

Western Regional Air Partnership (WRAP) Air Quality Program Update



Tom Moore (tmoore@westar.org)

WRAP Air Quality Program Manager, Western States Air Resources (WESTAR) Council

WRAP website (www.wrapair2.org)

WRAP Organization

- **Virtual organization formed in 1997 as successor to Grand Canyon Visibility Transport Commission - historically staffed by National Tribal Environmental Council and Western Governors’ Association.**
- **Supported Regional Haze technical , planning, and policy work 1999 – 2009.**
- **WRAP Charter amended in late 2009, to focus on technical and planning support for “one-atmosphere” western regional air issues – Regional Haze, Ozone, PM, Nitrogen Deposition, Mercury.**
- **WRAP moved to be administratively supported by the Western States Air Resources (WESTAR) Council in October 2013.**
- **Charter amendments to accommodate move to WESTAR administrative support were approved by a vote of WRAP members in July 2014.**
- **Currently funded by states, EPA, NPS, BLM, and industry for interconnected series of western regional technical projects supporting air quality planning across the West.**
- **Additional projects and funding organizations continue to be developed, framed in context of the WRAP Strategic Plan. Work plan for 2016-20 in development by Steering Committee and working groups.**

WRAP Members – November 2015			
Alaska DEC	Pueblo of Acoma	Maricopa County Air Quality Department	National Park Service
Arizona DEQ	Campo Kumeyaay Nation	Pima County DEQ	Fish & Wildlife Service
California ARB	Confederated Salish, Pend d'Oreille, and Kootenai Tribes	Pinal County AQCD	Bureau of Land Management
Colorado CDPHE	Confederated Tribes of the Umatilla Indian Reservation	Bay Area Air Quality Management District	U.S. Forest Service
Hawaii DoH	Fort Belknap Indian Community	Butte County Air Quality Mgmt. Dist.	Environmental Protection Agency
Idaho DEQ	Hopi Tribe	Great Basin Unified APCD	
Montana DEQ	Hualapai Tribe	Imperial Co. Air Pollution Control Dist.	
Nevada DEP	Kashia Band of Pomo Indians of Stewarts Point Rancheria	Mojave Desert AQMD	
New Mexico AQB	Lone Pine Paiute-Shoshone Reservation	Monterey Bay Unified APCD	
North Dakota DoH	Nez Perce Tribe	North Coast Unified AQMD	
Oregon DEQ	Northern Cheyenne Tribe	Northern Sonoma County APCD	
South Dakota DENR	Ohkay Owingeh Pueblo	Placer County Air Pollution Control District	
Utah DEQ	Orutsarmiut Native Council (ONC)	Sacramento AQMD	
Washington DoE	Pechanga Band of Luiseno Indians	San Diego County APCD	
Wyoming DEQ	Pyramid Lake Paiute Tribe	San Luis Obispo County APCD	
	Quinault Indian Nation	Santa Barbara County APCD	
	Shoshone-Bannock Tribes	Tehama County APCD	
	Pueblo of Zuni	Yolo-Solano Air Quality Mgmt. District	
		Denver/Northern Front Range Regional Air Quality Council	
		Clark County Dept. of Air Qual. & Env. Mgmt.	
		Air Quality Mgmt. Div., Washoe Cnty. Health District	
		Lane Regional Air Protection Agency	
		Northwest Clean Air Agency	
		Olympic Region Clean Air Agency	
		Puget Sound Clean Air Agency	
		Southwest Clean Air Agency	
		Spokane Regional Clean Air Agency	
		Yakima Regional Clean Air Agency	

WRAP Fire Emissions/ Air Quality Impacts Studies



WRAP Tools:

WRAP FETS

Explore current fire activity in the WRAP region.

DEASCO₃

Learn about fires' contribution to Ozone (O₃).

PMDETAIL

Learn about fires' contribution to Particulate Matter (PM).

WRAP fets

[Home](#) [Fire Activity Map](#) [Data Management](#) [User Tools](#) [NEI Support](#) [DEASCO₃](#) [PMDETAIL](#) [Contact](#)

Welcome to the WRAP Fire Emissions Tracking System (FETS).

▶ Map of Current Fire Activity in WRAP Region

▶ Resources

▶ Methods

▶ State and Tribal Smoke Manager Contacts

The WRAP's Fire Emissions Tracking System (FETS) is a web-enabled database for planned and unplanned fire events. It is intended as a planning tool for daily smoke management coordination, and retrospective analyses such as emission inventories and regional haze air quality planning tasks.

News and Events

October 2012 FETS Project call. [Details...](#)

August 2011 FETS Project call. [Details...](#)

May 2011 FETS Project call. [Details...](#)

March 2011 FETS Project call. [Details...](#)

January 18, 2011: NEI Support Tools Webinar 2. [Dets](#)

December 2010 FETS Project call. [Details...](#)

[older events...](#)

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DEASCO₃

[Home](#) [About the Project](#) [Intro to the Tools](#) [Case Studies](#) [Register](#) [Login](#)

The DEASCO₃ project, funded by the [Joint Fire Sciences Program](#) (JFSP), has produced analytical results and a dynamic and accessible technical tool that enables Federal Land Managers (FLMs) to participate more fully in ozone air quality planning efforts. Complex technical analyses of a series of well-chosen historic Case Study events have been made accessible using instructive tables, charts, and maps that describe how and to what extent fires contribute to ambient ozone concentrations. Nineteen (19) Case Studies were developed to characterize the relationship of emissions from fire to ozone concentrations across a broad range of circumstances (e.g., geographic locations, fuel conditions, time of year, fire types, and contributions to elevated background levels and levels in excess of the current and proposed Ozone NAAQS). This suite of Case Studies characterizes situations analogous to those that FLMs may face with current conditions and in the future. The online tools allow FLMs to survey, review, and grab the technical results and findings of the most analogous Case Studies, and/or generate new Case Studies, to effectively contribute to the state and EPA processes of SIP development, declaration of Exceptional Events, non-attainment area designations, establishing background levels of ozone, and others.

1. Fire Planning for FLMs – when it is time to plan for an upcoming burn or burn season;
2. State Implementation Plan (SIP) development - nonattainment area designations, design days for planning, establishing background levels of ozone, and other air quality management program issues; and
3. Evaluation and declaration of Exceptional Events.

Start using DEASCO₃ Tools and Data

PMDETAIL

Particulate Matter Deterministic & Empirical Tagging & Assessment of Impacts on Levels

The 3-year PMDETAIL project, funded by the [Joint Fire Sciences Program](#) (JFSP), will quantify the impact of prescribed and other fire sources on particulate matter (characterized as PM_{2.5} and PM₁₀) levels across the continental U.S. It will also develop new fire emissions inventories and computational modules for chemical transport models to simulate the atmospheric transformations of these emissions. The resulting models (CAMx and PMCAMx) and inventories will be evaluated against field measurements for 2002, 2008, and 2011. CAMx is a publicly available chemical transport model (CTM) used for regulatory purposes, while PMCAMx is its research version developed by the CMU team. We will leverage and significant extend emission inventory development and CAMx modeling from an ongoing JFSP study, Deterministic and Empirical Assessment of Smoke's Contribution to Ozone (DEASCO₃).

Project Documents

Laboratory Pilot Test Results for Biomass Burning Markers from IMPROVE Filters, Memo PDF and Data PDF

WRAP Oil & Gas Emissions / Air Quality Impacts Studies

<http://www.wrapair2.org/emissions.aspx>

National Oil and Gas Work Group Summit Meeting - November 2014

[Air Quality Regulations pertaining to Oil and Gas \(Univ. of Colorado Law School, Getches-Wilkinson Center for Natural Resources, Energy, and the Environment – March 6, 2015\)](#) (this link leaves the WRAP website)

WRAP Regional O&G Emission Inventory Pneumatic Pump Data (March 27, 2015)

Memo on WRAP Phase III oil and gas speciation profiles and organic gas profile data August 27, 2015)

Drill Rig 1-hour NO₂ Collaborative Study

San Juan & Permian Basins' O&G 2014 Emission Inventory Project

Greater San Juan Basin 2014 Gas Production by State and Mineral Ownership

Category	Percentage
NM State	6%
NM Tribal	4%
NM Private/Fee	8%
NM Federal	49%
CO Private/Fee	20%
CO Tribal	12%
CO State	0%

NM Total: 711 BCF/yr (87%)
CO Total: 350 BCF/yr (33%)

Greater San Juan Basin 2014 Oil Production by State and Mineral Ownership

Category	Percentage
NM State	17%
NM Tribal	12%
NM Private/Fee	3%
NM Federal	68%
CO All	<1%

NM Total: 31 MMBbl/yr (99%)
CO Total: 6,035 MMBbl/yr (1%)
Basin-wide Total: 6,035 MMBbl/yr

Greater San Juan Basin 2014 Active Well Count by State and Mineral Ownership

Category	Percentage
NM State	7%
NM Tribal	10%
NM Private/Fee	8%
NM Federal	62%
CO Federal	0%
CO Private/Fee	8%
CO Tribal	5%
CO State	0%

NM Total: 21,676 wells (87%)
CO Total: 3,194 wells (13%)
Basin-wide Total: 24,870 wells

Greater San Juan Basin 2014 Gas Production by Well Type and State

Category	Percentage
NM Gas	38%
NM Oil	2%
NM CBM	27%
CO CBM	31%
CO Gas	2%
CO Oil	0%

NM Total: 711 BCF/yr (87%)
CO Total: 350 BCF/yr (33%)
Basin-wide Total: 1,060 BCF/yr

Greater San Juan Basin 2014 Oil Production by Well Type and State

Category	Percentage
NM Oil	72%
NM Gas	27%
NM CBM	1%
CO All	<1%

NM Total: 31 MMBbl/yr (99%)
CO Total: 6,035 MMBbl/yr (1%)
Basin-wide Total: 6,035 MMBbl/yr

Greater San Juan Basin 2014 Active Well Count by Well Type and State

Category	Percentage
NM Gas	61%
NM Oil	7%
NM CBM	20%
CO CBM	9%
CO Gas	3%
CO Oil	0%

NM Total: 21,676 wells (87%)
CO Total: 3,194 wells (13%)
Basin-wide Total: 24,870 wells