendum to the SMP and allows the SMP to be  
39 considered a §309 "Enhanced" smoke management program. Although the SMP does  
40 not have any legal power in and of itself, the plan provides detailed operational  
41 procedures that were developed cooperatively to ensure safe and effective smoke  
42 management throughout the State.

43  
44 In order to provide enforceability for the SMP, state administrative rule, R307-204  
45 (Emission Standards, Smoke Management), was promulgated in 2001. The rule was  
46 drafted from the content of the SMP and specifies the regulatory responsibilities of all

1 persons using prescribed fire or WFU fire on land that they own or manage. Under  
2 R307-204, prescribed fires requiring a burn plan cannot be ignited and WFU cannot be  
3 managed before the Executive Secretary of the Air Quality Board (AQB) approves or  
4 conditionally approves the burn request. R307-204 does not apply to agricultural  
5 activities; however, it does expand the scope of fires covered by the smoke  
6 management program. Although only fires on lands in Utah owned or managed by  
7 state and federal land management agencies are covered in the SMP, R307-204  
8 applies to all non-agricultural burning in the State.  
9

10 Operationally the Utah smoke management program works by making burn/no-  
11 burn/conditional burn decisions on a daily basis. These decisions are based on  
12 numerous fire related factors, including the size of planned burns, meteorological  
13 conditions, the impact of smoke from a proposed fire and the fire's relation to other  
14 proposed fires. The burn approvals are issued by the Executive Secretary of the AQB  
15 with assistance of an interagency Smoke Program Coordinator (SPC). The SPC is an  
16 interagency employee that works in the Utah Department of Air Quality (UDAQ) office.  
17 The SPC acts as a liaison between UDAQ and all participating burning agencies and  
18 provides necessary burn approval or denial recommendations to the Executive  
19 Secretary. In addition the SPC helps develop and maintain fire-related emissions  
20 inventory information, a database of fire activity and an annual report regarding the  
21 burning that occurred during each year.  
22

23 Additional information about the Utah smoke management program can be found online  
24 at <http://www.utahsmp.net/>  
25  
26

## 27 **A.8 STATE OF WASHINGTON SMOKE MANAGEMENT PLAN**

### 28 **Background:**

29 The state of Washington began its Smoke Management Program (SMP) for silvicultural  
30 burning in 1969. The current plan was developed in 1993 and revised in 1998. It  
31 includes emission reduction targets for silvicultural burning that were met in 2000 and  
32 have been maintained since. The SMP coordinates and facilitates the statewide  
33 regulation of prescribed outdoor burning on lands protected by the Washington  
34 Department of Natural resources (DNR) and on unimproved, federally managed forest  
35 lands. The SMP is designed to meet the requirements of the Washington State Clean  
36 Air Act (CAA). DNR is responsible for the overall administration of the SMP.  
37  
38

### 39 **Scope:**

40 The SMP provides regulatory direction, operating procedures, and advisory information  
41 regarding the management of smoke and fuels on forested land in Washington State. It  
42 applies to all persons, landowners, companies, state and federal land management  
43 agencies, and others who conduct outdoor burning.  
44

1 The SMP does not apply to agricultural burning (regulated by Department of Ecology),  
2 “rule” burning (small burns not requiring a permit), rangeland burning, or wildland fire  
3 use (WFU).  
4

5 **Goals:**

6 The goals of the SMP are to: (1) protect human health and safety from the effects of  
7 smoke from outdoor burning; (2) facilitate the enjoyment of the natural attractions of the  
8 state; (3) provide a limited burning program for the public; (4) provide an opportunity for  
9 essential forest burning while minimizing smoke; (5) foster and encourage the use of  
10 alternatives to outdoor burning; and (6) acknowledge the natural role of fire in the  
11 ecosystem and allow the use of fire under controlled conditions to maintain healthy  
12 forests.  
13

14 **General Burning Requirements:**

15 Non-federal landowners are required to obtain a burn permit from their local DNR region  
16 office. Permits are site-specific and include requirements to mitigate smoke impacts  
17 and fire danger. Both non-federal and federal landowners pay a fee for each burn unit  
18 based on actual emissions.  
19

20 All burners are required to provide specific pre-burn and post-burn data to DNR. DNR  
21 maintains a database of all burns, including emissions data.  
22

23 All burning must be approved prior to ignition. The mechanism, criteria, and  
24 requirements for burning approval vary according to the size of the proposed burn. For  
25 burns expected to consume less than 100 tons of fuel, the administrative unit manager  
26 approves or disapproves daily burns. All landowners are required to contact the DNR  
27 prior to burning (phone or website) for any daily restrictions for the county they are  
28 located in (air quality and fire danger). Daily restrictions become a part of all DNR  
29 issued permits. Federal land managers are subject only to air quality restrictions.  
30

31 Burns expected to produce greater than 100 tons of emissions require smoke  
32 management approval from DNR smoke management section (staffed with a fire  
33 weather meteorologist and smoke management specialist). Each proposed burn is  
34 evaluated individually considering unit information, meteorology, and distance from  
35 sensitive and designated areas. An approved burn requires final approval from the  
36 administrative unit manager.  
37

38 The SMP requires communication with the Department of Ecology (DOE) in order to  
39 avoid nuisance smoke and negative public health effects. It also exempts burning  
40 conducted for the purpose of restoring forest health or to prevent the additional  
41 deterioration of forest health from emission reduction targets. Burning to restore forest  
42 health must meet all other air quality standards.  
43

44 **Annual Reporting:**

45 DNR provides an annual report to the DOE that details the total emissions created by all  
46 burning included within the scope of this plan, other burning statistics and trends, and

1 the progress made toward meeting the emission reduction targets of the Washington  
2 CAA.

3

4 To view the program, see <http://www.dnr.wa.gov/htdocs/rp/smptoc.pdf> or contact:  
5 Washington DNR at (360) 902-2112.

6