



## WRAP Oil and Gas Emissions Inventory Project ND-SD-MT Williston and MT North Central (Great Plains) Basins

**November 2012 / Schedule Update February 27, 2013**

### Overview

The Bureau of Land Management (BLM) Montana-Dakotas Office is sponsoring development of an oil and gas (O&G) emissions inventory for the Williston Basin in North Dakota, South Dakota, and Montana, and the Montana North Central (Great Plains) Basin. The [Western Regional Air Partnership](#) (WRAP), with expert contractor assistance, will build and report the inventory using the [WRAP Phase III methodology](#) employed in large active basins in the intermountain West. The result will be an accurate, comprehensive criteria pollutant inventory of actual emissions for most major point and area sources associated with exploration and production of O&G in the MT North Central (Great Plains) and ND-SD-MT Williston Basins for year 2011, as well as a mid-term projection year.

One benefit of the project is development of a more accurate regional O&G emission inventory data based on input from knowledgeable sources. The project will also contribute to regional air quality modeling efforts and streamline future National Environmental Policy Act (NEPA) reviews by reducing the need for project-specific modeling.

Scope of Work - Project Webpage: <http://www.wrapair2.org/ND-SD-MT.aspx>

This effort will focus on surveys of producers to update and gather data used to calculate emissions of the criteria pollutants – NO<sub>x</sub>, CO, VOCs, PM and SO<sub>x</sub>. ENVIRON Corporation is working for WRAP to prepare and analyze the surveys, and calculate and report the emission inventories for each basin. Airstar Consulting is working for ENVIRON as the project survey coordinator and primary industry contact. WRAP’s contractors will coordinate participation and data collection from producers in these Basins. The survey data will be confidential and presented only in the aggregate for each basin. In parallel, for each basin, the contractors will work with the air regulatory agencies (Montana Department of Environmental Quality - Air Resources Management Bureau, North Dakota Department of Health - Division of Air Quality, South Dakota Department of Environment and Natural Resources, and EPA Region 8) to verify and update emissions for permitted O&G point sources in the 2011 base year. Producers will provide detailed area source data via surveys to supplement these point source data. Reviewing permitted point source data and applying the area source survey results will produce a comprehensive inventory of criteria pollutants covering most major O&G activities in each basin for four categories of mineral estate: 1) federal, 2) trust (Indian allotted and tribal) 3) state, and 4) private (fee). The federal mineral estate will also include two (2) subparts, one associated with the decision space for National Forest System Lands, and the other with the decision space for lands under the jurisdiction of the BLM. Work products consisting of a technical memorandum and spreadsheets for each basin will reside on the WRAP website. The project work will also include projections for each basin from the 2011 base year to a future year (2015, 2016, or 2017) based on input from BLM, producers, and air regulatory agencies.

Project Schedule - This project began in November 2012 and will be completed in August 2013.

### **Revised Project Schedule for MT-Dakotas O&G Emissions Inventory Project – February 27, 2013 update**

<b><u>Part 1: Outreach</u></b>	
Prepare Surveys, Ranked List of Companies, Query for State/Federal Agencies, Access IHS database at BLM, identify Contacts from Ranked List of Operators from Production Statistics, Contacts from Agencies	November 2012 early December
Schedule and Hold Outreach Calls/Meetings	December 2012/January 2013
Distribute Survey Instruments and Agency Queries	early March
Agencies Complete/Submit Query Response	March 31st
Williston Basin Future Projections Workshop with Operators and BLM	Week of April 15th
<b>Companies Complete/Submit Survey Instruments</b>	<b>May 7th</b>

<b>Part 2: Emission Inventory Compilation</b>	
BLM Provides Future Projection Inputs for Montana Great Plains Basin	Week of May 20
Compile Survey and Query Data	May 24th
Complete Emission Calculations and Draft Reports/Spreadsheets	July 10th
Report Review & Comment	July 24th
Complete Final Reports/Spreadsheets	August 7th
Prepare Stakeholder Summary	August 15th
Hold Stakeholder Review Calls	August 30th

### Deliverables

- Collection/analysis of producer survey results in each basin, based on information about number and type of equipment and activity levels;
- Updated permitted point source data for each basin;
- Basin-, tribal-, and county-level criteria pollutant emissions inventory data for 2011 and future projection year, and
- Comprehensive regional criteria pollutant emissions for the O&G sector.

### Contacts

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### Technical Summary

#### Williston & North Central (Great Plains) Basins O&G Emissions Inventory for MT-Dakotas BLM Office

1. Production statistics compilation - both basins (ND-SD-MT Williston and MT North Central (Great Plains)) including well counts, spud counts, and gas, oil and condensate production;
2. Pre-survey research – conduct research/interviews to identify emission sources or operations that are unique to one or both of the basins and also identify any new emission source types that should be included in the inventory.
3. Survey process - conduct survey focusing on the most active and/or highest producing companies in each basin and request data on wellhead equipment and processes and some midstream sources that would be considered survey-based (i.e., for which no permits exist); the survey process would include identification of companies, outreach, development of a survey instrument, transmittal of surveys, and compilation of the survey data.
4. Survey data aggregation and emissions analysis - aggregate survey results using a production-weighted methodology as the required input data for calculation of emissions from survey-based source categories.
5. Permit data compilation – work with air quality agencies within the States of Montana, North Dakota, and South Dakota, and the EPA regional office to obtain permit data for larger sources such as gas processing plants and large compressor stations.
6. Final baseline inventories would be compiled from the survey-based emissions estimations and the permitted point source data.
7. Projected future activity - companies would be queried for information they can provide on planned activities in the basins for purposes of the “midterm” projected inventories; including drilling information and well decline curves, and these would be combined with historical data to generate scaling factors for each of the key production statistics for a future year of interest (to be determined by BLM and study participants).
8. Controls analysis - for purposes of the midterm projected inventories, analysis will be conducted to determine the impact of regulatory requirements on the inventories, including any state or federal regulations that would impact oil and gas source categories.
9. Midterm projected inventories - the activity projections in Step 7 would be used to generate “uncontrolled” projected emissions for each basin, and the controls analysis in Step 8 would be used to adjust these uncontrolled projections to develop final midterm emissions projections for each basin.