

# IPAMS/WRAP Phase III Oil & Gas Emission Inventory Project

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# Topics Covered

- **WRAP Phase III Inventory**
  - Background
  - Project Approach
  - Timelines
- **Uinta Basin Air Quality Study**
  - Background
  - Project Approach
  - Timelines

# Background

- **Regulation of air emissions requires more accurate data**
  - Inadequate scientific basis for regulatory pressure
  - Actuals versus potential to emit
  - Account for well declines and control technologies
  - Unpermitted source categories
  - Regulators lack the funding
- **WRAP and IPAMS initiated the project in September of 2007**
- **Data will be available to regulators**
  - CDPHE using data in Colorado ozone SIP modeling
  - Uinta Basin Air Quality Study
  - Regional haze modeling
  - Other state initiatives

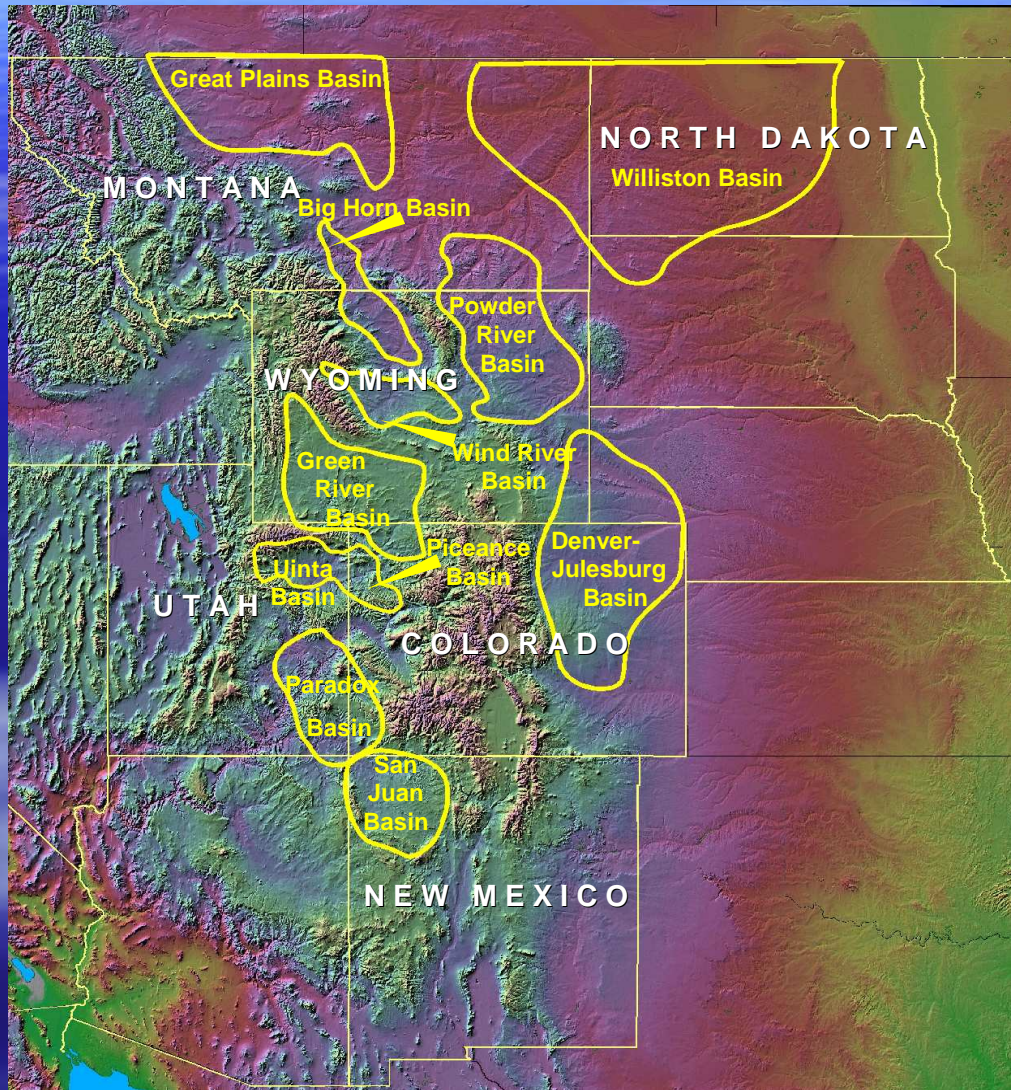
# WRAP Phase III Inventory

- **Comprehensive inventory of sources from oil and gas exploration and production activities**
- **Builds on WRAP Phases I and II**
- **Identifies and characterizes differences between regional basins**
- **Refines future growth projections**
- **Provides a mechanism for future updates**
- **Third-party contractor, ENVIRON, which is well-respected for air quality expertise**

## Emission Inventory Sources in Phase III Study

- **All basins will have complete source inventories for base year (2006) and three future years – for all exploration and production activities:**
  - **NO<sub>x</sub>**
  - **SO<sub>x</sub>**
  - **PM**
  - **VOC**
  - **CO**

# Basins in Phase III Study



- Denver-Julesburg
- Uinta
- San Juan
- Piceance
- Green River
- Powder River
- Paradox
- Williston
- Wind River
- Big Horn
- Great Plains

# Phase III Study Deliverables

- **Inventory data for basin-, tribal- and county-level criteria emissions for 2006 and future projection years**
- **Complete regional criteria pollutant emissions for the oil and gas sector**
- **Annual update reporting tool**

# Phase III Study Schedule

<b>November 2007</b>	<ul style="list-style-type: none"><li>• <b>Project start</b></li><li>• <b>Collect Colorado point-source data for D-J Basin</b></li></ul>
<b>January 2008</b>	<ul style="list-style-type: none"><li>• <b>Collect and process D-J Basin surveys</b></li><li>• <b>Prepare and distribute Uinta Basin surveys</b></li><li>• <b>Uinta Basin Air Quality modeling-study meeting, Denver 1/24/08</b></li></ul>
<b>February</b>	<ul style="list-style-type: none"><li>• <b>Develop future-year projection methodology</b></li><li>• <b>Finalize D-J Basin baseline inventory</b></li><li>• <b>Collect and process Uinta surveys</b></li></ul>
<b>March</b>	<ul style="list-style-type: none"><li>• <b>D-J Basin future-year projections</b></li><li>• <b>Complete baseline Uinta Basin emissions, files to UBAQS</b></li></ul>
<b>April - May</b>	<ul style="list-style-type: none"><li>• <b>Collect and process Piceance Basin surveys</b></li></ul>

# Phase III Study Schedule (cont.)

<b>June through September</b>	<ul style="list-style-type: none"><li>• <b>Prepare and distribute surveys for remaining basins</b></li></ul>
<b>July through December</b>	<ul style="list-style-type: none"><li>• <b>Collect and process surveys for remaining basins</b></li><li>• <b>Future-year projections for remaining basins</b></li><li>• <b>WRAP conference calls for each basin to review results</b></li><li>• <b>Develop annual reporting tool</b></li></ul>
<b>January 2009</b>	<ul style="list-style-type: none"><li>• <b>All inventories complete for Phase III basins</b></li><li>• <b>Draft project report</b></li></ul>
<b>February</b>	<ul style="list-style-type: none"><li>• <b>Final project report</b></li><li>• <b>Phase III emissions files for future modeling</b></li></ul>

# Phase III Study Review Process

- **WRAP oil and gas workgroup will study inventory results for each basin and review final technical memo**
- **Workgroup participants: states, tribes, federal land managers, industry, environmental groups**
- **WRAP staff will summarize comments from each basin workgroup session**
- **Phase I – III work products at:**  
<http://www.wrapair.org/forums/ssjf/documents/eictts/oilgas.html>

# Uinta Basin Air Quality Study

- **Purpose**
  - Proactive study to address potential cumulative impacts of oil and gas development
  - Create a comprehensive technical study of air quality in the Uinta Basin
  - Provide a long-term management tool to regulators
  - Planning tool to help the BLM manage O&G
  - Uses data from WRAP Phase III
- **UBAQS will follow procedures similar to a NEPA-related far-field analysis**
  - Modeling protocol
  - Air quality, visibility and deposition assessment at Class I and II areas.

# UBAQS Technical Details

- **CMAQ Modeling Runs**
  - Run 1: Current Year actual emissions for 2002, 2005 and 2006
  - Run 2: 2006 Present Conditions used as a baseline
  - Run 3: Reasonable Foreseeable Development
  - Run 4: 2012 projected emissions extrapolate NEPA actions, O&G, tar sands, etc.
  - Runs 3a and 4a to isolate out the O&G contribution
- **Other emissions sources: on- and off-road vehicles, biogenic, fire, other non-O&G sources**

# UBAQS Schedule

- **Task 1: Kick-Off Meeting (December 7, 2007)**
- **Task 2: Modeling Protocol**
- **Task 3: Interested Government Agencies Meetings  
January 24 and March 26, 2008**
- **Task 4: Emissions Modeling**
  - **Fast Track Uinta Base Phase III**
  - **Piceance Basin data collection underway**
- **Task 5: Meteorological Data (2002, 2005 and 2006)**
- **Task 6: Air Quality Modeling (CMAQ)**
- **Task 7: Final Report and Meeting (September 2008)**