



## **Annual WRAP Workplan**

Approved by the WRAP Board – May 9, 2016

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## **I. Purpose and Objectives**

The Annual WRAP Workplan describes the topics, tasks, associated projects, and objectives for the WRAP Technical Steering Committee (TSC) and Work Groups to address in implementing the five goals laid out in the [WRAP Strategic Plan and Vision Statement](#) adopted by the WRAP Board on March 9, 2015.

To assist in focusing the Annual WRAP Workplan, the WRAP Board established near-term strategic objectives in February 2016, which are:

- Create and operate the TSC and topical Work Groups;
- Create stable, sufficient funding for staff to support WRAP, organizational activities, and enable participation by all member agencies;
- Approve and utilize the WRAP Workplan to measure and track WRAP activities;
- Design and bring the Regional Technical Center on-line; and
- Continue implementation of the March 2015 WRAP Strategic Plan and Vision Statement.

The WRAP Workplan sets up the WRAP functional structure in terms of TSC oversight and responsibilities, topical Work Groups, and identifies needs currently known for those topics. The Work Groups will then respond to the Workplan as they are activated by the Board. While the Workplan refers initially to 2016 activities, it does not set specific timelines or deliverables until the Work Groups are functioning and other aspects of the Board's strategic objectives are addressed separately. The TSC will work with the Board to update the Workplan in late 2016 and add detail as needed.

### **A. Implement and Manage Coordination: Technical Steering Committee**

The Board formed the [Technical Steering Committee](#) in Fall 2015 to organize, direct, and coordinate WRAP project activities and Work Groups listed under the topical issues identified in the Annual WRAP Workplan, as well as to hold the lead responsibility for the WRAP Workplan, including progress reporting and budget tracking for the Board.

Specifically, the TSC will:

1. Oversee the preparation of a calendar year annual workplan and budget for Board approval, to coordinate among and provide oversight for the activities conducted under grants, cooperative agreements, and other Board-authorized WRAP projects;
2. Work with the WRAP Board to establish the topical WRAP Work Groups by:
  - a. Designating the WRAP Work Group Co-Chairs to be approved by the WRAP Board to lead and execute the Work Plan objectives associated with the individual Work Group;
  - b. Working with the Board-approved Work Group Co-Chairs to identify Work Group members who have applicable expertise related to that Work Group, seeking appropriate representation from the WRAP membership (states, tribes, locals, FLMs) to the greatest extent possible. Work Group membership will be approved by the TSC. WRAP Work Groups will be composed of members from WRAP member agencies, however, some Work Groups will or could have significant participation from industry and environmental stakeholders, as directed by the Board and overseen by the TSC; and

- c. Working with the WRAP Work Groups on development of their individual Work Group workplans that will describe the detailed tasks and activities to meet Annual WRAP Workplan objectives (see template in Appendix B). Work Group workplans will be submitted by the TSC to the WRAP Board for approval.
3. Provide oversight and coordination for the Work Groups and their projects and tasks by:
    - a. Reviewing and directing the effort of WRAP Work Groups and staff;
    - b. Establishing routine status reports, with Work Groups and WRAP project leads reporting progress to the TSC at least quarterly during scheduled TSC meetings;
    - c. Ensuring periodic interaction with the Work Groups' Chairs and members and with the contractors operating any projects; and
    - d. Developing the Annual WRAP Workplan and reviewing the associated annual Work Group workplans, budgets, projects and deliverables.
  4. Maintain the WRAP process through:
    - a. Open and transparent communications, including periodic meetings, conference calls and documentation;
    - b. Completion of deliverables that support the common needs of the WRAP membership and avoid duplication;
    - c. Pursuing opportunities to leverage multi-agency resources to accomplish larger projects; and
    - d. Providing TSC leadership on behalf of the Board to enable Work Groups and specific Project Teams to implement and track work under this plan.
  5. Maximize coordination within WRAP and leverage work of other related partner organizations through outreach, hosting and attending technical conferences and producing white papers to network with other organizations with common interests and needs.

All WRAP Work Groups' tasks and activities, as well as WRAP projects are to be documented in the annual workplan, posted on the WRAP website. Status reports of the WRAP Work Groups and WRAP projects will also be posted on the WRAP website. The TSC will also coordinate with WESTAR committees and work groups to ensure activities conducted in WRAP projects, under the auspices of the TSC and WRAP Work Groups, provide needed support.

**B. Support Technical and Planning Analysis for Regional Haze State Implementation Plans (SIPs)**

Proposed changes to the Regional Haze Rule (RHR) requires states to prepare and submit implementation plans no later than July 2021 to continue to improve visibility in Class I areas for the planning period ending in 2028.

WESTAR developed the "[WESTAR Regional Haze 2018 SIP Update Plan](#)" in 2014 to describe how the western states will collectively meet the regional planning requirements for the next round of Regional Haze SIPs. The plan identifies the work that needs to be done and associated policy considerations, but leaves determining how the work will be accomplished to this WRAP Workplan. The WESTAR plan, which will be updated in 2016, relies heavily on technical support from the WRAP for completing regional analysis and will need to be further updated as EPA completes RHR changes and offers guidance for regional haze planning.

The RHR requires IMPROVE monitoring data analysis to determine recent visibility trends and compare to baseline visibility conditions. Regional modeling and analysis will identify current emission conditions and the visibility effects of those, as well as estimate future scenarios and the effectiveness of potential additional controls. This analysis will also be used as states set their reasonable progress goals at each Class I area for the next progress period. The 2014 National Emissions Inventory (NEI)-based data with western regional improvements, hosted at the Intermountain West Data Warehouse (IWDW), will provide the basis for the emissions that are used in the regional modeling. Additional inventory efforts will be conducted as the states identify sectors that need refinement to better reflect actual conditions in the west. Emissions will be projected to reflect 2028 and/or the late 2020s timeframe. The plan also recognizes that Alaska and Hawaii are outside regional modeling domain and require additional support.

1. Regional Haze Planning Analysis Tasks:

- a. Inputs and tasks from WRAP Fire and Smoke, Oil and Gas, Regional Technical Operations, and Tribal Data Work Groups;
- b. WRAP data and decision support systems – managing updates to TSS and FETS/WRAP Tools;
- c. Update the 2014 WESTAR Regional Haze plan (this plan relies heavily on technical support from the WRAP for completing regional analysis);
- d. Emissions and Modeling for regional haze – leverage IWDW and potentially other regional modeling systems for western regional haze planning;
- e. Conduct needed IMPROVE monitoring data analysis for revised visibility metric by EPA;
- f. Define and execute process for projecting emissions for regional haze planning; and
- g. Define and execute process for analyzing controls and state-on-state impacts from changes in emissions on western Class I areas.

2. Work Group Lead: *Regional Haze Planning Work Group to be determined.*

WESTAR has an existing Regional Haze Planning working group with state membership. At present, there is uncertainty about completion dates for EPA Regional Haze Rule changes and guidance updates, resources for regional analysis, as well as a likely change for the SIP deadline to July 2021.

3. Topics and WRAP Project Activities for Regional Haze Planning

The Regional Haze Planning Work Group (when formed) is responsible for addressing the data and analysis elements, topics, and issues under Section I.B.1 of the WRAP Workplan. The Regional Haze Planning Work Group is responsible for providing oversight and coordinating efforts with projects and activities of across the WRAP and with other groups related to Regional Haze planning.

4. Regional Haze Planning Work Group Work Planning Requirements

The Regional Haze Planning Work Group (when formed) will prepare a detailed workplan for the TSC as inputs to update the WRAP annual workplan for achieving these Regional Haze analysis and planning elements in Section I.B.1 of the WRAP Workplan. These will include a schedule for work product completion, budget estimates of outside funding support needed, timing of progress reports, and milestones to support timely Regional Haze planning activities.

Work Group meeting notes and progress reports will be posted on the WRAP website.

## 5. Planning Support Clients

- WESTAR States' Regional Haze planners, via an updated [Regional Haze 2018 SIP Update Plan](#).
- WRAP member agencies.

## C. **Promote Understanding of Role of Fire and Smoke in Regional and Local Air Quality Plans**

Both natural, unplanned wildfires and long-standing practices of planned, prescribed fire are important air pollution sources in the Western United States. For wildfire, the length of the fire season, and the duration and intensity of individual fires are increasing due to the build-up of natural fuels after years of public policy for restricting wildfire spread, and a warming climate. With a better understanding of the role of natural fire in maintaining the health of natural landscapes, public policy is evolving to balance the need for natural fires with the need for protection of human infrastructure and public health, through application of prescribed fire. Additionally, climate change results in altered weather patterns, shifts in the types and composition of natural landscape communities, and increased threats from biological pests on weakened and transitioning ecosystems. Periodic and sustained drought and pressure to expand human communities into the urban-wildland interface heighten the importance of understanding wildfire in the western United States. In recognition of the increasing contributions of wildfire smoke, in frequency and duration, to ambient air quality, the western states have formed cooperative tracking systems that are the technical basis for improved understanding of smoke from uncontrolled wildfires. This regional interstate cooperation supports preparation of State Implementation Plans (SIPs) for Regional Haze and criteria pollutants.

### 1. Regional Air Quality Planning Analysis Tasks for Fire and Smoke:

- a. Inputs from and task coordination with WRAP Regional Technical Operations, Tribal Data, and Regional Haze Planning Work Groups.
- b. WRAP data and decision support systems – modified/updated TSS and FETS/WRAP Tools:
  - i. Implement regionally-consistent fire emissions inventories and make technical improvements;
  - ii. Identify and evaluate emissions and modeling for fire-related ozone background and regional transport evaluation – leverage IWDW and potentially other regional modeling platforms for western air agencies' planning needs (coordinate scope with Regional Technical Operations Work Group);
  - iii. Specify modeling studies of Fire emissions and impact analysis – results on FETS/WRAP Tools and IWDW data and decision support web systems;
  - iv. Determine present and range of future year contributions of natural sources (coordinate with Regional Technical Operations and Regional Haze Planning Work Groups); and
  - v. Track, reference, and apply effects of fire management- related regional haze controls on regional ozone and PM.

### 2. Work Group Lead: Fire and Smoke Work Group

### 3. Topics and WRAP Project Activities for Fire and Smoke

The Fire and Smoke Work Group (when formed) is responsible for addressing the data and analysis elements, topics, and issues under Section I.C.1 of the WRAP Workplan. The Fire and Smoke Work Group is responsible for providing oversight and coordinating efforts with projects and activities across the WRAP and with other groups related to Fire and Smoke.

#### 4. Fire and Smoke Work Group Work Planning Requirements

The Fire and Smoke Work Group (when formed) will prepare a detailed workplan for the TSC as inputs to update the WRAP annual workplan for achieving these Fire and Smoke analysis and planning elements in Section I.C.1 of the WRAP Workplan. These will include a schedule for work product completion, budget estimates of outside funding support needed, timing of progress reports, and milestones to support timely and necessary Fire and Smoke analysis activities.

Work Group meeting notes and progress reports will be posted on the WRAP website.

#### 5. Planning Support Clients

- WESTAR States' Regional Haze planners, based on an updated [Regional Haze 2018 SIP Update Plan](#).
- WRAP member agencies for assessment of Ozone and PM NAAQS planning, maintenance, and exceptional events.

### **D. Promote Understanding of Role of Oil and Gas in Regional and Local Air Quality Plans**

The Intermountain Region is especially impacted by exploration and production emissions from the oil and gas industry, and the West more broadly by emissions from the transport and use of those fuels. NAAQS exceedances during winter in production regions of Utah and Wyoming have demonstrated localized effects, while the contributions from exploration and production in the wider region on summer ozone is still being assessed. In addition, this sector must be considered for Regional Haze planning. Studies currently point to improvements in the emissions inventory as being one of the most needed products to improve performance of the air quality models. Current projects and funding opportunities make improvements in these areas likely in the 2016-17 timeframe. This is a rapidly changing sector due to variations in commodity prices, technology innovations, and emerging regulatory programs.

The [Intermountain West Data Warehouse – Western Air Quality Study](#) (IWDW-WAQS) discussed in the Regional Technical Operations section below, has a particular focus on Oil and Gas energy development and associated impacts. The IWDW-WAQS efforts can be significantly leveraged for the Oil and Gas studies described next, and could be expanded geographically as resources and interest allow. The IWDW also hosts the National Oil & Gas Emissions Committee's [Information Repository](#), which stores and allows access to information of interest to state air agencies, EPA, and others about Oil and Gas activity and emissions data, and supporting information across the U.S.

#### 1. Regional Air Quality Planning Analysis Tasks for Oil and Gas:

- a. Inputs and tasks from WRAP Regional Technical Operations, Tribal Data, and Regional Haze Planning Work Groups;
- b. Emissions and Modeling for O&G-related background and regional transport evaluation – leverage IWDW and potentially other regional modeling systems for western air agencies' planning needs (coordinate scope with Regional Technical Operations Work Group);
- c. Identify and evaluate modeling studies of Oil and Gas Emissions and impact Analysis – results on IWDW data and decision support web system;

- d. Continue work of the [Drill Rig 1-hour NO<sub>2</sub> Collaborative Study](#) as future funding allows;
- e. Implement the Collaborative Air Landscape-Scale Management Pilot (CALM) Study - Oil and Gas development impacts in the intermountain west as future funding allows;
- f. Implement regionally-consistent Oil and Gas emissions inventories and make technical improvements;
- g. Determine present and range of future year contributions of Oil and Gas sources for the entire upstream and midstream sectors (coordinate with Regional Technical Operations, Regional Haze Planning, and Tribal Data Work Groups); and
- h. Track, reference, and apply effects of state-, tribal-, producer-, and EPA-mandated Oil and Gas emissions management- related controls on regional haze, regional ozone, and other air pollution indicators

2. Work Group Lead: Oil and Gas Work Group

3. Topics and WRAP Project Activities for Oil and Gas

The Oil and Gas Work Group (when formed) is responsible for addressing the data and analysis elements, topics, and issues under Section I.D.1 of the WRAP Workplan. The Oil and Gas Work Group is responsible for providing oversight and coordinating efforts with projects and activities across the WRAP and with other groups related to Oil and Gas.

4. Oil and Gas Work Group Work Planning Requirements

The Oil and Gas Work Group (when formed) will prepare a detailed workplan for the TSC as inputs to update the WRAP annual workplan for achieving these Oil and Gas analysis and planning elements in Section I.D.1 of the WRAP Workplan. These will include a schedule for work product completion, budget estimates of outside funding support needed, timing of progress reports, and milestones to support timely and necessary Oil and Gas analysis activities.

Work Group meeting notes and progress reports will be posted on the WRAP website.

5. Planning Support Clients

- WESTAR States' Regional Haze planners, based on an updated [Regional Haze 2018 SIP Update Plan](#).
- WRAP member agencies for assessment of Ozone and PM NAAQS planning and maintenance.
- WRAP member agencies with Oil and Gas permitting and registration regulatory programs.

**E. Provide Regional Technical Capabilities**

The first goal described in the [2015 WRAP Strategic Plan and Vision Statement](#) is to “Provide a forum for regional collaboration on technical and planning topics of common interest to the members”. From a technical, data-centric perspective there is currently an infrastructure in place upon which we can build effectively. This infrastructure stems from a variety of regional and sub-regional projects that have been undertaken since 2010. The projects have been funded largely from four federal agencies as well as private outside sources, and the results and data from these projects are currently housed under the auspices of [Intermountain West Data Warehouse](#) (IWDW). The IWDW and the project analyses that it supports represent the collaborative, project planning, and technical skills that are now in place as a resource to support the WRAP goals as outlined in the

strategic plan. The IWDW's ongoing Western Air Quality Modeling Study (WAQS) analyzes recent historic and projected future emissions in a manner that are readily adaptable for regional air quality analysis and planning purposes for the NAAQS, regional haze and other programs, pending timely availability of resources and coordination with the sponsoring agencies.

In addition, other functional regional modeling capacity exists in the WRAP region. The other currently functional and interdependent modeling systems based in the northwest U.S. are the [NW-Airquest](#) and [AIRPACT \[Air Information Report for Public Access and Community Tracking\]](#) systems. NW-AIRQUEST seeks to maintain and enhance a sound scientific basis for air quality management decision-making in the Pacific Western North America Region through regional analyses and modeling to support air quality forecasting and other needs. AIRPACT is a modeling system for predicting air quality for the immediate future of one to three days for ID, OR and WA. Such systems are readily adaptable for air quality planning purposes for the NAAQS, regional haze and other programs, pending timely availability of resources and coordination with the sponsoring agencies.

1. Regional Air Quality Planning Analysis Tasks for Regional Technical Operations:

- a. Inputs and tasks from WRAP Fire and Smoke, Oil and Gas, Tribal Data, and Regional Haze Planning Work Groups.
- b. Emissions and Modeling for regional haze, ozone, PM, and other indicators' background and regional transport evaluation – leverage IWDW and potentially other regional modeling systems for data and visualization for western air agencies' planning needs (scope to be defined by the Regional Technical Operations Work Group).
- c. Emissions:
  - i. Address all emissions sectors for air quality planning needs of WRAP member agencies;
  - ii. Use regionally-consistent Oil and Gas emissions inventories and make technical improvements;
  - iii. Implement regionally-consistent fire emissions inventories and make technical improvements;
  - iv. Track, reference, and apply effects of state-, tribal-, producer-, and EPA-mandated emissions controls on regional haze, regional ozone, and other air pollution indicators; and
  - v. Based on direction from WRAP Work Groups and member agencies, develop a documented procedure and execute a documented process for projecting all emissions for future year ozone and regional haze planning.
- d. Modeling, Data Analysis, and Contribution Assessment:
  - i. Conduct modeling studies of all sources anthropogenic and natural, including specific Fire and Smoke, Oil and Gas, and Tribal Data emissions and impact analyses – results on IWDW data and decision support web system;
  - ii. Coordinate and support Exceptional Events technical demonstrations;
  - iii. Assess international and inter-jurisdictional transport for Regional Haze and Ozone;
  - iv. Assess contributions of natural sources;
  - v. Ozone monitoring data analysis to support regional modeling analysis;
  - vi. Determine present and range of future year contributions of Oil and Gas sources for the entire upstream and midstream sectors;
  - vii. Determine present and range of future year contributions of natural sources;
  - viii. Determine present and range of future year contributions of sources regulated by WRAP member agencies; and
  - ix. Assess, reference, and provide ranges of future year air quality scenarios accounting for climate change impacts, changes and innovations in anthropogenic sources, and change in emissions from natural systems.

2. Work Group Lead: Regional Technical Operations Work Group

3. Topics and WRAP Project Activities for Regional Technical Operations

The Regional Technical Operations Work Group (when formed) is responsible for addressing the data and analysis elements, topics, and issues under Section I.E.1 of the WRAP Workplan. The Regional Technical Operations Work Group is responsible for providing oversight and coordinating efforts with projects and activities across the WRAP and with other groups performing regional analyses.

4. Regional Technical Operations Work Group Work Planning Requirements

The Regional Technical Operations Work Group (when formed) will prepare a detailed workplan for the TSC as inputs to update the WRAP annual workplan for achieving these Regional Technical Operations analysis and planning elements in Section I.E.1 of the WRAP Workplan. These will include a schedule for work product completion, budget estimates of outside funding support needed, timing of progress reports, and milestones to support timely and necessary western regional air analysis activities.

Work Group meeting notes and progress reports will be posted on the WRAP website.

5. Planning Support Clients

- WESTAR States' Regional Haze planners, based on an updated [Regional Haze 2018 SIP Update Plan](#).
- WRAP member agencies.

**F. Support Development of Tribal Air Quality Capacity and Tribal Implementation Plans (TIPs)**

Similar to states, tribal governments manage air quality and address air pollution within their reservations and are concerned about air pollution that affects tribal health and welfare. In addition to regional haze, tribes in the west are concerned with many other aspects of air quality and the Clean Air Act, such as climate change, air quality monitoring, submission of monitoring and emissions inventory data to EPA, particulates, ozone, air toxics and hazardous air pollutants, atmospheric deposition (critical loads, nitrogen, mercury), smoke management, fugitive dust, permit reviews, NAAQS designations, renewable energy, energy efficiency, coal, oil and gas train transport, oil and gas development, cap and trade programs, and SIP, FIP, and TIP development. The WRAP recognizes that air quality impacts occur for individual tribes. Tribes use sovereign authority and the CAA to administer air quality programs. There are various regulatory and non-regulatory options available to tribes under the CAA. Tribes can develop a TIP, be delegated authority to help administer a FIP, or operate a program under sovereign authority. Tribes also administer CAA projects and conduct air quality monitoring, research activities, education and outreach. Each tribe is unique and the best approach to implement the CAA and protect air quality may be different from one tribe to another. As with states, all regulatory options require tribes to have the capability to effectively implement an air quality program. Unlike states, not all tribes have funding to operate an air quality program but are still affected by and have a need to address air quality issues.

Tribes, along with states and federal agencies, were full partners in the WRAP as it was formed in 1997, having equal representation on the WRAP Board as states. That equal representation between states and tribes on the WRAP Board remains in place today. Despite this equality of representation on the Board, tribes are very differently situated than states. There are over 400 federally recognized tribes in the WRAP region, including Alaska. The sheer number of tribes makes full participation impossible. Moreover, many tribes are faced with pressing environmental, economic, and social issues, and do not have the resources to participate in an effort such as the WRAP, however important its goals may be. The tribes that are members of the WRAP, and their representatives, make their best effort to ensure WRAP products are in the best interest of the tribes, the environment, and the public.

Most WRAP accomplishments since 1997 have benefitted states, tribes, and all WRAP member agencies including, regional haze analysis, the Technical Support System (TSS), smoke management program recommendations, the Fire Tracking System (FETS), and various training opportunities.

1. Regional Air Quality Planning Analysis Tasks elements for Tribal Data:

- a. Inputs from and coordination with WRAP Fire and Smoke, Oil and Gas, Regional Technical Operations, and Regional Haze Planning Work Groups;
- b. Emissions and Modeling for Tribal Data background and regional transport evaluation – leverage IWDW and potentially other regional modeling systems for western air agencies’ planning needs (scope to be coordinated with the Regional Technical Operations Work Group);
- c. Make Tribal data improvements and include in western regional analyses;
- d. Identify and evaluate modeling studies of Tribal Data emissions and impact analysis – results on IWDW data and decision support web system;
- e. Implement regionally-consistent and complete Tribal emissions inventories and make technical improvements;
- f. Determine present and range of future year contributions of Tribal sources for the entire upstream and midstream Oil and Gas sectors; and
- g. Track, reference, and apply effects of state-, tribal-, producer-, and EPA-mandated O&G emissions-related controls on regional haze, regional ozone, and other air pollution indicators.

2. Work Group Lead: Tribal Data Work Group

3. Topics and WRAP Project Activities for Tribal Data

The Tribal Data Work Group (when formed) is responsible for addressing the data and analysis elements, topics, and issues under Section I.F.1 of the WRAP Workplan. The Tribal Data Work Group is responsible for providing oversight and coordinating efforts with projects and activities across the WRAP and with other groups related to Tribal Data.

4. Tribal Data Work Group Work Planning Requirements

The Tribal Data Work Group (when formed) will prepare a detailed workplan for the TSC as inputs to update the WRAP annual workplan for achieving these Tribal Data analysis and planning elements in Section I.F.1 of the WRAP Workplan. These will include a schedule for work product completion, budget estimates of outside funding support needed, timing of progress reports, and milestones to support timely and necessary Tribal Data analysis activities.

Work Group meeting notes and progress reports will be posted on the WRAP website.

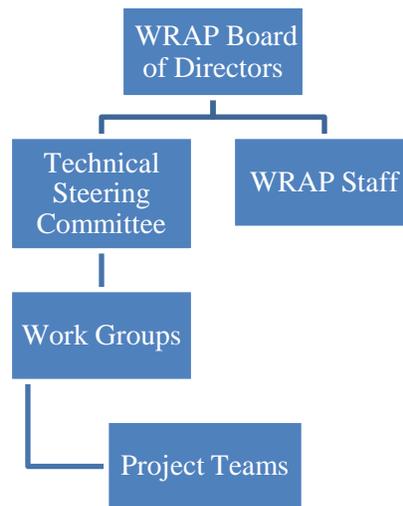
5. Planning Support Clients

- WESTAR States’ Regional Haze planners, based on an updated [Regional Haze 2018 SIP Update Plan](#).
- WRAP member agencies.

## II. WRAP Organizational Structure

Membership in the WRAP is open to all states, federally recognized tribes, and local air agencies located in the geographical region encompassed by the states of: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming. Membership in the WRAP is also open to the US Forest Service, National Park Service, Bureau of Land Management, Fish and Wildlife Service, and U.S. EPA. In order to become a recognized member of the WRAP, eligible states, tribes, local air agencies, and federal agencies shall submit an official letter to the WRAP requesting membership and designating primary and secondary contacts for the jurisdiction or agency. Any tribe, state, or local air agency in the WRAP region may participate in the WRAP; however, for membership/Board matters brought to a vote, recognized membership is needed.

In order to accomplish the objectives of the WRAP, in addition to the TSC and topical Work Groups already described, other portions of the WRAP structure are organized as follows:



### WRAP Board of Directors

The WRAP [Board of Directors](#) consists of five state, five tribal, five federal and two local air agency representatives. The Board of Directors acts on behalf of all WRAP members. The WRAP's purposes, activities, powers, and duties of the Board of Directors are described in the [WRAP Charter](#), last amended in July 2014. From the Charter, the Board of Directors provides overall policy direction to the WRAP by accomplishing the following:

- Work with WRAP staff to solicit and accept funding for continued efforts under current activities and projects described in this Workplan, as well as the likely addition of new or expanded activities or projects;
- Sustaining the membership and providing oversight for the activities of the Technical Steering Committee;
- Provide oversight for WRAP Staff as described in the Charter;
- Establish Work Groups and Project Teams as recommended by WRAP Staff and the Technical Steering Committee for the effective coordination of WRAP initiatives;
- Review and approve workplans developed by the Technical Steering Committee;
- Ensure appropriate stakeholder participation in WRAP processes through coordination with the WRAP staff and Technical Steering committee; and

- Initiate membership meetings twice a year or as necessary to oversee the general direction of the WRAP.

The WRAP Board resolves all issues on a consensus basis. The WRAP Board may vote on administrative matters when consensus cannot be reached.

### WRAP Staff

The WRAP Staff provide full-time technical leadership support as well as significant experience and expertise to the TSC. As time and funds permit, the WRAP Staff work on technical projects with the TSC and Work Groups. The WRAP Staff accomplishes the following:

- As time and resources permit, support each project team of the TSC and Work Groups in completing the mission of the team. The WRAP Staff may retain outside contractors for support on specific projects;
- Seek out funding opportunities that align with the WRAP Board of Directors overall policy direction and bring these opportunities to the attention of the WRAP Board and TSC for consideration;
- Work with the TSC and Board of Directors to ensure timely submittal of grant applications;
- Track all current and any new WRAP activities and projects to assist the Technical Steering Committee, Work Groups, and Project Teams, for periodic WRAP Board reporting;
- Consider the technical tools needed to assist the WRAP membership in making use of WRAP products and reports by conducting an annual needs assessment for WRAP membership;
- Improve communications among the WRAP membership by organizing WRAP meetings with input from the TSC and Board and conducting periodic conference calls with the TSC, Work Groups, Board and membership;
- In accordance with the direction of the WRAP Board, maintain a strategic plan and update the Annual Workplan for WRAP Board review and approval; and
- In coordination with the TSC, review available funding, WRAP membership needs and prioritized projects to produce reports and white papers outlining future technical needs and needed funding.

### WRAP Project Teams

Under the leadership of the Technical Steering Committee, Work Groups, WRAP Staff, and ultimately the WRAP Board, needed Project Teams will be identified and included in the Annual Workplan process. The TSC and/or Work Groups will be responsible for managing the Project Teams, which are intended to enable non-members of WRAP to express interest and sponsor analysis or planning projects within the scope and topics of the WRAP Charter and Strategic Plan. The Project Teams will be associated with a discrete, defined project for which the non-member sponsor is providing funding and expertise resources. The Project Teams are intended to allow sponsor participation and will include members of WRAP Work Groups and TSC, WRAP Staff, and non-member sponsors. The TSC will define the scope and membership, and duration of each Project Team, and include that information in the Annual Workplan. The WRAP has one recent historical example of an active Project Team, the Study Management Team for the [Drill Rig 1-hour NO<sub>2</sub> Collaborative Study](#).

### III. Deliverables, Funding Sources, and Budget

The Annual Workplan schedule of deliverables for 2016 is shown below. Additional work planning, budget materials, and funding source information will be provided by the TSC to the Board for review and approval as an update to the Annual WRAP Workplan in the October-November 2016 time frame, after formation and initial organizational meetings and work planning efforts of the TSC and Work Groups.

**WRAP Annual Workplan Development Timeline by TSC**

		2016											
Step	Activity	Q1			Q2			Q3			Q4		
		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
1	Draft 1	■	■	■				■	■	■			
2	Workplan orientation for Board - initial review			■				■	■	■			
3	Draft 2			■	*			■	■	■			
4	Board review and discussion at WESTAR-WRAP meeting				■			■	■	■			
5	Workplan approval by WRAP Board					**		■	■	■			
6	Outreach for Work Groups' members and Co-Chairs					■	■	■	■	■			
7	Approval of Work Groups' Co-Chairs by Board						■	■	■	■			
8	Work Group Co-Chairs and TSC recruit members for Work Groups						■	■	■	■			
9	Work Groups develop initial drafts of their workplans						■	■	■	■	■		
10	TSC & Work Groups meeting - review and finalize Work Groups' workplans, prioritizing work tasks/budget needs							■	■	■	■		
11	Work Groups & TSC compile and update Annual Workplan							■	■	■	■	■	
12	Board reviews and adopts updated Annual Work Plan, begin work task implementation							■	■	■			■

\* - April 11th Board call

\*\* - May 9th Board call

## Appendix A

### Technical Steering Committee description

(approved by WRAP Board – October 2015)

#### Introduction

This document presents the member qualifications, membership and committee structure, meeting and call schedule, duties, and work group oversight activities of the WRAP Technical Steering Committee (TSC) under the requirements of the [WRAP Charter](#) and Board-approved planning documents. Updates to this document can be made through the WRAP Board at any time, and can be initiated by the Board, TSC members, or at the suggestion of WRAP member agencies.

#### TSC Member Qualifications

The TSC members will be from WRAP member organizations and will be senior air quality technical or planning program management staff with experience in air quality programs. To assure appropriate time and effort commitment, the Board will nominate individual TSC members and the WRAP member agency representative from the nominee's agency will accept the nomination.

#### TSC Membership Structure and Terms

The TSC is composed of:

- Three (3) state representatives;
- Three (3) tribal representatives;
- Three (3) Local Air Agency representatives – at least one (1) from the non-California WRAP region; and
- Three (3) federal agency representatives – one (1) of whom will represent the U.S. EPA.

The TSC will function by consensus as defined in the WRAP Charter.

The TSC will have two (2) Co-Chairs appointed by the Board. TSC Chairs will be from WRAP member organizations. The Co-Chairs will be responsible for serving as liaisons to the Board and reporting on the TSC activities to the Board, with support from WRAP staff.

The desired distribution of TSC members is to reflect the diversity of member agency programs and air quality issues across the WRAP region, and draw upon the substantial collaborative regional air quality technical and planning needs and experience of WRAP member agencies. Vacancies among TSC seats may be filled by the Board at any time. All TSC members and Chairs will be appointed for two-year terms, with the first such terms expiring at the conclusion of the Fall 2017 WRAP membership meeting.

#### Duties and WRAP Staff Support

The TSC will have at least bi-monthly conference calls to manage TSC activities and provide oversight to WRAP work groups and projects. The TSC will oversee the preparation of an annual workplan and budget for Board approval, covering technical projects and Work Groups. The TSC may have meetings immediately preceding or following the Spring and Fall WRAP membership meetings, and/or other meetings as needed, to plan next steps, address comments and concerns, and review workplans and activities. The TSC Co-Chairs will plan and direct the calls and meetings, and with assistance from WRAP staff, take the lead in communications and other necessary Board interaction.

WRAP staff will provide support for TSC calls and meetings. WRAP staff will assist with arranging and documenting TSC calls and meetings, prepare TSC workplans and budgets for review and action, assist with status

reports on the Work Groups' activities, and provide status reports on the deliverables, budgets, and timelines for the WRAP's technical projects.

Day-to-day management of WRAP technical projects will primarily be conducted by WRAP staff. The TSC will provide oversight and coordination for the work groups, committees, and projects or tasks listed below by reviewing and directing the effort of WRAP Work Groups and staff to manage these projects, via routine status reports, the annual workplan and budget, and periodic interaction with the contractors operating these systems.

#### TSC Oversight of WRAP Technical Projects

The TSC will coordinate among and provide oversight for the activities conducted under following grants, cooperative agreements, and other Board-authorized WRAP projects. The tasks comprising the projects are documented in the annual workplan, and posted on the WRAP website.

- 1) The WRAP Regional Technical Support portion of the WESTAR-EPA grant;
- 2) The WESTAR/WRAP-BLM Cooperative Agreement;
- 3) The WESTAR/WRAP-NPS Cooperative Agreement;
- 4) Projects under the Joint Fire Science Program;
- 5) Development and ongoing implementation of the WRAP Regional Technical Center; and
- 6) Any modified or new tasks, projects, and/or initiatives recommended by the Board for implementation via acceptance by WESTAR/WRAP through new or modified Cooperative Agreements, Grants, Funding Opportunities, or other mechanisms.

#### TSC Oversight of WRAP Work Groups

The TSC will provide oversight for the following WRAP Work Groups. The activities of the projects and work groups will be documented for review by the Board. Additional or modified Work Groups may be authorized by the Board and those changes made in the appropriate Work Group workplan document and via the annual workplan.

- 1) Tribal Data Work Group (TDWG);
- 2) Regional Technical Operations Work Group (RTOWG);
- 3) Oil and Gas Work Group (OGWG); and
- 4) Fire and Smoke Work Group (FSWG).

WRAP Work Groups will be composed of members from WRAP member agencies, and Co-Chairs of each work group will be designated by the TSC to lead and execute the activities associated with the individual work group, outlined in each work group's workplan document. Some work groups will or could have significant participation from industry and environmental stakeholders, as directed by the Board and overseen by the TSC. The TSC will provide oversight of the work groups by reviewing their annual workplans, budget, projects and deliverables, via routine status reports, and periodic interaction with the work groups' Chairs and members.

#### Coordination

The TSC will also coordinate with the following work groups and committees to ensure activities conducted in WRAP projects, and under the auspices of the TSC and WRAP Work Groups provide needed support:

- 1) WESTAR Regional Haze Planning Work Group;
- 2) WESTAR Planning Committee;
- 3) WESTAR Technical Committee; and
- 4) Other groups as designated by the Board in the annual Workplan process.

## Appendix B

### Work Group work plan template

*(guidance from TSC to each WRAP Work Group for work planning, based on TSC oversight, for Board approval)*

*(applies to each WRAP Work Group: Fire and Smoke, Oil and Gas, Regional Technical Operations, Tribal Data)*

#### Duties and WRAP Staff Support

In consultation with the Chair or Co-Chairs from the [insert WG name], the TSC will review and seek Board approval of a written workplan to address and include all the elements for each Work Group, specific to [insert WG name] as described in Section I of the Annual WRAP Workplan. Based on these elements, the [insert WG name] is then charged with creating detailed workplan inputs to the WRAP annual workplan for achieving these objectives. The [insert WG name] workplan will include a schedule for progress reports to the TSC (at least quarterly) and a schedule for project completion. The [insert WG name] will work with WRAP staff to have progress reports posted to the WRAP website. The [insert WG name] and other Work Groups are responsible for translating technical materials into a form understandable by the TSC, Board, and general public. The [insert WG name] has the additional responsibility for ensuring the best information and data are available for air quality planning across the region, with WRAP Staff support.

The [insert WG name] will have at least bi-monthly conference calls to manage activities and provide oversight to WRAP projects. The [insert WG name] will provide inputs to the TSC for an annual WRAP workplan and budget for Board approval, covering technical projects and Work Groups. The [insert WG name] may have meetings identified in the annual workplan. The [insert WG name] Chair or Co-Chairs will plan and direct the calls and meetings, and with assistance from WRAP Staff, take the lead in communications and other necessary TSC and Board interaction.

WRAP Staff will provide support for [insert WG name] calls and meetings. WRAP Staff will assist with arranging and documenting [insert WG name] calls and meetings, prepare TSC workplan inputs and budgets for review and action, assist with status reports on the [insert WG name]'s activities, and provide status reports on the deliverables, budgets, and timelines for the WRAP's technical projects.

#### Processes

The [insert WG name] is to conduct their business on a consensus basis. Consensus has the following parameters:

- Consensus is agreement.
- Consensus is selection of an option that everyone can live with.
- Consensus may not result in the selection of anyone's first choice, but everyone is willing to support the choice.
- Consensus is not a majority vote.

When the [insert WG name] cannot reach a consensus on an issue it will be referred to the TSC. If the TSC cannot reach a consensus on the issue it will be referred to the WRAP for resolution.

#### Coordination

Through the TSC, the [insert WG name] will coordinate with the following work groups and committees as needed to ensure activities conducted in WRAP projects, and under the auspices of the [insert WG name] provide needed support:

- 1) Tribal Data Work Group (TDWG);
- 2) Regional Technical Operations Work Group (RTOWG);
- 3) Fire and Smoke Work Group (FSWG);
- 4) Oil and Gas Work Group (OGWG);
- 5) WESTAR Regional Haze Planning Work Group;
- 6) WESTAR Planning Committee;
- 7) WESTAR Technical Committee; and
- 8) Other groups as designated by the Board in the annual Workplan process.